

AGRIBUSINESS AND HIRED FARM LABOUR
IN THE ONTARIO TOMATO INDUSTRY

AGRIBUSINESS AND HIRED FARM LABOUR
IN
THE ONTARIO TOMATO INDUSTRY

By
ELLEN WALL

A Thesis

Submitted to the School of Graduate Studies
in Partial Fulfilment of the Requirements
for the Degree
Doctor of Philosophy

McMaster University

(c) Copyright by Ellen Wall, April, 1992

DOCTOR OF PHILOSOPHY (1992)
(Sociology)

MCMASTER UNIVERSITY
Hamilton, Ontario

TITLE: **Agribusiness and Hired Farm Labour in the
 Ontario Tomato Industry**

AUTHOR: Ellen Wall, B.A. (McMaster University)

 M.A. (University of Guelph)

SUPERVISOR: Professor R. J. Richardson

NUMBER OF PAGES: xvii, 313

ABSTRACT

Using the Ontario processed tomato industry as a case study, this dissertation examines how the situation facing hired labour in Ontario agriculture is influenced by the growth of agribusiness. The trend to mechanize harvest operations symbolizes the development of agribusiness. Explanations for changes in labour markets, labour process, and control and organization of work activity that accompany mechanization are explained with reference to established models for change in contemporary agricultural structure. The utility of these models, which include evolutionist, integrationist, and historicist perspectives, is tested with original data. In general, the evolutionist model is found to be the most satisfactory.

Data were gathered during 1988-1989 by various methods: historical research, interviews, and participant and non-participant observation. This study concludes that, with mechanization, the farm labour market changes and takes on features similar to the labour market for work classified as unskilled and low status in non-farm industries. It is also evident that hired agricultural

workers (and many of the growers who employ them) lose control over work activity and conditions when tomatoes are machine harvested. The primary benefactors from such changes are the major processing firms whose influence continues to dominate the agro-food industry.

This investigation into hired farm labour and agribusiness is significant because it is among the first to address the situation facing hired agricultural workers in Ontario. As well, it not only adds new material to scholarly debates about changes in agricultural structure, but also contributes to Canadian political economy studies.

ACKNOWLEDGEMENTS

I am grateful to those growers who spoke to me at length and allowed, even encouraged me to join in the work activity on their farms. I am also indebted to the Mexican Mennonite women who not only shared their farm work experiences with me, but also their hopes and fears as they struggled with a new life in Ontario. I appreciate very much a research grant from the Department of Labour Studies at McMaster University. That support enhanced my ability to travel the distances necessary for research activity. Also appreciated is the guidance from my supervisor and other members of the dissertation committee whose opinions and advice were always offered in a constructive and positive manner. In less direct fashion, the support of my friends and family was a vital part of the whole process. Thank you for your interest in my work and your confidence in me.

PREFACE

Ontario agriculture is undergoing a major transformation. This is due to several factors including the rise of agribusiness and industrialization, the free trade agreements with United States and possibly Mexico, and ongoing GATT negotiations. Although scholars and analysts have examined the consequences of such developments for owner-operators and unpaid family labour, little attention has been paid to hired workers whose contribution to agricultural production is, in fact, increasing. This situation is an important factor in determining the focus for the dissertation presented here. In short, the material discussed in the following chapters is primarily concerned with conditions facing hired farm labour in Ontario agriculture.

The growing interest in Canadian political economy studies has influenced both the manner in which this dissertation evolves and the content of its discourse. The dominant theoretical issues include those generated by comparing various models for changes in the agricultural structure of industrialized nations. Of

prime importance is the "evolutionist thesis" which suggests agriculture will follow the path of non-farm industry and experience an increased concentration and centralization of capital, the emergence of large scale enterprises, and the development of rural class divisions between agrarian capitalists and workers. Also significant is the "integrationist model" which predicts capital interests are better served by their articulation with non or pre-capitalist forms. Thus, rather than advancing the demise of the petty bourgeois, the capitalist mode of production ensures its persistence. The "historicist model" which questions the inevitability of any predictable changes in agricultural structure, is a third consideration.

These different perspectives were first used to explain the pattern of development in so-called "peasant societies" where market relations are transforming subsistence agriculture. The "modes of production controversy", as the debate has been labelled, also figures in recent analysis of North American agriculture. The main focus in these studies has been owner-operators and their families whose enterprises are changing in response to powerful market influences. This dissertation redirects the focus from the "farm family" and emphasizes conditions for hired farm labour as

agribusiness continues developing.

Ontario agriculture is a diverse industry with a long history in provincial affairs. Consequently, any analysis of hired farm labour is also going to be complex. To overcome the unwieldy nature of a broad topic, this dissertation adopts a case study approach investigating a specific agricultural commodity where a large number of individuals are employed and where significant changes have occurred during its history. The processed tomato industry is used to address the research question: "How has the growth of agribusiness affected the situation facing hired farm labour in Ontario agriculture?"

By comparing machine and hand harvest tomato operations, several trends in farm labour markets, farm labour process, and control and organization of farm work activity are revealed. Interpretations of why these changes have occurred and what significance they have are then sought from the evolutionist, integrationist, and historical perspectives. In general, the evolutionist model, when augmented with historical/cultural factors, provides the most satisfactory explanations. Because the data gathered represent new material for testing the utility of these established models, both the discipline of sociology, and the growing trend to pursue a political economy of agriculture are furthered.

Collecting and organizing information on hired farm workers is also significant for its contribution to other theoretical issues in sociology. Some U.S. studies have used concepts from the sociology of work and organizations to analyze data about hired farm labour, but such workers have been largely neglected in Canadian labour studies. This dissertation represents one of the first efforts to use concepts from industrial sociology to assess the situation facing hired agricultural workers. Such a step not only broadens the scope of the sociology of work but also serves to include agriculture as part of the total industrial labour scene.

Earlier research into farm labour issues was often centred on the rural community and farm site conditions for explanations about hired farm workers. By contrast, the research presented here assumes that agriculture is best understood as a component of a total food production system. This increases the number of variables to consider when addressing farm labour issues. Each agricultural commodity has its own set of relevant factors. The ideas presented and conclusions drawn in this study on farm workers in the processed tomato industry can be the basis for more investigations of hired farm labour in different sectors of the agricultural industry. Then, in time, a comprehensive assessment of

hired farm labour in Ontario can be compiled based on various case studies. This dissertation represents a first step toward meeting that goal.

The ideal source for information about farm labour is the agricultural workers themselves. However, as the reader will discover when reviewing Chapter II, "Methodology", direct access to a sample of farm workers was limited. Information about them comes from three sources. First are data gathered during participant observation of work activity on several tomato farms. Second is information obtained during my four month association with a group of Mennonite women, newly arrived to Ontario but familiar with agricultural work here. Third are facts and opinions documented while interviewing tomato growers in the province. An effort is made throughout this dissertation to state clearly what the sources are for the data presented. Thus, the reader is in a position not only to assess the content of what is reported but also the context of its origin.

This dissertation has broken new ground. The reader will learn that many farm workers in Ontario continue to work under harsh conditions, have limited rights and guarantees, and face a difficult future. Many growers who employ them are also struggling to

survive in the agricultural sector. Although these circumstances are not new to farming in Ontario, the fact that they are persisting in the wake of massive restructuring raises several questions about the agricultural sector in particular, and about Canadian society in general. This dissertation is a serious attempt to begin addressing such questions.

TABLE OF CONTENTS

	page
CHAPTER I THE POLITICAL ECONOMY OF AGRICULTURE	1
A. Introduction	1
B. Agricultural Structure Debates	7
a) The Evolutionist Paradigm	8
b) The Integrationist Paradigm	13
c) The Historicist Paradigm	20
C. Assumptions:	24
a) What is Agribusiness?	25
b) Has Agribusiness grown in the Ontario Tomato Industry?	30
D. Summary	43
CHAPTER II METHODOLOGY	47
A. Introduction	47
B. Methodology for this dissertation	50
C. Grower Profile	65

CHAPTER III	A HISTORY OF THE ONTARIO TOMATO INDUSTRY	75
A.	1880-1940	77
B.	1941-1970	84
C.	1971-1990	94
D.	Discussion	115
CHAPTER IV	LABOUR MARKETS	
A.	Number of workers per farm and their residence	124
	a) Mexican Mennonites	133
	b) French Canadians	136
	c) Offshore Workers	138
B.	Labour Unit	144
C.	Gender	152
D.	Summary and Discussion	156
	e) Secondary Competitive Labour Markets	163
	f) Industrial Reserve Army	165
CHAPTER V	LABOUR PROCESS	172
A.	Work Activity	175
	a) Fragmentation	175
	b) Deskillling	180

B. Conditions for Work Activity	192
a) Facilities	200
b) Financial Returns	203
c) Health and Safety	208
i) Chemical Agents	210
ii) Machinery	216
C. Conclusion	222
CHAPTER VI ORGANIZATION AND CONTROL	225
A. Structural Factors	227
B. Cultural Factors	233
a) Obedience to Authority	238
b) Mistrust of the state	241
c) Community Stratification	244
C. Situational Factors	253
a) Personal Labour Relations	253
i) Housing	255
ii) Extending Employment Opportunities	260
CHAPTER VII CONCLUSIONS	273
A. Agricultural Structure Debates	274
B. Hired Labour in Ontario Agriculture	277
C. Canadian Political Economy	279

APPENDIX I	RESEARCH INSTRUMENTS	283
	Grower Interview Schedule	283
	Farm Worker Interview Schedule	285
	Mennonite Bibliographic Sources	287
APPENDIX II	MAPS	288
	Map 2.1 Ontario Counties	288
	Map 2.2 Mennonite Colonies in Mexico	289
	Map 2.3 Travel Routes for Migrant Farm Labour in the United States	290
	Map 2.4 Mennonite Migration from the USSR to Manitoba, and Central and South America	291
BIBLIOGRAPHY		292

LIST OF TABLES AND ILLUSTRATIONS

		Page
TABLE 1.1	Typology of Farming Enterprises	11
TABLE 2.1	Classification of Operation	66
TABLE 2.2	Harvesting Style	67
TABLE 2.3	Additional Crops Grown	70
TABLE 2.4	Farm Organizations	71
	CONCEPTUAL MODEL OF THE ROLE OF MECHANICAL HARVESTERS	117
TABLE 4.1	Harvesting Style by number of Workers and Residence	126
TABLE 4.2	Sources for Migratory Farm Workers	129
TABLE 4.3	Harvesting Style and Labour Unit	145
TABLE 4.4	Harvesting Style and Gender	152
TABLE 5.1	Harvesting Style and Desirable Attributes for Farm Workers	184
TABLE 5.2	"What are the advantages to farm work?" (growers' perspective)	197
TABLE 5.3	"What are the disadvantages to farm work?" (growers' perspective)	198
TABLE 5.4	On Site Washroom Facilities for Farm Workers	201
TABLE 5.5	Housing by Style of Harvesting	205
TABLE 6.1	Ethnic Background of Farm Workers	236

TABLE 6.2	Ethnic Background of Farm Worker and Contact for Work	242
TABLE 6.3	Ethnic Background of Farm Worker and Grower	245
TABLE 6.4	Ethnic Background of Grower and Contact for Work	246
TABLE 6.5	Housing by Harvesting Style	258
TABLE 6.6	Other Crops and Harvesting Style	262
TABLE 6.7	Contacting Farm Workers and Harvesting Style	266

CHAPTER I THE POLITICAL ECONOMY OF AGRICULTURE

A. INTRODUCTION

In the United States, rural sociology started in land-grant colleges which were founded in the late 1800s to serve the needs of rural America. Those institutions were to be "people's universities" where technological advances could be developed for the benefit of the small farmer (Hightower, 1972:14). In conjunction with these objectives, rural sociology took as a mandate the study of the rural community and its problems with depopulation and changes in its "way of life". However, rural sociologists carried out their studies with a nostalgic and romantic view of the countryside (Newby, 1977:93). Because attention was directed at superficial aspects and not at the underlying causes for rural problems, rural sociologists fell further and further behind in their ability to deal effectively with agricultural issues (Friedland, 1981:8).

As the 1900s progressed, it became increasingly apparent that the agricultural schools had changed constituencies from the once dominant small farmers to agribusiness corporations (Hightower, 1972:15). During

the 1960s and 1970s, when a more critical perspective was emerging in American sociology, some agricultural economists and rural sociologists began to challenge the pro-big business perspectives in their disciplines (Perelman, 1977). Lianos and Paris, for example, created a stir with their research supporting Marx's theory of increasing poverty. They demonstrate that from 1949-1968 American farmers steadily lost income relative to their labour input (Lianos and Paris, 1972:573). As well, they argue that small farmers were becoming a rural proletariat because they could not afford the increased costs for capital investment. Large scale farmers, who could increase their capital-labour ratio, stayed in the business and were forming an agricultural ruling class (IBID, pg.574-576).

The most recent analysis of U.S. agriculture goes even further in applying urban industrial theories to so-called rural issues (Friedland et al., 1975; Friedland et al., 1981; and Thomas, 1985). Friedland's work uses organization theory, the sociology of work, and the sociology of knowledge to analyze the lettuce and tomato industries. Thomas tests the validity of labour process, labour market, and class theories for modern agricultural production. By doing so, he not only provides a new understanding of how agricultural systems function, but

also points out certain limitations in Marxist and neo-Marxist models.

Despite contemporary similarities, Canadian rural studies have a history quite different from their American counterpart. Rural sociology in Canada never attained the status as a separate discipline, but has been implicit in the subject matter of sociology and political economics (Bakker, 1987:471). Innis's work at University of Toronto, and Hughes' and Dawson's at McGill, represent two different approaches to Canadian rural issues. The former followed a more British approach to research with an emphasis on politics, economics and history (Bakker, 1987:472). Contemporary publications on different aspects of the wheat economy suggest that style still holds (Friedmann, 1978, 1980; McCallum, 1980; Richardson, 1983). By contrast, research out of McGill tended to follow a more American tradition based on Park's notion of a "living laboratory" (Bakker, 1987:477). Sociologists there studied French Canadian and prairie communities as frontier, rural societies.

More recently, there has been a resurgence of political economy studies in Canada (Drache and Clement, 1985; Marchak, 1985; Clement and Williams, 1989). They include work on agriculture and fishing enterprises that address issues in "gender relations, ethnicity,

nationalism and regionalism" (Marchak, 1985:67). To date most analysis of Canadian agriculture has pointed out a number of structural changes in the industry and how they affect owner-operators and their families. One of those changes has been the increasing ratio of hired or paid labour to owner-operator and unpaid family labour (Smith, 1986). Despite their importance in Ontario agricultural production, hired farm workers' recent history or contemporary experience has received little attention. Haythorne's analysis (1960) updates his earlier work (Haythorne and Marsh, 1941) and provides an overall picture of hired farm labour in Ontario after World War II. Later historical accounts such as Parr (1985), and Satzewich (1988; 1989), use specific aspects of farm labour experience to support their positions on wider sociological issues. Others have also used hired farm labour in Ontario to explore economic and legal concerns (Bruce and Kerr, 1983; Dawson and Freshwater, 1975; Neilson and Christie, 1975).

One of the aims of this dissertation is to increase our knowledge of the situation facing hired farm labour in Ontario. Pursuing this goal also generates new substantive material which contributes to theoretical debates about agricultural structure in industrialized nations. Integral to those debates is the development of

capitalist agriculture and modernization (Shaver, 1990). According to Shaver the two concepts are best understood as separate issues. The former, capitalist agriculture, refers to characteristic changes in the enterprise: replacing unpaid with paid labour, the separation of labour and capital, and the distinction between manual tasks and supervision. Modernization, on the other hand, refers to "mechanization, specialization, and consolidation, and an increased dependence on capital investment" (Shaver, 1990).

The growth of agribusiness, which coincides with the modernization of Canadian agriculture, emphasizes the dominant role played by the corporate sector.¹ Linking the development of capitalist agriculture (as Shaver defines it) to the growth of agribusiness raises several issues relevant to hired farm labour.* These concerns can be explored in this dissertation by addressing the following research question: HOW HAS THE GROWTH OF AGRIBUSINESS AFFECTED HIRED LABOUR IN ONTARIO AGRICULTURE?

The initial step in dealing with this question is to narrow the investigation to one kind of commodity production thus limiting the number of factors influencing

* As Shaver's work demonstrates, this linkage also raises important points about the role of women in agriculture.

the situation. The Ontario tomato* industry was chosen for several reasons. First, it has been operating in the province for more than 100 years and has become the most significant vegetable crop for processing in Ontario (Harling, 1987). Second, the seasonal labour requirements for producing tomatoes have been and still are among the highest in the province (OMAF, 1986). Third, several studies which have been carried out on the U.S. tomato industry provide a basis for comparison (Friedland et al, 1981; Thomas, 1985). Fourth, I live close enough to the areas where tomato production is concentrated in Ontario to make access relatively convenient.

This dissertation uses the Ontario tomato industry as a case study to provide data about the growth of agribusiness and its influences on changes in the situation facing hired farm workers in that industry. Those findings form a basis for making hypotheses about hired farm workers in other agricultural commodities and in the farming sector in general. These are presented in Chapter VII, "Conclusions" and constitute an answer to the research question.

With respect to theoretical concerns, this investigation of agribusiness and hired farm labour has

* Tomatoes for the processed, not the fresh market.

relevance for various debates about agricultural structure in industrialized nations. Both the nature of those debates and the questions they pose for this dissertation are discussed in the following section.

B. AGRICULTURAL STRUCTURE DEBATES

Although agriculture now occupies a relatively unimportant economic position in Ontario, it is at the root of provincial social and economic history (Fowke, 1946; McCallum, 1980; Pentland, 1981). This decline in significance, which is typical in industrialized nations, poses challenging questions for those interested in contemporary agricultural structure. One of the more prolonged debates concerns how or why petty commodity production persists in a dominant capitalist economy. Sinclair suggests there are three different positions that offer explanations: evolutionist; integrationist; and historicist (Sinclair, 1984a:36-37). I shall examine each perspective in some detail to select points relevant for analyzing hired labour in Ontario agriculture.

a) The Evolutionist Paradigm

Some Marxists support the "evolutionist thesis" which predicts that agriculture under capitalism will follow the same path as industry. In time, there will be concentration and centralization of agrarian capital, the emergence of large scale enterprises, and rural class divisions between agrarian capitalists and workers (Mouzelis, 1976:483). Kautsky and Lenin investigated agriculture from this perspective. Both were refuting "bourgeois" notions of agriculture that glorify the family farm as an institution destined to replace capital enterprises. The former studied the German situation while the latter examined agricultural trends in Russia and North America. Kautsky wanted to redirect analysis from the relations between big and small farms to underlying economic and social relations reflected in "usury, indebtedness, and the peasant's alienation of his property" (Banaji, 1980:78). Lenin studied trends in American agriculture from 1850-1911 using available census data (Lenin, 1970). He claimed that capitalist agriculture was firmly entrenched and growing in strength. The main evidence was an increasing number of hired workers in conjunction with intensified production and a decrease in the number of owner-operators.

These early studies are a foundation for more

recent analysis that sides with the evolutionist thesis. De Janvry (1980), for instance, echoes Lenin in his attack on contemporary neopopulism. According to him the family farm is not the success it appears to be. In fact, by 1977, the great majority of these farms (74%), accounts for only 11% of cash receipts. Besides declining in numbers family farms have the greatest input from off-farm income (de Janvry, 1980: 160). He concludes that those who defend the family farm are encouraging the reactionary nature of the petty bourgeoisie who resist change and "try to roll back the wheel of history". In the long run, it is the state, representing capital, that benefits from the image of a healthy rural America where the ideals of liberal democracy appear to thrive (Ibid, pg. 162).

Davis is another Marxist who, like de Janvry, feels simple commodity production is a false front for well developed capitalist relations (Davis, 1980). He argues that modern contract farming is a variation of a "piece-wage" typical of early industrial capitalism. Consequently farmers who contract with non-farm capitalist firms, are in effect "propertied labourers" whose surplus labour is transferred to the processing firm. The farmers have the risks of capital investment but none of the power usually associated with ownership (Davis, 1980:141).

Clement echoes some of Davis's ideas to comment on

similar circumstances in Canadian poultry, pork and vegetable production (1983). According to him, contract farming in these commodities means that farmers are proletarianized without becoming wage earners as such. Clement argues that the form of independent commodity production (i.e. possession of the means of production) persists but that the content (i.e. control) belongs to capital (Clement 1983:228). Again we can ask, what are the implications for farm workers hired into this incongruent structure? What kind of employers do individuals become when they are put in contradictory positions with respect to capital? Do form and content distinctions have relevance for hired farm workers?

In an effort to adapt Marxist theory to North American agriculture, some rural sociologists have created new categories for farm types according to ownership and labour input. * Table 1.1 describes the four possibilities (Goss et al, 1980:113).

* These new categories are in response to the limitations of Stinchcombe's classifications based on legal privileges and style of life. His five types, which are manorial, family-size tenancy, family smallholding, plantation, and ranch, are criticized for being static, descriptive and ahistorical (Goss et al, 1980:113).

TABLE 1.1 TYPOLOGY OF FARM ENTERPRISES

Amount of land and capital ownership by operator	Amount of labour provided by operator	
	most or all	least or none
most or all	family type	larger than family type
least or none	tenant type	industrial type

The variables "ownership of land and capital" and "amount of labour" are intended to provide an objective measurement of class position. Goss et al. argue that, with this typology, it is possible to see changes in agricultural structure over time. They adapt U.S. census data to the variables listed and find, there is a "tendency away from family type farms toward the industrial" (Goss et al, 1980:116). Because these characteristics are typical of farming enterprises more "industrial" in nature there is a need to modify the category "family farm". Goss et al. use "larger than family" as their solution but this lacks explanatory power. I propose using "corporate family" to describe those farms falling between "industrial" and "family".

In another structural study of agriculture, Bollman and Ehrensaft find a somewhat similar situation in Canada (Bollman and Ehrensaft, 1983). Even though the owner-operator farms remain the norm in Canada from 1971-1981, they exhibit a trend to increased capitalization, and to hiring more farm workers (Ibid). Ghorayshi is also interested in Canadian agricultural structure. She uses the 1981 census to determine whether Canadian agriculture is capitalist or petit bourgeois (1987). Like Lenin, she emphasizes the importance of the hired labour component for determining farm type. Ghorayshi uses the criterion of 5 or more person years of hired labour as the standard to divide capitalist from petit bourgeois operations. Her findings confirm Bollman and Ehrensaft because she discovers that over 99% of Canadian farms are petit bourgeois. However, as she notes, generalizing to include all Canadian farms skews the result. In fact, specific commodities have different percentages of capitalist enterprises. Fruit and vegetable farms, for example, are most highly represented (Ghorayshi. 1987: 364). Because they are the most labour intensive style of farming, it is not surprising that they are also more often capitalist according to Ghorayshi's scheme. Is it enough to classify farms according to the amount of hired farm labour? I would argue that we need to investigate

other characteristics of the hired labour force in agriculture before concluding its presence supports a capitalist classification.

Most Canadian studies treat hired labour as a quantifiable production input called "person-year equivalents" . While it is understandable that this is necessary for computation, it is an unsatisfactory indicator for thorough discussions of class issues. Because one of the aims of this dissertation is to improve our understanding of hired labour in Ontario agriculture we must go beyond "person-year equivalents" to information not only about labour power but also about social relations and work experience. Predictions from the evolutionist thesis about the emergence of rural class divisions can then be explored more fully. Up until now Canadian studies target the commodity producers and their families as the main subject for class analysis. With my findings, it will be possible to comment on agricultural class structure in more detail because I analyze data that emphasizes the hired labour perspective.

b) Integrationist Paradigm

Although the "evolutionist" thesis may have the greatest number of supporters, it is not without its critics (Sinclair, 1984a:35; Buttel, 1987). Foremost are

those who reject its unilinear, deterministic nature (Friedmann, 1978; Newby, 1977). Some of these scholars argue from a perspective Sinclair calls "integrationist" (Sinclair 1984a:36). In this case, the persistence of petty commodity production is explained by using interpretations from underdevelopment, dependency, and articulating modes of production theories (Denis, 1982; Foster-Carter, 1978). In general, these perspectives rely on Marx's claim that older forms of production can "survive and reproduce themselves as transitional subforms within the framework of capitalist production" (quoted in Chevalier, 1982:91). The contention that the needs of urban industrial capital dominate and ultimately determine conditions within the subordinate mode is one of the main premises (Stavenhagen, 1975:18). Mann and Dickson explain the relationship between the capitalist mode of production and simple commodity production in North American agriculture (1978). Based on the facts that: i) lengthy production time in agriculture restricts the rate of profit; ii) the seasonal and generally risky nature of agriculture creates higher costs through underutilization of capital and labour; and iii) unstable markets mean lower profits; farming is unattractive for capital investments (Mann and Dickson, 1978:266-7). Instead simple commodity producers, who are better able to

absorb such inconsistencies, take up agricultural pursuits and compensate by keeping their operations relatively small (Lianos, 1984:107).

Another explanation for the integration between petty commodity production and the capitalist mode is that food as a relatively cheap commodity lowers reproduction costs for labour in non-farm industry. The advantage is to the capitalist employer who can then justify offering lower wages (Vergopoulos, 1975:446; Buttel, 1981, Friedmann, 1980:169; Chevalier, 1982:108). * One way the price of food is minimized is the tendency for petty commodity producers to overproduce and underconsume (Clement, 1983:231; Friedmann, 1978:563). Clement points out that the sale of a product appears as profit, because the petty commodity producer feels it costs him nothing. Chayanov (quoted in Friedmann 1978) calls this "self-exploitation", a concept that has important implications for unpaid labour in agriculture.²

Discussion about the devaluing of labour, whether the owner-operator's, unpaid family workers', or hired workers' means issues new to Canadian agricultural analysis must be addressed. Among them is surplus value,

* This line of reasoning is used to explain the historical importance of the Repeal of the Corn Laws in Great Britain 1846 (Cuneo, 1982).

how it is created and who benefits from it. Vergopoulos claims that when farming households follow a strategy of working longer hours, and consuming as little as possible of their own produce, they experience a "failure of earnings". This, he argues, is the equivalent of surplus labour whose value is appropriated by capitalists during exchange (Buttel, 1980). Friedmann argues that technically speaking "unequal exchange" cannot serve as a mechanism of accumulation between sectors because the relations are not based on exploitation within the same mode as they have to be for transferring value in Marxist terms. Instead, the corporate sector benefits from lower input costs for production (Friedmann, 1980:168-170).

This distinction between lower input costs and surplus value is important because it separates the creation of surplus value (production) from its realization (circulation). Such a conceptual difference is necessary to get at the fundamentals of exploitation and class formation in agricultural operations. Those who fail to distinguish these spheres use the notion of a "cost-price squeeze"* to explain how petty commodity producers are disadvantaged by capital. Mitchell (1975)

* a "cost-price squeeze" occurs when agricultural producers pay inflated prices for inputs and receive deflated prices for outputs (Denis, 1982:134).

and Warnock (1978) who analyze the Canadian food industry from this perspective are criticized for being too superficial (Denis, 1982:134). Their perception of capital is that it sets prices and controls the market in an arbitrary, voluntarist manner, not as a result of the economic laws underlying capitalism itself (Denis, 1982:134). Consequently, some argue, their analysis of the situation facing agricultural producers and the workers they hire is limited.

Other integrationist arguments include those that claim petty commodity producers form a labour pool for industrial capital to draw on (Sinclair, 1984a:37). Canadian history supports this idea as agriculture was the drawing card for waves of immigrant families who quickly left farming for urban industry (Avery, 1979). Lianos reverses this idea by suggesting the state maintains petty commodity production to keep people on farms and away from urban industry where their presence would inflate unemployment rates (Lianos, 1984).

Integrationists use the needs of the dominant capitalist economy such as cheap food, risk avoidance, and a large labour supply to explain the persistence of petty commodity production in agriculture. Evolutionists on the other hand, insist that despite any advantage to the dominant economy, capitalist interests are inevitably

transforming agriculture. Both paradigms include the role of the state as part of their explanation. We shall now review their positions on the relevance of state policy.

When the role of the state is brought into the discussion, there are several arguments that support both evolutionist and integrationist arguments. Lianos's view that the state needs to keep petty commodity producers on the farm to avoid extremes in unemployment, is challenged by those who claim government policy enhances the breakdown of petty commodity production. Clement and Janzen (1978) for instance, comment on fruit production and processing in the Niagara fruit belt. They argue that support to U.S. food processors resulted in major disadvantages to local farmers. Canadian government policy on trade and tariff barriers was the crucial issue. In this case such barriers were consistently weakened so that from 1961-75, Canada went from a trade surplus in fruit to a trade deficit (Clement and Janzen, 1978: 24). During this period fruit growers with no market for their product left their farming operations.

Thompson and Seager (1970) draw similar conclusions about the state aiding corporate capital interests in their description of the demise of a western

Canadian sugar beet workers' union. In this case the Canadian government backed corporate interests by providing police support to enforce the eviction of striking beet workers (Thompson and Seager, 1970:169). As well, they permitted the recruitment of strike breakers (including Japanese Canadians who were in nearby internment camps) (Ibid:172).

Mann and Dicksonⁱⁿ (1980) point out the contradictory nature of state policy. Their analysis is complementary to Sinclair who argues against the claim that the state is enhancing the persistence of petty commodity producers (Sinclair, 1980:327). He compares agricultural policy in Europe and North America and finds that it is often ad hoc and short term (Ibid 1980:345). A recent study on Canadian agriculture suggests that one of the main reasons for inconsistent and contradictory policy is the cross-purposes of different levels of government (Skogstad, 1987). Not only are there a number of competing interests in agricultural production, but there are also several provincial, federal, and municipal ministries or departments to which they must appeal.

In the area of research and development, there have been long-standing debates about whether the state supports industrial rather than family farms (Price, 1983; Vandermeer, 1981). In California, representatives for

farm workers have alleged that the University of California's publicly funded research into mechanized harvesters "displaces farm workers, eliminates small farmers, hurts consumers, impairs the quality of rural life, and impedes collective bargaining" (Martin and Olmstead, 1985:601). The essential question is who benefits from such research and technological innovation (Berardi and Geisler, 1984:145)? The final answers range across the spectrum of attitudes toward the value of technology. The extremes are from those who "believe efficiency and enhanced production are...a means to a better life for all" to those who believe that "technology, uncontrolled, inevitably leads to increasing disparities between social strata..."(Ibid). The concern with technological advances and with other issues in state agricultural policy are addressed throughout the chapters that follow. It will be shown that both the federal and provincial governments influence various factors in Ontario tomato production. However, whether that supports an evolutionist or integrationist model depends on the specific circumstances.

c) Historicist Paradigm

Both the evolutionist and integrationist paradigms have specific weaknesses in explaining the persistence of

petty commodity production in capitalist economies. Buttel, who says proponents on either side are using the same empirical information to support their respective arguments, suggests it is time to move on (Buttel, 1987). His solution is to encourage a political economy of agriculture that relies on historical and comparative research. The result will be not only a clearer understanding of agriculture as a "sphere of production, reproduction and circulation, but also an opportunity to contribute to contemporary social theory" (Buttel, 1987:36). Marchak suggests this has occurred in Canadian political economy studies (1985). Sinclair would agree, pointing out that this alternative position which he uses for his analysis of the fishing industry, incorporates cultural and/or ecological factors (Sinclair: 1984a:37).

Weber's work on German agriculture serves as a model for this historicist position because he denies the operation of "ruling natural laws" to explain changes in agricultural structure (Weber, 1979). To support his claim, Weber describes the developments in Eastern German agriculture as they apply to changing styles of labour. To begin with, family labour predominates, then different forms of share-cropping emerge. Finally, wage labour establishes itself as the dominant form. As German citizens become increasingly unwilling to work as hired

agricultural labour, employers import Polish guest workers to take their place in fully developed capitalist agriculture. These forms of farm labour succeed each other because of the historically specific conditions of the area. That is, because of the availability of those Polish workers, the distribution of landed property in the east and the political aspirations of a "sinking class" (Weber, 1979).

Weber's emphasis on historical factors means broadening the scope for agricultural analysis. Winson's recent investigation into the Canadian agro-food chain, as it applies to processed fruit and vegetables, follows this approach (Winson, 1988). Data on the retailing, processing and production elements of agricultural commodities contribute to new interpretations about the disadvantaged position of petty commodity producers. One of his main points is that, because retailers are moving into the sphere of processing (with their generic brands), processors face increased competition. This added squeeze on their market share means pressure on growers to sell for lower prices is accelerated. Consequently, smaller producers, who are less competitive, are forced out of farming. ³

Expanding the scope of agricultural analysis

underlies the research for this dissertation as well.⁴ I concentrate on the links between processors, farmers and their hired workers to explain the situation facing those workers. As the foregoing discussion indicates, there are several unanswered questions related to agricultural structure that this dissertation can address. For instance, the evolutionist paradigm leads us to question both the creation and accumulation of surplus value as well as the distinction between the form and content of class structure. The integrationist model, on the other hand, encourages us to examine agricultural structure in light of the connection between non-farm and farm interests, including the role of the state in mediating that connection. Finally, the historicist model requires ^{us} to consider circumstances particular to Ontario and to the individuals who are hired to perform farm work.

As noted earlier, these three models have been applied to explain how the "family farm" has fared with the modernization of agriculture. One of the aims for this dissertation is to test their suitability for analyzing the situation facing hired labour. In fact, as the research findings are presented, it becomes obvious that the main comparison is between the evolutionist and integrationist models. For most of the analysis, these

perspectives are favoured because they allow predictions to be made while limiting the variables considered important for explanation. By contrast, the historical model has a much broader scope of analysis which includes a large number of factors and does not favour predictions. The historicist model is referred to only in those sections where it is directly applicable whereas the evolutionist and integrationist models are more frequently compared.

We can now return to the research question which gives direction to this dissertation: HOW HAS THE GROWTH OF AGRIBUSINESS AFFECTED HIRED LABOUR IN ONTARIO AGRICULTURE ? In this question, there are two major assumptions that must be addressed. One is that agribusiness exists and has grown in the Ontario economy, specifically in tomato production. The second is that agribusiness has, in fact, affected hired farm workers in Ontario agriculture.

C. ASSUMPTIONS

#1 Agribusiness exists and has grown in Ontario's economy, specifically in tomato production.

This assertion gives rise to two more specific questions: What is agribusiness? and, Has agribusiness

grown in the Ontario tomato industry?

a. What is Agribusiness?

Agribusiness is a term that is widely used yet rarely defined. It has both popular and technical meanings. The former usage is often pejorative and is associated with the demise of an idyllic, pastoral life in the rural community. **Agriculture** is presented as a family and farm centred enterprise with dominant interests in land stewardship and traditional values. Replacing the term with **agribusiness** signifies a change to conducting farming affairs with more emphasis on rational, economic efficiency. In popular terms, the main aim of agriculture is to serve the community, while the main goal of agribusiness is to increase profit margins.

In more technical terms, the word came into use in the 1950s when the systems approach to industry was emerging. The concept of farming as a separate entity gave way to one that isolated the specific commodity flowing from initial inputs to the final consumer (Goldberg, 1967:3). Agribusiness, in this context refers to the complex of farms, industries, government departments, and financial and research organizations that have an interest in food production (Galarza, 1977; Hall, 1974; Hightower, 1972). The essence of agribusiness is

the integration between these various components in the food industry as the commodity moves through stages of production and circulation. It is envisaged as a total system, each part functionally related to the other (Litzenberg and Schneider, 1986:398). *

The result broadens the scope of agriculture. Analysts can now announce that in the U. S., for example, four out every ten workers are in the food industry (Hall, 1974:164). Or, more recently, food production employs 22.6 percent of the work force and makes up 20.3 percent of the G.N.P. (Polopolus, 1986:269). In Canada, the food and beverage industry is the largest manufacturing sector, employing 25% of the working population (Fuller, 1985:144; Winson, 1987:12). By contrast, farming, as a part of that system, employs a decreasing percentage of the labour force. In 1931 approximately 32% of the Canadian population worked in agriculture, but by 1981 that number was down to 4% (Hunter, 1986:90).

Changes in North American tomato production demonstrate how the systems approach, which symbolizes agribusiness, revolutionized farming practices (Barnett et

* To avoid the "functional" explanations this systemic model can encourage, some scholars use the idea of an "agro-food chain" (Winson, 1985). Each component is analyzed in its own right although the fact that it forms part of a larger scheme is not ignored.

al., 1978:28; Friedland, 1984:202). In 1963, California tomato production was carried out by more than 4000 growers in several counties. Approximately 1.5% of them used mechanical harvesters (Cargill and Rossmiller, 1969:205). By 1972, the number of growers dropped to less than 600, most of whom were concentrated in one area (Barnett et al., 1978:41-45). In 1990, virtually all California tomatoes are harvested by machines. Because owning harvesting equipment required a large acreage to make the investment feasible, smaller operations closed down or were absorbed into larger ones. In 1950, the average California operation was 152 acres, but by 1972 it was 533 acres (Barnett et al., 1978:46). At the same time, once those growers invest in the equipment, they are essentially locked into tomato production and cannot easily diversify their operations.

While mechanization was a catalyst for these and other trends to develop, it did not occur in isolation. Of primary importance was the genetic development of a tomato and plant that could withstand the impact of mechanical harvesters (Friedland, et al., 1975; Hightower, 1972). Ideally, the plant should produce uniform fruit that is conveniently clustered and ripening at the same time. To ensure the latter, growers can spray the tomato plants with ethylene gas a set time prior to harvesting.

These new techniques have consequences for education, training, and skill requirements in tomato production (Martin, 1986). Operators and farm workers have to be taught how to handle new equipment and how to co-ordinate the entire process of producing tomatoes (Friedland et al, 1975;27-28). Government ministries, in conjunction with processing plants and equipment manufacturers set up courses and programs to assist in the retraining.

This description of the California tomato industry is a prime example of the growth of agribusiness. As it develops, tomato production inevitably transforms from small and medium size operations to larger corporate style enterprises. Concurrent with this transformation is the increasing power of processing firms who actively pursue research and development into all aspects of the tomato production process. The balance of power gained by food processors alters the position of growers who move from controlling their own farm operations to becoming a "de facto employee of the processor" (Rosset and Vandermeer, 1986:27). A similar pattern is true for most contracted production in modernized agriculture (Clement, 1983). Consequently, North American farming and farm labour issues can only be fully understood by taking into account

the various components of agribusiness.

Throughout this dissertation, the term agribusiness refers to a system where various components (i.e. the farms, the state, financial interests, food processors, the farm machinery sector, and biotechnology interests) are all integrated to produce food as a commodity. The term agribusiness replaces "the farm" and "the farmer" with the commodity itself as the central feature of food production. Elements in the production process, which are understood in terms of their relation to the commodity, vary with respect to the power each has in controlling production. When the synonymous phrases, "growth of agribusiness", and "development of agribusiness" * are used, they refer to the increased power that non-farm, as opposed to farm, elements exercise in the agro-food industry. The research question which asks how the growth of agribusiness has affected hired farm labour, is essentially asking how the increasing dominance of non-farm factors in agricultural activity has altered the situation facing those employed in farming operations.

* Sinclair (1984b) uses the phrase "the dominance of agribusiness" in a similar fashion.

b. Has agribusiness grown in Ontario's tomato industry?

Addressing this question forms the basis for Chapter III, "A History of Ontario Tomato Production". In that chapter, we will see how developments in the last one hundred years have resulted in a tomato industry that increasingly reflects the interests of processors and large-scale growers.

C. Assumptions (continued)

#2 That the growth of agribusiness has affected hired labour in Ontario agriculture.

This assumption is based on the proposition that developments in capital will have consequences for the labour associated with it. In the case of the Ontario tomato industry, capital is represented by various elements of agribusiness while labour comprises the farm workers hired by enterprises producing tomatoes. *

In general, Marxists argue that farm workers, as labour, will be disadvantaged with the development of agribusiness. By contrast, non-Marxists would emphasize

* The other labour components, which are the owner operator (farmer) and unpaid workers (farm family) are also affected by developments in agribusiness. However, their experience is only of interest in this dissertation if it relates to the experience of hired workers.

the positive gains for workers, pointing out that corporate and state policy has bettered standards of living, working conditions, etc. In the pages that follow, the Marxist and non-Marxist positions on the labour process, labour markets, and control and organization are discussed as they relate to the Ontario tomato industry.

For Marx, a coercive relation exists between capital and labour because the former appropriates the surplus value created by the latter.

As an agent in producing the activities of others, as an extractor of surplus labour and an exploiter of labour-power, [capital] surpasses all earlier systems of production, which were based on directly compulsory labour, in its energy and its quality of unbounded and ruthless activity.

(Marx, 1976:425)

Braverman applies these characteristics of capital to the experience of the modern working class and revitalizes labour process analysis (Nichols, ^{and Beynon} 1977:15). He claims that monopoly capital in North America has steadily degraded work by fragmenting the labour process and by eroding the development of class consciousness (Braverman, 1974). Others argue against such a negative picture of working class history (Burawoy, 1979; Edwards, 1979; Littler, 1982; Palmer, 1979). The essence of their argument is that Braverman has given workers too passive a role in the history of industrial development. Resistance and conflict have been common throughout the nineteenth and twentieth century and have, in fact, helped to shape the current state of affairs.

The central issue is the labour process. Its basic components are the work activity, the instruments used, and the object that is worked upon (Marx, 1976:284). Associated with these factors are two related concerns: labour markets and organization and control (Nichols and Beynon, 1977). We can review several U. S. studies which

cover these issues as they pertain to agricultural labour and commodity production. Tomatoes were among many crops (such as cotton and lettuce) to undergo mechanical harvesting. The results of that transformation in production have been debated in agricultural economics and rural sociology. In general, agricultural economists look favourably on the changes from increased mechanization, environmentalists look unfavourably at them and rural sociologists support both camps (Berardi and Geisler, 1984:10). The immediate positive effects of mechanizing the harvest include a potential increase in farmers' revenue, lessening "stoop labour", increasing the individual's skill (because operating machinery is defined as "semi-skilled" work), and freeing workers for better jobs in non-farm industry.

Although mechanized tomato harvesters were first introduced in California in the early 1960s, they were not put into wide use until the Bracero Program* ended. At that point many farmers were not willing to rely on local workers to hand harvest the crop but chose instead to invest in the new technology (Friedland, et al., 1975; Martin and Rochin, 1977:1050). One of the first studies

* Under the Bracero Program thousands of Mexican men annually crossed the border to the U.S. and worked in different industries but primarily in agriculture.

on the consequences of that choice uses the "social rate of return" to measure the value of the mechanized harvesters (Schmitz and Seckler, 1970). By comparing the costs for developing, marketing, and using the machinery to the benefits in lower food prices, the authors conclude that as long as most of the displaced workers are retrained and absorbed in the industrial labour market, mechanization is beneficial. Calls for change in U. S. public policy for employment and social programs demonstrate that there was some concern for these displaced workers (Holt, 1970:782; Sloan, 1970:788). But, critics of those who see mechanization positively, claim they overestimated the social benefits while underestimating the social costs (Price, 1983: 35-49). In fact, California farm workers come from diverse backgrounds, and only some of them can be retrained or redirected into other industrial sectors. The agricultural economists who claim benefits from mechanizing have not addressed major issues such as: the unemployment of non-residents, whether illegal or not; employment barriers based on sex and ethnicity; non-economic motivation to work; and preferences for working at certain jobs.

In an attempt to include some of these factors, researchers from the University of California also

conducted investigations into the consequences of mechanically harvesting vegetables (Barnett, et al, 1979; Fredericks, 1984; Friedland et al., 1975. Thomas, 1985). Their analysis is more detailed than earlier attempts because they use a qualitative approach to discover how hired farm labour is specifically affected (Friedland,^{etal-} 1975:29; 1984:197). That is, they did not use strictly economic measures but an approach called social impact assessment (Friedland, 1984). According to their studies, the introduction of machine harvesters leads to complex changes for hired workers. The hand harvesting style required a large number of men whose strength and dexterity enabled them to pick and haul 50 pound boxes of tomatoes (Barnett et al, 1979:30). Having a piece-rate wage meant the workers needed little supervision to keep them at the job (Friedland et al., 1975:37). It also allowed family members to participate in the harvesting which may have violated child labour laws. Often, it was a labour contractor who dealt with the employer and arranged for harvest workers.

In the Northeastern U.S., Friedland and Nelkin reveal the complexities of working for a contractor (1971). Through participant observation among migrant farm workers, they are able to understand how relations with a contractor go beyond the actual work activity to

determine many aspects of social life. In Canada, the leader of the country's only farm worker union has criticized labour contracting in British Columbia agriculture. He claims that this system benefits only the contractor, not the farm workers or the farmer. (**Union Farmer**, 1988).

When machines were introduced into California tomato harvesting, there was a change in the kind and number of workers needed (Friedland, et. al., 1975:37). For example, women, who were not strong enough to be effective as hand harvesters, could work more efficiently on the machines. In fact, women are preferred for working on harvesters:

It has been proven that women are more efficient than men for sorting. The sorting crew must be trained to recognize and remove defects...they must be instructed in the removal of all trash, clods of dirt...the most critical factor for success with sorters is a well-trained supervisor who should be alert and highly responsible.

(Gould, 1983:69)

Consequently, the number of women increased from 9% of the harvest crew in 1960 to 66.6% in 1977 (Barnett, ^{et al} 1978:18). Some of the men who were freed from hand harvesting became employed as machinery operators and supervisors. Some would argue, they had thereby increased their level of skill (Barnett, ^{skill} 1978:79). There is a comparison with the

manufacturing sector in the history of industrial capitalism as women were employed there in greater numbers with the advent of machinery. Historically, men either became unemployed or went on to positions in management and supervision.

In California, as mechanical harvesters replaced hand labour in the tomato industry, wages and responsibilities became more diverse among a working population that shifted from primarily male to female; from Mexican national to American; and from migratory to settled (Friedland et al, 1975:37). Agricultural economists, who generally support mechanization, argue that the total number of jobs in California tomato industry has increased not decreased (Martin, 1986). They state that there are more acres under production which has taken up the surplus of workers. As well, there have been new and different jobs created for tomato production. For instance, the new machinery associated with harvesting requires skilled operators. The altered work activity includes new supervisory positions that must be filled (Martin and Olmstead, 1985:602).

Turning to Ontario, the logical question to ask at this point is: As growers continue to mechanize their tomato harvest, what happens to the labour market for hired workers? Has there been a shift in gender, and

citizenship ?

To maximize their investment in new machinery, California operators introduced shift work, thereby drawing agricultural workers closer to their industrial counterparts (Barnett et al., 1978:154). The pace of work is now determined by the rate of the machine operation which in turn reflects the supervisor's ideas (Friedland, ^{et al.} 1975:37). Has there been a similar change in the Ontario tomato industry? How has work activity changed for Ontario farm workers there? What are the current job characteristics and working conditions? How have they changed as tomato production becomes more industrialized?

Two recent U. S. studies are of key importance to any investigation of hired labour and agribusiness in the Ontario tomato industry (Friedland et al., 1981; and Thomas, 1985). Both look at the relationship between capital and labour in the lettuce industry but with different initial questions. Friedland and his co-authors are interested in "how new methods of production are formulated" (1981: vii). That is, why do some growers bring new technology into their operations, and what are the consequences when they do? Case studies of a number of firms yield data that is compared to their findings on tomato production (Friedland et al., 1975). In the latter

case, California tomato production is a clear example of machinery replacing a labour supply perceived as unreliable. The situation for lettuce involves an alternative response. Rather than bringing in machinery to replace hand harvesting, some lettuce producers have become vertically integrated into the processing and marketing of their product (Friedland, et.al., 1981:133). Consequently, it is possible for them to spread production costs over a larger base so that they can offer relatively high wages and longer contracts to their farm workers. The risks associated with an unreliable labour supply have been somewhat averted because the costs of increasing wages are borne throughout the entire lettuce production-processing-marketing system.

By contrast, tomato producers in California are more competitive with each other to gain access to the processing market.* Consequently, the more they can control production costs the greater are their chances of out-bidding competitors. If wages to hand harvesters were to be increased, a producer would have to cut into other production costs or his own profits to remain competitive. The most rational avenue open is to mechanize and avert risks.

* Based on information from correspondence with Wm. Friedland.

Different from both lettuce and tomato growers in California, Ontario tomato producers are represented by a marketing board in their negotiations with processors. The Ontario Vegetable Growers Marketing Board (OVGMB), which has existed since the 1940s, has been both praised and criticized in the literature. The board does not set quotas or control the amount produced; rather, it meets with processors to bargain over prices and standards for the crop. Those decisions become the rule for all contracts between individual growers and the processors.

Opponents of the OVGMB argue that it protects small, uncompetitive farmers and therefore hinders efficient business (Prescott, 1981). Supporters of the OVGMB emphasize its role in promoting the product, and in researching new techniques for production (Henderson, 1985). Gertler has looked closely at the details of grower-processor relations, pointing out how it is possible to get around certain specifications (Gertler, 1987). The possibility that the OVGMB and other grower organizations play a role in influencing hired labour issues is a consideration for this dissertation.

Turning to a different agricultural commodity, Thomas analyzes the California lettuce industry and challenges Marxist and neo-Marxist theory on labour markets and labour process (1985). He finds that firms producing lettuce are as sophisticated and bureaucratic as any described as core or primary. At the same time their labour component does not match the usual depiction of primary labour market, that is, workers who are relatively well paid, organized and committed to the enterprise (Thomas, 1985:21). Instead, it is a market comprised of low status and disadvantaged workers. The needs of capital have streamlined lettuce production into a continuous process industry that relies, in a fundamental way, on a highly skilled but transient and unorganized labour force.

The tendency to benefit indirectly from a more exploitable labour force is fostered by agribusiness systems. Tomato processors in Ecuador, for example, stopped growing tomatoes for their own firm because the costs of capitalist agriculture (i.e. running a corporate farm that paid wages to hired workers) were too high. Instead, they bought from smaller commodity producers who hired wage labour on a smaller scale. Those employers were more justified in paying lower wages because they are

in competition with others and have to keep commodity prices low (Glover, 1983). In this way the food processor circumvents the risks and costs of using hired farm workers, but benefits from their labour.

In Ontario, tomato production is part of an agribusiness system that includes some of the most successful corporations on the continent.* H.J. Heinz, Campbell Soup and Nabisco, which all operate tomato processing plants in southwestern Ontario, not only meet the criteria of core industries, but are called "the epitome" of such organizations (O'Connor et. al, 1985:4). Just as major lettuce corporations are founded on the labour power of their lettuce harvesters, these giant tomato processors depend on the labour power of hired agricultural workers in Ontario.

Why have those workers not followed the course of other industrial workers who have gained some improvements?

How are hired workers in tomato production organized? Do they attempt to control the labour process? Has there been increasing conflict between them and their employers?

* According to the most recent statistics the average annual profits in the food industry are 18% (Globe and Mail, Nov. 22, 1990).

As the foregoing demonstrates, the second assumption underlying the research question is one that focuses on how labour and capital are related. Is it coercively, as Marxists suggest, or cooperatively beneficial, as non-Marxists claim? To draw a conclusion, questions raised about labour process, labour markets, and the organization of work in tomato production are addressed. Based on the data gathered, those findings are presented in Chapters IV, V, and VI, respectively.

D. SUMMARY

Integrated into the introductory chapter are three basic aims for this dissertation. First is the general goal of improving our knowledge of the situation facing hired farm workers in Ontario agriculture. Unlike industrial wage earners who have been the focus of much sociological research, hired farm labour is a virtual unknown. This dissertation is among the first documented studies of the situation facing agricultural workers in Ontario. It is also one of the first investigations to use various perspectives about labour market, labour

process, and control and organization of work activity for agricultural analysis. Previously, these concepts and theories have been directed only at the non-farm sector.

The second purpose, which is more specific than the first, is to test the usefulness of accepted models for explaining changes in the agricultural structure of industrialized nations. The three perspectives, evolutionist, integrationist, and historicist, have formally been applied to the farm family. Originally, they were used to explain the "development" of "peasant societies" where subsistence agriculture is being radically transformed. More recently these three models have served to explain the difficulties facing owner-operators and their families in industrialized nations. With the addition of new material from this investigation into the situation facing hired farm workers, the arguments informing each perspective receive further testing.

By pursuing the first two goals a third purpose, namely to further Canadian political economy studies, is also realized. One of the primary aims of political economy is to understand the dynamics of social change (Clement and Williams, 1989). Because this dissertation adds to our knowledge of some of the forces underlying changes in Canadian agriculture it is making a significant

contribution.

The research question, "how has the growth of agribusiness affected hired labour in Ontario agriculture?", acts as an organizing principle for the material presented. By using the Ontario tomato industry as a case study, this dissertation addresses that question, presents new data, and thereby contributes to Canadian rural sociology. The methodology for conducting the investigation is detailed in the following chapter.

Notes

1. Peter Sinclair's analysis of Maritime agriculture refers to "the increased level of mechanization and consumption of manufactured inputs at the farm level" as significant indicators of the "growing domination of agribusiness" during the period 1950-1980. It is significant that just as agricultural supply companies were becoming increasingly important to farming enterprises, the number of farmers was dramatically decreasing (Sinclair, 1984b).

2. There are several investigations into the role of unpaid family labour in agricultural production. Cebotarev et al (1983) indicate that more than 30% of farm wives in Ontario and the Maritimes contribute off-farm earnings to their family farm operations. It is argued, therefore, that the price of the commodities they help to produce is effectively lower than the cost of production. Hedley (1976) examines farm family risk-minimizing strategies which revolve around exploiting unpaid family labour. Smit (1979) examines how changes in the size and composition of the agricultural labour force varies across Canada. He relates the use of unpaid family labour to market pressures. In Ontario, the Prairies, and Quebec, he found that family labour was used more when the costs of

hired labour are higher relative to other costs and prices. Alternatively, he found those family workers sought off-farm work if it was more profitable than their direct contribution to the farming operation.

3. Brewster Kneen (1988; 1990) adopts a similar macro view of the agricultural industry. He argues that multinational corporations such as Cargill, use their formidable power and control to ensure the state's compliance. The final result is the destruction of viable rural communities and a poorer quality of life for all citizens.

4. My approach received strong support from William Friedland who offered the following advice in his correspondence:

"A second thing I would suggest is that, while pursuing your interest in farm workers, you not overlook the **commodity system** (emphasis from Friedland). My own work which began in New York (Friedland and Nelkin, 1971) was focused too closely on farm workers...It was only after 2 years of work that the critical importance of systemic influences became clear."

CHAPTER II METHODOLOGY

A. INTRODUCTION

Discussions about sociological methods usually separate qualitative and quantitative approaches (Douglas, 1976:11; Hunter, 1985). The former, which derive from the Latin word *qualus*, meaning "what kind?", represent techniques aimed at describing social phenomena. Fieldwork and in-depth interviews are the main techniques used by qualitative analysts who strive to explain the social world in terms that reflect individuals' experience.

Although this method is rooted in Weber's concept *verstehen*, * recent attempts to systematize and standardize techniques have minimized the intuitive and intimate aspects of the approach while enhancing the operational, generalized and objective features (Shibutani, 1970). These efforts are designed to comply with another aspect of Weberian social methods, namely to develop "an analytical ordering of empirical social reality" (Weber, 1949:63).

* an "empathetic understanding or an ability to reproduce in one's own mind the feelings, motives and thoughts behind the action of others" (Bogdan and Taylor, 1975:14)

Such a phrase is usually aligned with quantitative methods, which are associated with the Latin word *quantus* meaning "how much?". In this case the researcher devises techniques to measure social phenomena. Explanation is possible because social phenomena are expressed in ordered numbers which adhere to a mathematical logic (Hunter, 1985:646). Because quantitative measures use "impartial" numbers and lend themselves to independent retests, they are accorded "scientific" status (Douglas, 1976:6). By contrast, qualitative assessments, where researchers' bias is implicit, struggle for legitimate acceptance in the scientific community.

Emphasizing the mutually exclusive characteristics of quantitative and qualitative methods is unnecessary if a more elementary perspective is adopted. For instance, with characteristic naivete, Douglas considers the ultimate goal of all science to be the pursuit of truth (Douglas, 1976). Although this is simplistic, it does diminish the differences between various methodologies by conceptualizing them on a spectrum of research strategies. They vary from uncontrolled social experience to highly controlled mathematical modelling (Douglas, 1976:13). His recommendation is to begin with the strategy most suitable

for the researcher and the task. After the initial work is complete the sociologist should employ increasingly more controlled techniques until options and resources are exhausted. All these efforts must be carried out in an atmosphere that takes nothing for granted, including the assumption that people are truthful. Douglas uses the phrase "investigative social research" to describe this method.

I have adopted his methodological plan as completely as possible for this dissertation. The strategies employed range across a variety of techniques: participant and non-participant observation, interviewing, reviewing relevant publications, and computing descriptive statistics. Taken together, the findings from different sources yield a more complete picture than any one of them can by itself. The blend of research strategies means I address the pertinent questions and issues in as thorough a manner as possible.

B. METHODOLOGY FOR THIS DISSERTATION

My academic interest in agricultural issues was first expressed in my M.A. thesis* where I assess the community participation of guest workers from the Caribbean and Mexico when they live and work in Ontario temporarily. During the course of gathering data for that thesis, and later, while a PHD student, my concern with rural sociology and labour issues was firmly established. To pursue these interests further, I have chosen to study the Ontario tomato industry by addressing the research question: How has the growth of agribusiness affected hired labour in Ontario agriculture?. My familiarity with rural issues and contacts with certain individuals and organizations have been a good base to start the research for this dissertation. ¹

Besides an academic interest in agricultural issues, I have a personal connection which stems from living in a farming community for the past twenty-four years. This association was helpful in a number of ways. First I had some idea about what to expect and how to behave in the rural communities I visited. Second, rapport between the growers I interviewed and me developed more easily because I know something of their lifestyle

* entitled, "Offshore Farm Workers in Rural Ontario Communities" (Wall, 1984).

and experience.

From January, 1988 to May, 1989, I carried out a variety of research activities in southwestern Ontario. Because a concise history of the Ontario tomato industry has not been published, my first task was to collect material about it.* Government documents on early Ontario agriculture and annual reports on tomato production and processing provided a core of information.² After several months interviewing and observing, I was able to fill in details about the industry. I also relied on archival newspaper files from the Chatham and Leamington Public libraries and from the *Windsor Star*. These records gave me a sense of how the tomato industry developed, and some insight into the rural communities I was beginning to enter.

Prior to contacting prospective candidates for interviewing, I developed an interview schedule for tomato growers.** This was composed of both closed and open ended questions. The former ensured my collecting factual information such as size of enterprise, other

* OPIRG (1979) published a report on the Ontario tomato industry which was informative. Their research was carried out concurrent with the organizing drive in Ohio, U.S.A., where FLOC (Farm Labour Organizing Committee) was active in the tomato fields.

** This appears in Appendix I, "Research Instruments".

crops grown, number of years working in tomato industry, etc. These data were transferred to a spreadsheet format where I could select factors for comparisons in contingency tables. Open-ended questions allowed the interviewee to express opinions and concerns in a relatively spontaneous manner to which I could ask further probing questions, if necessary.³

Although I had no direct questions for growers about their age, ethnic background, and prosperity of the enterprise, I noted these features during interviews.* Age was estimated based on the number of years farming and other accounts from family histories that would inevitably emerge during conversations. I inferred ethnic background from last names, or occasionally by asking a direct question if it seemed appropriate. I never asked questions about income but formed an opinion about degree of prosperity from the state of the home, cars, and property. Except for ethnic background, these variables were not used directly in my analysis. Instead, I relied on them to help me get a general picture of tomato growers in southwestern Ontario.

In the early stages of my research I contacted a representative from the Ontario Ministry of Food and

* This procedure was followed to avoid offending the interviewee with personal questions.

Agriculture (OMAF) whom I had met during previous research experience. He expressed interest in my topic and suggested several individuals in Kent and Essex counties who would be good starting points. Some of them worked in agricultural employment centres while others were tomato growers of repute. To ensure that the growers were not all "government recommended", I also made contacts through the National Farmer's Union. In March, 1988 I used these initial contacts to start a snowball sample of Ontario tomato growers. I used my first three interviews as pre-tests for the schedule and found it was a good instrument.*

Throughout the spring and summer of 1988, I contacted forty-five growers and interviewed forty-two.** When possible, I wrote a letter introducing myself and my interests and requesting an interview. A follow-up phone call was made to set a date and time. The final question I asked during the interview was whether the grower could recommend another for me. Based on their references I

* That is, growers appeared to have little difficulty in understanding my inquiries and were comfortable with the topic. The only problem occurred with the question asking for details on hired labour. As noted later in this chapter, due to the presence of large families it was sometimes difficult to tabulate exact numbers of workers.

** Based on the fact that there were approximately 800 Ontario tomato growers in 1988, this represents a 5% sample.

would then contact more growers and make arrangements.

As noted in Chapter I, a key factor in tomato production is the mechanization of harvesting. I wanted to have a sample that included both hand and machine harvest growers so that I could compare their operations with respect to a number of labour and other issues. Consequently I tried to keep the numbers of each kind equal. From the forty-two interviews I was able to use information from thirty-eight because four of those interviewed had stopped producing tomatoes before 1985. Otherwise, all the interviews were with growers currently in the industry (one had stopped in 1986, another in 1987).

All but four interviews took place on growers' farm premises, occasionally with other family members present. The four exceptions were in offices where those growers carried on other business. The atmosphere tended to be congenial and friendly for the interview session which lasted from one-half to 3 hours or more depending on the circumstances.⁴ My own experience with farming, my age and status as a wife and mother, and being comfortable talking to people, all seemed to contribute to relaxed and conversational interviews.

Even though growers tend to be skeptical of academic and government interests, many of those

interviewed would ask my opinion about some of the points raised. At least three wanted me to let them see what I concluded in the study. Several requested that I inform any government officials that I encountered about their dissatisfaction with various farm labour issues.⁵ But, overall, I finished the grower interviews with a sense of being in their debt for the time they gave me.

Information was recorded in a notebook as growers answered questions and gave their opinions. In addition, directly after each interview I would record my own impressions and elaborate certain points in a journal. I prefer this technique to tape recording and transcribing because interviewees tend to be more uneasy and are less likely to discuss topics freely when their conversation is being recorded.

Growers were not the only people I interviewed. By the fall of 1988 I had contacted and questioned fifteen additional people who had some connection to the tomato industry.⁶ As well, a total of seven formal interviews were conducted with individuals who had recent experience in tomato harvesting. As discussed in later pages, information from the farm workers' vantage point was primarily gathered through methods other than interviewing.

I concentrated the majority of my interviews in

the summer months of 1988. The main regions were Essex and Kent counties which cover approximately 7200 square miles and are anywhere from 150 to 200 miles from my home.* I made 9 trips to the area when I would stay for an average of four days at a time, usually in a local motel.** Although it would have been ideal to reside in the region for two months straight, family responsibilities made this impossible.

Choosing the summer months for this research had positive and negative aspects. The summer of 1988 was the hottest and driest on record for Kent and Essex county (*Leamington Post*, Sept.7, 1988). The stress from these conditions was detrimental to the crops and the growers who were probably more negative in their responses to my questions than they would have been under more ideal circumstances. Since the growing and harvest seasons are the busiest times of the year for growers, finding time for interviews was sometimes problematic. On the positive side, there were many opportunities for me to observe and participate in different aspects of tomato production, including travelling to a processing firm with a grower, watching tomatoes being unloaded and graded, and finally

* See Appendix 2 for a map displaying the regions.

** I also made 7 day trips to the region for single interviews and/or library research.

touring the processing plant from start to finish.

Not only did I observe procedures on the farm, but I also spent my spare hours observing in the different communities. By frequenting the same coffee shops and restaurants I could strike up a conversation with the proprietor and/or local residents who started to recognize me.* There were also occasions when I listened in on conversations around me. A local grower told me about one place in Leamington where several tomato growers gathered for morning coffee and gossip. Although I didn't join in any of these sessions, I did hear them expressing concerns about processor contracts and crop conditions. Similarly, in Dresden, I overheard women who worked on tomato harvesters talking about work and their desire for jobs in the processing plant. Reading local newspapers, shopping in local stores, and spending as much time as I could in these communities helped me develop a context for my understanding of Ontario tomato production.

Because I could stay for three or four days at

* For instance, one coffee shop in Chatham was run by a woman who started to talk to me after my second visit. She knew I was from out of town and was curious. When I explained my interest in the area she related her own experience picking tomatoes and on a later date introduced me to her brother who used to farm and haul tomatoes for a living. Although the information was not usable as part of my core data, it gave me general information and an opportunity to ask questions.

a time, participant observation in tomato harvesting was also possible. Three of the growers I interviewed invited me back to work on their machines so that I could really understand what was involved. These experiences were very informative for me. I worked on three different kinds of harvesters and could therefore experience and compare a variety of conditions. Two growers had me work as part of a morning shift while a third took me on for two morning shifts. I did not hand harvest with any workers. Having hand harvested potatoes in my own community, I am well aware of the physical strain from such labour. Besides that, it is awkward for a stranger to come in and hand harvest with an established labour unit. I would have had to be invited by those in the field.

My original aim was to gain rapport with enough farm workers to start a snowball sample and collect information from interviews in a manner similar to those I had with growers. In anticipation, a schedule was developed. * During my stay in the region I tried several times to follow leads to farm workers who might be interviewed. As well, I tried to contact farm workers who had been interviewed during my research with the Tolpuddle projects. Unfortunately these attempts were futile and I

* See Appendix 1.

had to abandon the attempt to interview farm workers from a snowball sample.

However, a "chance" meeting in the fall of 1988 did provide the opportunity to explore farm workers' experience, but in a manner different from the one I had envisaged. By this time I had learned that the majority of farm workers in the tomato industry are "Mexican Mennonites" who come to the province as migratory workers, as visitors, as landed immigrants, and sometimes as Canadian citizens *. Through an acquaintance I discovered a woman in Waterloo, Ontario who was actively helping Mexican Mennonites in her community. I arranged an interview with her in January, 1989, when she put me in touch with a key member of the Mennonite community in East Elgin county. Through a series of related contacts I ended up being invited to take part in a "life skills" program sponsored by the local "Y" for twelve local women (all were Mexican Mennonite, and all had farm work experience). My association consisted of travelling to Aylmer once a week (occasionally twice) where I took part in the day's events. This lasted from February 1st, 1989 to early May, 1989.⁷

Their schedule was not rigidly organized but

* See Chapter IV for more details.

followed a general pattern. Each morning was spent doing various activities. For instance, one morning they baked for a market sale, another they would study for driving tests or learn basic health and food rules. While the women were thus engaged, their children (whom I also came to know) were taken care of in a nearby arena. The afternoon sessions were devoted to ESL (English as a Second Language) classes to help the women improve their familiarity with English. I discovered through various exercises that most of the women could not read or write in their German dialect either. Familiarity with numerical and arithmetic concepts was also limited.

The young woman in charge of the program introduced me to the women as a "lady" who wanted to know about Mexican Mennonites and their experience with farm work for a project at school. Whether they ever fully understood what I was doing is unclear. I was told later that some of them thought I must be the wife of one of the men responsible for a similar program for Mexican Mennonite men. Once again my personal characteristics assisted my attempts to be part of the group. For instance, ten of the women were married with families and could talk to me about their domestic situations. My farming experience was also helpful in giving us common ground for discussions. Coincidentally, I discovered that

my last name is a "Mennonite" name in the area. Several times it helped to open conversations because people, upon hearing my name, would ask if I was related to "so-and-so Wall" from down the road.

My participation was as a helper. I worked with individuals who were studying a manual so they could get their driving licenses. I joined in conversations by listening, asking questions, and offering information about the topic under discussion. Occasionally I helped out at the daycare centre, drove women and their children home, and accompanied those going to write their driver's test. Because several of the women had experience in a variety of agricultural work in Ontario including tomato harvesting, I was able to use the interview schedule as a guideline for discussions. Through the daycare workers I was able to locate an additional three women for interviews about their experience in tomato harvesting. Although one said she could muster up several more contacts for me, this never materialized. Because the sample for tomato workers is small, I have not quantified their responses but use them as illustrative comments when appropriate.

One young woman (aged 27), acted as my key informant. And, true to anthropological accounts of informants, she was a marginal person in several respects.

First of all Maria* was born in Mexico in one of the Mennonite communities there, so she was familiar with the language and culture of the group. However, her family left when Maria was a youngster due to her affliction with polio. These two factors, the break from Mexico and her handicap from polio (both legs were affected confining her to a wheel chair), gave her marginal status. A third aspect to consider is her participation in the larger Aylmer community. Maria attended the local high school where she enjoyed many friendships** . Observing her interacting with the organizers of the program, with other community members in stores and businesses, gave me the impression of someone who felt at home and accepted. However, knowing that recent Mexican Mennonite families can be treated disdainfully by many residents in Aylmer***, and knowing that Maria spends much of her time with

* This is a pseudonym.

** This was apparent when one of her former teachers, now retired, came to help the women with their driving. Listening to them reminisce about Maria in school, gave me some indication of her past participation.

*** This was evident from the conversations I had with the program organizers, and from the treatment these women received when I accompanied them to various places. They also complained about situations where people were rude to them. In fact, Mexican Mennonites who had lived in the area for some time expressed critical opinions about the recent arrivals.

Mexican Mennonite friends, I assume she would be viewed as a marginal community member.

Maria is fluent in the same dialect of "low German" Mexican Mennonites speak. Because I do not speak it, her translation was very helpful. Most of the time the women were encouraged to express themselves in English. My participation helped that discourse somewhat but they were much more comfortable conversing in German.⁸

By early May I felt the women, program leaders, and myself had developed good relations. Those in charge often asked my opinion on the how things were progressing and how they might be improved for future groups. I was able to write a letter of recommendation on their behalf to a government official who would determine possible funding. This chance to reciprocate their helpfulness to me made the exercise satisfying. Such exchange with Maria was less tangible. I felt that she saw her role as informant as enhancing her status among Mexican Mennonites she knew.⁹ One afternoon I took her to a Mexican Mennonite restaurant for a meal. We were an object of some interest to several patrons. Next time I saw Maria she said everyone had asked her who I was and what she was doing with me.

The final meeting for the Life Skills program

was a relatively formal luncheon where some community leaders were also present. For many of the women (and group leaders) it was an emotional time as they gave and received gifts.* By this time I was often referred to as a "nice lady" by these women, several of whom I cared for. But, despite the times we shared, and the rapport among us, my knowledge of their true social experience is limited. My participant observation with them was a "being with" not a "part of" experience (Douglas, 1976:8). However, my goal for this segment of the research, which was to understand how agricultural work fits into Mexican Mennonite life in Ontario, was adequately met. The data I gathered from the hours spent among these Mexican Mennonite women gives me an intuitive understanding of how they view farm work. This is especially useful for balancing the opinions of their employers and for adding human details to the more quantitative assessments.

By May, 1989, I had enough information to begin my analysis. As noted earlier, the first task was to write a history of the Ontario tomato industry. Once I had an overall picture of that development I isolated specific variables according to my discussion in Chapter 1.

* I presented each woman with a book on Ontario and they gave me a stationery set with a card to "Dear Allen Wall" which they all signed.

These have been tabulated and used to support various arguments throughout the body of this work. As a preliminary to those chapters, and by way of a conclusion to this chapter, the following section contains a summary profile of the growers interviewed.

C. GROWER PROFILE

All but one of the growers represented in this sample are male, aged 25-55, and, from outward appearance, successful. With only two or three exceptions, their homes and properties gave an impression of material comfort. Occasionally, their "farms" stood out among neighbours' due to the size and quality of the house.

The interview schedule opens with a question about how the growers classified their farming operations, and what they meant by the terms used. The answers are summarized in Table 2.1. The category "family farm" represents an enterprise where growers and members of their families (usually wives and sons) all played a significant part in the production process. A "family partnership" refers to the same organizational style of a family farm with the added formality of a partnership for farm income tax accounts. A family corporation has been rationalized further so that a salary is drawn from corporate income rather than sharing the net farm income

as family farms and partnerships do.* A corporate farm is one where family members do not usually have an active role in the ongoing operation. Hired workers, and the grower-owner, supply all the labour power.

TABLE 2.1 CLASSIFICATION OF OPERATION

Family Farm	53%	= 58%
Family Partnership	5%	
Family Corporation	34%	= 42%
Corporation	8%	
Total		100%
Number		(38)

When farm classification is used as a variable in the dissertation, family farms and partnerships are combined as are family corporations and corporations. As these figures indicate, 58% of those interviewed consider themselves to run family farm operations, while 42% are more corporate enterprises. Given the almost equal ratio between family and corporate farms, I initially thought

* From the wife of one grower who had a family corporation, I learned that her salary was drawn only when there was enough money "in the pot". If it was not a successful year, she would forgo financial remuneration so that her husband and son could have an income.

these two would serve as a good basis for comparing selected labour issues. However, once I started the analyzing the interview data, it became clear that the rationale for designating farm operation is less than standardized. For instance one of the first growers interviewed ran an agricultural business with eighteen different departments including some processing units and retail outlets. Despite the obvious corporate nature of his enterprise, he maintained that his farm was a "family farm" and wanted it recorded as such.

The sample divided with respect to harvesting style according to the percentages in Table 2.2.

TABLE 2.2 HARVESTING STYLE

machine	42%
hand	47%
both	11%
Total	100%
Number	(38)

Machine harvesting is practiced by 42% of the sample while 47% use hand harvesting techniques. The 11% who employ both styles are included in the hand harvest segment for data analysis unless indicated otherwise. Thus the sample has 58% with hand harvesting and 42% with machine harvesting only. Amalgamating "both" with hand harvesting is a reasonable step because the labour requirements for hand harvesting dominate the farming operation. A tomato grower who has workers for hand and machine activity will behave like a hand harvest employer first.

The 38 growers interviewed hired a total of 567 farm workers. Occasionally a grower would not know the exact number of workers on the farm because he hired "families" where numbers varied. Based on estimates from growers and community residents, the average Mexican Mennonite family contained 8 people capable of working (2 parents and 6 children from 7-16 years old). French

Canadian families were usually smaller with 6 people working. When I calculated the total number of hired workers, I had to use these estimates in 6 cases. Otherwise, the grower gave me the exact number. Similar difficulties arose when I questioned growers about the gender of their workers. Families were assumed to be equally divided between females and males. Consequently when the figures of 253 males and 314 females are given it also represents some estimation.

Employers hire their workers as either single individuals or as family units. In this sample, the division between them is equal, 19 growers have families and 19 have singles. If a grower had both individual and family units, I assigned the unit that was larger. For example, a grower with two Mexican Mennonite families and 4 single workers would be classified as hiring families.

Most growers I interviewed had been in the tomato business for more than ten years. In fact, 15 of them inherited family farms where growing tomatoes had long been part of the activity. Thus their knowledge of the industry stems from 25 years or more experience. Their background was helpful in giving me a good understanding of the major changes in the industry's recent history.

The average size of the total farming operation

is 342 acres, with four growers having 1000 acres or more, and nine with 150 acres or less. Tomato acreage averaged 87 acres or 25% of the total size of the operation. The remaining 75% is used to produce a number of other crops as described in Table 2.3 .

TABLE 2.3 ADDITIONAL CROPS GROWN

Crop	Percentage of tomato growers
grain (wheat, corn, soybeans, etc.)	71%
market garden produce and tobacco	26%
none	3%
Total	100%
Number	(38)

As indicated only 3% of growers have no crops other than tomatoes. For the remainder, 71% produce grain crops while 26% have market garden operations or tobacco. Most growers in this sample are integrating tomato production with other crops that do not have labour intensive harvests.

One of the last questions on the schedule referred to membership in different farming organizations. Although most growers belong to some kind of association, few expressed enthusiasm about it. Table 2.4 summarizes

the distribution encountered.

TABLE 2.4 **FARM ORGANIZATIONS**

Ontario Federation of Agriculture (OFA)	71%
National Farmers Union (NFU)	13%
None	16%
Total	100%
Number	(38)

Among those interviewed, 71% belonged to the OFA, the largest of such groups in Ontario. The NFU was much less popular as an organization with only 13% of the growers holding memberships there. My original interest in grower associations was to discover if membership indicated an increased sense of solidarity among growers themselves. In fact, I found, regardless of the affiliation, most growers viewed their membership as a token and were somewhat resigned to a relatively powerless position in the tomato industry.

This summary of growers in the sample gives a general picture of the size and style of operations. In 1988, tomato production was carried out by experienced growers who had expectations for good or very good standards of living. Their tomato acreages, which

represented a significant portion of their farm size required an average of 15 seasonal workers. Most growers presented themselves as businessmen who worked hard in their own operations and had a thorough knowledge of the entire industry.

This chapter has described the methods used for pursuing the research question formulated in Chapter I. The following chapters contain the data analysis necessary to address that question.

NOTES

1. For example, in 1983, I became acquainted with a group in Toronto that had tried to organize farm workers for the British Columbia based Canadian Farm workers Union. Their attempts were futile, support from B.C. ended and only three or four individuals kept the group going. When I was introduced to them they called themselves the Ontario Farm Labour Information Centre [but later changed to Tolpuddle Farm Labour Information Centre (T.F.L.I.C.)]. In 1984-5 they undertook several research projects on health and safety in agriculture which I worked on. Soon after the group disbanded. The records, documents and assorted material for T.F.L.I.C. are presently in my possession and provided some useful data for this research. Some of this has been organized into reports and thus appears in references as "Tolpuddle Report" #1, #2, #3, etc.

2. Examples of these documents include various bulletins, fact sheets and Economic Reports put out by the Ministry of Agriculture and Food. A number of Ontario Vegetable

Growers Marketing Board newsletters were also reviewed.

3. For instance, among my first questions was a general inquiry into changes in the tomato industry. Because this opened our interview with the grower taking charge of the situation and being the authority, it was a positive situation for most of them. Likewise, the final question to growers asking about future concerns for the industry provided an opportunity for them to have a "sympathetic ear". This question often elicited lengthy responses about the future of farming in general and the consequences to families, community, and the country.

4. For instance, on one trip to Essex county I stayed for 4 days in a "bed and breakfast" that had been a tomato farm. The woman who ran the operation and her family knew the business thoroughly and were excellent informants about tomato growing and community affairs. I had several lengthy conversations with them when I returned from excursions into the field. With other growers, I made return visits for working in their harvest operations. Thus I could question them further or recheck information at these times.

5. The first request was easily granted, but I have yet to pass on any analysis of the data they provided. If there are suitable publications from this study, I plan on sending some to specific growers.

6. For instance, one grower suggested I talk to the agricultural reporter from the **Windsor Star** who had also been interviewing local growers about conditions that summer. I followed his advice and spent two hours with Janice Vansickle discussing mutual findings. This encounter was especially helpful to me because it came toward the end of my summer research when I had completed most of my interviews. Consequently, I was able to discuss my early findings with a knowledgeable person who in fact appreciated getting my viewpoint. Other interviews were with horticultural experts, managers of the agricultural employment service centres, labour leaders, agricultural economists and processor personnel.

7. Also during this time I researched Mennonite history in the University of Guelph library where there is a modest collection of Mennonite related works including several unpublished papers from various sources. A bibliography of the works reviewed appears in Appendix I

"Research Instruments".

8. A humorous incident occurred when I was asking questions about washroom facilities for women working on farms. One woman wondered why I would want to know, did I think Mexican Mennonite women urinate differently than Canadian women? After the interview, the woman, who was indignant, posed this question to Maria. Maria then passed it on to me, treating it as a good joke.

9. Maria has aspirations for the entertainment world. She hopes one day to be a country gospel singer, and in fact, had some concerts in the community. As a parting gift, Maria gave me a tape of her songs, with the message: "To Ellen: I am so glad I have met you. Always remember if we never run into each other again, in heaven we will meet again. God Bless, Love, Maria"

CHAPTER III HISTORY OF ONTARIO TOMATO INDUSTRY

As noted in the introductory chapter, it is necessary to substantiate the assumptions underlying the research question: How has the growth of agribusiness affected hired farm labour in the Ontario tomato industry? The first assumption, that agribusiness has grown in the Ontario tomato industry is confirmed in this chapter. That is, it will be shown that the non-farm elements in the agro-food system have increasingly asserted their influence over tomato production in the province.

The different varieties of domestic tomatoes grown today are all related to the semi-tropical plant, *lycopersicon*, first documented in the 1500s. Originally reputed as an aphrodisiac and a poison, the tomato eventually found its way into culinary arts. Now, it ranks as the most important processed vegetable crop world-wide and is valued for the colour and solid content it gives to a variety of prepared sauces, juice and paste.

Records indicate tomatoes were first bottled in France during the late eighteenth century (Portas, 1986:17). Processing technology spread to the North

America where a large market quickly developed. In 1892, farmers in twenty-seven states were growing enough tomatoes for canneries to produce seventy-two million cans of tomatoes that year (Livingston, 1893:158). Canadian output is also recorded for 1892 at over three million cans, about equal with New York State. At this time, the strength of the Canadian tomato industry was perceived as a threat to U.S. canneries. To protect American canners from foreign competition, President McKinley introduced a 45% tariff on Canadian canned tomatoes (Livingston, 1893:160). As with other Canadian industries, the situation eventually reversed so that by the 1960s American interests dominated food processing on both sides of the border.

There have been substantial changes in the Ontario tomato industry, both in growing and processing the crop. To describe those developments, the 110 years of history have been divided into 3 stages. The first is the longest period, from 1880 to 1940. During this era, techniques in tomato growing do not change dramatically. The second time period, from 1941 to 1970, reflects prosperous times for Ontario tomato growers as demand and production increased. The most recent decades, 1971 to 1990, are the final ones for discussion. During these years, the industry continues to streamline its operations

as part of the agri-food system.

The basic procedure for growing tomatoes has remained much the same over time, it is only the technique for carrying out those steps that has been revolutionized. The steps (in chronological order) include: raising seedlings; preparing soil for transplants; transplanting seedlings into the field; maintaining the crop; harvesting tomatoes; hauling them to the processor. Associated with any modification in these methods are changes in the relations between growers and other components of the food industry. The following discussion demonstrates how both the techniques and the relations have been modified over time in a manner that supports the claim that agribusiness has grown in the Ontario tomato industry.

A. 1880-1940

At the turn of the century, it was usual for Ontario farmers to grow two or three acres of tomatoes if they lived close enough to a cannery to make hauling feasible. The first Ontario farmers to grow tomatoes commercially were in Prince Edward County because the first cannery in Ontario was built there in 1881. By 1900, canneries all over the southern and southwestern regions started operations and created a demand for local farmers to supply. These canneries were important to the

growth of several small towns. In the Leamington area, for example, historians report that the early canneries were encouraged with offers of water, gas, tax exemptions, fire protection and building sites. In return the community benefitted not only from the employment generated, but also from the growth of related industries. *

The first rough estimate of tomato growers shows a large increase from 1891 to 1908, paralleling the increasing number of canneries. During this time, the number of farmers producing tomatoes rose from approximately 400 to 2500. Contracts with canners existed from the start as did complaints that the canners dominated negotiations and gave growers too little (Turney, 1912:11).

Cannery personnel made most decisions about the variety of tomatoes grown. In fact, they would import the seed (all from United States) and sell it to farmers and "professional growers". Both would use that seed to raise seedlings for later transplanting, farmers for themselves, the professional to sell to other farmers. The cost of these seeds or transplants was deducted from the price

* Food processing firms are still viewed as an asset to these communities. For instance, in 1988, H.J.Heinz provided 20% of Leamington's tax revenue (*Windsor Star*, Oct. 1, 1988).

paid to that grower when he delivered his crop.

Hundreds of different varieties of tomato were grown in early 1900s. At this time, there was no rigid distinction between fresh and processed tomatoes because the most popular varieties were suitable for both the fresh and processed markets. Consequently there was little wasted in these early operations, any excess over the contracted amount could be sold as fresh produce. By the mid 1900s, when processed and fresh varieties became distinct with respect to shape size and amount of juice, tomato growers had to plow under any crop in excess of the contracted tonnage.

In this first time period, it was usual for a farmer (and/or his family) to plant, by hand, 2-3 acres in late May or early June. Crop rotation was a normal practice so the tomato acreage would probably follow legumes, which leave a field richer in nitrogen. Because tomatoes require high levels of nutrients, the soils were manured heavily and also treated with some commercial fertilizer. Early pesticide use was not uncommon although the first manuals for tomato production included several non-chemical methods of reducing pests.* Weeding and cultivating were ongoing chores that were virtually all

* Bordeaux mixture, which is copper sulphate lime, was the most common "chemical" spray.

done by hand labour.

Harvesting began in mid August for early varieties and usually ended in late September or early October depending on frosts. Fields would be picked over a number of times as the fruit ripened throughout the season. Tomatoes were placed in hampers that could hold 35-50 pounds and then lined up in one row. At the end of the day, when enough crop was harvested the hampers were put on a wagon and taken to the cannery. Because the acreage was relatively small, it was feasible for the farm family to harvest and load the crop. When more help was required it was found among the neighbours and family in the nearby community, or from a hired hand and his family if the farmer employed year round help.

By the 1920s, tomato acreage had increased to an average of 4 acres per tomato grower (Ont. Dept. of Ag., 1920). The number of growers was also steadily increasing to roughly 4000 by 1934. Despite widespread tomato production, the Ontario government did not isolate it as a crop for agricultural censuses. Instead it is included with vegetable production in general which represents 5% of total value of farm production in 1939 (Haythorne and Marsh, 1940: 141).

The 1920s and especially the 1930s had seen income fall sharply for all farmers who responded by

forming different bargaining associations.* Ontario tomato growers were no exception, in fact, they led the drive to join forces and have some input in deciding contract prices and conditions. Their main complaint was that canners made too many decisions unilaterally. The processing plant determined among other things:

acreae to be planted, the supply of suitable seed, the report of crop conditions, the maximum quantities of produce per acre to be accepted, the quality of the produce, penalties for lack of quality limitation of deliveries, price to be paid for produce, and the terms of payment.

(Perkin, 1962:21)

From the growers' point of view this situation was worsened by the consolidation occurring in the food processing industry. Early in the 1900s, for instance, Canadian Canners bought out several smaller canneries in Ontario. During 1930-1940, they had more than 40 operations in different locations throughout southern Ontario (Statistics Canada). Across Canada, they owned and operated canneries, trucking operations, can production firms and seed and fertilizer companies. Before they were purchased by Del Monte in 1956, Canadian

* As early as the 1880s, fruit growers in the Niagara region had formed a co-operative to market their own fruit and therefore ensure maximum returns (Crewson and Matthews, 1986). This emergence of class interest is similar to tomato growers who were trying to protect their incomes in a highly competitive market.

Canners was said to have a dominant position among canners world-wide (Clement and Janzen, 1978).

Tomato growers persisted with organizing drives and had a "Tomato Growers' Marketing Scheme" in place by 1940. Their solidarity is reflected in their getting a positive vote from 99% of the eligible tomato growers (Perkin, 1962). This association differed from prior ones because it had compulsory membership. Both federal and provincial governments passed the necessary legislation to grant them such legal power (Perkin, 1962: 1-7). The former marketing schemes had failed because some growers (not belonging to the scheme) had accepted a lower price for their product thereby undermining the group's bargaining position. A number of different vegetable "schemes" joined the tomato growers and formed the Ontario Vegetable Growers Marketing Board (OVGMB) in 1946. As discussed in the next section, this organization has played an important role in Ontario's tomato industry.

The canners had their own association in place by 1930 (Gertler, 1987:3). The Ontario Food Processors Association (OFPA) represented canners' interests when the government was forming policy on trade, regulation, taxes, etc. Once the OVGMB was in place the OFPA added to its concerns the potential power of its suppliers. Negotiating teams, representing the OVGMB and the OFPA

meet each year to determine the price and conditions of sale for that season's crop.

Summary

Tomato production, in this phase of its history, was on a small scale per farm but widespread throughout southern Ontario. Canneries, which were vital to promoting and sustaining tomato growing, exercised considerable control over farming practices. Both the number of canneries and the number of tomato growers steadily rose from 1880-1940 although there was considerable consolidation in the former sector. Each faction also established associations to increase their power in negotiations.

We can conclude that prior to World War II, tomato growers are best described as independent commodity producers who provided a variety of agricultural commodities for the market. The term independent is applicable because the owner-operator and his family supplied the bulk of labour power and controlled production for the majority of their farming operations (Clement, 1983:229). Although being involved with tomato production was a move away from independence (because of the necessary integration with capitalist processors) its relatively insignificant position in the total farming

enterprise reduced the effect.

B. 1941-1970

The second world war is frequently cited as a watershed for industrial development in North America. During and after that war, there was an unprecedented growth in all sectors of the economy. Canadian analysts link some of this development to massive foreign investment from U.S. firms establishing branch plants in central regions (Williams, 1983:103). In southern Ontario, urban centres spread into suburban developments where new supermarkets and commercial enterprises served the growing population (Schull, 1985:355).

Among the factors contributing to the boom in agricultural production was the escalated demand for food from this urban expansion. Subsequent changes to farming operations included: increases in total output, a high rate of growth of labour productivity, increases in capital value per farm, and declining numbers but increasing sizes of farms (Veeman and Veeman, 1978:759). Implicit in these developments were stronger ties to the commercial and financial establishments with interests in agriculture. The newly coined word "agribusiness" described this transformation and emphasized the change in farming as a "way of life" to farming as an economic

enterprise run on sound business and management practices (Butler, 1961).

There are several key changes in tomato production from 1941-1970, including its emergence as a farming operation in its own right, rather than being a lucrative sideline to other endeavors. According to government records, during this time period, tomatoes maintained the highest value of all vegetable crops in Ontario (Campbell, 1974:15). At the same time tomatoes became the most important vegetable for processing. This was due mainly to an escalation in the consumption of canned tomatoes and juice (Tessler, 1961:51-55). Responding to the increasing popularity with consumers, H.J.Heinz in Leamington modified its operation to include a division for processing tomatoes only, (rather than using the same line for a number of vegetables). By 1962, the entire Leamington operation was the largest Heinz plant in the world (Scaglione, 1970).

In 1943 there were approximately 5000 farmers growing tomatoes in Ontario. Their average acreage was still relatively small at 5-6 acres per farm (Nelson, 1954:4). Specialization was becoming the norm for provincial agriculture as many farmers gained most of their income from two or three farm products (Bollman and Ehrensaft, 1983). Tomatoes, one of those specialized

crops, were grown more in Kent and Essex county, and less in Eastern Ontario. In general, the Southwestern area of the province had superior soil and climate for producing the crop, as well as a growing number of processors who needed suppliers. In 1941, 46% of all tomatoes were grown in the southwest but by 1963 the figure jumped to 81% (Bulter, 1965:3). This concentration of production in one geographical location is also typical of industrialization in agriculture (Ehrensaft, 1983:123).

In 1949, the number of tomato growers in Ontario reached its highest point with 7000 producers on record. By 1955, the number declined to 6000, only to fall more rapidly over the next 15 years to 2000 (Fisher, 1987a: Table 1). The total number of acres peaked in the 1950s, being close to 34,000 in 1957 but dropped to 20,000 in 1969. These figures reflect the trend to intensifying production that is typical of agribusiness. Despite the reduction in numbers of growers and acres under production, total tonnage increased steadily. For example, yield per acre goes from a 1950s' average of 8 tons to a 1960s' average of 17.5 tons (Fisher, 1987a: Table 1).

The prime contribution to higher yields was not only from newly developed plant varieties but also from improved chemical fertilizers and pesticides. Spraying,

which was becoming a common procedure for all farming, meant increased costs for purchasing chemical agents, new equipment, and storage facilities (Nelson, 1954). All Ontario farmers increased the value of their machinery and equipment more than 900% from 1941 to 1966 (Satzewich, 1989).

Hand planting had been declining through the years and disappeared entirely during this phase as mechanical planters become widespread. This machine, pulled by a tractor, had places for two or four workers to sit and place seedlings into the planting mechanism. Afterwards workers would go over the field to plant by hand any spots missed by the machine.

By 1940, it was less common for tomato growers to produce their own seedlings for planting. It was a time consuming job that required its own skills so other farmers took it over and specialized in producing seedlings according to processors' requirements. In Ontario they formed a marketing board but, shortly afterward, competition from seedling production in the southern United States ended hopes for future markets. Due to the warmer climate, and lower input costs, seedlings from Georgia were stronger and cheaper than those raised in Ontario. By 1960, virtually all seedlings used in Ontario tomato production came from the southern

states.

Processors played an important role in bringing about this change for tomato seedlings. Most large food processors in the province were U.S. based and had well established networks for supplying their U.S. growers with tomato plants (Windsor Star (WS), May 23, 1970). It became economically rational for them to include their Ontario growers, not only in their supply system, but also in all aspects of their tomato research.

Developing new varieties of tomatoes has always been a key concern for growers and processors alike. After World War II, plant genetics research gained new impetus with the rise of molecular biology. Because tomatoes have several natural features making them ideal for such research, they were popular plants for experimentation. Subsequent breeding developments have increased the number of tomatoes per plant by 400 % compared to pre-1940 yields (Rick, 1986:4).

Ontario growers were also first exposed to mechanical harvesting techniques from the U.S. food processors. The initial report of such a machine in Ontario is in 1959 when Libby's sponsored a demonstration of the "World's First" tomato picker in Kent County (Chatham Daily News (CDN), Sept. 14, 1959). By the mid 1960s Ontario tomato growers were going on trips,

sponsored by processors, grower associations, and the ministry of agriculture, to the neighbouring states to view the latest in machine harvesters. H.J. Heinz started to use them in their experimental plots in Essex county while growers were warned that the future of hand harvesting was limited (WS, Mar. 8, 1967).

Grower response to the machines was cautious in Ontario, especially compared to the situation in California. In that state, tomato growers adopted the new technology rapidly because they lost their supply of Mexican hand harvesters when the Bracero Program ended (Brandt, et al, 1978). Research into building "once over" harvesters began in the 1940s in both California and the mid-west. In fact, the first patents were granted for such work at Michigan State University, not at the University of California as it is commonly thought (Rossett and Vandermeer, 1986:22). All harvesters work on much the same principles.

The harvester cuts the vine at or slightly below ground surface. The vines, together with any loose fruit that may have fallen to the ground are gathered into the machines' feed conveyor...Provision for hand sorters on each conveyor ensures the recovery of all good fruit. Rejected fruit and dirt clods are discharged to the ground. Fruit-laden vines, meanwhile, are transferred from the feed conveyor to a reciprocating mechanism that begins a shaking action, causing the fruit to separate from the vine. As the fruit separates, it is transferred to a conveyor located directly below the shaking section. From this lower conveyor, the fruit is routed and distributed onto sorting belts on each side of the machine, where culls and other unacceptable fruit are removed by sorters. Acceptable product continues its routing to a common discharge conveyor. The spent vines meanwhile are discharged onto the field behind the machine.

(Gould, 1983: 68).

Tomato growers in the mid and eastern states reacted more like Ontario farmers who were slow to make the transition to mechanized harvesters. The result was a dramatic shift in U.S. tomato production from 1950 to 1975 as California's share of the market rose from 36% to 85% (Brandt, et al, 1978).

Ontario growers felt the investment in mechanized harvesters was too great given their smaller acreage, unreliable weather, less suitable soil, and relatively safe labour supplies. Instead technological innovation in Ontario tomato harvesting first took the form of "picking aids" for workers. Different machines assisted pickers by moving them and their hampers slowly down the row. Workers found them an asset because it was

less fatiguing, while others complained that they could not work at their own pace (CDN , Aug. 31, 1969). As one commentator noted: "it doesn't necessarily save labour, but saves toil" (WS, Jan.6, 1965).

One advantage to these early picking aids was that certain models could also be used for cucumbers, another labour intensive crop. In the season, cucumbers are harvested before tomatoes and follow a similar procedure for picking and hauling to a processor. Many tomato growers also produced cucumbers because they could use the same workers for both crops in succession. While there was a saving in using the same equipment for each harvest, there was little overall advantage because the number of workers was not reduced (Fisher, 1972).

The OVGMB started to work with tomato growers in several confrontations with food processors. For example, in 1942, growers contracted to Campbell's Soup were disadvantaged when a strike at the plant meant all the tomato crop could not be processed. * To prevent this situation in the future, the local division of the marketing board tried to get a new system in place where excess tomatoes could be shipped to a central clearing

* Local newspapers reported farmers working as scab labour to keep the production lines going so that their tomatoes could be processed (Chatham Daily News, Sept 17, 1942).

house and sold to interested canneries. The provincial government disagreed with the proposal so it did not go through (CDN, Aug. 27,29, 1942).

A more dramatic action took place in 1951 when tomato and other vegetable growers struck against processors by refusing to sign contracts (CDN, Apr. 5, 1951). After one month a settlement was reached awarding the growers a slight increase in their price. Complaints over transportation costs came to a head in 1965 when growers demanded that processors share in the expense of hauling tomatoes to the factory gate (WS, Mar. 17, 1965). However, there was no concession to tomato producers who continue to bear the total cost of transportation *.

Summary

The Ontario tomato industry expanded and intensified during the years 1941-1970, when the post war economic boom generated new and increasing markets for all farm products. Tomatoes continued to be a popular crop as more farmers supplied a growing number of processors. But, by the early 1950s, this upward trend in numbers of farmers reversed. Instead, there were fewer individuals growing tomatoes and those that did availed themselves of

* Currently, payment of transportation costs varies with different processors and their tomato growers.

improved technology to increase yields per acre.

The U.S. firms which established themselves in Ontario, brought in modernized technology requiring a continuous supply of raw product. These processors encouraged growers to streamline and expand their own operations to meet this new demand. Although mechanical harvesters were first introduced during this period, their presence was mainly a harbinger, warning tomato growers of major changes in their industry. Other important technological developments sponsored by tomato processors included new plant varieties, more kinds of chemical fertilizers and pesticides, and bigger, more sophisticated machines for spraying and planting. The result was a doubling of tons per acre over the 30 year span, as tomato production shifted from the eastern to the southwestern regions of Ontario.

Disparities between growers and food manufacturers emerge during these changes. Before World War II, price levels at the farm gate were closely correlated to prices charged for food from processors. Between 1947 and 1972, however, the opposite occurs as farm prices drop 15% and processors' prices rise 47% (O'Connor et al, 1985:5). From 1950-1970 thousands of farmers were unwilling or unable to continue producing tomatoes under these conditions.

The newly established OVGMB negotiated contracts with food processors and supported several attempts by growers to have more control over tomato production.

During 1941-1970, actions of the OVGMB and tomato growers support the view that petty commodity producers pursued and protected their collective interests in tomato production. This was in response to two major developments. One was that processors gained more control over production with their research and development efforts, and the other was the increasing importance tomato production had in the total farming operation for Ontario tomato growers.

C. 1971-1990

During this final, nineteen year period all agricultural producers were affected by rising inflation and increased costs. The term "farm crisis" became commonplace as the number of bankruptcies escalated along with stress levels in farm families (Hansen and Muszynski, 1990). Added to these economic problems has been exceptionally hot and dry weather during the 1980s.

The years 1971-1990 were also a time of substantial stress and change for Ontario tomato growers, in fact for the entire tomato industry. The number of farmers growing tomatoes continued to fall rapidly, from

2000 in 1970 to 870 in 1986 (Fisher, 1987c: Table I). Production became even more concentrated in Kent and Essex counties as Eastern Ontario farmers dropped their tomato production to an insignificant percentage of the provincial total (Fisher, 1987a).

Rising costs of production were and are among the factors reducing the number of tomato growers in Ontario. From 1971 to 1990, the cost of new mechanical harvesters more than doubled while the cost of land increased substantially. Rural property has been increasing in price because of the pressure from expanding urban centres, and the speculation that inevitably follows (Farming Today, Mar. 12, 1990). Growers wanting the property for agricultural use often rent rather than buy at a price inflated by non-farm considerations. In fact, renting land has become a more common practice for all Canadian farmers (Bollman and Ehrensaft, 1983). As well, the cost of chemical agents has steadily climbed. By 1987, Ontario growers were spending an average of \$187. per acre for pesticides and fertilizers on their tomato fields (Fisher, 1987b:21)

According to growers, returns from tomato sales do not show the same trends as their input costs despite processors' claims that they are offering a fair price (WS, Oct. 1, 1988). The price per ton paid to farmers for

tomatoes did increase steadily (and occasionally sharply) from an early 1970s average of \$47./ton to an early 1980s average of \$99./ton (Fisher, 1987).^{*} Since 1983 however, the price has varied little except to drop in 1986 and 1987, so that growers can no longer call tomatoes the "mortgage burner" crop (ibid). The catchwords for the industry are "shakedown" and "crossroads", as many small and medium sized farming operations cannot survive.

The fruit and vegetable processing industry which is considered the "major orchestrator of the food system", has undergone concentration throughout its history (O'Connor et al, 1985:5). By the 1970s, food processors were one of the most concentrated of all manufacturing industries in Canada with 7 companies accounting for 85 percent of fruit and vegetable processing by 1975 (Mitchell, 1975:36; Veeman and Veeman, 1978:764). In 1988, concentration reached its all time high as mergers between giant corporations like Phillip Morris and Kraft were attempted (*Globe and Mail*, Oct. 20, 1988).

Processing firms have increased their productivity, hiring fewer people yet creating more value (Henderson, 1985:48). Consequently, profit margins for

^{*} These figures do not take inflation into account.

the larger corporations are substantial (*Ibid*, pg. 52). For example, according to figures published in *Business Week*, H.J. Heinz increased its profits by 171% from 1980-1987. In that time period Campbell Soup was also very successful, realizing a 92% gain in profits (*Union Farmer*, Sept. 1988). By comparison, farmers in the United States had an average -7.5% return on equity for the same years (*ibid*).

Successful food processors ensure maximum productivity, by running lines on a continuous process system. For example, at the Nabisco * operation in Dresden, Ontario, tomatoes go directly from the field to the factory gate where a system of conveyers moves them through a variety of procedures. Before they are unloaded, the tomatoes must be graded according to criteria that decide which of the three possible options they fall under. Up to 1980, Ministry of Agriculture employees were hired to inspect and grade samples by eye. Because of possible bias, which could disadvantage both processors and growers, electronic colorimeters are now more common (Henderson, 1985:34-35).

Work at the initial stages inside the plant is exactly the same as the work required to harvest the

* Nabisco, which was purchased by R.J.Reynolds, owns the Del Monte trade name.

tomatoes mechanically. In both cases employees stand side by side inspecting the crop and removing unacceptable tomatoes as they pass quickly in front of them.* Electronic sorters, which are a preliminary to human inspection, select green produce and discard it, thus reducing the number of people needed on the line. At Nabisco, subsequent processing into whole pack, soup, ketchup, paste or puree, requires workers only to monitor various machines rather than handle the product directly.

For systems such as this to run efficiently, there can be no delays in delivering the raw product. As the harvest season approaches, processors, whose field agents have been closely monitoring the crop, tell growers when their shipments are due. The grower then has a schedule for spraying ripening agents, for organizing labour and for hauling the crop. Although growers have always had agreements with processors about when to deliver tomatoes, it is only in recent years that scheduling has been so rigid.

Key developments in the tomato industry also

* At the Nabisco plant there are at least 200 guest workers from Jamaica employed for this job. Some of them have been coming for 20 years as the firm used this labour supply when it first became available through the Caribbean Seasonal Agricultural Worker Program (CSAWP).

include the changing importance of different tomato products. The 1941-1970 era was dominated by whole-pack and juice production, but 1970-1990 saw the rise of pastes, ketchup and sauces. This was due in part to the growth of the fast food sector, both in restaurants and in prepared meals sold in grocery stores (Brandt et al, 1978:18,20). In 1988, it was estimated that paste production represents 60% of the tomato industry in Ontario (WS, Oct.1, 1988).

Both provincial and federal governments have had a role in ensuring the growth of the Ontario tomato paste industry and the related expansion of tomato growing. In 1982, the Ontario government announced a program to fund food processors willing to start paste production facilities. Tariffs on imports and an OVGMB concession to drop prices for tomatoes also encouraged these processors to go ahead with new operations (Henderson, 1985:38).

Even though juice and whole pack tomatoes are declining in relative importance, they are still a significant product for some food manufacturers. Because juice tomatoes must have a high liquid content, they cannot be harvested by machines. This had also been the case for whole pack until genetic engineering created a

variety that is more suitable.* Researchers are working on similar changes for juice varieties but until they succeed, hand harvesting will prevail. Since U.S. production is virtually all mechanized, processors there cannot manufacture large quantities of juice but have to rely on imports from Ontario. Exports of juice from Canada reflect this trend as they increased 800 per cent from 1983 to 1987 (Fisher, 1987b: Table 9). Thus, hand harvesting in this province is an asset to processors who want to market tomato juice. In fact, one of the main reasons some processors insist on hand harvesting for certain growers (even though they would prefer to switch to machine) is to ensure a reliable source for juice production.

Another important technological development for processing has been the introduction of new bulk storage containers for semi-processed tomatoes. The capability for longer term storage began in 1950-60s, but has become more efficient with "aseptic" techniques. California

* Horticulturalists at the University of Guelph are working on new tomato cultivars. On May 1, 1988, a project sponsored by 3 universities, the Natural Sciences and Engineering Research Council, and a major food processing firm started to create a "drier" tomato. "Studies show that increasing the dry matter content by just one-tenth of one per cent means a saving of more than \$1 million to the Canadian industry" (At Guelph, April 27, 1988)

processors started to use this method in 1973 but firms located in Ontario (with the exception of Heinz who pioneered the procedure) have been slower to invest. The financial costs are high, but so too are the economic advantages. For example, aseptic storage means a firm can spread processing over the year rather than being tied so closely to seasonal surge of supply. Not only that, but choices about which finished product (i.e. soup, sauce, paste, etc) to use the puree in can be determined according to immediate market demands (Brandt, et al., 1978).

The sale of semi-processed product to other food processors across the continent has become an important issue for Ontario tomato growers and processors. Before the Free Trade Agreement (FTA), Ontario growers were protected from U.S. competition with different tariffs. In the future, it will be possible for parent firms anywhere in U.S. to ship semi-processed tomatoes into Ontario and compete with supplies from local farmers (WS, Oct. 1, 1988). *

* Consequences from this change seriously concern growers whose future is in jeopardy. In 1989, the provincial government set up the Processing Vegetable Advisory Committee to evaluate the impact of the FTA. Grower representatives, who felt the committee has over-representation from processors, doubt if it will do anything useful (OVGMB Newsletter, #8, 1989).

As the 70s decade drew to a close, major processors were facing new competitive pressures from the retail sector. Some grocery store chains began to ~~integrate into~~ vertically into the processing industry through the use of private label and generic brands (Winson, 1988:527). Major processors were faced with a competitor with unlimited access to the store shelf. This intensified pressure to reduce costs meant squeezing the price paid for raw product. When growers complain about their loss of revenue, processors advise them to get higher returns by operating more "efficiently" (WS, Oct. 1, 1988). This includes modifications such as, mechanizing the harvest, increasing their acreage, double row planting, and cutting labour costs.

Although their numbers are small, some growers have become vertically integrated in the tomato industry by setting up or taking over small scale processing plants. In St. Thomas, 25 growers started a paste production plant in 1985. This operation benefitted from government incentives cited earlier. Most of the growers are also tobacco farmers who were able to use government assistance to diversify their crop under the Tobacco Exit Assistance plan. They have been in tomato production for only 3-4 years and have caused some anger and resentment among other tomato growers. Most complaints centre on the

government money available to them.* As well, some growers disliked both the potential conflict of interest between their role of processors and growers and their unstable financial position (WS, June 16, 1986). This latter point is a problem for all growers because, if bankruptcy occurs, the growers can draw from a communal insurance fund (administered by the OVGMB) set up for that purpose **.

As noted earlier, Ontario growers have been adopting machine harvesting at a slow rate for various reasons, including unreliable weather and high costs. Experience with other processed crops also figures in their reluctance. For years, many Essex and Kent County farmers had contracts with the Dominion Sugar Company to grow sugar beets. With little warning, that firm closed in 1961 (CDN, Jan. 25, 1961). Its contracted growers, many of whom had just purchased mechanical harvesters, were left with high debt loads and no market (Henderson, 1985:25). When Libby McNeil closed its Kent county plant in 1985, some of the same farmers were caught once again as they had just purchased tomato harvesters (WS, Feb. 5,

* It is interesting to note that the former federal minister of agriculture, John Wise, was their M.P.

** The co-operative paste production plant in St. Thomas went out of business in 1989.

1986).

In 1970, 6 tomato growers in Ontario owned and operated mechanical harvesters, but throughout the decade their numbers increased to approximately 60 (Prescott, 1981:21). Trends since 1980 continue to show the numbers of mechanical harvesters steadily increasing. By 1988, the figures stand between 70 and 80% of the tomato operations in Ontario using mechanized harvest techniques.*

Sometimes mechanization is presented from the processors' vantage point. In a 1983 report, for instance, the ministry of agriculture states that Campbell Soup and Libby McNeil have a 65/35 split in machine and hand harvest contracts with a projection to maintain that ratio into the 1990s. At the same time, Canadian Cannery (now Nabisco) had an 80/20 split with the future prediction of 100% mechanization. I would argue that this kind of reporting reflects the fact that processors ultimately control the degree of mechanization.

The following reasons support my position. First, because processors need a large supply of uniform tomatoes to operate production lines efficiently, tomatoes must be delivered in bulk wagon loads. The most efficient

* Exact figures for 1988 are not available. Based on estimates from government officials and others knowledgeable about the industry, the 70-80% estimate is reasonable (also see Gertler, 1987).

way for a grower to use those wagons is in conjunction with mechanical harvesters. Second, when juice tomatoes are required, hand harvesting is necessary. Therefore processors must have some growers willing to maintain hand harvest operations. As noted earlier, this means refusing to give machine contracts to growers even when requested. Third, processors avoid the risk of bad weather preventing a steady supply of product in at least two ways. One is to maintain some hand harvest contracts along with mechanized. Another is to enlarge the geographical area from which they source supplies.* In this case, if weather damage occurs in one area, it will not affect all the suppliers. The decision to purchase a mechanical harvester and therefore to transform the farming operation itself, rests on the offer of a sound contract and future commitment from a processor. Growers can only control the situation by refusing contracts and leaving the industry.

A harvester called the Blackwelder UC ** has dominated the mechanized harvester market. Because this

* For 1990, H.J. Heinz has done just this by increasing its contracts with Kent County growers instead of staying within Essex County where their main processing plant is (*Farming Today*, Mar.12, 1990).

** UC stands for University of California since it was at UC Davis that the original research took place. It also shares in the patent rights.

machine is suited to lighter sandy soil, Ontario farmers have had problems if their land is a heavier quality. Rain also creates difficulties, not only because harvesters cannot easily go through the mud, but also because the 10-12 ton bulk wagons pulled beside the harvester bog down. Some growers argue these heavy machines destroy the soil's substructure.

Certain features have to be modified to adapt these harvesters to Ontario conditions. If growers have the skills and tools, they can make those adjustments; otherwise servicing is done by specialized mechanics. This is especially true for the newer electronic components which require technicians', not mechanics' skills, at high costs.

Many farmers still use mechanical planters that are drawn by a tractor and carry four or more workers. Other growers with a larger acreage have purchased bigger machines that carry 12 workers and plant 6 double rows on raised beds. This suits the design of mechanical harvesters that cut through the soil to pick up the densely growing vines. However, the latest technology for planters does away with workers entirely (except for the driver) and replaces them with robotic systems. Originally, these were developed for tree seedlings and used in Finland. With some modification, they suit tomato

seedlings as well.

If this new planting method succeeds, it will alter the tomato seedling market in Ontario. Standard planters usually plant bare rooted seedlings that have been pulled and shipped, within two days, to Canada. Robotic planters however, use "plug" seedlings, that is, plants that are grown in greenhouses and have earth surrounding the root.* Because these plugs do not transport well, a new market is opening up for Ontario seedling producers who are closer to the tomato growers. The Ontario Tomato Seedling Marketing Board started up in 1985 (one had existed in the 1940s but ended when Georgia supplied the market) and has increased its sales each year since then (Liptay, 1988). Recent problems with diseased seedlings from Georgia have given these local producers an additional boost (*Farming Today*, Feb.19, 1990).

Scientists at the Harrow Research Station ** are sponsored by leading processors to develop new plant varieties and the techniques to grow them. To date, their research has been successful although there are some

* There are also some standard planters that use these plug seedlings, but the majority require bare rooted stock.

** Agriculture Canada has operated this facility in Essex County since 1909.

problems. The main difficulty is in the plastics industry where engineers have been unable to create suitable trays for growing the seedlings. A plastic that is thin and strong enough to make a tray that holds 340 seedlings has not yet been developed. That number of plugs per tray is required to make the operation economically competitive.

As noted earlier, Ontario tomato growers in 1987 spent an average \$187^{per} acre on pesticides and fertilizers for their crop. The environmental problems and increasing costs associated with such procedures have started to change policy and standards for tomato production in Ontario. Ministry of Agriculture officials refer to their new alternative as "integrated pest management". In conjunction with food processors, and the OVGMB, the ministry has designed several programs to change farming practices (OMAF News. June, 1989). Among them is a telephone service to tomato growers called TOM-CAST. This gives weather information for specific zones which helps growers decide if the conditions on their land are suitable for applying certain fungicides. Processors are also concerned about chemical residues on tomatoes they purchase. In 1988, the standard contract had, for the first time, a qualification that any tomatoes exhibiting residues from chemicals not approved by the Ministry would be rejected.

Weather conditions are considered especially problematic for tomato growers. One of the difficulties in the 1980s has been exceptionally hot and dry spells during the growing season. Some form of irrigation is the standard technique to solve this problem. But, because of water shortages, tomato growers, who require irrigation, are advised to purchase high cost, efficient systems. The perspective of an added capital expenditure, in light of an uncertain future, makes many tomato growers uneasy.

As mechanical harvesting becomes entrenched in the Ontario tomato industry, hand harvest operators have less in common with those who machine harvest. Differences include: size of acreage, plant varieties and style of planting them, overhead and maintenance costs for machinery, and the number of hired workers needed. Calculations from ministry officials suggest hand harvest operations are disadvantaged by \$13^{per}acre compared to mechanized growers (Fisher, 1987b). Some economists argue that because machine growers could take a lower price per ton, the system is not competitive enough (Prescott, 1981). This has created problems for the OVGMB as it has to represent an increasingly fragmented group of tomato growers.*

* In 1990, there was a partial resolution to this dilemma. For this year, machine harvested tomatoes

Despite such diversity in their investments, all tomato growers have wanted more security in their contracts with processors. In 1978, the OVGMB requested and got a three year contract system which ensures a grower a contract with the same firm for the two years following the year he signs. Before that time a processor had no legal obligation to buy from the same growers each year, although that was the usual practice. Despite this formal guarantee for growers, clauses in the agreement effectively nullify any real security. Processors can still terminate a contract in any year if production standards are not met. Therefore, there is no real gain for growers and the security clause does not encourage "inefficient" operators to stay in the business as critics claim (Henderson, 1985:32).

Another change in contracts occurred in 1985-6 when arrangements between partners were stated in tonnage, rather than acreage. Originally, a processor would agree to buy a specified number of acres of tomatoes with the understanding that the yield (i.e. tons/acre) would meet a certain pre-determined average. Failing to meet the expected yield might mean losing future contracts. As a

directed at the paste market are fetching a lower price per ton than those going for whole pack and juice (*Farming Today*, Apr. 23, 1990).

safety measure, growers would often put in more acres than their contract called for, plowing under any surplus. This inefficient procedure is somewhat rectified by contracting for a set number of tons. It is then up to the grower to decide how many acres must be planted to meet his contract.

Recently, the OVGMB has been applying for price setting powers so growers can recover more of their operating costs from the sale of their crop. The petitions have been unsuccessful to date because of strong opposition from processors who now use the Free Trade Agreement (FTA) as a lever to reduce the power of Marketing boards.

Current debates on the FTA with the U.S. are also a prime example of the diverse interests in the marketing board. Some vegetable growers are in favour of the FTA because they have well established markets in the U.S. Others fear the FTA will end their chances of farming in Ontario. The OVGMB, like the Ontario Federation of Agriculture, waffled in its position with respect to the trade agreement and, unlike the well organized and aggressive Milk Marketing Board, got no concessions for its members.*

* For a detailed summary of the negative effects on Canadian agriculture from the FTA see Troughton, 1990.

This era of agribusiness is bringing about new affiliations that complicate the division of interests between processors and growers, and among growers themselves. As productivity becomes all important, the larger, top producers are advantaged over small to medium operations. This is due to their ability to run "more efficiently" and their having an easier time finding another contract if the firm they work with closes down (*Farming Today*, Mar. 12, 1990^a). Recently, the Ontario government announced a joint committee to advise all members of the food industry in the competitive atmosphere the FTA is encouraging (*OMAF News*, Feb., 1989). Sharing positions on it are representatives from the United Food and Commercial Workers Union, several marketing boards (including the OVGMB), the Consumers' Association, and a number of food processors. The tone is one of cooperation among what have been historically antagonistic groups so that they can all benefit from the marketing potential of their respective interests. This sentiment is echoed in a recent speech from the OVGMB chairman:

I don't think the marketing board or the processors are really that different on the objective of making the contract more responsive to individual needs of the growers involved and the individual needs of the processors.

(*Farming Today*, Apr. 23, 1990)

In tomato production, larger corporate style growers are aligning themselves with processors who depend on them for raw product (Gertler, 1987). The industry is becoming concentrated and centralized as processors contract with fewer growers and vice versa. The OVGMB has two constituencies. At one end are the high powered corporate style growers and at the other small to medium size farm operations with a lower profile in the industry. They are viewed by the "leaders" as dead-end concerns, and are likely to drop out of production either because of their own financial difficulties, or because the smaller processors with which they have contracts are also not viable.

Summary

This last stage of Ontario tomato industry history is characterized by higher productivity, more concentration and technical innovation for both processors and growers. The former, who face more intense competition at the retail level, have responded by streamlining their production lines. For processors, changing their technology from "batch" to continuous flow allows "fuller utilization of capital, simplified control, less labour and more uniform product" (O'Connor et al, 1985: 43-44). To meet these new requirements, tomato

growers have had to adopt practices and machinery that guarantee a continuous supply of uniform quality tomatoes. Their increased production costs are offset by enlarging the acreage harvested and reducing labour costs rather than getting a higher price per ton from the food processors.

These developments mean fewer tomato growers stay in business each year. Those that do have been supported by the OVGMB efforts to improve their position in the tomato industry, but the FTA is a major concern. Contract security, tonnage versus acreage, and price-setting powers are some of the major issues the OVGMB has tackled since 1971. A major problem for that association is the growing division between tomato growers. Those that hand harvest have different needs and costs than those with mechanized harvesters. Owners of large, corporate style farms are steadily divided from the owners of smaller scale family farm operations.

D. DISCUSSION

Implied in the term agribusiness is not only the industrialization of agriculture, but also the restructuring of the farm community. In the 110 year history of the Ontario tomato industry, there are several facts substantiating the growth, and intensification of both these concerns. From 1880 to the present, growing tomatoes has gone from a farm centred operation, integrated into a cycle of agricultural activity, to a highly specialized cash crop enterprise. With that transformation, tomato growers have gradually lost the independent commodity status that typified them prior to World War II and become dependent commodity producers (Clement, 1984:8).

The change in classification signifies a difference in growers' relationship to the market. Independent commodity producers (the petty bourgeois) who sell their goods on an "open" market, are not totally reliant on one commodity exchange for their livelihood. For instance, tomato growers before World War II procured revenue from selling a variety of commodities. If it was a poor year for one they could make it up with another; tomato production did not necessarily monopolize their operations. And, given a serious down turn in all markets, these farmers could, to a certain degree, sustain

themselves and their families from their own produce. Community relations and practices would also have allowed for bartering, and shared labour if times were tough.

Modern tomato growers are in a different situation. They are dependent commodity producers because their relationship to the market is limited by the conditions of a contract (Clement:1984). This influences the entire organization of their enterprise so that the independence they once had has been lost. The capital investment required for tomato production makes it difficult to diversify into other products that could sustain a family during hard times. As well, the general development of agriculture and rural communities has brought about structures and relations that make communal practices impossible. ¹

During the post war era, major technological changes were introduced into tomato farming. Consequences of those changes are being felt in the current phase of Ontario tomato industry history. They include changes in seedling production, transplanting, maintenance, harvesting and hauling the crop. Mechanical harvesting has been the central dynamic for all these modifications as the following model indicates:

 CONCEPTUAL MODEL OF THE ROLE OF MECHANICAL HARVESTERS

PLANTS

requirements:

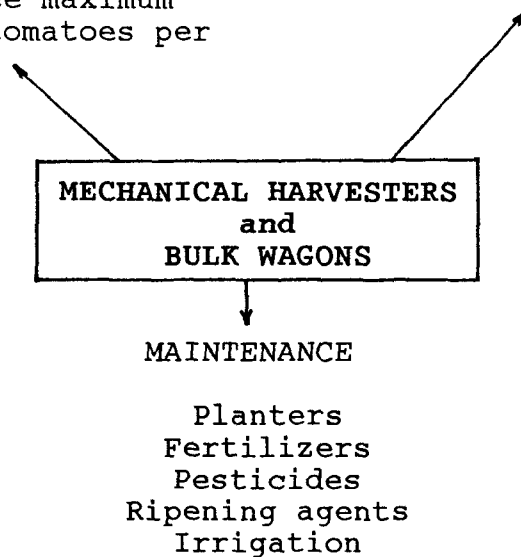
- 1) must produce tomatoes
 - with tough skins
 - ripening at same time
 - forming clusters

- 2) must produce maximum number of tomatoes per plant

LAND

requirements:

- 1) sandy/light texture
- 2) double raised rows
- 3) as many acres as possible
- 4) most southern part of Ontario



Consequences for Grower:

- i) increased capital and operating costs
- ii) greater need to avoid risks from adverse weather, mechanical breakdown, and labour problems
- iii) greater reliance on processor for secure contracts

Mechanical harvesters were introduced into Ontario primarily to meet the requirements of the food processing industry. The need for a continuous supply of

product, uniform in quality and size, means most Ontario tomato growers must adopt new harvesting technology and alter their farming operations. The fact that thousands of them left tomato production and that those who remain have been cautious in using mechanical harvesters, suggests many question who really benefits from such innovations. At the same time, some processors have also insisted on maintaining hand harvesting to avoid weather risks and to supply their juice production. It is the processor who ultimately decides what kind of harvesting is done. The grower either accepts the offer and stays in tomato production or rejects it and moves out of the industry.

Fewer but bigger farming operations dominate tomato production. As the following table indicates, the decrease in tomato grower numbers is matched by an increase in their productive output.

**TABLE 3.1 NUMBER OF TOMATO GROWERS AND PRODUCTION
IN ONTARIO, 1954-1983**

Years	Number of Growers	Production (in Tons)
1954-58	5,714	224,699
1959-63	3,470	299,416
1964-68	2,771	325,645
1969-73	1,915	338,131
1974-78	1,544	410,234
1979-83	1,059	460,542

(Fisher, 1987a)

After 1980, the push to mechanize harvesting, to increase acreage, and intensify production, started to divide growers' common interests. As their numbers continue to decline, hand and machine harvesting growers see each other competitively. Not only is the production experience different for both groups, but also, the latter's economies of scale can withstand lower prices offered by processors. The OVGMB started out as a strong voice for grower concerns but has since become less capable of either representing the various factions, or standing up to the power of the food processing industry.

On the processing side, mergers and consolidations among food and tobacco conglomerates mean fewer decisions are made at the local level. Many growers feel their individual needs are ignored by personnel who, in their opinion

make decisions on a purely rational-economic basis. At the retail level the competition is keen, not only among U.S./Canadian firms but also with imports from southern Europe and South America. Some growers see themselves as the weakest source for inputs and therefore the ones to experience the most pressure from processors trying to cut production costs.

The international scene has steadily gained importance for the Ontario tomato industry since World War II. This is the case for both the global markets in raw and processed product, and for research and development in various aspects of tomato production. In Canada, corporations and the state support experimental work in plant varieties and technological innovation. Results are shared in conferences and symposia attended by researchers from all the major tomato producing countries. As new techniques come to Ontario from around the world tomato growers in the province are no longer expected to improve their operations through trial and error on the land. Instead, they must be willing to risk the necessary capital to implement the latest changes their processors require.

Those who analyze the history of agriculture depict two main phases roughly divided by World War II: the first is farm-centred, the second is processor-centred

(O'Connor et al., 1985). This synopsis of the Ontario tomato industry confirms these broad distinctions. By the 1980s, there are signs of a new age O'Connor calls the "bioindustrial" phase. For him, the new style agriculture will be in the high tech engineering of food where farm products will furnish the materials but industry will create the commodity *

Regardless of future direction, it is clear that the past has seen a steady move from small scale farming to large scale agribusiness for the Ontario tomato industry. Major processors and large scale tomato growers are in tandem, pursuing techniques and markets that will benefit them both. The effect these developments have had on hired farm workers is examined in the next three chapters.

* One of the growers interviewed provided a good example of this new attitude when he said, "I supply processors with what they want--colour and solids--the fact that it is in the shape of a tomato is purely irrelevant".

Notes

1. Based on the analysis of Friedman, 1978;1980) the historical depiction of farmers reveals a move from subsistence production (i.e. producing goods only for personal and family consumption) to simple commodity production where producers start generating a surplus to trade in the marketplace. The designation of "simple" refers to the unity or singleness of the relationship between capital and labour in the productive household, or farm family. It stands in contrast to "extended" relations where both capital and labour are influenced by external factors such as financial obligations. As agriculture is transformed from subsistence to simple commodity production it undergoes a process called "commoditisation" (ibid). This is the process of ever increasing commodity relations, i.e. buying, selling and competing. Because of this interpretation, simple commodity production encompasses the extremes of independent and dependent production thereby rendering it anything but simple, as Chevalier (1982) points out.

The research question that guides this dissertation asks how the situation facing hired farm workers has changed as agribusiness develops in Ontario. Chapter III, "The History of the Ontario Tomato Industry", has confirmed the growth of agribusiness. In the 110 years of development, the once small-scale petty commodity production of tomatoes has been transformed to larger scale enterprises that align with capitalist interests in the food manufacturing sector. The introduction of mechanical harvesters is a symbol for this kind of development.

The farm labour market for hired workers in tomato production has also undergone a variety of changes. Up to World War II, individuals from nearby communities were the primary source of hired harvest help if the family labour was insufficient. By the mid-1950s, however, local labour supplies were so scarce that migratory* workers from

* I use the word "migratory" rather than "migrant" in keeping with other scholars who distinguish between the two terms (Thomas-Lyclama à Nijeholt, 1980). Migratory connotes travelling to a destination for work and then returning to a home community. Migrant, on the other hand, may refer to individuals who intend to stay in the new location as well as to those who move on after a work period. Because of possible confusion with the term "migrant", migratory is preferred.

other provinces were called on to work in Ontario tomato fields. In the following decades labour shortages developed once again so that migratory workers from "offshore" have been called on to perform farm labour. In this chapter, we shall examine how both this expansion in supply and other features of the farm labour market have been influenced by the development of agribusiness.

Using the style of harvesting as an indicator for the growth of agribusiness, we can compare hand and machine harvest operations with respect to a number of relevant labour market characteristics. These include: the number of workers per farm, their permanent residence, the labour unit, and gender. By noting how hand and machine harvest operations differ when these characteristics are isolated, it is possible to appreciate the influence that the development of agribusiness has on the labour market.

A. NUMBER OF WORKERS PER FARM AND THEIR RESIDENCE

From 1970-1979, labour requirements (measured in person-year equivalents) for both fresh and processed tomato production in Ontario decreased sporadically. After 1979 labour input increased steadily until 1983 when it reached levels similar to 1970 (OMAF, 1986:105). If processed tomatoes are isolated, different trends emerge, especially

for the projection of labour employment to 1990. In this case, there is a slight increase in the number of person-year equivalents for machine harvesting and a continuing decline for hand harvesting (Ibid, 37). Projecting into the future even further, the introduction of electronic sorters and robotic planters means the total number of workers hired for tomato harvesting will decline further.

As discussed in the introductory chapter, questions about the consequences of declining employment prospects for harvest workers were central to several U.S. studies. The findings of some economists were generally favourable. That is, they found unemployment/welfare costs from mechanization were balanced and over-ridden by advantages in alternative job opportunities for some farm workers, and cheaper food for the U.S. population (Schmitz and Seckler, 1970).¹

Despite an increase in the amount of machine harvesting in Ontario, the number of new jobs in tomato production which are available to farm workers does not balance out the subsequent loss of hand harvest jobs. Calculations based on Table 4.1, presented below, reveal the average number of employees for hand harvest operations is 18 (387/22), while for machine operations it is 11 (180/16). Accompanying this 37% reduction (from 18 to 11) in the number of workers hired is a change in

residence for harvest workers. Employees in hand harvesting are much more likely to have a permanent residence outside the province. However, those on mechanical harvesters are more likely to be Ontario residents.

TABLE 4.1 HARVESTING STYLE BY NUMBER OF WORKERS AND RESIDENCE

	hand harvest (22 farms)	machine harvest (16 farms)
resident	18%	66%
non-resident	82%	34%
Total	100%	100%
Number of workers	387	180

One conclusion drawn from these figures is that migratory workers, who are all non-residents, will lose jobs when mechanization eliminates hand harvesting. This, however, needs some qualification from the non-resident farm workers' point of view. In fact, their dominance in the hand harvest operations reflects, to some extent, their job preferences.

According to Mennonite women in the Aylmer group and based on information gathered for Tolpuddle research, not all women want to work on mechanical harvesters for at

least two reasons. First is the reduced income. (As noted later, hand harvest work is paid by a piece rate but machine harvest is an hourly wage.) Second is their need for daycare when employed on machine harvesters. With hand harvesting, children of all ages can accompany their mothers into the fields where they may contribute to the family income, or be watched over by older children. Usually workers on mechanical harvesters are over the age of ten.*

Although Table 4.1 pictures non-resident farm workers as reducing their percentage of the labour force by approximately half (from 82% to 34%) when machines replace hand harvesting, they are still frequent candidates for those jobs. This contradicts California studies which find resident farm workers become more than 90% of the hired labour force when machine harvesters are used (Friedland et al., 1975). The main reason for this dramatic shift in farm workers' residence was the federal government's cancellation of the Bracero Program with Mexico. Mexican nationals were not legally permitted to work in California agriculture after 1964 (with some exceptions). Scholars argue that this uncertainty in labour supply is, in fact, why mechanization was embraced

* As noted later in this chapter child labour is not illegal in Ontario agriculture.

so eagerly by California producers (Emerson, 1984:257; Friedland and Thomas, 1981:38). Had the transition occurred more slowly, as it has in the mid-west United States and Ontario, Mexican nationals may have been more highly represented as employees.

In Ontario, mechanization has not coincided with the sudden reduction in large numbers of available workers, nor has it been rapidly introduced into the industry. However, we do find a similar trend for residence patterns (i.e. from non-resident to resident) but in attenuated form compared to California. Were other conditions favourable (such as, improved wages, the availability of daycare, or reduced opportunity for other employment), non-resident farm workers might be even more common in machine harvest operations.

The category "non-resident" refers to migratory workers from three groups, two of which originate outside Canada (Mexican Mennonite and offshore) and one is from within Canada (French Canadian). Calculations based on Table 4.1 reveal a total of 382 (or 67%) of the total number of hired workers are non-residents or migratory. The remaining 33% are Ontario residents. * Table 4.2

* In Chapter VI, "Control and Organization", it is noted that Ontario residents do include a portion of Mexican mennonites who are either landed immigrants or Canadian citizens.

describes the various kinds of migratory workers in the hired labour force for the tomato operations covered in my survey.

TABLE 4.2 SOURCES FOR MIGRATORY FARM WORKERS

Mexican Mennonite	67%
French Canadian	26%
Offshore Mexican	4%
Offshore Caribbean	3%
Total	100%

(Total number 382)

Farm workers from each of these sources have established patterns of travelling to Ontario for work, not only in tomato production, but also in a number of other labour intensive crops. The most numerous group, Mexican Mennonites, refers to individuals who belong to Mennonite colonies in Mexico and other Central and South American countries. * Those who travel north for the

* These colonies were first established in the 1920s when groups of Mennonites left their Manitoba settlements. (Map 2.2, in Appendix II, shows where some of these colonies are located.) Since then the Mexican colonies have become too small for the increasing population. Consequently, Mennonites continue to seek areas in Central and South America for new communities. As economic pressures and difficulties with national governments escalate there, many of them leave and hope to re-establish themselves in Ontario where Mennonites have a long history. For many who cannot stay in the province permanently, seasonal migration is the only

agricultural seasons are often the poorer members of these colonies (Sawatzky, 1971). They usually come in family units (with an average of 8 to 12 members) and likely have some kin contact in Ontario to help them get started in farm work.

The next most numerous group is one made up of French Canadians from Quebec and the Maritimes. These individuals (sometimes with their families) are transported to southern Ontario for the peak agricultural season. The program overseeing this movement of farm workers comes under the Agricultural Employment Services (AES). Although 26% of the migratory workers are from this group, the number of French Canadian farm workers has been declining in the past 5 years while Mexican Mennonites have increased. ²

The third and fourth sources for migratory farm workers are from the offshore seasonal agricultural worker program instituted in 1966-67. Under the arrangement, guest workers (virtually all males) travel from various Caribbean countries and Mexico. Their contracts can be anywhere from 6 weeks to 8 months in length.

Farm and non-farm labour sources in the United States include a proportion of "illegal aliens" whose

alternative.

presence raises a number of concerns.³ In Ontario, there are undoubtedly a number of farm workers who are working here illegally. Although none of the growers interviewed for this dissertation admitted hiring them, it is likely some have had Mexican Mennonite families who lack the appropriate legal status.* One Mennonite woman associated with the Aylmer group complained about the pending arrival of her husband's relatives (a husband, wife and their four children) who were expecting to live in the basement of her house for the season. Not only did this woman have to house and feed her relatives, but she also was expected to help them find farm jobs, even though they were coming as visitors. My impression from discussions with other Mennonite women, including Maria, my key informant, is that this practice is quite common.

The exact number of Mexican Mennonites who travel to Ontario to work "illegally" is not documented. Maria, my key informant, mentioned that families are "regularly" sent back but could not give firm numbers. Several growers

* I base this observation on the fact that several growers did not know the exact numbers hand harvesting in their fields. It is not uncommon for Mennonite families to call on available relatives to help them. The grower does not always know the legal status of such additional workers. Another confirmation comes from growers' comments about other growers in the area who are suspected of hiring "illegal" workers.

in the community told me about families being deported regularly, beginning early in the farm season but I found little documented evidence. One place I looked for it was from the R.C.M.P. in London, Ontario. They claim illegal immigration in farm labour was perceived as a minor problem. The authority's solution was to concentrate on those employers who hire such workers rather than going after the workers themselves. * This account was contrary to those from tomato growers who told me of farm workers having to run for cover when the R.C.M.P. visited neighbouring farms.

Another possible source for "illegal" farm workers comes from the well established migrations of Mexican and Black workers throughout the United States (Thomas-Lyclama à Nijeholt, 1980:63). In Appendix II, Map 2.3 presents the northward flow of migratory farm workers. The central region depicts a labour stream from Texas to Detroit. In that city, rumours of work in Ontario spread among those individuals frequenting drop-in centres and community service organizations.** According to these sources

* I was told this policy reflects the need to limit costs. Arresting, confining, and deporting illegal farm workers is much more expensive and far less effective than charging the growers who will pay fines and not drain limited police resources.

** This information was supplied by a man in Windsor who headed the "Human Rights Party". He gave me some

there are various ways to cross the border illegally. Once in Essex County, those who come over this way go to a "day haul" location * and secure farm work with few questions asked. Because growers of tomatoes for the processing market rarely use this labour source, it is unlikely that any of those in my sample hired from this source of "illegal" worker.

Each group of farm workers referred to in the foregoing section is affected differently by the potential loss of hand harvest jobs that accompanies mechanizing the tomato harvest. We shall look at each one in turn, excluding the last source of "illegal" workers since they do not constitute part of the sample.

4) Mexican Mennonites

Since the mid-1980s, Mexican Mennonite families have been doing most of the hand harvesting work for

contacts in downtown missions where illegal Mexican workers are known to call in. These contacts did not yield further sources. However, when I discussed the topic with a sociologist at the University of Windsor, he agreed there was a strong possibility that "illegal" Mexican nationals worked in Ontario.

* These are areas where individuals gather to board buses and travel to farms hiring casual temporary workers. The program is overseen by the Agricultural Employment Services and, from the growers point of view, has the worst reputation for providing satisfactory help.

tomato growers. Recently their presence in Ontario has increased substantially, both from those seeking Canadian citizenship, and those planning to return after the season (Toronto Star, June 9, 1988). Exact numbers are not available, but representatives from the Mennonite Central Committee (MCC), officials in AES, as well as community residents all claim there are increasing numbers coming into Southern Ontario.*

Mexican Mennonite informants cite the possibility of earning an income from harvest work and the social benefits** available, as their main reasons for coming to Ontario. In Mexico, Canada has a reputation of having "streets paved with gold" because of the economic gain many Mexican Mennonites have experienced when coming here. Their motivation to travel to Ontario confirms the claim that migratory workers most closely resemble homo economicus (Emerson, 1984: 127; Piore, 1979:54).

* An employee of MCC, who helps Mexican Mennonite families with immigration forms, and general problems, told me he had farmers from as far away as Kingston and Owen Sound requesting a "family" for their hired farm labour. He was acting as an informal labour agent taking such requests and then directing newly arrived Mennonites to those employment opportunities.

** Benefits include such things as family allowance, welfare, OHIP, and UI. These are available to Mexican Mennonites who can establish their Canadian citizenship either through their original family in Manitoba, or by applying for landed immigrant status once they arrive here.

For those with legal status, it is possible to find work year round in different agricultural operations. For example, many women work from January to April in a greenhouse, and then go to the fields in May through September for asparagus, strawberries and other fruit, peppers, tobacco, cucumbers and tomatoes. In October they find work in orchards and packing sheds which lasts through to December.

By the mid 1980s, economic growth in Ontario had created other opportunities for low wage employment. Mexican Mennonite women in the Aylmer group had taken jobs in small labour intensive industries, baking for restaurants, cleaning houses, and providing daycare during the months when agricultural work was not available. If they were eligible, some of the women also collected UI or some form of social assistance. For example, one group of women I worked with were paid to attend a "life skills" class which included learning English. A major reason for their interest in such a program was to improve their chances for employment. Some viewed working in a store, or bank as being an employment goal while others were interested in factory work.

Many of their husbands also worked in marginal jobs such as janitorial services, installing aluminum or vinyl siding, and other unskilled work in small

industries. For these men, farm work was usually their first employment here but was given up for higher paying, more permanent jobs when they became available.

Up to the time of this research, any current decrease in the number of tomato production jobs had been balanced by opportunities in other agricultural work, or in the low wage, non-farm sector. Therefore, they have not necessarily been disadvantaged by the adoption of mechanical harvesters in Ontario tomato production.

b) French Canadians

The Lac St. Jean region of Quebec, certain areas of New Brunswick, and northern Ontario have provided large numbers of seasonal farm workers of French Canadian heritage for Ontario (and British Columbia). The tomato harvest is usually their final employment before returning to home communities for the fall and winter. Before that their work may include harvesting other fruit and vegetable crops that ripen before tomatoes, such as cucumbers and tobacco.

One of their aims in coming to Ontario is to complete enough weeks to qualify for unemployment insurance benefits (UI) during the remainder of the year. According to newspaper interviews, seasonal employment in agriculture is perceived as more acceptable if it

qualifies them for a year round income (*Windsor Star*, Aug. 18, 1986). In fact, several growers I talked to look on UI as a subsidy for the difficult position farmers are in when it comes to securing a reliable labour force.

Collecting unemployment insurance has been beneficial to French Canadians whose home communities are economically depressed and offer little full time employment. Some analysts look on the funds as a hidden transfer payment to disadvantaged regions. If many residents in some small communities could not get UI, the burden of welfare payments could become insupportable (Helling, 1979:8).

According to AES officials and many growers, the employment situation in Quebec has improved recently. Therefore, more migratory workers are staying at home and working year round there instead of coming to Ontario for harvest work. Other reasons for their declining numbers include a major RCMP investigation into fraudulent UI claims (Scholtens, 1988). Several tomato growers in Kent and Essex county were questioned about the authenticity of their statements of employment for Quebec workers. As discussed in Chapter VI, "Organization and Control", one of the favours a grower can offer his employees in return for staying for the entire harvest, is to represent the number of weeks of employment in the most beneficial way

for the worker.

Among the factors affecting the reduction in numbers of French Canadian migratory workers is the age of both the farm workers and their families who accompany them. Some growers I interviewed had long standing ties with French Canadian migratory workers having hired up to three generations of the same family. Those growers felt that times have changed and younger family members do not want to be seen doing low status work. Without the help from their younger and stronger children, parents and grandparents are prevented from coming to Ontario for the harvest season. Thus, for French Canadian migratory workers, the loss of hand harvesting jobs in Ontario has come at a time when farm and non-farm employment opportunities in their home community are increasing, when UI benefits are being restricted, and when their age, and their children's disinterest, make such heavy work impossible.

c) Offshore Workers

The least numerous migratory group that contributes to hired labour in Ontario tomato production is from the Offshore Labour Program. In this case, only

men are hired for farm work of varying duration.* They have come as guest workers from several Caribbean islands since 1966 and from Mexico since 1970. Since that time their numbers have varied from an average of 3-4000 during 1975-85 to 7000 during 1986-89.

The increase in numbers reflects changes in government policy. During the early and mid 1980s, federal officials were sensitive to criticisms from the public about unemployed Canadians not taking farm jobs. However, concerted efforts to maximize the use of national farm labour pool services failed to get Canadians into farm work. Consequently, the government had to agree with growers' claims that labour supplies from offshore were vital to their operations. In 1986-1987 the program was privatized and expanded under the name F.A.R.M.S. (Foreign Agricultural Resource Management Services). Offices in Mississauga, Ontario, oversee the importation and placement of guest workers throughout the province. Because the service has a board of directors that includes representatives from the Ministries of Labour and Agriculture, its operations are monitored by those

* There have been trial contracts with some women as well. Usually growers prefer to have all men because of the possibility of housing problems if there are mixed groups. During interviews, I was told that some canneries wanted to hire Caribbean women but had not been permitted to do so at that time.

departments without their having to take direct responsibility.

As a rule, tomato growers hire offshore workers only when their labour can be used on other crops besides tomatoes. In this way, the relatively high cost of hiring offshore workers is reduced by spreading it over a longer season. Because farm workers hired through F.A.R.M.S. have transportation to and from Canada, and their housing paid for by their employers* they are viewed as a more costly labour force than resident or Canadian migratory workers. (In both the latter cases, housing may be provided by an employer but transportation is not). According to growers, the guarantee that offshore workers will stay on their farms and work hard, makes the added expense worth taking.

In my sample of growers, offshore workers were hired for both machine and hand harvesting. Two of the growers with mechanical harvesters used the same workers for a greenhouse operation and tobacco production. Those in hand harvest operations were hired by a market gardener who required their services for a number of labour intensive crops. The fact that offshore workers are in

* Grants for growers who need to supply housing are available from the Ontario government. In 1988, they totalled \$800,000 (OMAF, 1987c:1).

machine more often than hand harvesting, may challenge the association of residence shifts with mechanization but the numbers are too small to allow conclusions to be drawn.

With respect to the number of hired workers and their residence, there are two important findings to consider when agribusiness develops. First, the number of hired farm workers per farm declines. Second, resident, rather than non-resident, farm workers tend to take the jobs in mechanical harvesting. Each of these points is elaborated below by assessing them in light of agricultural structure debates.

Number of hired workers

We can interpret the decrease in number of hired workers per farm in two ways. First, the decline contradicts the usual depiction of capitalist agriculture where the number of such workers is supposed to increase (Ghorashyi, 1987). However, just assessing the absolute number of hired workers per farm is a superficial indicator of orientation in the farming business. When we take into account that the reduced labour force is a result of intensifying production with mechanization (the same pattern found in non-farm industrialization), a second interpretation is necessary.⁴ The decreasing numbers of farm workers means growers are "rationalizing"

their operations. Tomato growers are advised to adopt mechanized harvesting to ensure "efficiency", thereby enhancing financial returns. In Weber's terms they are being "economically rational" by assessing the usefulness or value of specific components with respect to meeting desired goals (Clegg et al, 1986: 56).

Change in residence

From the data presented, there is a shift in hiring resident rather than non-resident farm workers once the harvest is mechanized. We also noted that this finding is different for each of the non-resident groups involved. Mexican Mennonites and French Canadians are more often hired as hand harvesters, but offshore workers are equally in machine and hand harvest operations. Mexican Mennonites resolve the potential loss of hand harvest jobs by taking other farm and non-farm employment in Ontario. French Canadians, on the other hand, have not been returning to Ontario in significant numbers. Instead, they are working more in their home communities where employment opportunities had arisen.

The reduction in non-resident workers when the tomato harvest is mechanized is a significant finding for the purposes of this study. If the use of non-resident workers persisted, despite the change in harvest

technique, it would support the integrationist model of changes in agricultural structure which claims non or pre capitalist forms continue because they serve capitalist interests more successfully. Instead, the move to resident from non-resident workers fulfills one of the requirements for the ideal typical capitalist form of production, i.e. the presence of fully commodified labour power (Marx, 1976:270-280; Miles, 1987:33).

Commodification of labour power refers to the separation of workers from their labour power so that they can sell it in the labour market. Although non-resident migratory workers sell their labour power to the tomato growers who hire them, they do not do so "freely" but under the legal restrictions imposed by the F.A.R.M.S. contract.* ⁵ Thus, the use of non-resident workers means tomato operations are capitalistic in **form** only, i.e. they exchange wages for labour-power. The **content** of the relations is non-capitalist because all non-residents are not "free" to circulate in the competitive marketplace.** When the hired labour component in mechanized operations

* That is, they can work only in agriculture and only for a specified employer for a set number of weeks/months.

** This use of form and content is a repetition on Clement's analysis (1983;1984) which refers to petty commodity producers in the same vein. See Chapter I in this dissertation, "The Political Economy of Agriculture".

shows a trend to being resident and therefore free, * form and content merge and meet the requirements for capitalistic operations. Without the unrestricted movement and so-called "free" workers who have to earn wages to buy commodities for their own reproduction, capitalism as a mode of production cannot function (Marx, 1976). Therefore, the evolutionist model of change in agricultural structure is strongly supported by the use of resident rather than non-resident workers.

B. LABOUR UNIT

One consequence of changing to mechanical harvesting is reflected in the decrease of family labouring units. As Table 4.3 indicates, 73% of hand harvesters are working in family units. But, this reduces to 19% when machine harvesters are introduced.

* I acknowledge the idea of being "free" is contentious (Roemer, 1988).

TABLE 4.3 HARVESTING STYLE AND LABOUR UNIT

	Hand Harvest	Machine Harvest
	Family 73%	Family 19%
	Single 27%	Single 81%
Total	100% (22)	100% (16)*

Such a transition means the family is no longer employed as one unit and paid a piece-rate based on the total amount picked per day. On average, in 1985-88, a family would harvest 500 bushels a day and earn approximately \$250 for that effort. By contrast, work on mechanical harvesters means being paid an hourly wage (in 1988, it was \$5.20/hour). Unless poor weather or mechanical problems arise, a harvester operates from 4-6 hours in the day to get the required amount of product. Therefore, the daily wage per worker will vary from \$20 to \$35, a substantial drop from hand harvesting revenue.⁶

When family units hand harvest in the fields, it is not unusual for children under 12 to be present and working with their families. One Mennonite woman

* Tables 4.1 and 4.2 are constructed on the total number of hired farm workers. Table 4.3, and all other tables following in this chapter are based on the total number of growers interviewed.

affiliated with the Aylmer group told me with pride that her eight year old daughter could pick 80 hampers of tomatoes in one day. (This is approximately 3000 pounds of tomatoes.) Those too young to help out may be left behind in the housing facility or stay in and near the vehicles parked by the edge of the field. In both cases older siblings are often supervising. As Table 4.3 indicates, 16 of the growers in my survey hired families to work in their hand harvest operations. Several had more than one family employed so that the total number of families hired is 34 (28 Mexican Mennonite and 6 French Canadian). This means that approximately 96 Mexican Mennonite children ages 6-16 years worked as harvest labour among the 16 growers who have hand harvest operations. French Canadian families typically have older children working with them so calculating child labour among this group is more problematic.⁷

Although it is generally considered unacceptable to employ young children, the Canadian Labour Code does not set an absolute minimum age for employment (Labour Canada, 1986:7). In Ontario, regulations concerning child labour are found in several acts. One is the Occupational Health and Safety Act which states that children under 14 cannot be employed in or about any industrial establishment. Because agricultural operations are

excluded from this act, children under 14 are legally employed.

The Education Act forbids children under 16 working during school hours. Several provinces have exemptions for different reasons. New Brunswick, for example, allows children to miss 6 weeks of school to help with the potato harvest. Ontario is on record as having no exemptions (Labour Canada, 1986:21). However, officials in Essex county do excuse children for a maximum of 3 weeks in September to allow them to work in the tomato harvest. Those officials also expressed their consternation over the number of Mexican Mennonite children working instead of attending school.* In 1988, there were proposals to increase the truancy fines from \$100 to \$1000 for parents guilty of keeping children from school, and from \$1000. to \$10,000 for employers guilty of hiring truant youngsters. It was hoped these fines would be a deterrent since the Board members did not want to create further financial hardships for either Mexican Mennonite families or local growers. The severity of the fine indicates that Mexican Mennonite truancy is viewed as a significant problem.

* In this case the concern is over newly arrived Mexican Mennonites who are establishing their residence in Ontario.

Child labour in agriculture is not legal in some of the U.S. tomato producing regions. Ohio, for example, forbids the presence of children under 14 in the fields. Consequently, tomato growers from that state complain that Ontario growers are relatively advantaged. They argue that if workers do not require daycare, and if family units are hired, the grower incurs a lesser cost. *

Despite any advantage from their economic contribution to the family, children working in Ontario hand harvesting tomatoes suffer from a variety of problems. In a 1973 report, the following description of a Mexican Mennonite family called attention to the problems:

We were informed that every one of the seven children ranging in age from 8 down to 2, has at least one hernia. Futhermore, they were ruptured when they came to Canada (last spring, illegally) and would continue to work despite this disability.

(quoted in Weatherston, 1981:9)

Ten years later, researchers for a farm labour centre encountered similar situations in East Elgin county where a local physician noted:

The children come in with sunstroke and convulsions, or covered with mosquito bites which become infected from scratching and poor hygiene conditions.

(Tolpuddle Report#3)

* This information came from an interview with G.A. Fisher, an analyst with OMAF in Chatham, Ontario.

From a humanitarian view the reduction in children working that occurs when machines are adapted is a positive step.

Changes in the labour unit that occur when tomato production undergoes mechanization, have three significant implications for the agricultural structure debates. First, going from family to single, individual units represents the well established trend to a capitalist from a pre-capitalist mode of production. The work of Chayanov is of particular interest here. He points out that income for a "peasant" family unit is determined by a number of conditions: size and composition, degree of productivity, and the amount of self-exploitation (Taylor, 1979: 176). Although these factors refer to a family working in the "asiatic mode of production" where self-sufficiency and community bartering are usual practices, they do have relevance for hired farm workers in contemporary Ontario tomato production. The family unit typically hired for hand harvesting will generate an income that is affected by the same three conditions. That is, the greater the number of children who can be productive in the fields, and the degree to which the family can sacrifice its desire for less arduous work (for instance by taking few breaks and working long hours), the better off it will be financially. With jobs

on mechanical harvesters, such conditions become irrelevant. For example, because not all children are allowed on the harvester, a larger family may in fact be a financial liability. With the introduction of machines, productivity ceases to be a function of human industriousness. Instead, the technological capabilities of the harvester will determine how productive the labour process is. No matter how diligent an individual is, no matter what he/she is willing to sacrifice in terms of working long hours and taking few breaks, the economic return remains the same.

A second implication for agricultural structure debates arises from the relative decline in a daily wage that occurs when the labour unit is transformed from family to individual. The lower labour costs associated with mechanical harvesting are among the factors that economists cite when arguing that tomato growers are better off abandoning hand harvesting (Prescott, 1981). Because the employers' economic advantage at the expense of labour is typical of capitalist production, we can use this development in Ontario tomato production as yet another confirmation for the evolutionist thesis.

Closer scrutiny reveals that benefits from lower labour costs may, in fact, be accruing to tomato processors rather than growers. The most recent contracts

between the two have included, for the first time, a separate and lower price for machine harvested tomatoes (*Farming Today*, March 12, 1990). Thus capital interests at the food manufacturing level might be the true benefactor from any reduction in hired labour costs on the farm. This would confirm the evolutionist predictions for agricultural structure even more emphatically because capital interests (processors) are gaining more power.

A third consideration, namely the reduction in child labour, also lends further support to the evolutionist thesis about agricultural structure. As argued in a previous section, fully commodified labour power is a feature of industrial capitalism in its ideal form. Just as non-citizens do not have the freedom to circulate in the labour market, (thus not commodifying their labour power) so do children have restricted access. They are a form of "unfree" labour, not only because they are subject to the demands of their parents, but because it is illegal for them to work in other industries. The reduction in child labour that occurs with mechanization means the commodification of labour power is not blocked and therefore results in a more capitalist form of production.

If family and child labour were found equally in machine and hand harvest operations, the integrationist

argument that pre-capitalist forms persist because they serve capitalist interests more completely would have gained support. But, because the labour unit undergoes a definite change in the direction favouring industrial capitalism, the evolutionist model is upheld.

C. GENDER

As Table 4.4 indicates, there are substantial changes in the ratio of males and females when machines replace hand harvesters.

TABLE 4.4

HARVEST STYLE AND GENDER

	Hand harvest	Machine harvest
	Females 47%	Females 70%
	Males 53%	Males 30%
Total	100%	100%
	(387)	(180)

In hand harvesting, the ratio is close to equal (47% female to 53% male) because of the large number of family units working the fields. Machine harvesting, where it is 70% female and 30% male, is significantly different. These results are comparable to findings from similar studies on the California tomato industry alluded

to earlier (Friedland et al., 1975). As noted, the change in this case was more dramatic because hand harvesting had been a job primarily for Mexican nationals (all male) who came to the U.S. under the Bracero Program. When that labour agreement between Mexico and the U.S. ended in 1964, tomato growers faced the loss of low cost, dependable labour power. Their overwhelming response was to mechanize the harvest procedure. Instead of employing male Braceros hand harvesting in the field, tomato growers hired resident Mexican-American women to work on machines.

The greater proportion of females hired for a mechanized harvest is a repetition of the historical patterns in the non-farm sector. Early in industrial history, the introduction of large-scale machinery into some factories meant women and children could replace men as the labour force (Marx, 1976:92). Capitalists were advantaged by the consequent decrease in labour costs, and by having a more exploitable labour supply.

Machines do eliminate the heavy manual labour associated with hand harvesting so that women can perform the sorting tasks as easily as men*. However, in

* Occasionally, males are also working alongside females on the sorting lines. In most cases, these workers would be young (ages 10-14) and likely to have a mother and/or sister also on the line.

contemporary tomato production, wage rates do not differ for males and females sorting on the harvesters. Thus it is for reasons other than reduced labour costs that women have become the preferred labour supply on mechanical harvesters. Two of the growers I interviewed overtly expressed a preference for women employees. They thought females were less likely to complain and cause disturbances. As noted in the introductory chapter, women are described as more efficient and trainable for machine harvesting (Gould, 1983:69).

Another point to consider when discussing the frequent employment of women is the association between such a practice and temporary or part-time work (White, 1983). As noted in the former section on labour units, mechanical harvesting may take up only 4-6 hours of the day. When breakdowns occur, the workers might be told to go home for a few hours until the problem is solved and harvesting can resume. For married women working on harvesters, it is likely that they have household duties to perform when not working outside the home. The women in the Aylmer group all had substantial domestic duties. When I asked them about combining these with harvest work they all said it was exhausting, "You get s-o-o-o-o tired.

And, it is s-o-o-o-o hot." Another Mennonite woman affiliated with the group noted that the initial novelty of a new place to work, meeting new people and earning an income soon wore off "when you go home and have to work very hard." The fact that women workers usually have household chores and can accommodate temporary work, in addition to the lower daily wage (compared to hand harvesting) all structure the employment situation to be viewed primarily as "women's work".

As noted from Table 4.4, 30% of the work force on mechanized harvesters is male. When they do work on harvesters men usually perform tasks other than sorting the produce on conveyor belts. For instance, on harvesters with electronic sorting they often have a strategic position where the vines are cast off after the tomatoes have been removed. This is considered a problem area because vines can clog up the belts and cause a breakdown. Males are chosen for these positions for several traditional reasons. One is that the job requires more physical strength than sorting. Another is the contact with moving parts which requires some mechanical knowledge. Finally, the position serves a supervisory function second to the machine driver.

In Ontario, the labour force that is associated with sorting jobs on mechanized harvesting is typically

female. When analyzing similar findings for the California tomato industry, Friedland et al (1975) claim the increased use of female workers reflects the employers' need to ensure a reliable, docile labour force. In his study of mechanizing the California lettuce harvest, Thomas argues the consequent increase in female employees reflects the growers desire to control wages and working conditions more effectively (Thomas, 1985: 170).

There is no evidence from my data to support such a calculated move on the part of employers who tend to hire more women once they mechanize their harvest operation. I would argue that the prevalence of female workers on machine harvesters repeats larger social patterns that concentrate women in seasonal, unskilled and low-wage employment. Because the farm employer is taking advantage of a cultural norm, the historicist explanations of agricultural structure in industrialized nations gains some support.

D. SUMMARY AND DISCUSSION

In this chapter we have seen that the development of agribusiness (symbolized by the change from hand to machine harvesting) has significant influences on the hired farm labour market. One alteration is the reduction in the size of the labour force which is drawn more from

a resident rather than a non-resident population.

Throughout Ontario agricultural history, certain groups have been restricted from circulating in the labour market. Among the non-residents who work in Ontario tomato production, those hired from offshore and, in some respects, those included in inter-provincial farm labour schemes face such restrictions. As well, the children in migratory families who predominate in hand harvesting are a form of "unfree" labour because not only are they subject to the demands of their parents, but they also cannot work legally in other industries. These facts support the claims of the evolutionist model for changes in agricultural structure.

As referred to above, another feature that changes with mechanization is the labour unit. Individual workers as opposed to family groups tend to be hired on mechanical harvesters where they receive a daily wage significantly less than they would as hand harvesters. Gender ratios become more pronounced in favour of female workers when mechanization takes place.

These developments in labour market characteristics generally support the evolutionist claim that agriculture is following the broad trends of industrial capitalism. The typical employee in a machine harvest operation is not too different from one in non-

agricultural, low status work. In both cases these workers are often resident females performing part time work, earning a minimum wage, and unwilling or unable to move on to better employment.

This description coincides with that of workers in the secondary labour market and the reserve army of labour. Both concepts refer to groups which are stratified according to gender and ethnic background and which include individuals classified as low skilled and poorly educated (Clegg and Dunkerley, 1980:425). Although information about farm workers' gender and ethnicity was gained through interview questions, data about the level of education for the farm workers were not.* However, general information does exist in documents prepared by government and community organizations and by some academics. From two ministry of agriculture surveys of Ontario farm workers, the majority report having completed 2 or 3 years of high school (OMAF, 1986:10; Scholtens, 1988:77).** This concurs with the 1981

* The issue of skill is discussed in the following chapter on labour process.

** I would argue that the data on farm worker education is biased because only those literate in English could answer the questionnaire. As well, those farm workers surveyed at the farm site were not questioned about education level; the data is only from those visiting employment offices and looking for work.

Canadian Census which indicates the majority of "farm labourers" have less than a high school education (Jones, 1985:105).

A more comprehensive study that addresses the education level for farm workers was carried out in East Elgin county during 1988. The aim of this research was to determine literacy needs in several rural communities within the county (YWCA, 1988). Because this region has a large and growing Mexican Mennonite community, many of those interviewed work as farm labour or are potential candidates for such employment. Twenty-four percent of the respondents cited farm work as their occupation, while those who listed their occupation as home maker is twenty-two per cent. It is important to note that many home makers would also work seasonally as hired farm labour, even though they do not list it as their occupation. Therefore the number of farm workers in the survey is under-estimated.

From the responses to questions on education, it is clear that attainment is very low, averaging 7 years of schooling. As the study points out, over 55% spent those years in Mennonite schools in Mexico which have a reputation of offering inferior study programmes.

It is of importance to note that the educational standards for Mennonite communities in Mexico are not at all comparable to North American standards. Mennonite respondents as well as members of the Mennonite Central Committee stated that unqualified instructors, minimal selection of teaching materials, and short, interrupted periods of schooling per year resulted in very limited inadequate standards of learning.

The learning materials used were religiously centred and implemented by community church leaders. Family farms and household chores were of higher priority than school. Therefore instruction was received for about six months of the year during winter months when farm duties were less demanding.

As a result, the average child graduated at age 12 or 13 after having received six winters of schooling. That is equivalent to 3.6 school years when compared to Canadian standards.

(YWCA, 1988:12)

During my participant observation with Mexican Mennonite women, I learned that education is even less valued for Mexican Mennonite girls. They are regularly kept home from school to help their mothers with younger children and household chores. Boys, on the other hand, will miss school regularly during the agricultural season, but not as often in the off months. In our conversations it was obvious that the women in the "life skills" class had only rudimentary knowledge of English and German. *

* One day I brought in a community newspaper from one of the Mexican colonies. I pointed to several passages and photographs and asked what they meant. Only one older woman was able to help out and her explanation was

Some assessment of the educational level for offshore farm workers has also been carried out (Whyte, 1984). In this case, Caribbean guest workers were surveyed to discover how they viewed their experience in Ontario. The average education level for those questioned is the equivalent of completing grade 8-9 in Canada (Whyte, 1984:4:14). Although Mexican guest workers to California have similar levels of education (Goldring, 1990:12), anecdotal evidence suggests illiteracy (in Spanish and English) is common.*

When the offshore farm labour program was instituted, one of its aims was to employ unskilled workers from countries with high rates of unemployment. Surveys indicate that many of the Caribbean guest workers are not unemployed during the winter months but have jobs in skilled and semi-skilled categories (Whyte, 1984:4:15). The most common occupations are skilled artisans and mechanics, followed by farmers and service workers. According to government officials and growers, Mexican guest workers are more likely to work in agriculture in

limited. She told me her husband read that newspaper and would tell her things of interest.

* A Mexican women studying in Hamilton, reported to me that when flying into Toronto, she was on a plane with many Mexican men who were coming as farm workers. As they neared Canada, she helped them fill out customs forms and noted many could not sign their names.

their home community, either as a small scale farmer, or as a hired worker. Evidence from U.S. studies of Mexican nationals who travel to California for seasonal employment confirms this trend (Goldring, 1990:8).

The education and skill levels of farm workers in this sample are typical of those relegated to the secondary labour market and/or the reserve army of labour. Despite the similarity in characteristics for both, there are important differences between the reserve army and the secondary labour market with respect to their origins (Barrett and Apostle, 1987:181). The latter is a descriptive category relating worker characteristics to the needs of peripheral firms. By contrast, the industrial reserve army is created by the cyclical requirements of capital (Marx, 1976:781-802).

If we use the secondary labour market as tool for interpreting the situation facing hired farm workers in Ontario tomato production, a number of points about the structure of agriculture arise. These differ from the points raised when a reserve army of labour interpretation is used. In the following section, each perspective is reviewed and applied to the findings about changes in labour market characteristics.

e) Secondary competitive labour markets

Dual labour market and segmentation theory depict divisions between various primary (structured) and secondary (unstructured) labour markets. These have parallels in the firms hiring the workers: core industries relate to primary labour markets while peripheral enterprises relate to the secondary labour market. Core firms are characterized by stability and a well organized administration that creates jobs described as having: "high wages, good working conditions, employment stability, chances of advancement, equity, and due process in the administration of work rules" (Doringer and Piore, 1971: 165). Correspondingly, employees in the primary sector are skilled, and committed to the enterprise.

In contrast, periphery establishments offer jobs which "tend to have low wages and fringe benefits, poor working conditions, high labour turnover, little chance of advancement, and often arbitrary or capricious supervision" (Ibid). Employees for these firms are pictured as: having "higher rates of lateness and absenteeism, more insubordination, and engage more in petty theft and pilferage. [They are confined to this market by] residence, inadequate skills, poor work histories and discrimination" (Ibid). In addition, it is more likely that women and recent immigrants will be among

those working for peripheral firms.

The segmented or dual labour market model categorizes agriculture as a peripheral enterprise hiring workers from the secondary, competitive labour market. This synopsis requires an interpretation of farms as more or less closed systems. The principal determinants for the hired labour market are found within the structure, namely the agricultural enterprise. Thus hired labour in Ontario tomato production will tend to be unreliable, low skilled and transient because the kind of work offers little incentive to attract workers with more desirable traits. The farm unit is then depicted as integrating with other elements (for example food processors) to produce food commodities. The mutual relations that develop between farm and firm perpetuate the characteristics of each. Such a model, which fits the integrationist interpretation of agricultural structure, underestimates the influence factors outside the farming operation have on development there. This short-coming was noted by Thomas who claims that in the lettuce industry there is a substantial contradiction between the core industry (i.e. large vegetable producers) and a peripheral labour force (Thomas, 1985). One way to explain both this discrepancy and the changes that have occurred in the farm labour market, is to look at the industrial

reserve army model.

f, Industrial Reserve Army

Marx develops his concept of an industrial reserve army or surplus population when he addresses the problem of how the working class is affected by capital accumulation. In many respects the research question I use for this dissertation has the same goal. An important difference between the two problematics is the uncertainty over the status of agricultural compared to industrial development. Although the latter is typically capitalist, the former is subject to contradictory interpretations. If the industrial reserve army proves to be a satisfactory explanation for the changes in labour market characteristics we have noted, then one of those interpretations, namely the evolutionist paradigm, will be supported.

In Chapter 25 of *Capital* (Vol. I), "The General Law of Capitalist Accumulation", Marx lays the foundation for explaining why the working class becomes more impoverished and forms an industrial reserve army as capitalism continues. The key factor is the organic composition of capital, a term referring to the ratio between investment in the means of production (constant capital) and that in labour-power (variable capital).

During the accumulation of capital, which occurs by intensifying productivity, constant capital increases, thereby reducing the variable component. This reduction means fewer workers are needed in the labour process. Their redundancy "sets them free" to be hired by other capitalists, or to become unemployed.

Marx substantiates his theory with British working class experience, concluding with those facing the most extreme conditions--agricultural workers (Marx, 1976: 802-870). In their case, the reduction of jobs from concentration, enclosures, and mechanization on the farm, meant workers migrated to urban centres where poverty and disease ravaged their numbers (Marx, 1976:848).

Although in perhaps less extreme form, the same pattern has occurred in most industrializing societies. Ontario, for example, has, since 1911 had a declining rural farm population because employment opportunities in agriculture could not match those in the urban industry. In a more contemporary setting, the same process has been occurring in provincial tomato production as it undergoes mechanization. When growers adopt mechanical harvesters, they increase their investment in constant capital, while diminishing it for variable capital. As noted in the findings presented in this chapter, when some workers are freed from employment in hand harvesting they respond by

taking other agricultural or low status industrial jobs. They join an industrial reserve army that supplies both farm and non-farm industry.*

Mechanization results in at least two changes for the farm labour market. First, it reduces the demand for labour thereby releasing workers to the industrial reserve army. Second, mechanization itself requires a labour supply from that same source. The development of agribusiness has homogenized the agricultural and non-agricultural hired labour force for unskilled, low status work.** In both cases, resident females wanting temporary employment are the most common members. This development lends strong support to the evolutionist thesis about changing agricultural structure.

The reserve industrial army model is an improvement over dual labour market theory because the analyst must go beyond the farming enterprise to discover factors that determine labour market characteristics. This is in keeping with the notion of agribusiness that we

* In fact, many do not wait to be set free. They leave agricultural employment quite willingly when more desirable jobs are available. For example, in 1987, more than 50% of Canadian migratory workers transported to southern Ontario by AES left agricultural jobs for the non-farm sector (Scholtens, 1988).

** This is elaborated in the following chapter when the "collective worker" is discussed.

developed in Chapter III. For Ontario tomato production, mechanization is the most important factor influencing changes in the hired labour market. However, the decision to adopt machine harvesting is not confined to the farming enterprise but depends on the needs of the processor. Therefore, changes in hired labour employed in tomato production are directly linked to the needs of core processing firms. Because secondary labour market theory and the integrationist model do not directly connect farm workers with processing interests they are unable to explain changes in the characteristics of hired labour in the Ontario tomato industry. Instead, we again find support for the evolutionist model which coincides with the reserve industrial army explanation.

Notes

1. Some sociologists took issue with this conclusion and suggested mechanization only benefits large scale farmers and food processors (Vandermeer, 1981). They argued that the economists had failed to assess realistically the consequences for hired labour. In 1980, attorneys from California Rural Legal Assistance (CLRA) took the University of California to court over this issue (Martin and Olmstead, 1985). They argued that using public funds for research at the university had detrimental consequences for: farm workers, small farmers, consumers, rural life, and collective bargaining. By 1985 preliminary hearings had dismissed these charges but allowed others to remain (Martin, 1986). Several individuals have told me the case was finally settled in favour of the CRLA. However, requests for documented proof have not been met at this time.

2. At first I thought the Mexican Mennonite farm workers might be taking jobs previously offered to these French Canadian workers. However, this is not the explanation most growers and officials had. They claim the economic climate in previously depressed areas, such as the Lac St. Jean region of Quebec, had improved enough that travelling to Ontario was a less attractive idea. As well, many of the families who had established patterns of returning to Ontario have children who are young adults with no interest in farm work.

3. One of the most concise accounts of the "illegal alien" labour problem in U.S. is found in Weintraub and Ross, 1982.

4. It is interesting to note that the harvesting of peas and corn for processing is entirely mechanical and requires human labour power only for driving the harvester. Such a development is also possible for tomato harvesting if a low grade product is desired. One grower told me he had harvested with no workers sorting.

5. Throughout Ontario agricultural history, certain groups have been restricted from circulating in the labour market. Among the first examples of this practice are various programs for disadvantaged children from Great

Britain. At the turn of the century, philanthropists such as Dr. Thomas Barnardo, were responsible for sending thousands of boys and girls from British urban slums to rural Canadian farms families eager for the additional labour power (Parr, 1980). The terms of the contract varied with the age of the child but were essentially apprenticeship indentures binding both parties to agreed conditions (Parr, 1980:93). Once a "Barnardo" boy or girl reached the appropriate age, he or she could pursue life as a Canadian citizen.

During the same era, and well into the 1900s, various schemes were adopted by Canadian immigration officials to increase the supply of agricultural labourers. Steamship agents and colonization organizations were hired to recruit European immigrants for labour starved prairie farms (Avery, 1979:20). Despite the understanding that these new arrivals were supposed to stay in agricultural work for one or two years, there was little guarantee that they would. Those that did often had no choice but to become farm workers because there were no employment opportunities in the non-farm sector (Avery, 1979:22).

The forced labour of incarcerated Japanese Canadians during World War II, and the "unfree" labour of Polish war veterans are two more examples of restricting the labour market to ensure a reliable supply of hired farm labour (Satzewich, 1989).

6. It is interesting to note how methods of payment differ with crop despite using the same workers. When a family is hired to work both cucumbers and tomatoes, they will be paid according to the care required in harvesting. In cucumber production the grower splits the proceeds from the sale of the product with the family in a 50/50 or 60/40 ratio (sometimes the pickers get larger share) rather than pay a piece rate as with hand harvested tomatoes or an hourly wage as with mechanically harvested crop. The difference in payment reflects the difference in product quality and the care required to harvest it. In cucumber picking the plants are gone over several times so that, ideally, only the highest grade cucumbers are picked each time. [The highest grade (and therefore highest price paid) is for small straight cucumbers.] Hand harvested tomatoes are not graded the same way. Most go to the juice market and have to meet a specific standard that is not as difficult to achieve as it is for cucumbers. With that crop, both grower and picker will benefit from the top grade and price. Prices paid for tomatoes just depends on getting the product to processor on time. Thus the grower does not have to link

remuneration with quality but more with quantity. For mechanically harvested tomatoes the grading is even less dependant on farm workers' ability to sort product. The majority of tomatoes are augured into bulk wagons with only superficial sorting. The minimum wage paid to machine harvest workers reflects their unimportant role in the procedure. Hand harvest workers are paid a piece-rate to give them some incentive to continue picking until the required amount is harvested. By contrast, cucumber harvesters can earn a substantial amount if they are willing to take the time to pick carefully (and if the weather and growing conditions are right).

7. As indicated in the Methodology chapter, the average Mexican Mennonite family has 6 children capable of working in the fields. Because the number of hand harvest employees is 16, the total number of children working for them is 6×16 or 96. (The French Canadian family usually has 4 children with fewer youngsters and more pre-teens and teenagers.) It is difficult to get reliable information about the ages of the children working, but from my observations, from employers and other community residents the perception is that Mexican Mennonite children are helping in the fields from ages 5 or 6. During my contact with Mexican Mennonite women in Aylmer the possibility of a daycamp was raised and the women had to give ages of children who might attend. From their accounts, children under 6 who are in the fields play rather than work and are therefore eligible for a daycamp facility. Older children were expected to help in the fields.

In the previous chapter, it was argued that, when agribusiness develops in the Ontario tomato industry, the labour market for hired farm workers takes on characteristics that support the evolutionist thesis for changes in agricultural structure. We can now determine how the growth of agribusiness influences the labour process on the farm site.

The labour process is a broad term referring to the more concrete aspects of how work is carried out. Marx's definition isolates work activity, the objects worked upon, and instruments, all of which correspond to production, raw materials and technology (Clegg and Dunkerley, 1980:56). These elements of the labour process are structured differently under various modes of production. Capitalism, for instance, separates producers from owning the means of production while requiring them to work for wages in productive enterprises owned by others.

But, labour process factors are only a partial characterization of any mode of production. Also important is the manner in which the surplus value is extracted, because that, in turn, determines many factors of the labour process (Taylor, 1979:109). The term

surplus value refers to that value created by labour during surplus labour time (Volkova and Volkov, 1986:57). Under feudalism, surplus labour is obvious, for example, because the serfs worked a portion of time (week or year) for their own sustenance while using the remainder for the lord's demesne. Labour is deemed "necessary" for the serf and his family to survive but "surplus" when directed toward the lord's establishment (Roemer, 1988:30). With capitalism, the distinction between what is necessary and what is surplus still exists, but is hidden from the direct producer by the daily wage (Marx, 1976:680). These labour components (necessary and surplus) are obscured further by their material expression in commodity form. The price paid for commodities has a dual nature, one aspect represents returns for reproducing the means of production and necessary labour while the other is considered profit and reflects surplus labour (Marx, 1976:968).

Maximizing the latter category, which is the goal of all capitalist enterprises, is accomplished in a number of ways: lengthening the working day, reducing the costs of reproducing the working class, and intensifying production. Relating these and other surplus value/labour process issues to the production of agricultural commodities is the subject matter for this chapter. If

Ontario tomato production is becoming increasingly capitalistic when agribusiness develops, there should be predictable changes in the labour process for that agricultural activity. That is, when the labour process to produce tomatoes changes, there should be an obvious advantage to capital's ability to appropriate surplus value.*

In Chapter IV, we used the transformation from hand to machine harvesting to symbolize the development of agribusiness. For this chapter, we shall do the same to interpret changes in the labour process. By comparing hand and machine operations with respect to a number of labour process factors, it is possible to assess the effect that the development of agribusiness has had. There are two main topics to consider: the details of work activity (where we investigate fragmentation, and deskilling) and the broader conditions under which that activity is performed (here we discuss facilities, financial returns and health and safety). In each case, there should be evidence that machine harvest operations assure capital interests a greater appropriation of

* Deciding just who or what represents capital interests is also a major concern. Although the initial response is to credit growers as owners and employers with that function, further analysis reveals the decisive role processors play in this regard.

surplus value than hand harvest concerns.

A. WORK ACTIVITY

a) Fragmentation

The logic underlying fragmentation of the work activity reflects capitalists' desire to increase productivity and therefore profit. Such were the motivations of F.W. Taylor, whose name is one of those most closely aligned with fragmentation (Edwards, 1979:98; Littler, 1982:50). When tomato production undergoes mechanization, it indicates a move to "Taylorism" because there is an increase in the division of labour.* A hand harvester performs all the work activity by selecting ripe tomatoes, putting them in a basket, and moving that basket, when full, to an outside row for later pick up. When mechanical harvesters are used, the hand harvesting technique is replaced by a number of distinct yet related jobs. These include: driving the harvester; supervising the function of all belts transporting tomatoes; standing in front of those belts, grabbing and discarding debris,

* Taylor's Principles of Scientific Management include: much more than fragmenting work activity. However, fragmentation is the key feature for this discussion.

dirt, and green or rotten tomatoes;* driving a tractor pulling a bulk wagon as it fills with tomatoes from the harvester.

With the introduction of machine harvesters, tomato harvesting has changed from one generalized activity to several specific tasks. This development means more tomatoes can be harvested in less time. It offers a prime example of intensifying production through adopting technological advances. For instance, hand picking one acre of tomatoes takes 135 man-hours compared to 30 man-hours for machine workers (Fisher, 1987b:16).

Marx calls the resulting increase in surplus value "relative" (Marx, 1976:432). According to him, relative surplus value increases with greater productivity because the part of the working day devoted to necessary labour is shortened. Because necessary and surplus labour time are inversely related, this means the surplus labour portion and therefore the surplus value expands.

Hand harvesters transfer the value of the means of

* This task is the one where most hired farm workers are used. There are usually 4 or 5 people standing on each side of the harvester. The position closest to the tomatoes' point of entry is the one where most debris is handled, while the one furthest away has the least. It is considered the "rest" spot and is available to everyone in turn if they rotate the position at the end of each row.

** This is to distinguish it from "absolute" surplus value that is created by lengthening the working day.

production by picking tomatoes and creating a commodity with use-value for the food processor. In this case the means of production (i.e. constant capital) costs are low but variable ^{COSTS} are high. Analysis of the 1987 Ontario hand-harvested tomato production indicates hired labour represents 36% of all the costs incurred (Fisher, 1987b:16). Machine harvesters also transfer the value of means of production to the commodity tomatoes for the processor to use. However, in this case, the variable capital is low and constant capital high. The former percentage drops to 8% of the total costs (ibid).

As long as these figures are representative of tomato production, we can state $v_h > v_m$ (where v=variable capital, h=hand harvesting, m=machine harvesting). Given that the rate of surplus value is calculated s/v (where s=surplus value), we can conclude that hand harvesting will always generate a lower rate of surplus value than machine harvesting because the denominator for the former is greater than the one for the latter.*

According to various officials and some growers, the possibility of higher grade electronic sorters means eventually eliminating all workers from harvesters, except for a driver/operator. The decrease in numbers of workers

* "all other things being equal"

applies not only to harvesting, but also to planting. For these procedures, researchers are developing robotic planters and new seedling varieties which further reduce the need for human labour power. In theory, tomato growers face a future of increasing their rate of surplus value by restricting the portion of variable capital to a minimum.

However, that is only a partial assessment because it ignores two key factors: rate of profit and price. The rate of profit "equals the ratio of surplus value to total capital advanced" and is calculated using the formula, $\text{rate of profit} = s/(c+v)$, where s = surplus value, c = constant capital and v =variable capital) (Marx, 1978:22). As constant capital increases with the addition of machinery, expanded acreage, and other inputs, the denominator expands and may result in a progressively lower rate of profit.

An important factor is the price paid for the commodity because it will create a greater or lesser profit margin. Tomatoes are bought and sold through a negotiation process between grower and processor representatives.* Since the price is set months before the crop is planted any unforeseen increases in capital

* See Chapter III for details.

and/or labour costs, or decreases in volume harvested, cannot be passed on to the purchaser. Instead these must be absorbed by the tomato grower who reduces or increases his rate of profit accordingly. This situation puts the tomato grower at significant risk compared to processors who gain security from fixed costs of production.

Circumstances are further compounded because the processor controls many aspects of growers' production costs including the purchase of mechanical harvesters, the size of acreage and the plants and chemical agents. Because the growers' rate of profit is bound by factors over which they have little control, their role as "capital" is questionable. They do appropriate the surplus value from employees in their operations thus fulfilling one of the functions of capital. But, just as Clement notes for the ownership of means of production, the appellation of capital is in "form" only, not in "content" (Clement, 1983:228). Closer scrutiny reveals the latter function is more appropriately connected to processors, not because they are appropriating surplus value from the agricultural component, but because they can manipulate the situation to ensure low production costs and therefore a higher rate of profit for themselves. ¹

b) Deskilling

One of the reasons that fragmentation of work activity has been analyzed is to explain the demise of the skilled worker (Braverman, 1974). The Marxist argument is that with the increased use of larger and more sophisticated production systems in factories, skill is transferred from the worker to the machine.

Along with the tool, the skill of the worker in handling it passes over to the machine...[there is] a tendency to reduce to an identical level every kind of work that has to be done by the minders of machines.

(Marx, 1976:545)

Generally speaking, such an homogenization of work activity has occurred with the introduction of mechanized harvesting. There is a fundamental change in the nature of the job when machines are introduced. Hand harvesters must choose the best quality tomatoes and leave behind "trash". By contrast, machine harvesters must choose only the "trash" and leave the higher quality tomatoes behind.

This process continues when the tomatoes are shipped to the canneries. Here, in the more technologically advanced operations, the same conditions exist as one finds on the harvesters. That is, the workers who first get tomatoes on the line stand in front of moving belts and sort through the product to select and

remove inferior tomatoes.* The introduction of mechanical harvesters therefore alters the scope of tomato production in the province. It has evolved from many, relatively small, isolated efforts which are farm-centred and bear little resemblance to the processors' activity to a much larger complex and inter-related system that unites "farm" and "firm" in work activity. This creates the basis for the appearance of the "collective worker" (Carchedi, 1983:173; Marx, 1976:464). Labour power is freed from being intrinsically human to become extrinsically a commodity which is then factored into the production process.

Examining this development furthers our understanding of shifts and changes in tomato production in particular and agricultural structure in general. In the hand harvesting process, the basic relationship is between farm workers as "individual" labour and growers as "individual" capital. The separation between them reflects their clear differences as owners and non-owners of the means of production, as exploiter and exploited, and as non-labourer and labourer (Carchedi, 1983:170). With mechanical harvesters there is a definite change in the latter two distinctions because work activity can now

* As discussed in the labour market section, workers in these canneries are often from the same labour pool.

accommodate the contribution of labour power from the grower*. This was impossible in hand harvesting because growers and their families will not hand pick tomatoes. There is no overlap of labour and non-labour or exploiter and exploited.

This may represent an interruption in our trend to clearly capitalistic agriculture. If machine harvesting removes growers even further into the function of capital than hand harvesting does, the evolutionist thesis would be confirmed. In fact this does happen if we focus on non-family corporate farms **. These cases have growers who hire farm workers to perform all labour including most of the supervision. But, the family corporate mechanized operations are not as clear-cut. For them, growers act as exploited labour who are responsible for a portion of the surplus value which they also appropriate through their ownership of the harvested product.

If labour changes into "collective" forms during the course of capitalist development, capital must also experience a similar shift (Carchedi, 1983:173).

* This is the case in "corporate family" farms where the grower and family members take an active part in the production process (i.e. they drive the harvester). In "corporate" farms the situation is different as discussed in later paragraphs.

** There are only 3 in my sample.

Contemporary trends in the tomato industry suggest this is true. As noted in Chapter III, "The History of the Ontario Tomato Industry" this broader range means growers as capital must link up with capital concerns and functions of processors. Capital interests have been dislodged from the individual hand harvest grower. Mechanized harvest growers now join a larger, complex system of control where they function as representatives of capital. They do so either by acting as supervisors themselves, or by hiring others to perform that task. To persist in the industry, growers as part of global capital must expand and join forces with other capital interests. The fact that there is a documented trend for alignments between large, corporate style growers and the major processors * supports the evolutionist model of agricultural structure.

This section on deskilling opened with the Marxist claim that when workers become "collective labour" they theoretically experience a loss of skills. Whether or not such a transformation is applicable to agricultural work is not clear. For tomato production we must ask whether or not machine harvesting requires less skill than hand

* Michael Gertler (1987) explores this and other significant trends in the processed vegetable industry in Ontario and New York state.

harvesting.

A comparison between growers in both kinds of operations reveals no significant differences in their perceptions of necessary skills or desirable attributes. Answers to the open question: "What characteristics make a good employee" fall into five different categories, and are summarized in Table 5.1.

TABLE 5.1 HARVESTING STYLE AND DESIRABLE ATTRIBUTES FOR FARM WORKERS

	Hand	Machine
1. reliable, willing to work, trustworthy.	19	14
2. strength/dexterity	2	3
3. no skill needed	1	2
4. trainable	0	2
5. agricultural experience	1	0
* Total	23	21

According to their employers, being a reliable, willing, and trustworthy person are the most important characteristics farm workers can possess. This is the case whether their employment is required for hand or

* The total number is greater than 38 because some growers offered more than one response.

machine harvesting. From the growers' perspective, there is no support to the argument that the workforce in agriculture is deskilled with the introduction of mechanical harvesters. Skill is a not an issue with growers.

The main answer supplied by Mennonite women who answered my question "What skills do you need for farm work?" were perseverance and strength. "You work, work, work, whether you're sick or not". The youngest member of the Aylmer group suggested the skill of having "no choice" was perhaps the most important. All the women laughed in agreement when she offered this response.

There is some indication that farm workers may change their attitudes toward their skills when they work on harvesters rather than pick by hand. This is an example of skill as "social status" where the idea of what constitutes skill changes with the historical and cultural context (Littler, 1982:8). In the 1960s, for example, there are newspaper accounts noting the presence of "professional" tomato pickers in Essex County (*Windsor Star*, Sept. 15, 1961). Being able to pick more than three hundred baskets a day became a goal for a group of French Canadian harvesters. The best picker was described as a man who would not just pick in any field, but who chose the ones with the best crop so his time would not be

wasted.*

A more recent description of a similar case came from a grower who told me he had an employee who wanted to beat her own record and pick more than 250 baskets in one day. He was reluctant to let her try but she succeeded. Starting at 6:30 a.m., and working until after dark, this woman picked 261 baskets and left the field "like a peacock". These examples point out that hand harvesting could have a dimension of pride associated with it that appears to be missing from machine harvesting. In fact, many former male tomato harvesters I encountered spoke with a nostalgic pleasure over the good physical shape, and sense of power they had in their prime picking form. Their ability to undertake "good, honest work" was significant to them.** At the same time, such personal satisfaction from and willingness to co-operate in the labour process are also examples of workers' consenting to the rules and relations of the capitalist system (Burawoy,

* This theme also pervades a fictional account of Ontario tomato harvesting set in Chatham in the 1970s. This book is called **Bloody Harvest**, by G. Woods, Toronto: McClelland and Stewart, 1972).

** This holds true for some famous Canadians who make a point of acknowledging their early experiences as tomato workers. For instance, David Suzuki does this in his recent autobiography, **Metamorphosis**, and Steven Roman's obituary notes his first job was as a tomato picker (**Globe and Mail**, Mar. 24, 1988).

1979).*

The introduction of machinery creates specialized operations categorized as either skilled or unskilled (Marx, 1976:470). In the United States, "pro-machine harvest" economists argue that working on mechanical harvesters would result in farm workers upgrading their skills (Schmitz, and Seckler, 1970). From my observations in Ontario, there are more skills required for certain aspects of machine work than there are for hand harvesting. However, most hand harvesters never move into those more skilled positions. The grower, his lead hand and perhaps some other trustworthy male farm workers are the only ones who operate machinery and therefore the only ones who can potentially improve their skill status. But, even then there are certain exceptions. For example, with the increase in electronic components, maintenance and repairs are not carried out by the grower or his employees. In this case such skilled work is performed by technicians affiliated with the farm machinery retail outlet.

The use of mechanical harvesters does mean a certain amount of reskilling and improvement but not for

* In the chapter following, this idea is further elaborated in a discussion about cultural traits that enhance the development of such attitudes to work.

the average farm worker. Their function on a harvest machine requires as little skill as it does in hand harvesting; we can broadly conclude that deskilling has not really occurred with the introduction of mechanical harvesters. These arguments rely on defining skill as knowledge, that is, skill is an objective characteristic of work activity that is manifest in terms of job-learning time or the kind of expertise needed to perform the task (Littler, 1982:7). The qualitative differences between learning how to pick a hamper of tomatoes and how to sort through tomatoes on a conveyor belt is not substantial enough to investigate further.

However, if skill is viewed as autonomy, we might draw different conclusions. In this case the emphasis is on how those who gain possession of the workers' skill use it to further the interests of employers (Littler, 1982:8). Autonomy in the labour process is seen as discretionary content where the worker is entrusted to make decisions and control the productive process (Ibid). When ownership of skill implies control, deskilling refers to the loss of power to determine among other things, the pace of work, job design and work organization. With respect to mechanizing the tomato harvest, control over these three factors should diminish when hand harvesting is replaced by machines.

Pace of work in hand harvesting can be the employee's own if he/she is working as a single worker, but family members are subject to parents' or husband's supervision. Pace in machine harvests is controlled by the operator who is positioned to keep eye on final product as it travels up the conveyor to a wagon. Two of the mechanical harvesters that I worked on had the last grading position diagonal to the driver, but facing him. In one case this position was always filled by the operator's wife who would tell him to slow or stop the machine when there was too much "trash".

Break times in hand harvesting can be regulated by the individual picker unless he/she is in a unit supervised by family members or other persons with authority. In machine harvests breaks can come irregularly, depending on field and machine conditions. At the end of each row, activity stops while the harvester turns and lines up to start the next row. If the processor wants the tomatoes handled as little as possible then tomatoes are loaded into a 10 or 12 ton wagon that follows the harvester in the field. As one wagon fills up, another comes in to replace it making the activity relatively continuous. If, a lower grade of tomato is being harvested then a "dump" wagon is used. This has a smaller capacity and means the harvester stops more often

as it transfers tomatoes to the larger wagon parked close by. In this way the processors' requirements for a higher or lower grade tomato has an effect on the length of time the harvester runs without stopping, which in turn determines the break times.

The processor's scheduling is the ultimate determinant of when, during the season, a crop will be picked (this applies to both kinds of harvesting). Growers know in advance which time slots they have so they can spray their ripening agents, and make their labour and hauling arrangements accordingly. If possible night shift work is avoided on harvesters because growers explained it is especially hard to get people to come out. It will occur though if weather and crop conditions have been unfavourable, or if there have been breakdowns in the processing plant and things get backlogged.

One grower for whom I worked had been held up at the processing plant 4 hours (from 10 p.m. to 2 a.m.) because they were not able to take his load of tomatoes when they had asked for it. Consequently, he did not get home until 5 a.m. when he had breakfast and had to start preparations for that day's harvesting.

Farm workers' autonomy in pace of work, job design, and work organization in hand harvesting has been curtailed with the introduction of mechanical harvesters.

Therefore we can argue that deskilling has occurred with the development of agribusiness. However, it is not the case that growers have taken over these functions to benefit their own position as capitalist/employers garnering surplus value. Rather, virtually all elements in the labour process are manipulated to suit the needs of processors who profit from this additional control on their input costs. Once again, the function of capital is taken up by the processor rather than the growers/employers who become part of both collective labour (when they drive the harvesters, they add to the surplus value component of the product) and collective capital (they carry out the processors demands).

We concluded the previous chapter on labour markets by saying that the hired labour force in Ontario tomato production has become more like the secondary labour market or reserve army of labour in the non-farm sector. From the foregoing discussion of work activity, the trend to follow the non-farm sector is upheld as the farm labour process has undergone fragmentation and deskilling (in a qualified manner) with mechanization. Theoretically, the economic result is an increase in surplus value through intensification and control of the labour process. Whether or not growers are the sole

benefactors of that increase is questionable given the key role processors play. In fact, the latter's ability to manipulate activity on the farm site throws into question the designation of "capitalist" for the tomato grower. These "farmers" are being proletarianized by contributing to the "collective" labour functioning in mechanized tomato harvesting and by their loss of autonomy in deciding work activity procedures. For many growers, the gap between form and content (noted earlier in this chapter) is widened further with these discoveries from work activity in tomato production. This supports the evolutionist thesis on agricultural structure.

B. CONDITIONS FOR WORK ACTIVITY

Historically, farm work has been associated with the worst kinds of working conditions (Haythorne and Marsh, 1941: 341-369). The usual explanation emphasizes rural isolation, outdoor activity, and the prevalence of physical/manual labour. Although many non-farm enterprises (mining, lumber, and construction, for instance) have similar detractions, most workers in these sectors have secured reasonable wages and guarantees from various pieces of labour legislation.

In Ontario, farm workers are paid minimum wages and receive little protection from various labour laws

(Stultz, 1987:293). Their exclusion from most sections of the Employment Standards Act means they cannot form associations, and do not have to be paid vacation, sick and/or overtime pay. Pregnancy leave is not applicable, nor is there significant protection against unjust dismissal and discrimination in hiring and promotions. In addition, farm work has no limits on the number of hours worked or on the use of child labour.

The usual justification for this set of exclusions is the "special" nature of farming in Canada. In this case "special" means farming operations are perceived as mainly family enterprises where the division between private and public spheres is blurred. Those who picture agricultural activity in this way argue that hired farm labour cannot be treated like industrial labour with respect to hours, benefits, and general conditions. To do so means failing to acknowledge the temporary or seasonal nature of farm work, the extraordinary demands of perishable crops and weather conditions, the complications from using family labour, and the inability of most farm families to afford the added expense from such guarantees.

To qualify for these exclusions from labour legislation, the enterprise must be a farm where:

...employment is directly related to the primary production of eggs, milk, grain, seeds, fruit vegetables, maple products, honey, tobacco, pigs, cattle, sheep, and poultry.
(Regulation 285, Employment Standards Act for Ontario)

This broad categorization means even the most modern, mechanized, year-round operations (such as greenhouses, mushroom farms and chick hatcheries) do not have to guarantee their employees industrial style working conditions.*

Recently, critics of the provincial government have commented on how unrealistic the Ministry of Labour is in failing to discriminate between more industrial agricultural enterprises and those smaller scale ones based on family labour. Despite such criticism, including a number of appeals to the Labour Relations Board, there have been no changes to the legislation.

When the Agricultural Employment Services advertises for farm workers in tomato production, they again demonstrate a lack of appreciation for the situations most farm workers are in. For example, the following comments on working conditions are in a brochure designed to inform prospective workers:

* This topic is addressed more fully in Chapter VI where farm workers' organization and control at the workplace are discussed.

(Hand Harvesting)

Picking tomatoes requires working in a stooped position which is hard on the back and knees. Workers must be able to endure exposure to the weather particularly summer heat, etc...Pickers are paid by the hamper or ton and can earn according to their ability and willingness to work long hours.

(from leaflet "Work in Ontario's Tomato Harvest")

(Machine Harvesting)

Workers hired to work on a tomato harvester are paid by the hour...workers work fewer hours (than hand harvesters) and should consider taking on supplemental work in order to put in a full day. (On the tomato harvesting machine) conveyors draw tomatoes onto a belt situated in front of the workers. Workers standing on both sides of the belt are required to pick out unripe and rotten tomatoes as well as vines and dirt. The belt is in continuous motion as is the machine itself. Workers susceptible to motion sickness should not consider this type of work. As well workers must be able to stand for extended periods of time.

(Scholtens, 1988:68)

A final caution is directed at both machine and hand harvest workers:

Proper clothing for the warm days and cool nights of late summer is essential. Waterproof coat and boots are a must. Should weather conditions delay commencement of the harvest operations, you should have sufficient CASH to last for approximately one week, in case such a delay occurs...(If the grower does not provide housing) There is usually motel and boarding house accommodation available in the nearby towns.

(from leaflet "Information for the Harvest Worker")

There are false assumptions about farm workers implicit in these comments. First is that farm workers can find supplemental work for the hours a grower does not need them. During my work experience on mechanical

harvesters, the hours during the day that you may not be needed cannot be known ahead of time. Most of the factors determining the work period arise in the course of the activity. That is, rain will slow down the machine's operation, or mechanical breakdowns will postpone an otherwise trouble free run.

A second assumption is that farm workers come to the job with the financial means to purchase special clothing for work, to support themselves while waiting for work to begin, and even to stay in a motel during the employment period! Related to that assumption is a third which presumes farm workers can transport themselves to the farm site and have little trouble getting daycare for their children. This unrealistic perception of the farm worker's situation is contributing to inadequate policy recommendations and to the general perception of the "farm labour problem".

The important question for this section is whether, as agribusiness develops, the conditions in which work activity occurs have changed to enhance the creation of surplus value for capitalist interests. Before an answer can be attempted, some assessment of the current situation is necessary. Growers' opinions about working conditions on the farm site, are revealed in their responses to the interview question "what are the

advantages and disadvantages of farm work ?" Their responses are tabulated in tables 5.2, and 5.3.

TABLE 5.2 "What are the advantages to farm work?"
(from growers' perspective)

Advantage	Number of Responses
1. Healthy, fresh air environment	8
2. No other job available	8
3. Money is good	7
4. Eligible for UIC	6
5. No daycare problem	4
6. No need to speak English	3
7. Family relations cemented when they work together	3
8. Seasonal/temporary	2
9. Freedom of movement	2
10. No advantages	2
11. Satisfying	1
12. Variety of work	1
13. Easy	1
14. Children learn good work habits	1
* Total	49

When we combine the three advantages: "no other job available", "money is good", "eligible for UIC" , we can conclude that growers rate financial returns as the most advantageous aspect of farm work. Being outside, doing physical work is also considered a positive aspect

* Note, the total in Table 5.2 and 5.3 is more than 38 because some growers gave more than one response while others may have given no response.

as the following phrases suggest: "healthy, fresh air environment", "freedom of movement", and "variety of work". At the same time these factors are the cause for the major disadvantages that growers cite. In this case the strenuous, physical work and vagaries of weather are rated as the major disadvantages to farm work.

**TABLE 5.3 "What are the disadvantages to farm work?"
(from growers' perspective)**

Disadvantage	Number of responses
1. Hard, physical work	11
2. Weather	6
3. No disadvantages	6
4. Dirt	4
5. Child labour	3
6. No personal satisfaction from work	3
7. Motion sickness	2
8. Seasonal	2
9. Low wages	1
10. Boring	1
Total	39

Growers in this survey tend to look favourably on the working conditions for their employees. The physical strain of stoop labour (especially for children) in hand harvesting was viewed as the worst aspect. At the same time, the fact that hand harvest work provides good financial returns was cited as compensation for the hardship.

In fact, women in the Aylmer group do not differ strongly from these growers in their ranking of benefits and disadvantages of farm work. The money they can earn hand harvesting was called "very good" despite the costs in physical stress. Having their children contribute to family earnings was viewed as good training for them to understand early the value of hard work. For some of the women, children could keep track of their own bushels and thus earn money specifically for their own needs. This was considered a real help to families hard pressed to meet their children's desires for bicycles and other "extras".

A dominant theme in the remarks from farm workers is also found from growers. For both, there is a strong sense that there are few options for working conditions in tomato harvesting. Mexican Mennonite women new to Ontario were somewhat puzzled at questions about working conditions. It was viewed as a given that the work would be physically demanding and unpleasant. The one exception to this attitude came from a Mexican Mennonite woman who had worked on a mechanical tomato harvester for some years in Ontario, as well as in California. She found the Ontario experience much worse due to weather, field

conditions and poor quality product. * The end result is that employment in the Ontario tomato industry meant harder work in a "dirty and smelly" environment.

In two government surveys of farm workers, working conditions are generally viewed as unsatisfactory and needing improvement (Ont. Gov't, 1986: Appendix 3:35; Scholtens, 1988:90). However, in these reports there is no detailed discussion about specific problems with working conditions or what farm workers would change. Therefore, based on my familiarity with tomato production I have selected three concerns: facilities provided, financial returns, and health and safety to represent working conditions.

a) Facilities

Many of those who work in tomato production go to work in fields where there are sub-standard toilet facilities, if any, and no water for drinking or washing, unless they bring their own. Table 5.4 reflects the availability of washroom facilities from the 38 growers in my survey. They are presented according to harvesting

* In southern California, the weather is consistently sunny and the fields uniformly smooth so riding a harvester is unproblematic relative to Ontario conditions. As well, the tomatoes are generally of higher quality in California which means there is less handling of rotten tomatoes and debris.

style to see if there is an association between kinds of facilities and degree of agribusiness.

Table 5.4 On site washroom facilities for farm workers

Facility	Hand	Machine
1. No toilets	18%	31%
2. Available only at farm workers' housing	32%	13%
3. Outhouse in field	50%	37%
4. Wash water and showers	--	19%
Total	100% (22)	100% (16)

As the percentages indicate, only a small number of employers (19%) with machine harvesting operations provide facilities considered standard in the non-farm sector. Only one of the three growers who do provide such facilities did so exclusively for his tomato workers. Shower and toilet facilities on the other two sites were for individuals working in their mushroom and tobacco operations as well. The fact that a total of 44% (31%+13%) have no facilities on the work site is plausible because surrounding fields and fence rows are acceptable.

For hand harvesters, either rudimentary or no facilities are the norm at the work site. As with machine

harvesting, work activity influences how facilities are used. In hand harvesting the less time away from the job, the more money is earned. Therefore, even if they do have toilet facilities in a field, or in their housing, if it is further away than suitable cover (tobacco or cornfield for instance) it makes more sense to use the latter. Machine workers are not under the same constraints because time lost due to going to a toilet does not have a direct affect on their earnings. When I worked on machines, workers would get on and off when necessary with no consequence to the machine's progress. Although hygiene and sanitation are the main reasons for expecting suitable washroom facilities, they are not the only concerns. Mexican Mennonite women mentioned their embarrassment at having to relieve themselves when male farm workers were nearby.

What is apparent from this assessment is that facilities for farm workers are inferior to most industrial settings. Although some differences exist between hand and machine harvest operations, they are not significant enough to claim the development of agribusiness has any influence one way or the other. For both hand and machine operations, supplying better facilities for farm workers increases production costs without increasing productivity. Therefore, there is more

economic justification for growers not to provide these amenities than to do so.

b.) Financial Returns

As farm workers go from hand to machine harvests, their wage form changes from piece rate to hourly.* Usually hand harvesters work longer hours than machine workers and earn considerably more. The former average 100-150 bushels a day (\$50 -\$75) ** while the latter get minimum wage (\$5.20 in 1988) or slightly more with occasional bonuses. Because machine working time averages 6 hours a day if conditions are reasonable, workers there earn approximately \$35 a day.

Married Mexican Mennonite women in the Aylmer group were displeased with the reduction in wages that accompanied machine harvesting. Hand harvesting was more lucrative for their family labouring unit. Because their main reason for coming to Ontario is to earn as much money as possible, these workers saw machine harvesting as less desirable. The unmarried female workers were less critical of machine harvesting; they remarked that all

* Refer to endnote #12 in Following Chapter (VI) for further discussion of changes in remuneration.

** A family unit would be picking closer to 300 or 400 bushels and earning \$150 -\$200

farm work for them was "good money".

A further disadvantage to hourly wages for farm workers is their inability to translate competence into increased financial returns. At least piece rate work allows those with greater physical strength and dexterity to benefit from their skill. For those farm workers earning minimum wage, there are documented reports of their complaints about getting no credit for their years of experience. One such case records a Lebanese-Canadian woman who says: "In what other job would I be making the kind of money that I make after so many years of working. Minimum wages is what I make."*

One of the justifications employers have for their relatively low wage rate is the provision of housing for their employees.** In effect, the reproduction costs of the working family are lowered when their accommodation is provided. As Table 5.5 indicates, growers with hand harvesting operations are more likely to house their workers than machine growers are.

* Tolpuddle Report #5.

** There is a guarantee of paying no rent in employment contracts for all offshore and French Canadian workers. For Mexican Mennonite workers it was usual to have "free accommodation" from the employer but in some cases, farm workers may have paid utilities.

TABLE 5.5 HOUSING BY STYLE OF HARVESTING

	Hand	Machine
Housing		
Yes	86%	38%
No	14%	62%
Total	100%	100%
	(22)	(16)

The association of hand harvesting with housing reflects the fact that most hand harvesters are migratory workers and therefore require housing in Ontario. As well, because such workers often have families with them being housed close to the work site is convenient.* When the quality of housing is examined, any benefit from not paying rent may have other costs. The most common type of housing is a trailer or mobile home situated close to the outbuildings and behind the farmhouse. Of the 25 growers supplying housing, 17 had trailers, 3 had bunkhouses, 5 offered houses.** Mexican Mennonite women told me of

* As discussed later in Chapter VI, "Organization and Control", the fact that machine workers are less likely to be housed on farm property is typical of industrialization where personal relations in employment are diminished.

** Occasionally these houses are old farmhouses they acquire when buying up property. They are often in poor condition. For example one grower told me he had a house

cramped quarters, filthy conditions and extreme heat. Eugene Whelan, a former Minister of Agriculture, makes this point in his comments on farm working housing:

When you see the horrible conditions these people live under in Mexico and Ecuador you realize how they think they're in God's country if they get a fridge or stove. They've probably never seen them before...

(quoted in Weatherston, 1981:5)

This attitude is not uncommon among some of the growers I interviewed, who make similar justifications when describing the housing they provide.

When employers incur costs for housing workers their capital investment increases and potentially lowers profit margins. Thus, hand harvest growers are theoretically disadvantaged compared to machine growers who are less likely to bear the added expense of housing. However, there are certain advantages to having employees secured on farm property and always available for work. In this case hand harvest employers may have fewer risks from labour shortages than machine employers and therefore enhance their chances for increased profits.

Financial returns include other benefits such as overtime, vacation pay, and pregnancy leave. As noted in the introductory comments for this chapter, farm workers are not legally eligible for these. The standard

for workers but there was no hydro or running water.

explanation is that most farming enterprises could not afford to take on these added costs. Among the 38 growers I interviewed, only 2 offered such benefits. Both had corporate farms with diversified operations and year round employees. In one case, those harvesting tomatoes ordinarily worked in their employer's mushroom operation, in another they worked in his cannery. When the tomato season began, they were taken off their regular jobs and worked on machine harvesters. One of the employers said his employees resented the outdoor work, even though their pay and benefits were the same in both cases.

A key factor in financial returns for Canadian farm workers is their eligibility for Unemployment Insurance during the off season period. Some growers were frank with me about their willingness to compile work records so that their workers had the required number of weeks registered. Many growers look on UI benefits as a necessary subsidy for farm labour. This is evident in their rating it fourth among the various advantages of farm work (see Table 5.2). According to them, if individuals could not be guaranteed income from UI during the off-season months, they would not take farm work.

The financial returns discussed in this section include wages, housing, and various benefits. In all cases, any improvement in the situation as it currently

exists would mean added costs for the grower without guaranteeing an increase in productivity and therefore surplus value. Because there is no legal sanction against offering these conditions, growers have little incentive to change them. In this case, we can conclude that because the interests of capital (as opposed to labour) are being protected, the evolutionist model of agricultural structure is supported.

C) Health and Safety

Agricultural workers are excluded from the Occupational Health and Safety Act for Ontario, despite the rating of such work as dangerous.* This means that farm workers are denied the right to work in safe conditions, to form safety committees and refuse unsafe work. In 1984, the Ontario government created a task force to study health and safety issues in provincial agriculture.² It concluded that farm workers were protected enough by existing regulations and that they need not be included in the Health and Safety Act (OMAF, 1985). The same argument is given as that for exclusions from other labour legislation, namely agriculture is

* According to a report released in 1990, agriculture in Canada is the most hazardous occupation (*Farming Today*, April 2, 1990).

predominantly a small family business which cannot support the added costs and administration of health and safety regulations.

Ontario farm workers are eligible for Workers Compensation even if they are non-residents. According to recent statistics, agriculture is highly represented in claims for both injury and death (WCB, 1988). Whether these figures are representative of the reality facing hired farm workers is debatable. Many times minor injuries or problems from work are ignored * not only because workers do not want to risk losing income, but also because their employers may be less than supportive. This points out the inadequacy of having agricultural workers covered by Workers' Compensation, but not including them in other labour legislation. If there is no recourse for unjust dismissal, or no association which can represent farm workers' grievances, there is less chance workers' interests with respect to Workers Compensation benefits will be respected.

The question that needs to be answered in this section is: Are farm workers more disadvantaged with respect to health and safety issues as agribusiness

* In the case of pesticide exposure many symptoms are similar to those from flu and other illnesses. Thus, being certain that physical ailments are directly related only to the work environment is problematic.

develops? Does the introduction of a mechanized harvest introduce elements that increase the potential hazard for farm workers while augmenting surplus value? Two relevant factors to consider are the use of chemical agents and machinery.

i) Chemical agents

Throughout previous sections and chapters, we have used harvest mechanization as the indicator for the development of agribusiness. In the following discussion a comparison between hand and machine harvesting would not yield useful data because all tomato fields are sprayed the same regardless of harvesting style. Historically, the variety and quantity of chemical agents have substantially increased as agribusiness develops. Information on pesticide use before 1973 is unreliable because government surveys did not require farmers to report their use until that year. From 1973 to 1983, figures indicate a 36% increase for all Ontario agricultural enterprises (OMAF, 1984b:5). More specifically, in the decade 1978-1988, tomato fields in Ontario have gone from having an average of 7.7 tonnes per hectare to 8.6 tonnes per hectare.*

* The averages are based on data from pesticide surveys for Ontario (Roller, 1979:18; Moxley, 1989:20).

According to the current recommendations from the Ministry of Agriculture and Food, tomato plants could be sprayed with a number of chemical agents. To combat disease in the crop, tomato growers use any of the following: captafol, chlorothalonil, mancozeb, maneb, metriam or dithane. Insects are controlled by any of the following: permethrin, methomyl, carbaryl, endosulfan, azinophos-methyl, diazinon, dimethoate, malathion, demeton, naled, or cymbush. Hampers might be dusted with pyrethrins, or piperonyl butoxide. To enhance ripening in the field, ethrel is sprayed on the crop 2 weeks before harvesting (OMAF, 1987b:65). The toxicology of these chemicals indicates most should be used with caution. Several are considered highly toxic and have been reported as agents in the poisoning of some agricultural workers (OMAF,1984b:59).

Risks to most farm workers in tomato production come, not from applying these chemicals, but from handling contaminated fruit, vines and soil. According to all of the growers I interviewed, either they, their sons or brothers, or their experienced hired men do the required spraying. The procedure is considered too important for an untrained person to carry out the task. If too much is applied it not only wastes the chemical agent but could also damage the crop. Growers attach significance to the

task not because of potential hazard from exposure but because of the risk of wasting costly materials or harming the produce.

In Ontario tomato production, farm workers cannot avoid some exposure to pesticides. This will occur if the workers are hoeing and weeding the crop and when they handle vines and fruit during harvesting. Those harvesting by hand may be more likely than machine workers to contact residues because they move in and around the plants to gather the fruit. As well, they spend more time in the fields than those on machine harvesters, so possible exposure periods might be longer. There are no Ontario studies available that document a comparison between the two groups with respect to chemical exposure. From my observation, I would argue that there are several factors common to both groups that diminish any differences between the two groups. For instance, pesticide exposure may come from activity in neighbouring fields (not necessarily planted with tomato crops). At least twice in Essex county I saw spray drifting from an orchard onto tomato harvesters in the adjoining field. Mexican Mennonite women told me it was a common experience to smell chemicals being sprayed in nearby tobacco fields while they and their children harvested tomatoes. They

claimed headaches and nausea resulted from the experience. * Others said they "just stepped out of the way" and felt there was little cause for concern.

Conditions in adjacent fields are also important because farm workers often relieve themselves there. Women told me that corn and tobacco fields are the best since the taller, leafier plants offer more cover. They know they contact pesticides while moving among the crops but feel they have little choice. In fact some of the pesticides on corn and tobacco, such as phosdin, are considered highly toxic and hazardous if no precautions are taken to avoid contact (OMAF, 1984b:7).

Because water for washing is limited in many fields, workers and their children eat lunches or snacks with pesticide residues and dirt on their clothes and skin. Although rubber gloves are worn for picking, a thorough showering and change of clothing is recommended after leaving fields where pesticides have been applied. One work site I observed had an outside lunch area ten feet from the spray tank and applicators and five feet from the pit toilet. When the workers ate lunch, they sat on inverted hampers that may have been dusted with

* In a brief presented to the Health and Safety in Agriculture Task Force, similar incidents were documented (Tolpuddle Report #7).

insecticide. On two occasions I did notice warning signs in tomato fields cautioning people not to enter because of chemical hazards. But, given that the signs were in English, and that illiteracy is prevalent among migratory workers, the signs were of limited use.

The provincial government has initiated a policy designed to reduce the amount of pesticide on tomato fields. Benefits from these programs are described more in terms of enhancing the efficiency of tomato operations rather than reducing the risks from contamination.* When I was travelling in Essex county, Ministry of the Environment officials were out spot-checking farms for pesticide violations. The results of their study indicate wide variations among growers when they store and dispose of pesticides. My perception of growers' (and farm workers') attitudes to chemical agents was confirmed by these ministry researchers who note a general lack of concern about the possible dangers from unsafe practices (Petersen, 1988).

Although government policy may eventually lead to

* Tom-Cast is an example of one of these new programs designed to reduce unnecessary spraying on tomato crops. Every tomato grower in a specific area can phone a Tom-cast number and learn the detailed meteorological conditions in his area. Depending on humidity, wind and temperature, a grower is advised to spray or not to spray specific chemicals.

a lessening of exposure risks for tomato workers, the reliance on chemical agents is well entrenched in tomato production. The major determinant of what is sprayed is the processor whose field inspectors maintain a close scrutiny of contracted acreage.*

Any improvement in farm workers' health and safety means added costs to growers with no guarantee of a rise in productivity. The same argument that was presented for facilities holds true here, that is, there is more reason economically for growers not to provide a safe and healthy workplace than the reverse. The state has a significant role to play in this issue. By allowing agricultural employees to continue working in unprotected environments, they are siding with the capital interests of their employers. Pressure from the environmental concerns of consumers who want more stringent controls on chemical residues may be a factor in altering procedures for tomato production. The persistent vulnerability of farm labour compared to capital adds further support to the evolutionist thesis regarding change in agricultural structure.

* In 1988, processors had a provision in the contract that gives them the right to refuse a load of tomatoes if residues from chemicals deemed unacceptable are present.

ii) Machinery

To determine how the development of agribusiness influences farm workers' health and safety, we should be looking at the rates and kind of injury associated with each harvesting style. Since such specific data is unavailable, the discussion which follows is general. The potential for injury and death increases when machinery is introduced into work activity. California studies from 1956-66 reveal a 44% increase in injuries involving harvest machinery (Barnett, ^{et al.} 1978:80). At the same time, the total number of agricultural work injuries (i.e. including those not related to harvest machinery) decreased by 8% (Ibid). Statistics for Ontario agriculture are less specific but reflect a similar trend. During 1961-1981, the degree of mechanization continued its post-war growth in Ontario farming operations. For example, the ratio of the number of tractors to people engaged in farm work rose 98% during that time period (Task Force Background Paper #1: 51). The number of accidents and fatalities also increased. According to calculations based on data from the Farm Safety Association, fatalities escalated 56% over the same two decades (Ibid, pg.90). Similar data for time lost due injury are not available.

During participant and non-participant observation

on several tomato farms I noticed a number of machinery related hazards. Farm workers are exposed to moving parts in the older Blackwelder UC models and the Ontario Sonnenberg harvesters. On the latter machine for instance, pulleys, belts, and wheels which are within reaching distance, frequently clogged up during our harvest runs. Although freeing up the system was a task for one of the males on board, female sorters were close to the activity and had to pay attention to the procedure. Despite signs warning workers not to touch moving parts while the machine was operating, those clearing lines yanked at debris and pried at wheels while the engines were running.

Newer harvester models appear to be much safer with respect to the exposure of moving parts. On these machines the mechanics of the system are encased and out of reach. The larger size of these new models also reduces the proximity of sorter and moving parts. Standard safety procedure around most machinery is to yell an "all clear" signal before starting up a line that has been closed down. This was never done on any of the harvesters I worked on.

Safety risks arise because mechanical harvesters are continually moving down rows when operating. Farm workers riding the machines must keep their balance as the

harvester progresses. In most areas of the fields there is little difficulty with doing that. However, when the harvesters negotiate the end of one row and the beginning of another the machine can pitch and jerk as it moves over ruts and turns around. At such times most workers on board had to secure their holds and be careful. Starting up a new row is also a time when workers will jump on and off for various breaks. In general, I observed little caution on the part of workers and drivers during the confusion of mounting, dismounting and manoeuvring the machine. Occasionally co-workers would grumble about the driving style of their operator but the tone was more teasing than serious.

When a harvester is in motion, the driver is in charge of all activity. He controls the speed of both the machine and the various conveyor belts. Because sorters on the line depend totally on the skill of the driver, his behaviour is another factor in the degree of safety for farm workers. On two of the three machines I worked, drivers were careless. For instance, while one driver moved the harvester down the row at 5-8 mph he regularly jumped down to clear weeds from the advancing knife edge where vines were cut. This meant for brief periods, the heavy harvester with 10 people on board was without a controller. In the other case, our driver was falling

asleep at the wheel. He had been up all night because of a back-up at the processing plant where his tomatoes could not be unloaded on schedule. On this machine the driver's wife kept watching him and tried to keep him awake. *

Aside from these health and safety features of working on mechanized harvesters, there are a number of other considerations worth noting. One is the possibility of motion sickness induced by movement in a number of directions. Sorters on the line can see conveyor belts sending tomatoes in three different directions while the harvester travels forward with a pitching and rolling motion. People prone to motion sickness are either unable to work on harvesters or must take medication (often supplied by their employer) to counteract the condition. Farm workers who follow the solution recommended to me, which was to look only at the line directly ahead of me, restrict their ability to be aware of possible dangers.

If mechanical harvesters are older and/or in poor repair, farm workers may be exposed to high noise levels.

* A newspaper account of a tomato operation near Leamington reveals an added risks to farm workers. In this case, a tomato grower was boasting about the ability his 7 and 11 year old sons had displayed driving the tractor which pulled a wagon beside the tomato harvester (**Farming Today**, Jan. 29, 1990). The fact that these children were operating heavy machinery jeopardizes the health and safety of all individuals involved in that operation.

On the harvesters I observed ear protectors were often provided and usually worn by a number of workers. However, solutions to other problems are not readily available. The owner of one of the harvesters I rode said his machine burned 12 quarts of oil with each 4 hour shift because it was in need of a major overhaul. When I was on that harvester the fumes were obvious to me and I had a worse headache after a morning's work with him than any I had after my experience on other machines. The epidemiologic evidence on workplace exposure to exhausts suggests there is a carcinogenic effect but the data are not reliable enough to be conclusive (Chong, 1985:289). Thus, farm workers on poorly maintained or highly polluting harvesters may be endangering their health.

Generally speaking, working on mechanical harvesters can strain back and leg muscles since workers are standing all the time in a slightly bent position reaching out to sort tomatoes. As well, workers complained to me how nauseating the smell of rotten tomatoes could be. One woman who had worked in California as a harvest worker said there was no comparison with conditions there and those she encountered here. In her experience, not only were tomatoes cleaner and less rotten in California but the terrain made a harvester ride a much smoother experience.

From the foregoing accounts, health and safety concerns associated with mechanical harvesters are problematic for a number of reasons. First is the hazard from possible exposure to moving parts. A second difficulty arises from the need to keep one's balance as the machine negotiates rough terrain. Third is the dependency farm workers have on both co-workers and the machine operator. The fourth consideration is the variety of physical stresses farm workers experience from the working conditions on the harvester.

Although, hand harvesters may also be in fields where machinery is present, their basic work activity is performed without mechanical aids. The possibility of machine related hazards is virtually non-existent for them. However, hand harvesting tomatoes is exhausting work which can be highly stressful. Given the number of children and women of child-bearing years who regularly hand harvest, there is reason for concern over their health and safety as tomato workers.

The conditions under which work activity is performed in tomato harvesting have not improved with the development of agribusiness. It could be argued that this trend contradicts the pattern in non-farm industry where on-site facilities, wages and benefits, and health and safety standards have risen to some extent. The contrast

between farm and non-farm gives the impression that the former has in fact worsened. However, empirical evidence is not conclusive, given the nature of farm work activity and the farm enterprise. In fact, working conditions in agriculture have always been among the worst because, among other reasons, the state does not require growers to meet standards in other industries. Since both grower and processor interests are upheld to the detriment of farm workers, the evolutionist model of change in agricultural structure is supported. At the same time, the integrationist model is also valid given the state's persistent neglect of farm workers' hazardous working conditions. By refusing to alter health and safety legislation, the provincial government enables inequities between farm and non-farm workers to continue and benefit agricultural capitalist interests.

C. CONCLUSION

Throughout Chapter V we have examined a number of points relevant to labour process issues. In the first section on work activity, it was concluded that fragmentation and deskilling have occurred with the development of agribusiness. The pattern of enhancing productivity by removing control from farm workers (and from growers themselves) and placing it with the

processing interests confirms the evolutionist model of agricultural structure. Had the evidence suggested growers' control persisted despite the influence from processors, then the integrationist model might have been more suitable.

Our study of working conditions yielded similar conclusions. One of the consequences from the poor quality of farm working conditions is to keep the production costs for growers low. If farm employers had to match the kind of expenses many of their industrial counterparts have (such as reasonable facilities and wage/benefit packages) their percentage of surplus value would decrease. Tomato growers, however, are not the only beneficiaries of lower production costs. Food processors, anxious to secure as low a price for raw product as possible, also have a vested interest in keeping those production costs low.

Notes

1. This analysis of the processor-grower-labour relation contradicts what may be an over-simplification of these relations presented in other contexts. An assessment of the interaction between petty commodity production and merchant capital early in Canadian agricultural history is a case in point (Cuneo, 1982). The argument in this article relies on the premise that because merchants control market access, they extract the surplus labour of the producer offering the goods (in this case wheat) (Cuneo, 1982:63). Marchak (1985:685) gives a similar interpretation referring to "approximating surplus value" when non-farmers control exchange conditions. In fact, as the discussion about processors and growers buying and selling tomatoes indicates, controlling access to the market is a factor in determining constant capital for the processor (or purchase price for the merchant) **not** in appropriating the surplus labour of the producer. Appropriation can take place only in the sphere of production even though it is manifested in the sphere of circulation (Friedmann, 1978). In the 1840s, merchants procuring wheat did not make a profit from exploiting petty commodity producers in the Marxist sense of that word. But, merchants profited by restricting the capability producers had to exploit themselves and their families. That is, petty commodity producers as capitalists were unable to appropriate the surplus value they were creating in the form of wheat because the exchange value was determined by forces beyond their control.

2. The Farm Safety Association documents and publishes accounts of the safety record for provincial farms. Beyond their data, which focuses on machinery related accidents, there has been little attention devoted to the hazards of agricultural work. Reasons et al. (1981) point out the risks to agricultural workers who handle grains. The Tolpuddle Farm Labour Information Centre produced a video (1985) on Farm workers called "To Pick is not to Choose" which attempts to document risks to farm workers from chemical agents. The National Farm Workers Union in U.S. also has a video out called "The Wrath of Grapes" where the effects of pesticides on farm workers and their families is portrayed.

CHAPTER VI ORGANIZATION AND CONTROL

The previous chapters support the evolutionist claim that many aspects of tomato production in Ontario have developed in a manner that enhances a capitalistic agricultural structure. The purpose of this chapter is to determine if the same trend persists in the area of organization and control. How does the development of agribusiness influence farm workers' ability to organize themselves and exert control over work activity?

The topic of organization and control is a matter of some debate in political sociology and the sociology of work. Scholars differ in their assessment of how important relations of production are for determining conditions in the socio-political realm. Some follow a Marxist interpretation and credit relations emerging from the labour process with a seminal role in class and political positions. * Others are more Weberian in their approach and posit that historical and cultural factors, which develop outside the economic relations, in turn affect social relations of production.** The development of class interests, and the role of the state

* For example see Burawoy, 1979, and Edwards, 1979.

** For example Clegg et al., 1986, and Thomas, 1985.

are key issues for both camps. These are also important for the discussion in this chapter and are addressed in the following pages as we examine them in light of agricultural production.

The position farm workers occupy in the Ontario tomato industry is explained by three sets of factors: structural, cultural, and situational. Structural factors include the legal status farm workers have with respect to labour legislation and immigration policy. Cultural factors refer to the dominant values, beliefs and norms dominating the ethnic groups from which farm workers come. Situational factors are those that occur in the specific community settings where farm workers live and work, and include the kind of labour relations existing between them and their employers.

In some cases contrasting hand and machine harvest operations is appropriate to reveal how responses have been influenced by the development of agribusiness. Situational factors, for example, lend themselves to such a comparison. However, when structural and cultural factors are considered it is necessary to move beyond the productive enterprise. For the former, the role of the state in determining the limits within which farm workers can operate is of key importance. For the latter, historical precedent and traditional values emerge as

important variables that influence the social organization of farm work.

A. STRUCTURAL FACTORS

There are several points to consider in this section. Of primary importance is the legal framework within which farm work is carried out. Three acts contain the main body of labour legislation in Ontario: The Employment Standards Act, the Labour Relations Act, and the Health and Safety Act. By and large, farm workers are excluded from most of the sections detailed in these acts (Bruce and Kerr, 1983; Neilson and Christie, 1975; Stultz, 1987). Of key importance to the issue of organization, is the right to form associations, something that has been categorically denied farm workers since the Labour Relations Act was created.

Farmers and growers however, have never been prevented from creating organizations that represent their interests. In fact Canadian political/economic history has several examples of such activity including the grain co-operatives in western Canada (Kneen, 1990) and fruit growers marketing boards in the Niagara peninsula (Crewson and Matthews, 1986). These organizations were designed to protect farmers' interests in their market relations with the buyers of their

produce. For Ontario tomato growers the OVGMB has always been the most important organization for that purpose.*

The class interests among growers that congealed in opposition to capitalist market forces have created organizations that can and do pursue growers' interests in their labour relations with hired workers. The Board of Directors for FARMS, for instance, includes representatives from the Ontario Fruit and Vegetable Growers' Association among other grower organizations (OMAF,1987c). The Task Force on Health and Safety in Agriculture also had strong representation from such groups. Newspapers reported grower associations voicing concern and actively lobbying the Ontario government when changes were proposed for labour legislation (*Farm and Country*, Oct. 14, 1986).

Those proposals took place in 1986 when there was some interest in studying exclusions from labour legislation given the "new" Charter of Rights.** Around

* As discussed in Chapter III, "The History of the Ontario Tomato Industry", all marketing boards, including the OVGMB, required provincial and federal government approval to exist. In the 1940s and 50s the OVGMB was a strong force representing grower interests. By the 1980s, with Free Trade Agreements and strong pressure on agricultural enterprises, many question which side the state is now supporting.

** At this time there was minority Liberal government in the province. The NDP, which had formed a coalition with the Liberals, may have put some pressure

that time domestic workers had gained some publicity with their fight for, and eventual victory in, gaining inclusion for minimum wage guarantees.¹ When groups interested in securing similar rights for farm workers started to make their demands known, opposition from grower lobby groups quickly developed. Articles in farm newspapers repeated concerns voiced by growers. They spoke about their vulnerable position with perishable commodities and processes. Because farm workers could refuse to work at crucial times (when tender fruit is ripe, or when cows need milking) their employers might lose everything (*Farm and Country*, Oct.14, 1986).

Although labour policy for farm workers has rarely been a priority for recent provincial governments, other groups have taken an interest in their plight.² Among them is the United Food and Commercial Workers (UFCW) whose membership makes it the second largest private sector union in Canada (*Globe and Mail*, Mar.18, 1988). In 1988, this union revealed its interest in organizing farm workers when it brought the request from employees of Cuddy chicks in London, Ontario to the Labour Relations Board. The hatchery employs 300 people, year round, in factory-like conditions. Yet the hatchery

on them to investigate such labour issues.

was able to argue that the work comes under agricultural production and therefore is excluded from the Labour Relations Act. When the union countered that this exclusion is a violation of guarantees under the Charter of Rights and Freedoms, the Board reserved judgement while a decision was made on its legal right to decide charter cases. As of September, 1990, there has been no further decision regarding this case.*

Despite the illegality of forming a farm workers' union, "grass-roots" attempts at mobilizing support occurred in 1982-83. Organizers from the British Columbia based Canadian Farmworkers Union (CFU) came to southwestern Ontario to determine the possibility of starting an Ontario wing (Beveridge and Conde, 1982). Some Quebec farm workers employed in the tobacco harvest were interested in the idea of unionization but a number of factors prevented real progress. These included the logistics and costs of commuting between B.C. and Ontario, the lack of interest from local labour groups, and the failure to attract substantial numbers of farm workers. The organizing drive was abandoned by 1984.**

Since then the viability of the CFU has also

* This information is from personal correspondence with a senior policy advisor at the Ministry of Labour.

** Information from the Tolpuddle Files.

become tenuous.³ The union had gained legitimacy under the NDP government in British Columbia in 1979 but the subsequent return to Social Credit signalled a change in the external support the union had relied upon. According to United States studies on farm worker mobilization, political approval is a necessary condition for successful organizing (Jenkins and Perrow, 1977).^{*} Without the external support of government agencies, and sponsorship from established organizations, attempts to organize "deprived" groups are fruitless. Farm workers are categorized as members of such a group given their membership in secondary labour markets or the reserve army of labour as discussed earlier.^{**} And, up to now, the provincial legal structure in Ontario has sided with the interests of growers and employers to ensure those hired for agricultural work are unable to organize formally and exercise some control over conditions at the work site. The recent election of an NDP government gives some indication that the situation may eventually change so that farm workers will have the same rights as

^{*} In fact, the state will try to co-opt the leaders of organizing attempts if they are not supportive as was the case with Cesar Chavez. When his success as a farm worker leader became apparent, Chavez was offered a lucrative position with the Peace Corps (Krause, 1971:338).

^{**} See Chapter IV, "Labour Markets".

most industrial workers. If the agricultural work force should become more protected, it would indicate that farming is following established trends in industrial capitalism which would support the evolutionist model of agricultural structure. However, as noted in Chapter V, if nothing changes and agricultural workers remain disadvantaged, there is some support for integrationist arguments. In this case, the state is ensuring the persistence of a more vulnerable group of workers whose relations with capital result in greater benefits for those interests.

The evolutionist model is reinforced by other structural factors that are changing with the mechanization of the tomato harvest. For example there are changes in citizenship status and a reduction in child labour. Both are discussed in Chapter IV, "Labour Markets," where it was noted that more residents (who are Canadian citizens) than non-residents and more single/individual labour units than families are hired to work on mechanical harvesters. This means the work force is changing with respect to vulnerability. In the case of residency, the move is from one that lacks some civil, all political and some social rights to one that is entitled to those rights. With respect to child labour the transformation removes children from an exploitative

situation. In both cases the development brings agricultural workers more closely in line with the non-farm sector and therefore gives credence to the evolutionist model of change in agricultural structure.

B. CULTURAL FACTORS

In their study of Arizona farm workers, Padfield and Martin (1965) argue that it is necessary to incorporate a cultural dimension in any analysis of farm labour. Their position develops out of the major concept of the Mayo school of industrial relations, namely: "workers behave as members of their own social units" (Ibid, pg. 6). The authors expand this idea by investigating how cultural prescriptions relate to attitudes and behaviour on the farm job. From their study of three different commodities: lettuce, citrus, and cotton, Padfield and Martin conclude that farm workers and the organization for which they work engage in "mutual exploitation" (Padfield and Martin, 1965:266). For example, they argue that because Mexican farm workers value tightly integrated family structures, they are more reliable workers who end up working in more stable farm jobs such as machine operators. By contrast, Black farm workers, who are typified by loosely integrated and mobile family structures tend to dominate the low

skilled, marginal occupational classes such as field hands.

Their conclusions support a historicist or cultural analysis of changes in agricultural structure. Arizona farm workers incorporate their work activity into the ongoing cycles and conditions of their cultural/social milieu. In turn, their economic activity (i.e. taking specific kinds of jobs in agricultural enterprises) serves to support and reproduce many aspects of their cultural history.

Other scholars offer similar evidence to support this interpretation. For instance, Nelkin traces the connections between the work experience of migratory farm workers in the northeast United States and their social status (1969). When Black Americans travel to northern rural communities for farm work they become marginalized in the dominant white society there. According to Nelkin the values of migrant farm workers, which pervade their working style, are a product of this marginality. Thus, in contrast to mainstream values of individual competitiveness, farm workers pursue a work ethic and behaviour that supports egalitarian relations and reciprocal exchange (Nelkin, 1969). Nelkin cites several examples of these countervailing tactics: sanctions against rate-busting, anonymity, liberal spending,

drinking and gambling. In her opinion these features of farm worker culture are a response to the cultural milieu in which they labour. The kind of jobs these farm workers take, and the manner in which they perform such work, is determined by their position in the wider social realm.

Placing migrant labour in its social/cultural context is the only base from which sound analysis can proceed (Piore, 1979:7). Thomas, whose recent analysis of agricultural work incorporates cultural/historical factors also reflects this position (1981; 1985). He contends that capitalist interests in the lettuce industry seek out the most suitable labour markets already in existence in the social/cultural reality of southwestern United States. Thus non-citizen, Mexican males predominate in highly skilled hand harvesting operations where trust, self-supervision, and anonymity are vital for both the labour process and social relations. By contrast, machine work uses female citizens in low wage, unskilled activity because there is a large pool of such unskilled workers available. The characteristics of both kinds of workers do not result only from their social relations of production. Instead, the labour process exploits and entrenches these features as they persist in the wider domain.

Based on the conclusions from the studies referred to above there should be cultural elements in the different groups of tomato workers that influence the social organization of their work activity. As noted in the discussion of labour markets, farm workers in the Ontario tomato industry come from diverse ethnic backgrounds. Table 6.1 describes those found in my sample.

TABLE 6.1 ETHNIC BACKGROUND OF FARM WORKERS

Ethnic Background	Percentage
* Mexican Mennonite	68%
French Canadian	15%
Ontarian	12%
Offshore (Mex.)	3%
Offshore (Carib.)	2%
Total	100%
	(567)

Because Mexican Mennonites are the most numerous (68%), and because they are the farm workers with whom I became the most familiar, their dominant cultural values will be analyzed more fully than the others.

* This percentage includes some farm workers still referred to as Mexican Mennonite even though they may be either Canadian citizens or landed immigrants residing in Ontario.

Mexican Mennonites

Mennonites are a protestant sect dating back to sixteenth century Anabaptist movements in central Europe. Their history includes periods of persecution, hardship and migration arising from anti-establishment practices.* By the 1990s, Mennonites are far from the homogeneous group they once were. In Ontario there are at least 15 different sub-sects within the denomination. The degree of orthodoxy varies. At one extreme, "old order", "old colony", and "amish" live as close to their eighteenth century German values as possible, shunning the worldly attractions of modern dress, education, and entertainment. Mennonites at the other extreme are indistinguishable from members of mainstream Canadian society.

Mexican Mennonite women told me that elders in their Mexican communities caution families about moving north because assimilation into worldly ways is difficult to avoid.⁴ Recent immigrants claim some of those elders have lost the true Mennonite faith because they continue to amass wealth while ignoring the plight of less fortunate community members (*Globe and Mail*, Jan.16,

* These include adult baptism, refusing military service and holding property in common. See Appendix II, Map 2.4 for a depiction of some of the Mennonite migrations.

1990). It is the level of poverty in some colonies that drives Mexican Mennonites north to Canada.

Despite the inevitable intrusion of secular values into Mexican Mennonite life once families live in Ontario, many traditional attitudes and behaviour persist. Certain of these are especially important if we are to understand how cultural background influences the Mexican Mennonite response to formal organizing and/or controlling certain aspects of their work activity. I have isolated three specific issues: obedience to authority, mistrust of the state, and community stratification. Before these are discussed it is important to point out that the Mexican Mennonite familiarity with farming is one of the most significant features of their culture that predisposes them to enter agricultural work. As well, the historic connection with Canada and their established pattern of moving from community to community renders them suitable candidates for tomato harvest work in Ontario.

a) Obedience to Authority

Church related activities are central to most Mexican Mennonites establishing themselves in their new

communities. All of the women in the Aylmer Group * attended church and observed as many "martyr days" as possible. My informant described church activity as male centred and authoritarian. The pastor and elders make sure their opinions are known about both church and community happenings. Obedience to those judgments is expected and usually given. Individuals who challenge their authority are held in disregard by the community at large.

Respect for male authority also pervades Mexican Mennonite home life. Children can be harshly disciplined and must obey their parents.** Six of the ten married women in that group complained about the way their husbands, or their sons, treated them. Among the complaints women mentioned were difficulties with them spending their meagre income on alcohol (thus reducing the amount available for household needs), refusing to help with house and childcare chores, and lacking appreciation for the hardships these women endured. Two

* In Chapter II, "Methodology", I describe my involvement with a group of 13 Mexican Mennonite women in Aylmer, Ontario.

** The husband of one woman in the Aylmer group was currently on probation for physically abusing his son during a reprimand for a misdemeanour. The same man was being watched covertly by several community workers because his drinking problem was contributing to frictions between him and his wife.

of the three unmarried women were engaged. My informant told me one of them was to marry a man several years her senior and really did not want to, but was being forced into the situation.

The husband's authority in the family is reflected in the wife's relationship with her parents-in-law who often exert influence in their son's homelife. Although only one woman spoke to me directly about the friction between her and her in-laws, I noted a degree of tension among the women who were anticipating visits from their husband's families. I learned that some women felt pressure from their mothers-in-law to have large families.

The orientation to obeying male authority at home and in the community has consequences for the activities and behaviour of Mexican Mennonite women who work as hired labour in tomato operations. Inevitably they have male employers who, by virtue of gender, can exercise considerable control over the women's experience in the enterprise. Cultural biases mean Mexican Mennonite women are restrained from taking actions that would enhance their ability to control work activity if that meant challenging male authority.

D.) Mistrust of the state

An important exception to the Mexican Mennonite tendency to obey authority is their attitude to state regulations. I discovered several instances of disregard for government requirements. Growers and community residents told me how Mexican Mennonites would drive without licenses or insurance*, and how they routinely avoided paying income tax, UI, and pension fees. Their neglect for school attendance regulations which concerned school board officials with whom I spoke, is another example of overlooking state policy. Although Mexican Mennonites could claim ignorance of the law as their excuse for blatant violations, growers I interviewed insisted they were much wiser than they wanted to appear. For instance, when economic gain could be made from state programs (such as family allowance, child tax credit, UI and welfare) Mexican Mennonites did not hesitate to apply.

Voting in a provincial election had also been an issue for some of the Mexican Mennonite families in the Aylmer area. My key informant, who worked for the

* I saw one woman in the Life Skills group driving her children home from school. When I questioned why she was one of those trying for a driver's license, the group leader laughed and said "We know ---- drives, we just want her do it legally !"

successful candidate, told me she got Mexican Mennonite residents to agree to be enumerated and to vote by linking a promise for subsidized housing with the process.* Otherwise, she explained, they would hesitate to register in any way that might lead to the possibility of military service.

Their reluctance to use government service, unless there is material gain, is also reflected in my sample when we examine how growers have contacted farm workers for employment as shown in Table 6.2.

TABLE 6.2 ETHNIC BACKGROUND OF FARM WORKER AND CONTACT FOR WORK

Ethnic Bkgd of FWorker	Growers' Contact	
	Personal	Agency
Mennonite	81%	0%
NonMennonite **	19%	100%
Total Number ***	100% (21)	100% (8)

* When I was in the area, the proposed housing project was getting underway.

** This category refers to all ethnic groups other than Mennonite, that is Caribbean, Mexican, French Canadian and Ontarian.

*** Of the 38 growers in the sample, 29 hired either Mennonite workers or non-Mennonites. Because the remaining 9 growers hired both, they are excluded from this table.

As these figures indicate, no Mennonite farm workers were hired through agency placements. Instead, growers sought them through personal networks. The contrast with non-Mennonite farm workers is strong because this category includes all individuals in various government employment schemes including F.A.R.M.S. and AES. Officials at government employment agencies such as AES told me that they rarely had Mexican Mennonites for clients until just recently, when larger numbers of them started coming into Ontario, and when profitable farm work was in short supply. * Even then, Mennonites were perceived as reluctant to sign forms or commit themselves formally.

This anti-state attitude means Mexican Mennonites may defy legislation against forming farm workers' associations, especially if material gain would come from such a move. Given the history of farm worker unions arising among those of a similar ethnic background (for example, Hispanics in U.S, East Indians in B.C.) the possibility exists theoretically that Mexican Mennonites may use the solidarity from a common culture as a basis

* Because of adverse weather conditions, 1987 and 1988 had been difficult seasons for hand harvest workers in crops such as cucumbers and tomatoes. The product was smaller and field conditions worse than usual so piece work had not been as lucrative.

for formal union organization.

c) Community stratification

In fact, the hypothesis concluding the former section has several factors working against it. First, Mennonite communities are "as class-ridden as any other", to quote one Mennonite tomato grower. Among the women in the Aylmer Group, there was a wide range in wealth and community status associated with church affiliation. For instance, the one woman whose family had come from Mexico with considerable capital fraternized with few of the other women.*

Marked differences in social status underlie exploitative relations within the community. Such situations can and do persist because of language and religious boundaries that reinforce intra-group activity while preventing intervention from outside interests. In my sample, Mennonite growers show a decided preference for Mennonite farm workers. Some of the Mennonite growers I interviewed told me they preferred Mexican Mennonite workers because they knew they could be trusted, they were hard working, and there were no

* The community workers handling the Aylmer group told me this woman had been spoken to about how her behaviour disrupted the group. Her response was to modify any "snobbishness" the other women complained of.

language barriers. Likewise, Mexican Mennonite farm workers might find Mennonite employers preferable because of their familiarity with religious customs and language.* Table 6.3 presented below indicates the strength of that preference.

TABLE 6.3 ETHNIC BACKGROUND OF FARM WORKER AND GROWER

	Grower	
	Mennonite	Non-Mennonite
Farm Worker		
Mex. Mennonite	67%	35%
Non-Mennonite	8%	42%
Mennonite and non-Mennonite	25%	23%
Total	100%	100%
Number	(12)	(26)

A majority (67%) of Mennonite tomato growers in this sample have only Mennonite employees. Although non-Mennonite growers (35%) also hire substantial numbers of Mexican Mennonite farm workers they are more willing to employ other ethnic groups (42% compared to 8%). Therefore, the figures in this table support a relatively

* For instance, if a grower would excuse farm workers from working on Sunday it was appreciated.

strong pattern of Mennonite growers hiring farm workers who share the same ethnic background.

Both Mennonite, and non-Mennonite growers told me about the exploitation that was known to occur in situations where Mexican Mennonites were employed. Interviewees referred to other growers who would treat their Mexican Mennonite workers "like animals", by making them work extremely hard and by supplying sub-standard housing. If people criticized them for such abuses, they justified their actions saying in Mexico it was far worse for them.

As noted in Table 6.2, growers rarely contact Mennonite farm workers through government agencies but rely on community and family networks instead. That style of contact was called "the grapevine" or "jungle phone" by growers who display the same ethnic bias in avoiding agency use. Table 6.4 confirms that trend.

TABLE 6.4 ETHNIC BACKGROUND OF GROWER AND CONTACT FOR WORK

Contact	Ethnic background (grower)	
	Mennonite	Non-Mennonite
Personal	92%	62%
Agency	8%	38%
Total	100%	100%
Number	(12)	(26)

As these figures indicate, 92% of Mennonite employers rely on personal contacts to secure hired workers for their tomato growing enterprises. This data, coupled with that already presented, support the depiction of a tightly integrated Mennonite community where inequities in status and power may inhibit those engaged in hired farm work from taking any actions to organize formally and control work activity.

A second factor limiting worker solidarity based on ethnic background is that once Mexican Mennonites have been in Ontario for some time, many do not want to be labelled as "Mexican Mennonites", but prefer to be called "German". When I accompanied women from the Aylmer group into the community for shopping and other business, it became clear why not wanting to identify with Mexican Mennonites was desirable. On several occasions, I noted disdain from store and bank clerks, and from community residents directed at the women.⁵ My informant and the women themselves, gave examples of mistreatment, including people yelling obscenities at them when they walked down the street. From the community workers involved with the Aylmer group, I learned there was strong public resentment toward Mexican Mennonites who

were entering the community.* Thus, being a Mexican Mennonite has certain liabilities attached to it. These might undermine any attempt to build a workers' association organized around ethnic background.

A final element in community stratification that impinges on developing solidarity among farm workers is the Mexican Mennonite attitude toward non-whites. In Mexico, most Mennonites keep themselves as separate as possible from Mexican nationals and native people. My informant said those who interacted and got close to these groups were censured by the elders.** When I asked about Mennonite relations with Mexicans she replied, "Oh those are the black people and we have nothing to do with them."

Women in the Aylmer group told me native people living in mountainous regions nearby would periodically come through the communities begging for food, clothing and money. They were described as not only exceedingly poor and dirty, but also likely to steal if given the

* Some of these workers tended to be patronizing toward the women. My informant told me such attitudes had not gone unnoticed and caused irritation among some of the women.

** She told me those who went to Mexico city for training in skills and those who had business dealings with Mexicans were criticized if they showed signs of adopting Mexican customs.

opportunity. Such negative attitudes work against building solidarity with Ontario farm workers who come from ethnic groups Mexican Mennonites label undesirable.

These three characteristics of community stratification: internal exploitation, negative feelings to the Mexican Mennonite identity, and exclusive attitudes toward other ethnic groups are all significant influences working against the possible formal organization of farm workers who want to gain some control over work activity. When combined with the cultural value of obeying authority, discussed at the beginning of this section, the likelihood of such organizing becomes even more remote.

Generally speaking, individuals from the remaining groups in the sample, namely French Canadian, Caribbean, and Mexican, also have historical circumstances and cultural traits that influence whether they are available for tomato work in Ontario and once there, how they organize themselves. In all three cases, there is a history of domination and exploitation by an English speaking, "white" stratum. Theoretically, working in rural southern Ontario where communities tend to be dominated by a "WASP" culture, has at least two possible

consequences. First, it may be a factor that intimidates workers so that they behave in a subservient manner thus preventing the possibility of defying their employers' directions. Second, it may be a factor around which to organize. That is, farm workers from diverse backgrounds might overcome their cultural barriers and develop solidarity in opposition to the dominant group. As noted in the section on Mexican Mennonites, however, other features (such as racial prejudice) may persist and undermine associations based on work activity.

Also in that discussion, it was noted that the familiarity with agriculture among Mexican Mennonites makes them suitable for such work in Ontario. The same point is true for many of the Mexican nationals who travel here under the F.A.R.M.S. program.* In their home communities they have also quite likely come into contact with individuals who have travelled to northern regions and the folklore associated with those travel patterns.⁶ Likewise, Caribbean culture also has a historic pattern of men leaving to work in other

* In general conversations with growers about these workers, it is frequently noted that this is one reason many growers prefer Mexican over Caribbean farm workers. Other explanations include the usual stereotypic descriptions of Blacks as lazy.

communities and/or countries.* Those who come to Ontario are participating in a tradition that is familiar.

French Canadians have been travelling to Ontario for seasonal farm work since World War II when inter-provincial farm labour schemes were instituted. Thus they have a 50 year old tradition that would generate some influence. Of equal, if not more importance, is the economic health of their home communities. According to AES officials, and several growers, the numbers of available French Canadian farm workers reflects the increase or decrease of opportunities for employment in the Lac St.Jean area of Quebec. This connection with the larger economic climate is even more true for Mexican Mennonite and offshore workers. In this case the situation in "developing nations" as controlled by global economic patterns determines the numbers of workers freed up to do farm work in Ontario.⁷ The evolutionist model of change in agricultural structure receives strong support from such ideas as expressed in the models of

* For example, a significant number of Caribbeans work in the Florida sugar cane industry where they experience poor working and living conditions (Thomas-Lyclama a Nijeholt, 1980:42-45)

Frank and Wallerstein.*

However, Thomas would argue these broad economic interpretations neglect the social/cultural dimension (1985). With respect to migratory farm workers in the Ontario tomato industry several cultural factors have been discussed. For Mexican Mennonites, their obedience to authority, mistrust of the state, and community stratification exist outside an economic framework even though each of these features has consequences for economic relations. Other considerations include a familiarity with agriculture, traditional patterns of movement to other communities for work and established perceptions of relations with WASP culture. These are products of an historical and social reality that integrate with, not result from, the requirements of the agricultural economy in Ontario. Because these features can be and are exploited by capital interests in the tomato industry, they do not necessarily contradict support for the evolutionist model for changes in agricultural structure. Instead, historical considerations broaden our understanding of how that structure is able to become more capitalistic.

* See Taylor (1979) for a full discussion and refutation of these models.

C. SITUATIONAL FACTORS

Situational factors refer to those that occur in the specific settings where farm workers live and work. The conditions under which they live play a significant role in how farm workers approach their employment situation. The following discussion emphasizes the importance of personal labour relations. Labour relations are called personal when employers and employees develop bonds or attachments beyond those associated with work activity. Such relations, which are often paternalistic and inequitable, mean hired labour is kept in a disadvantaged and more exploitable position than they might otherwise be.

a) Personal labour relations

Pentland explores personal labour relations in his analysis of labour and capital in pre-confederation Canada (Pentland, 1981). During these times, a paternal interest in employees' welfare was often necessary if capitalists were to ensure a secure supply of labour for their enterprises. One of the problems with that supply arose from the seasonal nature of much of the work. Shipping and lumber operations, for example, did not employ workers year round. Employees in these businesses would have to seek other work in off months unless they

had year round support of some kind. Employers, who could provide that support in the form of higher wages and personal favours, developed mutually dependant relations with their employees in a fashion similar to classical feudalism (Pentland, 1981:25).

Implicit in personal labour relations is the concept of simple or entrepreneurial control also associated with early industrial capitalist organizations (Edwards, 1979:23). When firms were relatively small and limited by such external conditions as established wage rates and set prices, the success capitalists attained was contingent upon extracting maximum labour from their employees (ibid). Personal relations, that involved harsh discipline and favoritism, were techniques used to meet that goal.

Many growers in Ontario tomato production have tended to be in a similar position. Like these early capitalists they tend to operate relatively small enterprises, to know their workers personally, and to control all aspects of the productive process even if they are following processor guidelines. Growers also face little maneuverability with respect to wage rates (minimum wages are set by government legislation) and market prices (these are negotiated through their marketing board). Thus, simple or personal control, is

a possible method to ensure farm employees' co-operation in meeting goals for greater productivity. Because these workers have little recourse through labour legislation or political representatives, personal labour relations can persist.

Two factors emerge from the data as key indicators for these relations: the fact that employers provide housing for their farm workers, and that they may extend other employment opportunities to those farm workers and their relatives. If agriculture is following the path of industrial capitalism, then there should be a reduction in simple control as technical and bureaucratic forms take precedence.

i) Housing

The opportunity for personal labour relations to develop is greatly enhanced when employees live on property owned and controlled by their employers. In most cases this housing is a mobile home or bunkhouse arrangement behind the farm house and close to out buildings. When farm workers are housed, it indicates that they can do little without their employers' knowledge. In fact, providing accommodation gives employers an opportunity to control farm workers' behaviour on the job. Two growers admitted to me that

they used housing as a lever to ensure Mexican Mennonite employees did their jobs properly. If work was not up to standard, or if there were other problems, the employer would threaten them with eviction. Because Mexican Mennonite farm workers may have no legal status in Ontario, there would be no recourse for them. If offshore and French Canadian workers were faced with such threats, they could seek help through the appropriate government agency (but most anecdotal comments suggest decisions are generally in favour of the grower).*

Being housed on their employers' property is symbolic of several other dependencies farm workers may experience in their interactions with growers. For instance, offshore farm workers need to have their employers' permission before they can leave farm property.** As well, farm workers often rely on the grower and/or his family for help with translation, filling out government forms, transportation, and

* This was also the case for Braceros who could appeal to their representatives called "compliance officers". Usually, the employer's position was upheld (Galarza, 1977:238).

** Although many growers do allow workers to come and go as they wish, the understanding between growers and officials with the F.A.R.M.S. program is that employers are aware of their employees' off-farm activity. This is necessary to prevent guest workers from remaining in the country illegally. Statistics indicate a low percentage of A.W.O.L. cases.

assorted personal difficulties.⁸ Growers call their behaviour during such interactions as "doing favours", but the implications are deeper than that phrase suggests. Such dependencies help to cement farm workers into personal relations of unequal exchange and make employees more vulnerable than they might otherwise be.

Simmel's phrase "societas leonina" * is an apt one to describe the relationship between housed farm workers and their employers (Wolff, 1950:182). Although the metaphor is strong, it does convey the wide differences in power which colour any interactions. In fact, Simmel would claim it is absurd to think social interaction is possible under such circumstances (Ibid). Instead, employers and their employees often develop a high degree of paternalistic behaviour. ⁹

One consequence of paternalistic relations is to undermine the development of solidarity among disadvantaged people. Some scholars suggest the paternalism between slaves and masters in the United States was a significant factor in reducing the chance for revolt (Genovese, 1974:5). Others point to more recent developments in rural England where hired farm workers join forces with their employers in opposition to

* literally, "sociation with a lion".

the detrimental effects from "nouveau riche" urbanization (Newby, 1977). In both cases, the less powerful group weakens connections among members in its pursuit of other goals. Similarly, if Ontario farm workers were legally allowed to belong to formal work associations, allegiance to their employers might become a major obstacle to the success of such groups.

The fact that more residents than non-residents are hired when mechanization takes place in tomato harvesting suggests the requirements for housing should also change. Table 6.5, which depicts how the percentage of growers who house their workers varies according to the harvesting style, is presented below.

TABLE 6.5 HOUSING BY HARVESTING STYLE

	Hand	Machine
Housed	86%	38%
Not Housed	14%	62%
Total	100%	100%
Number	(22)	(16)

Of all those growers with hand harvest operations, 86% provide housing for their employees. When mechanization is introduced that percentage drops to 38%, a trend which supports the claims of Pentland and others regarding

capitalist development. That is, the opportunity for personal labour relations to develop is significantly reduced when mechanization occurs. Therefore the evolutionist model for changes in agricultural structure is given added support.

The change is significant for growers as well. Several indicated that they disliked having to house workers because of the image it created in the public eye. These growers felt having to oversee workers in what they termed "slave-like" situation put them in a poor light. There were also several complaints from growers about the time and effort it takes to act as a landlord for housed workers. The need for monitoring farm workers to ensure that different groups and families are compatible, or that alcohol abuse and violence did not create problems was also a source of irritation for some growers. Their preference was to be perceived as businessmen who had impersonal relations with workers. Thus, the move to reduce housed employees with mechanization not only diminishes personal labour relations, but also allows growers to view themselves as conventional employers. Because the desired shift in image is an expression of rationalizing authority from a traditional to rational-legal form the evolutionist model is supported.

ii) Extending Employment Opportunities

The tomato harvest season runs from mid-August to late September. To ensure that harvest help will be available, some growers will offer additional employment in other labour intensive crops. Thus it is not uncommon to find offshore workers, French Canadians, and Mexican Mennonites who harvest tomatoes, also contributing to market garden, fruit, cucumbers (for processing) and/or, tobacco operations run by the same employer. Mexican Mennonites, who are not here under a government controlled scheme, are free to work for other employers and often do.*

Extending the employment arrangement makes sense to both employers and their workers. The former, who have to bear the costs of housing and in some cases of transporting workers to Ontario ** want to spread those expenses over the longest time possible. It also makes

* For instance, in several cases I learned of one grower who encouraged his Mennonite workers to go to neighbours or family when they needed extra help. By contrast, offshore workers are not legally free to move to other employment even if their employer agrees.

** The airfare for Caribbean and Mexican offshore workers is paid for by their employers. Transportation for workers in the inter and intra farm labour pool schemes is paid by the government agency if the workers stay in agricultural employment. Mexican Mennonites may have private arrangements for help with transportation costs; it will vary with each circumstance.

economic sense for migratory farm workers whose primary goal is to earn as much money as possible before returning to their home community. Many of them seek assurances of jobs not only for the duration of the current season in Ontario, but also for the year(s) following their initial engagement.

Eligibility for extended employment opportunities depends on whether employees are desirable workers. As noted in Table 5.2 in Chapter V, "Findings: Labour Process", the most desirable traits for workers in both harvest styles are reliability, trustworthiness and willingness to work. I contend these characteristics are typical of workers willing to act in a docile and deferential manner. Such behaviour diminishes the need for achievement in education and training. In fact, if an individual has such qualifications it might imply that the person is unsuited to farm labour. Not only do the jobs require little mental skill, but also individuals with such capability may be unwilling to accept the indignity personal labour relations can foster.¹⁰ The willingness to accept personal labour relations and the implied behaviour are prerequisites to gain the economic advantage of extended employment opportunities.

According to Table 6.6, the tendency to offer such opportunities reduces with mechanization.

TABLE 6.6 OTHER CROPS AND HARVESTING STYLE

	hand	machine
market garden *	32%	12%
grains	64%	88%
none	5%	0%
Total	100%	100%
Number	(22)	(16)

The comparison between hand and machine harvest operations indicates that there is a drop in the number of employers who extend employment opportunities to their tomato workers with mechanization. Thirty-two percent of the hand harvest operators, compared to 12% of mechanized growers, can make use of their employees' labour in other endeavors. The association between mechanized tomato harvesting and grain production shown in the table is not surprising. The latter is also heavily mechanized and uses little labour beyond the owner-operator, his family, and/or a "hired" man. Likewise, the association between

* The category "market garden" refers to the labour intensive production of fruit and vegetable crops for the fresh market. The figures also include tobacco production because that crop also has a large labour component.

market garden crops and hand harvesting reflects the need for large numbers of workers in both that activity and tomato harvesting. In fact, some growers make decisions about what other crops to produce based on the availability and quality of the labour they have lined up for tomato production.¹¹

Related to the extension of farm workers' employment opportunities is the possibility of finding employment for other family members.¹² This is especially true for Mexican Mennonite farm workers who often have extended families in South and Central American Mennonite communities.¹³ By Canadian standards many of them are destitute and seek help from relatives who have bettered themselves working in Ontario. Growers who can help Mexican Mennonites working in Ontario find jobs for their relatives are thought of as "wonderful" people. When their employees' translate their gratitude into hard work and loyalty, personal labour relations are firmly established.

The level of poverty for in-coming farm workers is a key variable for explaining why organizing to improve conditions in the farming enterprise is unlikely. Women in the Aylmer Group all agreed their primary reason for coming to Canada was to improve their standard of living. If the Mexican Mennonite family returns after

the harvest, their material situation in Mexico (as well as their social status) is superior to what it would have been had they not come. If the family decides to remain in Ontario and is legally able to do so, they are much better off. Benefits from moving to Ontario are not only earning a better income, but also the availability of various social assistance programs. The increase in standard of living generates a condition of relative affluence for these individuals because they are comparing their Ontario experience with conditions in Mexico (or Central and South America). Such a comparison would limit the ability of those farm workers interested in formally organizing to convince Mexican Mennonites they are, in fact, poorly off by Ontario standards and therefore need to join forces to improve conditions.

Although Mexican Mennonites have been highlighted in the foregoing sections, the points apply to farm workers from other regions. Growers and other community residents would often mention the fact that their offshore Caribbean and Mexican workers spend much of their earnings here on items unavailable (either because of high cost or scarcity) to them at home.* For

* The increased status from material gain is summed up in this quote from a migrant worker, "I work here (U.S.). Then at home I am king." (Piore, 1979:54).

instance, a recent survey of Jamaican farm workers indicates 700 motorcycles were shipped back with them in 1990.*

The increase in resident workers that comes with mechanizing the harvest means a decrease in those who are candidates for experiencing relative affluence. Theoretically, this may lead to a common perception of what are acceptable standards of living or of working conditions. This, in turn may consolidate class interests and encourage formal organizing. Because these possibilities are more likely with mechanized harvesting, the evolutionist model of agricultural change is reinforced.

An unofficial network for job placement in Ontario has developed out of the contacts between growers and their Mexican Mennonite employees. In 1989, a member of the Mennonite Central Committee in Aylmer, Ontario said he was receiving calls from growers all over southern Ontario who requested Mexican Mennonite families for farm labour. As noted earlier in the section on cultural factors, the tendency to use this kind of personal rather than agency contact for work is not that

* The study has been completed by a M.A student (Indira Ganeselall) in the rural extension and development departments at the University of Guelph.

workers that would not necessarily be available through official channels. It also means that there is no formal record if employees are fired or mistreated.

When growers extend employment opportunities to their employees and their families, they enhance the development of personal labour relations in several ways. First they directly reward farm workers for conforming to deferential attitudes and behaviour. Second, employees who are promised future jobs for themselves and their families express their gratitude by being loyal, compliant, and hard-working. Third is the presence of informal networks which allow employers to interact with workers on personal, unmonitored terms. Because these aspects of extending employment opportunities do not diminish with machine harvesting, support for the evolutionist model of change in agricultural structure is not sustained.

Marxist theory predicts that as industrial capitalism develops, workers will steadily come into conflict with capitalists as each faction tries to organize work and control the labour process to their own advantage. The eventual outcome is supposed to strengthen the labour force comprised of "free" workers who will pursue their own class interests, not only in

the enterprise, but also in the political and social realm. The evolutionist model claims that the same process should occur in the agricultural sector as it undergoes industrialization. Throughout Chapter VI, several structural, cultural and situational factors that influence the ability of farm workers to organize themselves and control work activity in the tomato industry have been discussed. There are varying conclusions. Structurally, both real and potential changes in the legal status of farm workers indicate a move to repeat patterns in non-farm industry. This generally supports the evolutionist model of change in agricultural structure. Cultural and situational factors do not contradict that trend but point to several additional considerations that qualify its development.

This chapter concludes the presentation of findings regarding labour markets, labour process and organization and control in the Ontario tomato industry. We now turn to the final chapter where we discuss the implications of these findings for both the initial research question, and for the agricultural sector in general.

Notes

1. These and other changes came about due to the active lobbying of Intercede (International Coalition to End Domestic Workers' Exploitation). This group had been commissioned by the Federal Minister of Employment and Immigration to write a brief recommending policy changes. They completed the work entitled "Implementation of the Special Policy on Foreign Domestic Workers Findings and Recommendations for Change" in 1983. Although some of their proposals have changed the situation for domestic workers, Intercede continues to advocate the need for fair and just conditions.

2. One of the more famous cases involves a 1977 decision by the Ontario Supreme Court. A decision was needed to determine if mushroom workers should be considered farm workers and therefore denied minimum wage and overtime pay. The owners of the mushroom plant argued that mushrooms are vegetables and therefore their employees are engaged in farm work. Representatives for the mushroom workers argued that the quality of soil, and cultivation practices, rendered mushroom growing outside the accepted definitions of farming. Although the original decision (1973) had been in favour of excluding mushroom workers from the category of farm employees, the appeal in 1977 overturned it. The court pronounced that without a doubt, mushrooms are vegetables and mushroom growing is a type of farming. (These facts have been gleaned from various legal documents describing the court proceedings and hearings. Such records were available to me through the Tolpuddle files.)

3. Conversations with the union president Sarwan Boal in the fall of 1988 indicated the union was facing a desperate struggle to survive. More recent conversations (Spring, 1991) with sociologists at the University of Saskatoon who are familiar with the East Indian farm worker culture in B.C., suggest the situation has worsened. They point to the power of Sikh labour contractors in the community as the main factor working against union solidarity. As well, an increasing number of grower/employers are from the same community. They are able to use internal networks and sanctions to structure the labour scene to their advantage.

4. In fact that assimilation was readily obvious in places like Leamington where Mexican Mennonite families could be observed in the community. On several occasions I saw mothers and fathers dressed and groomed in recognizable Mennonite fashion accompanied by children dressed like any other Ontario youngster. Teenage girls wore blue jeans and pastel blouses and let their long blonde hair hang loosely around their shoulders. Boys had baseball caps, jeans and T shirts making them fit into the scene much more than their parents.

5. Some of the growers' wives mentioned the increasing number of Mexican Mennonite children attending the country public schools. They explained that it was a mixed blessing. On the one hand it meant an end to declining enrolment and the closure of rural schools. On the other, it became a source of friction because the Mexican Mennonite children were looked on as carriers of lice and infectious diseases.

6. The familiarity extends beyond a working knowledge of agricultural production and exposure to the myths and legends of work "el norte". In the U.S. the Mexican peasantry who moved from the traditions of the *hacienda* and *ejido* system to the Bracero program found little difference between relations with a patron in Mexico and a "Straw-boss" in California (Craig, 1971:5). The stereo-typical Bracero was considered a Mexican peon easily controlled by authority and not radical in attitude (Majka and Majka, 1982:64-65). In interviews and conversations, growers and their families made similar judgments about Mexican nationals working in Ontario.

7. Conditions in the "sending" territory are important factors. For instance, government officials claim that an important reason for the offshore program in agriculture was to provide a new form of foreign aid (Wall, 1984:27). The programs began in the mid-1960s when many Caribbean countries were experiencing difficult times economically and politically. Countries exporting workers benefitted from the decrease in their unemployment levels and from the increase in foreign currency from their citizens' wages. It is also likely that guest worker programs meant young, healthy men who might challenge those in power, were shipped out of the country and assuaged by their increased earnings.

8. For example, one grower had the older parent of a farm worker in her home convalescing for most of the summer. In this case the sick person would have been worse off in the outside accommodation. This particular employer also let the farm workers use her laundry facilities and provided haircuts for the family. Another grower I interviewed described how he had intervened when his Mexican Mennonite employee was being "taken" on a deal to buy a van. In this case the employer stopped the deal from going through and helped this employee find a more suitable vehicle.

9. For instance, one grower described how they were treated like "royalty" when they made a special trip to their Acadian farm workers' home for a family wedding. Employers of offshore Caribbean workers described visits to their workers' island homes in similar fashion.

10. An offshore worker from the Caribbean displays such indignation in his words:

"The thing I don't like is the total domination of the person. The whole time you're here (Ontario) you're dependent on the farmer for everything. I'm a grown-up man. I came here to work, not be dependent on another man."

(**This Magazine**, May, 1988.)

11. It has been common in the past for tomato growers also to grow cucumbers for processing. They are referred to as "pickle growers". If a grower secures a reliable family or two for tomato harvesting, he'll arrange to have them work the cucumbers as well. The "pickle" market had been especially poor in mid 1980s due to the extremes in weather and labour problems. Mexican Mennonite families were reported to be uninterested in harvesting cucumbers because the returns were so low. This in turn was having some effect on the numbers arriving to hand harvest tomatoes as well. If the families could not make a reasonable amount between the two crops, it lessened their desire to travel north.

12. One grower I interviewed had just made arrangements to bring a family of 12 in from Brazil to work on his farm that summer. According to him they were starving "eaten nothing but rolled oats and water all winter" so he was glad to help them out. When I asked him about the red tape of immigration, he waved his hand to the side and said his M.P. took care of all that.

13. One Mexican Mennonite woman (aged 26) I met now has landed immigrant status in Ontario, as do her brother and two sisters. Between the four of them there are 31 children. Ten more brothers and sisters live in Central and South American communities where they will likely have families of similar size. Their father, who was recently widowed has remarried and continues to have more children.

In this dissertation, the Ontario tomato industry has been used as a case study to explore how the development of agribusiness affects the situation facing hired farm workers. In the 110 year history of that industry, the once small-scale petty commodity production of tomatoes is being transformed to large scale enterprises that align with capitalist interests in the food manufacturing sector. This pattern or trend has been referred to as the growth or development of agribusiness and is symbolized by the introduction of mechanical harvesters.

Through an analysis of changes in labour markets, labour process, and organization and control when mechanical harvesters are introduced, we have pursued the three aims outlined in the introductory chapter. These include testing the usefulness of various models explaining changes in the agricultural structure of industrialized nations; contributing to our knowledge about hired labour in Ontario agriculture; and, furthering Canadian political economy studies. The manner in which this dissertation has addressed each goal

is summarized in the following section.

A. AGRICULTURAL STRUCTURE DEBATES

The three models for explaining changes in agricultural structure are the evolutionist, the integrationist, and the historicist. The first of these predicts that, under the capitalist mode of production, agriculture will follow the path of non-farm industry. As outlined in the introductory chapter this means there will be an increased concentration and centralization of capital, the emergence of large scale enterprises, and the development of rural class divisions between agrarian capitalists and workers. In opposition to that, integrationists predict capital interests are better served by their articulation with non or pre capitalist forms. Thus, rather than advancing the demise of petty bourgeois forms, the capitalist mode of production ensures their persistence. Finally, we considered the contributions from the historicist model which questions the inevitability of any predictable changes in agricultural structure, citing a number of historical/cultural conditions that can influence the course of events.

Based on the analysis presented in Chapters IV, V, and VI, the general conclusion from this dissertation

is that the evolutionist model, when augmented by historical and/or cultural details, provides the most persuasive explanation of the situation facing hired farm labour in the Ontario tomato industry as agribusiness develops there. For instance, changes in the farm labour market that accompany mechanization are similar to those typifying general patterns of change in industrial capitalism. The number of workers with Canadian citizenship and residence increases as does the number of female employees. At the same time, the number of family units hired decreases in favour of single individuals.

The evolutionist model gains further support when dual labour market theory is compared to the concept of the reserve army of labour for explanations about such changes. The former theory, which is associated with the integrationist model, depicts agricultural enterprises as more or less closed systems with features that attract a "low skilled" labour market. This perspective is unable to explain differences in the hand and machine harvest labour. From its viewpoint they are the same group of workers. By contrast, explanations based on the industrial reserve army (which is affiliated with the evolutionist paradigm) are responsive to changes in labour markets. In this case alterations in labour market features are linked to mechanization and the needs

of capital interests in the processing sector.

With respect to labour process issues the evolutionist model again provides the most satisfactory explanation. The increase in capital interests' control over work activity means large processing firms (rather than growers) ultimately benefit from the appropriation of more surplus value. This is accomplished through several changes in work activity, and through various circumstances in working conditions that have arisen with the transformation of harvesting from hand to machine.

The issues raised in organization and control fall into three categories of factors, namely structural, cultural, and situational. When analyzed, these components yield varying conclusions about the utility of various models for changes in agricultural structure. For instance, structurally, both real and potential changes in the legal status of farm workers indicate a move to repeat patterns in non-farm industry, thus supporting the evolutionist model. Cultural and situational factors do not necessarily contradict that trend but point to several additional considerations that qualify its development. These, in turn, point out the usefulness of the historicist model. For instance, among those harvesting in the Ontario tomato industry are individuals from groups with well established patterns of

migrating to North America for seasonal farm work. Many of these non-resident workers experience relative affluence when working in Ontario. This colours their perception of what are acceptable working conditions, and whether it is desirable to organize formally to demand changes in work activity. Although the evolutionist model is better suited than the integrationist for explaining changes in the situation facing those hired in Ontario tomato production, it is improved when supplemented by various historical and/or cultural aspects.

B. HIRED LABOUR IN ONTARIO AGRICULTURE

The organizing research question for this dissertation is "how has the growth of agribusiness affected hired labour in Ontario agriculture?". Based on our investigation into the tomato industry, we can offer the following answer. First, the growth of agribusiness changes the labour market for tomato production so that it takes on characteristics similar to the labour market for work classified as unskilled and low status in the non-farm industries. In effect there is a homogenization of both work activity and labour markets between these two sectors. However, due to the state's interpretation of agricultural work as "special", the transformation is

somewhat incomplete. Farm workers remain in an inferior position compared to non-farm workers because of their exclusion from certain rights and guarantees implicit in provincial labour legislation.

A number of those involved in tomato production are working without Canadian citizenship. These workers, first as non-residents, then as farm workers, are not entitled to many of the rights and freedoms most individuals employed in Ontario take for granted. It has also been noted that children under sixteen regularly work in agricultural enterprises which are considered one of the most hazardous workplaces. Given the exclusion of farm work from various labour laws (such as the Occupational Health and Safety Act, and the Employment Standards Act) it is legitimate to raise questions about the vulnerability and exploitation of farm workers. This investigation of hired labour in the Ontario tomato industry has brought some of these concerns to the fore.

A second manner in which the growth of agribusiness influences the situation facing hired farm is found in the labour process. Changes in work activity that accompany mechanization depict farm workers as following the pattern for non-farm industrial workers who have faced fragmentation and deskilling at the work site. Hired agricultural workers (and many small to medium size

growers) steadily lose any control they might have had over work activity and conditions when the harvest is mechanized. Growers, in effect, are being proletarianized when contributing to the "collective labour" function necessary for machine harvesting. The increased surplus value that results from these changes is not necessarily appropriated directly by the capital (employers) who hire farm workers. Instead, major processing firms, through their influence on both the production of tomatoes and the price paid for the crop, gain the advantage.

C. CANADIAN POLITICAL ECONOMY

The third aim of this dissertation has been to further Canadian political economy studies. As noted in the introductory chapter, a main trend in North American rural sociology is the development of a political economy of agriculture. This means ideas and concepts from other areas, such as the sociology of work, can be incorporated into agricultural analysis. In the case of the Ontario tomato industry, the application of labour market and labour process theories has been very useful, as discussion in the foregoing sections reveals.

Political economy studies also emphasize historical transformations and the processes underlying

such changes. A comprehensive description of developments in the Ontario tomato industry has been documented in this dissertation and is now available for scholars who require such information. The connection between that history and the situation facing hired farm workers has not only revealed important aspects of agricultural labour, but has also improved our understanding of Canadian society.

This investigation into the effects agribusiness has on conditions facing hired farm workers has met the three goals as stated in the introductory comments. Because the research undertaken to fulfil those goals incorporated several different methods, the analysis gains added support. For instance, the review of government documents and archival newspaper accounts established a historical base against which current circumstances can be understood. Interviews with growers and others knowledgeable about the Ontario tomato industry also provided a rich source of data for establishing trends and patterns in the industry. As well, participant and non-participant observation in several farming operations and in the community at large, gave me insights into tomato production that were otherwise unavailable. Finally, my close association

with a group of Mexican Mennonite women helped me understand perceptions of Ontario tomato production from the workers' point of view. If I had gained access to a larger sample of farm workers experienced in tomato harvesting, the analysis would have been strengthened.

Because this is the first investigation into the situation facing hired farm labour in the Ontario tomato industry, the information documented here represents a unique contribution to our knowledge of Ontario agriculture and of farm labour. However, it is not valid to make generalizations about all agricultural workers from the specifics of tomato production. Instead, the analysis presented here provides the basis for questions and hypotheses that could be used to study the situation facing labour hired in the production of other Ontario agricultural commodities where the development of agribusiness has been a dominant trend. For instance, the claim in this dissertation that there is a link between processor requirements and changes in farm labour market and labour process characteristics could be tested in the Ontario dairy industry. Or, the assertion that mechanization is associated with the employment of predominately resident, female workers could be examined in the fresh fruit and vegetable industry where hand harvesting is still the norm. Only after several more

case studies have been completed can generalizations be made about the influences agribusiness has on all hired farm workers in the province.

APPENDIX I RESEARCH INSTRUMENTS

- d) What qualifications do you look for in your workers? What makes a "good" farm worker?
 - e) Where do they live while they work here?
 - f) How many seasons have they worked for you?
 - g) Do you work with them?
4. Describe working conditions:
- a) do you pay hourly rates or piecework?
 - b) are there additional benefits? (insurance plans, "free" produce for example)
 - c) what facilities are available?
5. Do the workers voice complaints? give examples
6. a) What are the good points about farmwork for a hired worker?
- b) What are negative points?
- 7.a) Do you belong to any agricultural organizations?
if not, why?
- b) What are the advantages of membership?
8. Any general comments on the future of the tomato industry? Role of processors government/marketing boards--free trade, etc.

FARM WORKER INTERVIEW SCHEDULE

(unobtrusively note gender, ethnicity, and age)

1. What job(s) do you have in tomato production?

2. a) How many seasons have you worked in tomatoes?
b) If more than two years, or more than one job, then what changes have you noticed over time?
c) did any of your friends and family used to work in tomatoes? if so, what are they doing now?

3. How did you find out about current job in tomatoes?

4. a) Do you have other work (including being a homemaker) besides this job?
b) If yes what is/was it and which do you prefer and why?
c) Would you rather work at something else?

5. a) What are the good points about the current job?
b) What are the bad points about the current job?

6. a) How does your employer treat you?
b) Does he work with you or is there a supervisor?

7. What are the working conditions:
 - a) hourly rate or piece work for wages?
 - b) any additional benefits (Insurance plan, "free" produce)
 - c) do you have washroom or other facilities available?
 - d) Have you received instructions about farm hazards (chemicals, or machinery)?

what kinds of accidents have occurred during work? specifically with machines?
 - e) How long is your average working day?

how many breaks? how long for lunch? where do you take them?
 - f) Who sets the pace of work?
 - g) What skills do you need to do the job?
8. If there are problems or complaints about the job how do you deal with them?
9. Do you know where the tomatoes go when they leave the farm?
10. Any general comments on working in tomato production?

The following books, articles and papers that pertain to Mennonite culture are located in the McLaughlin Library, University of Guelph.

De Fehr et al.

1974 **Harvest Anthology of Mennonite Writing in Canada**. Manitoba: Mennonite Central Committee

Diegues, M.

1963 "Rural Settlements in Latin America", in **Internal Migration**, 1:2, pg.107-113

Exielman, P.

1967 Colonies in Bolivia", **Inter-American Economic Affairs**, Vol.XX, #4, (spring), pg. 39-54

Fretz, J.W.

1962 "Immigrant Group Settlements in Paraguay" unpublished paper, Kansas: Bethel College

Klassen, P.

1937 "Mennonites of Brazil", **Mennonite Quarterly Review**, Vol. XI, #2 pg. 111-124

Langemann, R.

1971 "The Development of a Model for the Life Cycle of a Closed Agricultural Community", unpublished graduate paper from Simon Fraser University

Pifer, A.

1967 "Bolivia Pioneer Fringe", in **Geography Review**, Vol. LVII, #1, pg. 1-23

Schneidhaus, W.

1954 "A Beleagured people: Mennonites of Mexico" in **Landscape**, Vol.IV, #1, Pg. 13-21

Stambaugh, S.

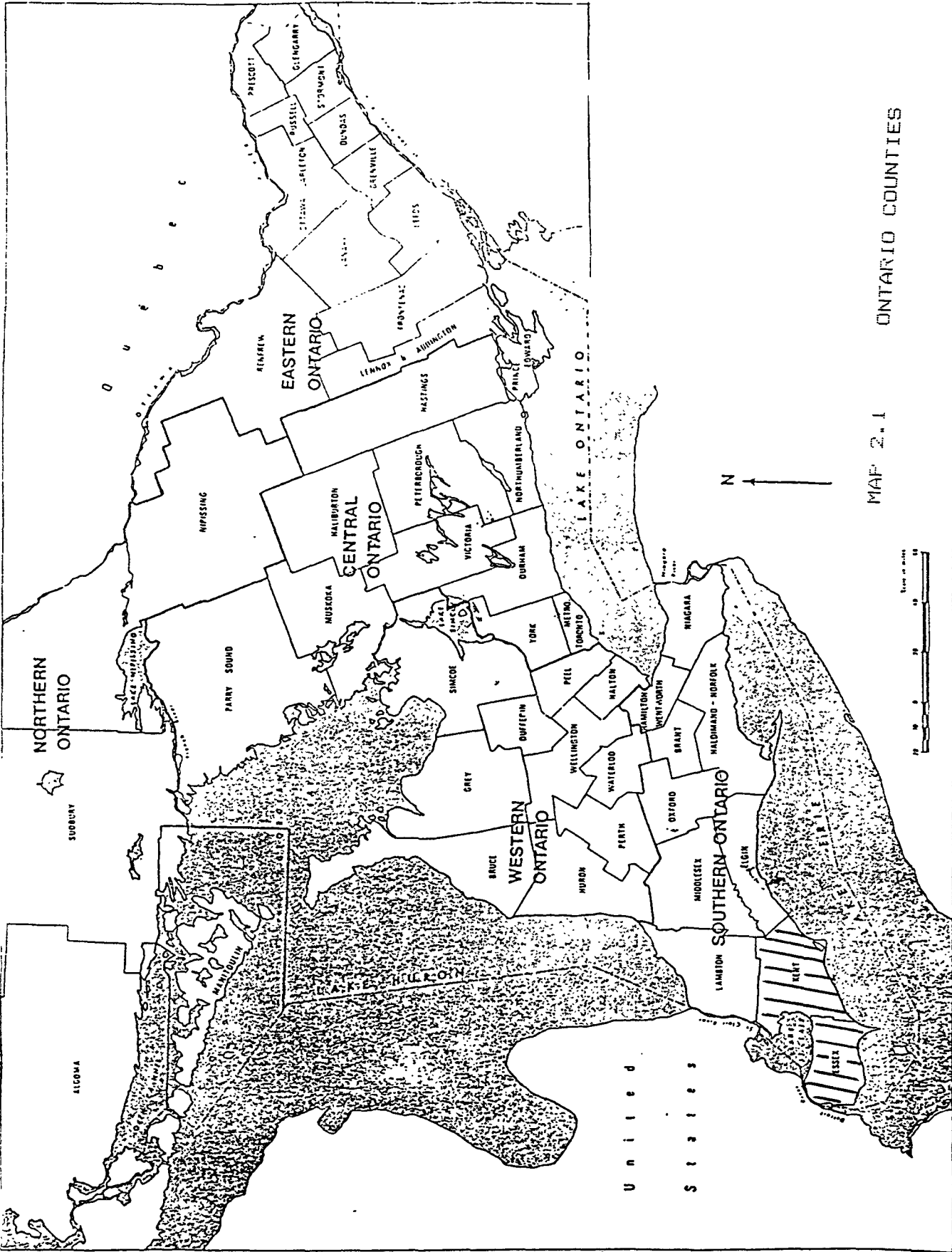
1984 **Hear the Reaper's Song**. Intercourse, Pa: Good Books

Stewart, N.

1963 "Foreign Agricultural Colonies", **The Professional Geographer**, Vol.XV, #5

APPENDIX II

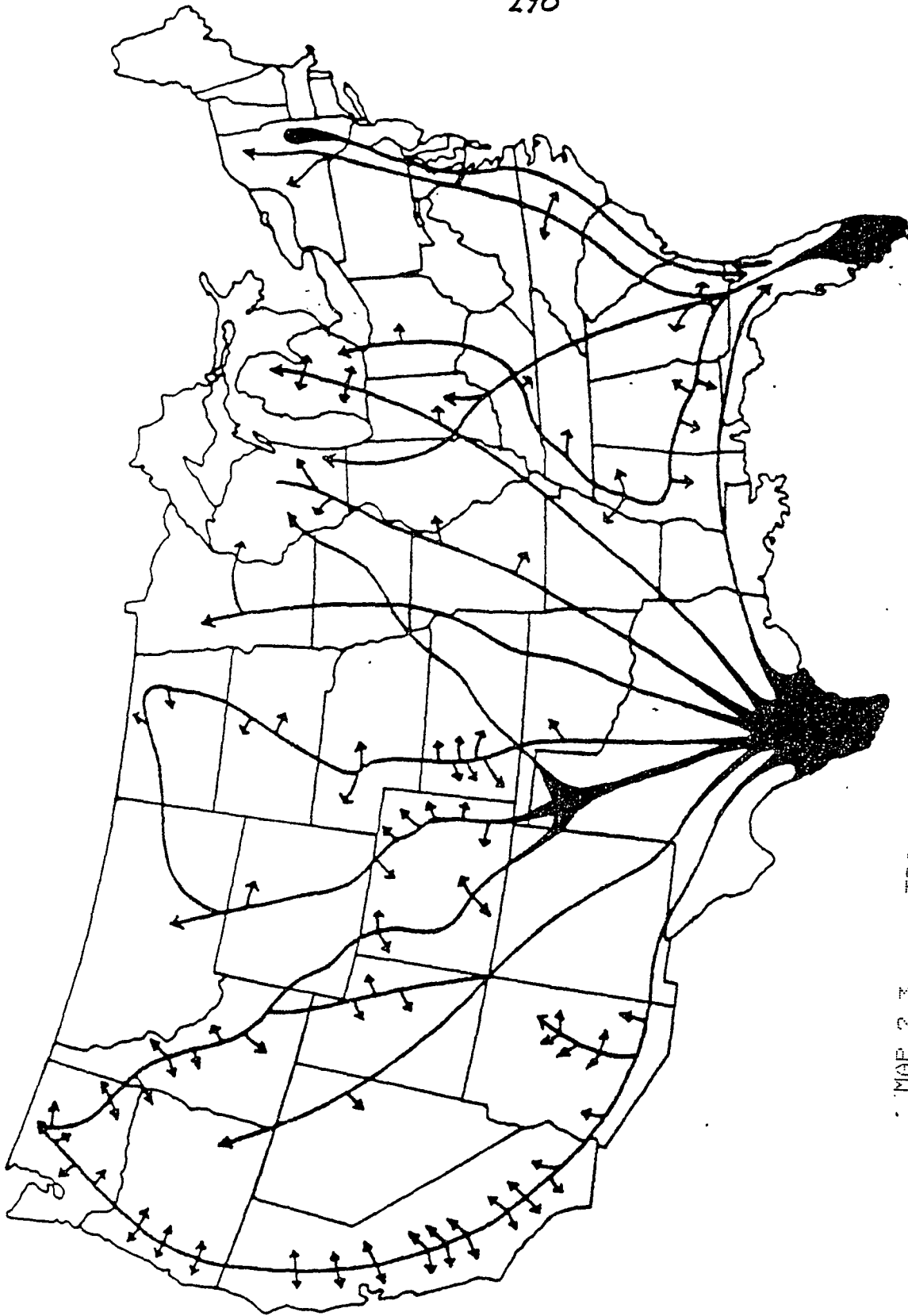
MAPS





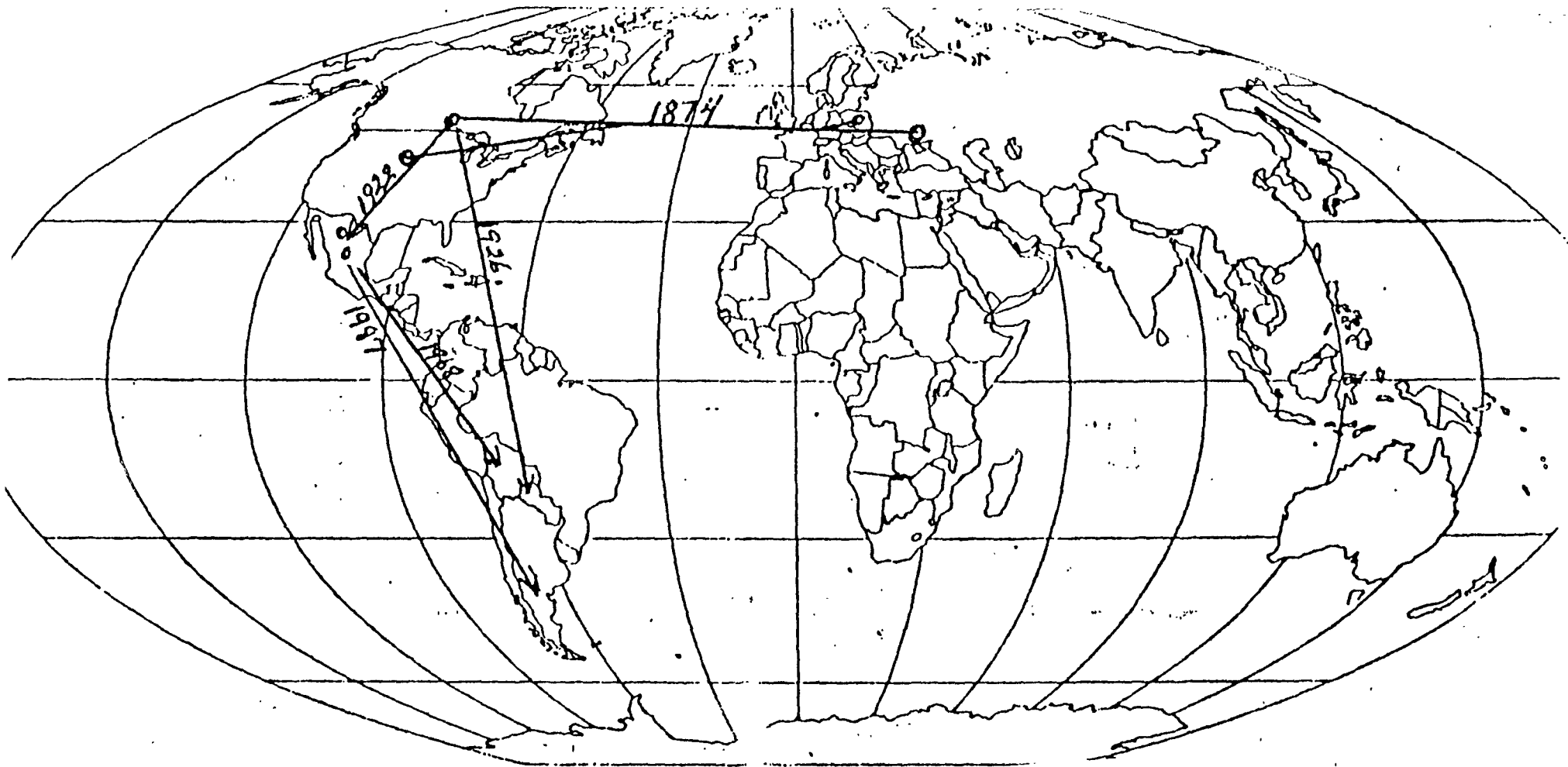
Mennonitenkolonien in Mexiko	Jahr gegründet
1. Manitoba	1922
2. Swift Current	1922
3. Santa Clara	1922
4. Durango	1924
5. Ojo de la Yegua	1945
6. Los Jagueyes	1948
7. Tamaulipas	1951
8. Santa Rita	1958
9. Buenos Aires	1958
10. Capulin	1962
11. La Batea, Zac.	1962
12. La Honda Zac.	1964
13. Las Virgenes	1982
14. Campeche	1984

(source: Mennonite Central Committee Literature)



MAP 2.3 TRAVEL ROUTES FOR MIGRANT FARM LABOUR IN THE UNITED STATES

(Source: Goodwin, 1987)



MAP 2.4 MENNONITE MIGRATION FROM USSR TO MANITOBA,
CENTRAL AND SOUTH AMERICA

(Source: Mennonite Central Committee literature)

BIBLIOGRAPHY

Apostle, R. et al.

- 1985 "Segmentation and Wage Determinism", **Canadian Review of Sociology and Anthropology**, 22:1, pg. 30-5

At Guelph

- 1988 "Horticulturalists launch project for a 'drier' tomato", April 27, 1988

✓ Avery, D.

- 1979 **Dangerous Foreigners**. Toronto: McLelland and Stewart

/ Bakker, H.

- 1987 "Canadian Political Economy and Rural Sociology: Early History of Rural Studies in Canada", **The Rural Sociologist**, 7(5), pg.470-484

Banaji, J.

- 1980 "Summary of Selected Parts of Kautsky's The Agrarian Question", p. 39-82 in F. Buttel and H. Newby, **The Rural Sociology of the Advanced Societies**. London: Croom Helm Ltd.

Barnett, Paul, et al.

- 1978 **Labor's Dwindling Harvest. The Impact of Mechanization on California Fruit and Vegetable Workers**. California Institute for Rural Studies, Davis, California

Barrett and Apostle, 1987 see page 313

✓ Berardi G. and C. Geisler (eds)

- 1984 **The Social Consequences and Challenges of New Agricultural Technologies**. London: Westview Press

✓ Berg, I.

- 1981 **Sociological Perspectives on Labor Markets**. New York: Academic Press

Beveridge K. and C. Conde

- 1982 "Canadian Farmworkers' Union", **Fuse**, 5(10), pg. 317

Bogdan and Taylor

1975 **Introduction to Qualitative Research Methods.**
New York: John Wiley and Sons

Bollman and Ehrensaft, 1983, see Ehrensaft

Brandt John et al.

1978 "Economic Performance of the Processing
Tomato Industry", Department of Agricultural
Economics, University of California, Davis

Braverman, Harry

1974 **Labour and Monopoly Capital.** New York:
Monthly Review Press

Bruce C. and W. Kerr

1983 "The Determination of Wages and Working
Conditions in the Agricultural Sector: Three
Alternatives", **Canadian Journal of
Agricultural Economics**, vol.31 (July),
pg. 177-196

Burawoy, M.

1976 "Functions of Migrant Labor", **American
Journal of Sociology**, 81, pg.1050-1087

1979 **Manufacturing Consent: Changes in the Labour
Process Under Monopoly Capitalism.** Chicago:
University of Chicago Press

Butler A.N.L.

1965 "Tomatoes for Processing", publication #491,
Ontario Department of Agriculture

Butler, K.

1961 "A Systems Farming Concept", in **Tooling up
for Systems Farming**, Conference proceedings
for the American Society of Agricultural
Engineers, St. Joseph, Michigan

Buttel, F. and H. Newby (eds)

1980 **The Rural Sociology of the Advanced
Societies.** London: Croom Helm Ltd.

Buttel, F.

1980 "The Political Economy of Agriculture in
Advanced Industrial Societies", a revised
version of a paper presented at the annual
meeting of the Canadian Sociology and
Anthropology Association, Montreal, June, 1980

- Campbell, B.
1974 "Trends in Ontario Agriculture", Economics Branch, Ontario Ministry of Agriculture and Food
- Carchedi, G.
1983 **Problems in Class Analysis**, London: Routledge & Kegan Paul
- Cargill, B.F. and G.E. Rossmiller (eds)
1969 **Fruit and Vegetable Harvest Mechanization**. East Lansing, Michigan: Rural Manpower Center
- Cebotarev, E. et al.
1983 **Farm Women's Work Patterns**. University of Guelph, Guelph, Ontario
- Chatham Daily News**
1942 Aug. 27, Aug.29

1951 April 5

1959 "World's First Tomato Picker", Sept.14

1961 Jan. 25
- Chevalier, J.
1982 "There is Nothing Simple about Simple Commodity Production", **Studies in Political Economy**, #7, pg. 89-124
- Chong, J.
1985 "Health of Person's Engaged in Farm Work". Prepared for the Ontario Task Force on Health and Safety in Agriculture
- Clegg, S., P.Boreham and G. Dow
1986 **Class, Politics, and the Economy**. London: Routledge & Kegan Paul
- Clegg, S. and D. Dunkerley
1980 **Organization, class and control**. London: Routledge & Kegan Paul
- ✓ Clement, W.
1983 **Class, Power and Property**. Toronto: Methuen Pub.

- 1984 "Canada's Coastal Fisheries: Formation of Unions Co-operatives and Associations", in *Journal of Canadian Studies*, 19(1), pg. 5-33
- Clement, W. and A. Jansen
1978 "Just Peachy", in *This Magazine*, 12:2, pg.22
-26
- and G. Williams (eds.)
1989 *The New Canadian Political Economy*. Montreal:
McGill-Queen's University Press
- Connelly, P.
1978 *Last Hired First Fired*. Toronto: The Women's Press
- Connor, J. et al.
1985 *The Food Manufacturing Industries*. Toronto:
Lexington Books
- Craig, R.
1971 *The Bracero Program*. Austin, Texas: Capital Printing Company
- Crewson, D. and Matthews, R.
1986 "Class Interests in the Emergence of Fruit-Growing Cooperation in Lincoln County, Ontario, 1880-1914", *Canadian Papers in Rural History*, vol. 5, pg.23-49
- Cuneo, C.
1982 "The Politics of Surplus Labour in the Collapse of Canada's Dependence on Britain, 1840-49", in *Studies in Political Economy*, #7 (winter), pg.61-88
- Davis, J.
1980 "Capitalist Agricultural Development and the Exploitation of the Propertied Laborer", in F. Buttel and H. Newby (eds), *The Rural Sociology of Advanced Societies* London: Croom Helm Ltd., pg. 133-154
- Dawson, D. and Freshwater, D.
1975 *Hired Farm Labour in Canada*. Ottawa: Food Prices Review Board

Denis, W.

- 1982 "Capital and Agriculture: a Review of Marxian Problematics", in **Studies in Political Economy**, #7 (winter), pg.127-154

Doeringer P. and M. Piore

- 1971 **Internal Labour Markets and Manpower Analysis**. Mass: Heath Lexington Books

Douglas, J.

- 1976 **Investigative Social Research**. Beverly Hills, California: Sage Publications

Drache, D. and Clement, W.

- 1985 **The New Practical Guide to Canadian Political Economy**. Toronto: James Lorimer and Company

Edwards, R.

- 1979 **Contested Terrain**. New York: Basic Books

Ehrensaft, P.

- 1983 "The Industrial Organization of Modern Agriculture", **The Canadian Journal of Agricultural Economics**, 31(2), pg. 122-133

Ehrensaft, P. and R. Bollman

- 1983 "Structure and Concentration in Agriculture: A Microanalysis of the Census of Agriculture", a paper presented at the Annual Meeting of the Canadian Sociology and Anthropology Association, Vancouver, B.C.

Emerson, R.

- 1982 "Trade in Products and International Migration in Seasonal Labor Markets", **American Journal of Agricultural Economics**, 64 (May) pg. 339-345

- 1984 **Seasonal Agricultural Labor Markets in the United States**. Ames, Iowa: Iowa State University Press

Farm and Country

- 1986 "Farm Union Draws Near", Oct. 14

Farming Today

- 1990 "Determined to Survive", Jan.29

- 1990 "Us Tomato growers on Hot Seat", Feb. 19

- 1990a "Don't expect rise in farm land values",
Mar. 12
- 1990b "Future looks Profitable", Mar. 12
- 1990 "It's a dangerous business", April 2
- 1990 "A hopeful sign in the vegetable
industry", April 23
- Fisher, G. A.
- 1972 "The Use of Picking Aids in the Processing
Tomato Harvest in Ontario", Ontario
Department of Agriculture and Food
- 1987a "Processing Tomato Statistics",
Economics and Policy Coordination Branch,
Chatham, Ont: Ontario Ministry of Agriculture
and Food
- 1987b "Ontario Tomato Production Update"
Economics and Policy Coordination Branch,
Chatham, Ont: Ontario Ministry of Agriculture
and Food
- Foster-Carter, A.
- 1978 "The Modes of Production controversy", in *New
Left Review* 107: pg.47-77
- Fowke, V.
- 1946 **Canadian Agricultural Policy: The Historical
Pattern.** Toronto: University of Toronto Press
- Fredericks, A.
- 1984 "Technological Change and The Growth of
Agribusiness: A Case Study of California
Lettuce Production", in G. Berardi and C.
Geisler (Eds) **The Social Consequences and
Challenges of New Agricultural Technologies.**
London: Westview Press
- Friedland, Wm.
- 1981 "The End of Rural Society and the Future of
Rural Sociology", paper presented to the
Annual meeting of the Rural Sociological
Society, Guelph, Ont., August, 1981

- 1984 "A Programmatic Approach to the Social Impact Assessment of Agricultural Technology", in G. Berardi and C. Geisler (eds), **The Social Consequences and Challenges of New Agricultural Technologies**. London: Westview Press
- Friedland, Wm. and A. Barton
 1975 **Destalking the Wily Tomato**. University of California, Davis: Department of Applied Behavioral Sciences
- and D. Nelkin
 1971 **Migrant Agricultural Workers in America's Northeast**. New York: Holt, Rhinehart and Winston
- , A. Barton, and R. Thomas
 1981 **Manufacturing Green Gold**. New York: Cambridge University Press
- Friedmann, H.
 1978 "World Market, State, and Family Farm: The Social Bases of Household Production in an Era of Wage Labor", **Comparative Studies in Society and History** 20 (4) pg.545-586
- 1980 "Household Production and the National Economy", **Journal of Peasant Studies**, 7 (2) pg.158-183
- Fuller, A. (ed)
 1985 **Farming and the Rural Community in Ontario** Toronto: Foundation for Rural Living
- Galarza, Ernesto
 1977 **Farm Workers and Agri-Business in California, 1947-1960**. London: University of Notre-Dame Press
- Genovese, E.D.
 1974 **Roll, Jordan, Roll**. New York: Pantheon Books

Gertler, M.

- 1987 "Grower-Processor Relations and the Structure of the Processing Vegetable Industry in Ontario", paper presented at the annual meeting for the Canadian Sociology and Anthropology Association, June, McMaster University, Hamilton, Ont.

Ghorayshi, P.

- 1987 "Canadian Agriculture: Capitalist or Petit Bourgeois?", *Canadian Review of Sociology and Anthropology*, 24 (3), pg. 358-373

Globe and Mail

- 1988 "Denison Mines Chief Swore by Capitalism", Mar.4
- 1988 "Food workers' union seeking new structure, higher profile", Mar. 18
- 1988 "Philip Morris files lawsuit to block Kraft plan", Oct. 25
- 1990 "A return to their roots", Jan. 6
- 1990 "The Food Game, Making the Right Moves", advertising supplement, Nov.22.

Glover, D.

- 1983 **Contract Farming and the Transnationals.** unpublished PHD dissertation, University of Toronto

Goldberg, R.

- 1967 **Agribusiness Coordination.** Research Division, Graduate School of Business Administration, Harvard University, Boston

Goldring, Luin

- 1990 "Development and Migration: A Comparative Analysis of Two Mexican Migrant Circuits" Working paper #37, Commission for the Study of International Migration and Cooperative Economic Development (U.S.)

Goodwin, Jr. H.L.

- 1987 "Anticipated Impacts of Immigration Reform on Texas Agriculture", a paper presented at the Texas Agric. Forum, Austin Texas, Mar.11,

- Goss, K. et al.
 1980 "The Political Economy of Class Structure in U.S. Agriculture: A Theoretical Outline", in F. Buttel and H. Newby, **The Rural Sociology of the Advanced Societies**, London: Croom Helm, pg. 83-132
- Gould, W. A.
 1983 **Production, Processing and Quality Evaluation**. Westport, Conn: AVI Publishing
- Gregor, H.F.
 1982 **Industrialization of U.S. Agriculture**. Boulder, Colorado: Westview Press
- Hall, Ross
 1974 **Food for Nought**. New York: Harper & Row
- Hansen, P. and A. Muszynski
 1990 "Crisis in rural life and crisis in thinking: directions for critical research", **Canadian Review of Sociology and Anthropology**, 27:1 pg. 1-22
- Harling, K.
 1987 "Competitiveness of Ontario Horticultural Industries". Ontario Ministry of Agriculture and Food
- Harrera-Sobek, M.
 1979 **The Bracero Experience**. Los Angeles, California: UCLA Latin American Center Publications
- Haythorne, George
 1960 **Labour in Canadian Agriculture**. Cambridge: Harvard University Press
- Haythorne, George and L. Marsh
 1941 **Land and Labour**. London: Oxford University Press
- Hedley, M.
 1976 "Independent Commodity Production and the dynamics of tradition", **Canadian Review of Sociology and Anthropology**. 13(4), pg. 413-421

Helling, R.

- 1979 "The Tomatoes of Wrath", Migratory Farm Workers in Southwestern Ontario", A paper presented to the third Conference on Blue-Collar Workers and their Communities, May 4,5,6

Henderson, J.D.

- 1985 **Economic Performance in the Canadian Tomato Processing Industry**. Unpublished Phd. dissertation, University of Western Ontario

Hightower, J.

- 1972 **Hard Tomatoes, Hard Times**. Cambridge, Mass: Schenman Publishing Co.

Holt, J.

- 1970 "Impact of the Industrialization of the Hired Farm Work Force upon the Agricultural Economy", **American Journal of Agricultural Economics**, Vol. 52, pg.780-98

Huffman, W.

- 1977 "Interactions Between Farm and Nonfarm Labor Markets", **American Journal of Agricultural Economics**, Vol. 59, pg. 1055-1061
- 1982 "International Trade in Labor Versus Commodities: U.S.-Mexican Agriculture", **American Journal of Agricultural Economics**, Vol. 64, pg. 989-997

Hunter, A.

- 1985 "Doing it with Numbers", in **The Canadian Review of Sociology and Anthropology**, 22:5, pg.645-672

1986 **Class Tells**. Toronto: Butterworths

(de) Janvry, A.

- 1980 "Social Differentiation in Agriculture and the Ideology of Neopopulism", in F. Buttel and H. Newby (eds), **The Rural Sociology of the Advanced Societies**, London: Croom Helm Ltd., pg.155-170

Jenkins, C.

- 1978 "The Demand for Immigrant Workers: Scarcity or Social Control", **International Migration Review**, 12(4) pg. 515-535

----- and C.Perrow

- 1977 **Insurgency and the Powerless: Farm Worker Movements (1946-1972)** in **American Sociological Review**, Vol. 42 (April), pg.249-268

Johnson, G.

- 1982 "International Trade and Agricultural Labor Markets: Farm Policy as Quasi-Adjustment Policy", **American Journal of Agricultural Economics**, Vol. 64, pg.355-361

Johnson, Leo

- 1981 "Independent Commodity Production: Mode of Production or Capitalist Class Formation", **Studies in Political Economy**, 6 (Autumn)

Jones, F.

- 1985 "Educational and Occupational Attainment: Individual Achievement" in M. Boyd et al. (eds), **Ascription and Achievement: Studies in Mobility and Status Attainment in Canada**. Ottawa: Carleton University Press

Krause, E.

- 1971 **The Sociology of Occupations**. Boston: Little, Brown

Kneen, B.

- 1989 **From Land to Mouth Understanding the Food System**. Toronto:NC Press

1990 **Trading Up**. Toronto: NC Press

Labour Canada

- 1986 "Labour Standards in Canada"

Leamington Post

- 1988 "Ground water is depleted ministry says", Sept. 7

- Lenin V.
 1970 "New Data on the Laws Governing the Development of Capitalism in Agriculture" pg. 115-205 in **Lenin on the United States**. New York: International Publishers
- Lianos, T.
 1984 "Centralization in Agriculture", **Studies in Political Economy**, 14 (summer) pg.99-116
- , and Q. Paris,
 1972 "American Agriculture and the Prophecy of Increasing Misery", **American Journal of Agricultural Economics**, Vol,54, pg. 570-577
- Liptay, A.
 1988 "Field Survival and Establishment of Tomato Transplants of Various Age and Size", in **Acta Horticulturae**, #220, pg. 203-209
- Little, C.
 1982 **The Development of the Labour Process in Capitalist Societies**. London: Heinemann
- Litzenberg, K. and V.Schneider
 1986 "A Review of Past Agribusiness Management Research", **Agribusiness**, 2(4) pg. 397-408
- Livingston, A.W.
 1893 **Livingston and the Tomato, Being the History of Experiences Discovering the Choice Varieties Introduced by Him, With Practical Instructions for Growers** (no publisher listed)
- Majka, L. and Theo. Majka
 1982 **Farmworkers, Agri-business, and the State**. Philadelphia: Temple University Press
- Mann, S. and J. Dickinson,
 1978 "Obstacles to the Development of a Capitalist Agriculture", **Journal of Peasant Studies**, Vol. 4, pg.466-481
- 1980 "State and Agriculture in Two Eras of American Capitalism", in F. Buttell and H. Newby (eds), **The Rural Sociology of the Advanced Societies**, London: Croom Helm Ltd. pg. 283-326

- Marchak, P.
1985 "Canadian Political Economy", in *The Canadian Review of Sociology and Anthropology*, 22:5, pg.673-710
- Marshall, T.H.
1973 *Class, Citizenship, and Social Development*. Westport, Conn.: Greenwood Press
- Martin, P. and R. Rochin,
1977 "Emerging Issues in Agricultural Labor Relations", *American Journal of Agricultural Economics*, Vol. 59, pg. 1045-1051
- Martin, P. and A. Olmstead
1985 "The Agricultural Mechanization Controversy", *Science*, Vol. 227, pg. 601-606
- Martin, P.
1986 "Western Farm Labor Issues", Paper presented to the American Agricultural Economics Association Meeting, July, 1986, Reno, Nevada
- Marx, K.
1976 *Capital* Vol.1. New York: Vintage Books
1978 *Theories of Surplus Value* Part II. Moscow: Progress Publishers
1981 *Capital* Vol.3. New York: Vintage Books
- McCallum, J.
1980 *Unequal Beginnings*. Toronto: University of Toronto Press
- Miles, Robert
1987 *Capitalism and Unfree Labour*. London: Tavistock Publications
- Mitchell, D.
1975 *The Politics of Food*. Toronto: Lorimer and Co.
- Mouzelis, Nicos
1976 "Capitalism and the development of agriculture", *Journal of Peasant Studies*, Vol.3, pg. 483-492

- Moxley, J.
1988 "Survey of Pesticide Use in Ontario", Ontario
Ministry of Agriculture and Food
- Neilson, K. and I. Christie,
1975(6) "The Agricultural Labourer in Canada: A
Legal Point of view", in **The Dalhousie Law
Journal**, pg. 330-368
- Nelkin, D., 1969 see page 313
- Nelson, E.
1975 **Pablo Cruz and the American Dream. U.S.A.:**
Peregrine Smith Inc.
- Nelson, J., 1954 see page 313
- Newby, H.
1977 **The Deferential Worker.** London: Penguin Books
- Nichols, and H. Beynon
1977 **Living with Capitalism: Class Relations and
the Modern Factory.** London: Routledge and
Kegan Paul
- O'Connor, J. et al.
1985 **The Food Manufacturing Industries.** Toronto:
Lexington Books.
- OMAF News**
1989 "Developing food processing potential",
February

1989 "Programs aiming to reduce pesticide use",
June
- Ontario Department of Agriculture
1920 "The Cost of Producing Tomatoes on Niagara
District Farms"
- (OMAF) Ontario Ministry of Agriculture and Food

1984a "A Structure of Ontario Agriculture as
Related to Health and Safety", Background
Paper #1, for the Task Force on Health and
Safety in Agriculture

1984b "Agricultural Chemicals and Farm Health
and Safety" Background Paper #3, for the Task
Force on Health and Safety in Agriculture

1985 "Report on the Task on Health and Safety in
Agriculture"

- 1986 "Seasonal Labour in The Ontario Tobacco and Horticultural Industries", a report prepared for the Joint Ontario Agricultural Human Resources Planning Committee, c/o Ministry of Agriculture and Food
- 1987a "Tobacco Crop Recommendations"
- 1987b "Vegetable Crop Recommendations"
- 1987c "Ontario Report to the 1987 National Agricultural Development Conference", Quebec City, Quebec, Nov. 18, 19, 20,
- Ontario Public Interest Research Group (OPIRG)
1979 Tomato Papers
- Padfield, H. and W. Martin
1965 **Farmers, Workers and Machines: Technological and Social Change in the Farm Industries of Arizona.** Tuscon, Arizona: University of Arizona Press
- Palmer, B.
1979 **A Culture in Conflict.** Queen's University Press
- Parr, J.
1980 **Labouring Children: British immigrant apprentices to Canada, 1869-1924.** London: Croom Helm Ltd.
- 1985 "Hired Men: Ontario Wage Labour in Historical Perspective", in **Labour/Le Travail**, 15 (Spring) pg.91-103
- Pentland, H.C.
1981 **Labour and Capital in Canada, 1650-1860.** Toronto:Lorimer & Co.
- Perkin, G.
1962 **Market Milestones in Ontario 1935-1960.** Ontario Ministry of Food and Agriculture
- Peterson, A.
1988 "Survey of Farms for Pesticide Storage and Disposal", prepared for the Ontario Ministry of the Environment

- Perelman, Michael
1977 **Farming for Profit in a Hungry World.** New York: Universe Books
- Piore, M.
1979 **Birds of Passage.** New York: Cambridge University Press
- 1980 **Dualism and DIscontinuity in Industrial Societies.** Cambridge University Press
- Polopolus, L.
1986 "Labor Productivity and Agribusiness", *Agribusiness*, 2(3), pg. 269-277
- Portas, C.A.M.
1987 "Research and Experimental development (R&ED) programmes on tomatoes for processing-a broad survey" *Acta Horticulturae*, (200) pg.17-34
- Prescott, D.
1981 **The Role of Marketing Boards in the Processed Tomato and Asparagus Industries.** Economic Council of Canada, Technical report No. E/I 5
- Price, Barry
1983 **The Political Economy of Mechanization in U.S. Agriculture.** Boulder, Colorado: Westview Press
- Reasons, C. et al.
1981 **Assault on the Worker: Occupational Health and Safety in Canada.** Toronto: Butterworths
- Reimer, William
1983 "Sources of Farm Labour in Contemporary Quebec", in *Canadian Review of Sociology and Anthropology*, 20:3 pg. 290-301
- Richardson, R.J.
1983 "The Canadian agricultural frontier: an approach to the theory of ground-rent, in *The Canadian Review of Sociology and Anthropology*, 20:3, pg.302-321
- Rick, A.
1986 "A Love Affair with the Love Apple", in *Science of Food and Agriculture*, Vol.4 #1, pg.2-9

- Roemer, J.
 1988 **Free To Lose: an introduction to Marxist economic philosophy**. Cambridge, Mass: Harvard University Press
- Roller, N.F.
 1978 "Survey of Pesticide Use in Ontario" Ontario Ministry of Agriculture and Food
- Rosset, P. and J.Vandermeer
 1986 "The Confrontation between Processors and Farm Workers in the Midwest Tomato Industry and The Role of the Agricultural Research and Extension Establishment", in **Agriculture and Human Values**, (Summer), pg.26-32
- Satzewich, V.
 1988 "The Canadian State and Racialization of Caribbean Migrant Farm Labour, 1947-1966", in **Ethnic and Racial Studies**, 11(3) pg. 282-304
- 1989 "Unfree Labour and Canadian Capitalism: The incorporation of Polish war veterans", in **Studies in Political Economy**, 28 (spring), pg.89-110
- Sawatzky, H.L.
 1971 **They Sought a Country**. Berkley, California: University of California Press
- Scaglione, G.
 1970 "The Tomato Capital", unpublished history of Leamington, Ontario available in the Leamington Public Library
- Schmitz, A. and Seckler, D.
 1970 "Mechanized Agriculture and Social Welfare: The Case of the Tomato Harvester", **American Journal of Agricultural Economics**, Vol. 52, pg. 569-580
- Scholtens, Wm.
 1988 "Success Factors to Improve Seasonal Agricultural Employment". prepared for The Canadian Horticultural Council and the Ontario Fruit and Vegetable Growers Association

Schull, J.

1985 **Ontario Since 1867**. Toronto: McClelland and Stewart

Shaver, F., 1990 see page 313

Shibutani, T.

1970 **Human Nature and Collective Behaviour**. Englewood Cliffs, New Jersey: Prentice-Hall Inc.

Sinclair P.

1980 "Agricultural Policy and the Decline of Commercial Family Farming: A comparative Analysis of the U.S, Sweden, and the Netherlands", in F. Buttel and H. Newby (eds), **The Rural Sociology of The Advanced Societies**, London:Croom Helm Ltd.
pg. 327-352

1984a "Fishermen of Northwest Newfoundland: Domestic Commodity Production in Advanced Capitalism", in **Journal of Canadian Studies**, Vol. 19 (1), pg.34-47

1984b "From Peasants to Corporations: The Development of Capitalist Agriculture in the Maritime Provinces", pg. 276-291, in J.Fry (ed) **Contradictions in Canadian Society**, Toronto: John Wiley and Sons

Skogstad, G.

1987 **The Politics of Agricultural Policy-Making in Canada**. Toronto: University of Toronto Press

Sloan, Willis

1970 "Human Resource Development as Related to the Hired Farm Work Force", **American Journal of Agricultural Economics**, Vol. 52

Smit, B.

1979 "Regional Employment Changes in Canadian Agriculture" **Canadian Geographer**, 23 (Spring), pg. 1-17

Smith, Pamela

1986 "'Not Enough Hours, Our Accountant Tells Me', Trends in Children's, Women's and Men's Involvement in Canadian Agriculture", **Canadian Journal of Agricultural Economics**, Vol. 33, pg. 161-195

Statistics Canada

Fruit and Vegetable Processing Industries

Stavenhagen, R.

1975 **Social Classes in agrarian societies**. Garden City, New York: Anchor Press

Stultz, E.

1987 "Organizing the Unorganized Farmworkers in Ontario", in R. Argue et al (ed) **Working People and Hard Times**, Toronto: Garamond Press

Taylor, J.

1979 **From Modernization to Modes of Production**. London: The MacMillan Press Ltd.

This Magazine

1987 "The Migrants", Vol.22#2, May,1988

Thomas, R.

1981 "The Social Organization of Industrial Agriculture", **Insurgent Sociologist**, 10(3), pg. 5-18

1985 **Citizenship, Gender, and Work: The Social Organization of Industrial Agriculture**. Berkley: U. of California Press

Thomas-Lyclama à Nijeholt, G.

1980 **On the Road For Work**. Boston: Nijhoff Publishing

Thompson, J. and A.Seager,

1978 "Workers, Growers and Monopolists", **Labour/Le Travail**, 3, pg.157-174

Toronto Star

1988 "Mexican Mennonite farm workers migrating to Canada, officials say", June 9, 1988

T.essler, D.

1961 **Fruit and Vegetable Juice Processing Technology**. Westport, Conn: Avi Publishing

- Troughton, M.
 1990 "'Growing Together' or Blueprint for Abandonment?", paper presented to Annual Meeting of the Canadian Association of Rural Studies, May, 1990, Victoria, B.C.
- Turney, A.
 1912 **Tomatoes**. Bulletin #196, Ontario Department of Agriculture
- Union Farmer**
 1986 "Common Ground: Farmer-Labour Solidarity", October
 1988 "State Ag Commissioners have a bone to pick with agribusiness corporations", September
- Vandermeer, John
 1981 "Agricultural Research and Social Conflict", **Science for the People**, Jan-Feb, pg. 5-30
- Veeman, T. and M. Veeman
 1978 "The Changing Organization, Structure, and Control of Canadian Agriculture", **American Journal of Agricultural Economics**, Vol. 60, pg. 759-767
- Vergopoulos, K.
 1975 "Capitalism and Peasant Productivity", **Journal of Peasant Studies**, 5(4),
- Wall, E.
 1984 "Offshore Farmworkers in Rural Ontario Communities", unpublished M.A. Thesis, University of Guelph, Guelph, Ontario
 1987 "Offshore Farmworkers in Rural Ontario Communities", **The Rural Sociologist**, 7(5), pg. 453-458
- Warnock, J.
 1978 **Profit Hungry**. Vancouver: New Star Books
- Weatherston, R.
 1981 "A Forgotten Minority: Agricultural Labourers in Ontario" unpublished paper in Tolpuddle Files

Weber, Max

1927 **General Economic Theory**. New York: Adelphi Publications Greenberg

1949 **The Methodology of the Social Sciences**. New York: Free Press

1979 "Developmental tendencies in the situation of East Elbian rural labourers", **Economy and Society** 8 (2), pg. 177-205

Weintraub, s. and Ross, S.

1982 **Temporary Alien Workers in the United States**. Boulder: Westview Press

White, J.

1980 **Women and Unions**. Ottawa: The Canadian Advisory Council on the Status of Women

1983 **Women and Part-Time Work**. Ottawa: The Canadian Advisory Council on the Status of Women

Whyte, A.

1984 "The Experience of New Immigrants and Seasonal Farmworkers From the Eastern Caribbean to Canada", Institute for Environmental Studies, University of Toronto

Williams, G.

1983 **Not For Export: Toward a Political Economy of Canada's Arrested Industrialization**. Toronto: McClelland and Stewart

Windsor Star

1961 Sept 15, 15/f/1

1965 Mar.17

1967 Mar. 8

1970 May 23

1986 "Picking Becomes a Family Affair", Sept.16

1988a "Tomato Growers Feel the Squeeze", Oct.1

1988b "Thousands depend on the lowly Tomato", Oct 1

Winson, A.

- 1985 "The Uneven Development of Canadian Agriculture: Farming in the Maritimes and Ontario", *The Canadian Journal of Sociology*, 10 (4)
- 1987 "Farming and Food Processing Firms: The Case of Nova Scotia, Canada", paper presented at the Rural Sociological Society Annual meeting, Madison, Wisc.
- 1988 "Researching the Food chain: the case of Nova Scotia", in *The Canadian Review of Sociology and Anthropology*, 25:4, pg. 520-559

Wolff, K.

- 1950 *The Sociology of Georg Simmel*. New York: Free Press

Y.W.C.A.

- 1988 "East Elgin Literacy Project", prepared by Anne Brix for the Y.W.C.A. of St. Thomas-Elgin

ADDITIONS

Barrett, G. and Apostle, R.

- 1987 "Labour surplus and local labour markets in the Nova Scotia fish processing industry", in *The Canadian Review of Sociology and Anthropology*, 24:2, pg.178-212

Nelkin, D.

- 1969 "Migrant workers and marginality", *British Journal of Sociology*, 20:4, pg. 375-389

Nelson, J.

- 1954 "Tomato Processing Production Costs", Farm Economics Bureau, Ontario Department of Agriculture

Shaver, F.

- 1990 "Women, work and transformations in agricultural production", in *The Canadian Review of Sociology and Anthropology*, 27:3, pg.341-356

0655,0048