

**Labour Market Update
Agriculture Sector
Waterloo Region and Wellington County**

**Produced for the Waterloo Wellington Training and Adjustment Board
Agriculture Sector Update for Waterloo Region and Wellington County
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INTRODUCTION

Agriculture is an important economic sector within the Waterloo Wellington Training and Adjustment Board (WWTAB) area, and a sector that has been undergoing rapid change. The recent food and economy impact study conducted in Waterloo Region reveals that employment generated within agriculture and the various industries that support it, estimated at more than 18,000 jobs, is a significant contributor to overall employment in the region. The same study provides evidence of the large direct and indirect impact of agriculture on the regional economy. Using existing data and extensive business surveys, combined with multiplier calculations, the researchers estimate that the economic impact of primary agriculture and related support services is in the range of \$1.3 billion. These employment and economic impact figures are exclusive of the large amount of food processing and distribution activity that takes place in the region.

The extent of the impact of agriculture on economic activity in Waterloo Region, and the number of related jobs, comes as no surprise to many who are involved in agriculture, but they may be surprising to many others who live and work in a region that more readily identifies itself in terms of manufacturing, high technology, and educational services. The study is a timely reminder of the continuing importance of agriculture to the overall economic well being of the training board area and Southwestern Ontario generally.

There has not been a similar study yet conducted for Wellington county, but as this update report is being written, several key stakeholders, including WWTAB, are discussing the details of undertaking a Wellington County research study. Given the results of the study conducted in Waterloo Region, and existing knowledge of the importance of agriculture in Wellington County, a study in the county will be extremely useful in providing an up-to-date analysis and description of the agriculture and food system within the entire WWTAB area.

In addition to addressing an often undervalued and misunderstood economic sector, an overview of agriculture in the training board area is timely simply because of the extent and rate of change experienced in the sector. Just in the past few months, Ontario has experienced the severe combined negative consequences of the BSE crisis and health concerns related to food processing. These recent events have added to the ongoing stress of low profit margins, market globalization, and ongoing trade and subsidy disputes, to name but a few critical factors for the agriculture sector.

This update report is intended to provide an update and overview of the agricultural sector within Waterloo Region and Wellington County—a sector that has traditionally been, and continues to be, a very important component of board area economy and labour market. This report draws on findings from the food and economy study recently completed in the region, less extensive currently available information for Wellington County, and an informed opinion from discussions with selected key informants.

AGRICULTURE STATISTICS FOR WATERLOO REGION AND WELLINGTON COUNTY¹

Farm Operation Characteristics

The following tables illustrate some of the key characteristics of farming activity in Waterloo Region and Wellington County, in comparison to the whole of Ontario. A discussion of summary points from the tables follows the table presentation.

Table 1: Land in Farms/Land Tenure

	Total Farmland	Area owned	% Owned	Area rented	% Rented
Ontario	13,507,357	9,373,178	69.40	4,134,179	30.60%
Waterloo Region	225,800	154,890	68.60	70,910	31.40%
Wellington County	471,389	325,163	67.00	146,266	31.03%

Table 2: Agricultural Land Use

	Total Farmland	Land in Crops	% In Crops	Summer Fallow	Pasture		All Other Land
					Tame or Seeded	Natural	
Ontario	13,507,357	9,035,915	66.90	35,175	773,650	1,314,335	2,348,282
Waterloo Region	225,800	180,274	79.84	822	9,344	8,402	26,958
Wellington County	471,389	370,553	78.61	643	22,276	17,503	24,449

Table 3: Farm Type

	Total Farms	Livestock			Poultry	Crops			Specialty & Combination		
		Dairy	Beef	Hog		Field	Fruit	Veg.	Misc. Spec.	Livestock Comb.	Other Comb.
Ontario	55,092	6,414	13,669	2,454	1,609	17,789	1,733	1,233	7,301	1,617	1,273
Waterloo Region	1,382	296	289	226	91	216	8	15	105	110	26
Wellington County	2,460	435	619	207	126	467	28	20	378	113	50

Figure 1 Proportion of Total Farms by Primary Farm Type

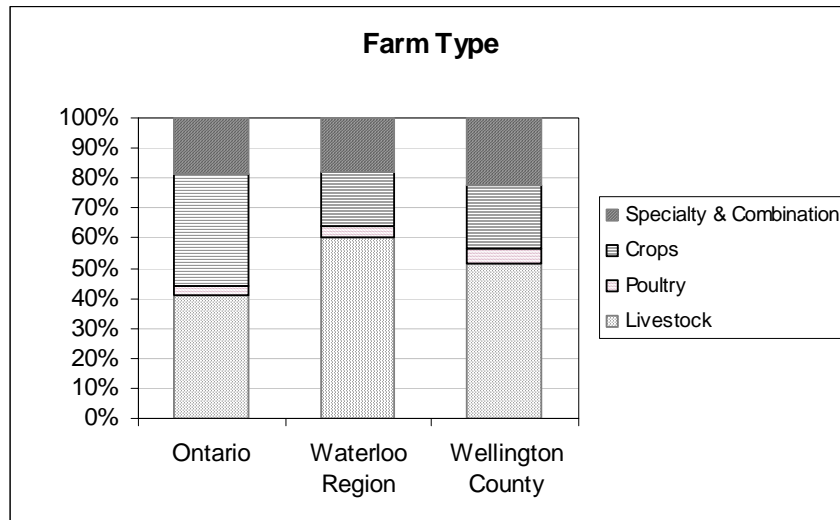


Table 4: Gross Farm Receipts, Farming Expenses, and Net Revenue

	Total Farms	Total Gross Farm Receipts	Total Farm Expenses	Total Net Revenue	Net Revenue Per Farm	Forest Products Sales	
						# Of Farms	Value
Ontario	59,728	\$9,115,454,790	\$7,829,246,574	\$1,286,208,216	\$21,534	2,903	\$20,587,058
Waterloo Region	1,444	\$379,601,661	\$322,890,373	\$56,711,288	\$39,274	192	\$954,650
Wellington County	2616	\$433,775,725	\$372,660,616	\$61,115,109	\$23,362	100	\$604,329

Summary Points for Farm Operation Statistics:

- **Land owned versus land leased:** The percentages for land owned versus leased in both Waterloo Region and Wellington County are very similar to the Ontario average.
- **Land in crops:** The proportion of land in crops within the training board area is significantly higher than for the whole of Ontario. This demonstrates a more intensive overall land use, which is consistent with both the quality of agricultural land within the training board, and the proximity of the area's agricultural operations to major markets in Southern Ontario.
- **Farm type:** Both Waterloo Region and Wellington County have a considerably larger livestock component as compared to Ontario, while the number of crop farms as a proportion of total farms is significantly lower. In Wellington County, poultry farming makes up a noticeably greater proportion of the total farming activity, although the poultry proportion remains small compared to the other types.
- **Net revenue:** Farming operations in Waterloo Region generate substantially higher (~ 82%) total net revenues per farm in comparison to both Ontario, and Wellington County, which also displays net revenue per farm figures that are somewhat higher (~ 9%) than the provincial average.

Agricultural Employment and Farm Operator Characteristics**Table 5: Farm Operator Gender/Age Characteristics – Ontario, Waterloo Region, and Wellington County**

	Total Farm Operators	Male	Female	Under 35 years	35 to 54 years	55 years and over	Average age
Ontario	85,020	62,215	22,800	8,975	44,150	31,890	51
Waterloo Region	1,955	1,520	435	445	965	540	46
Wellington County	3,725	2,665	1,065	615	1,970	1,150	48

Figure 2: Agricultural Employment by Age Cohort (2001) - Ontario, Waterloo Region, and Wellington County

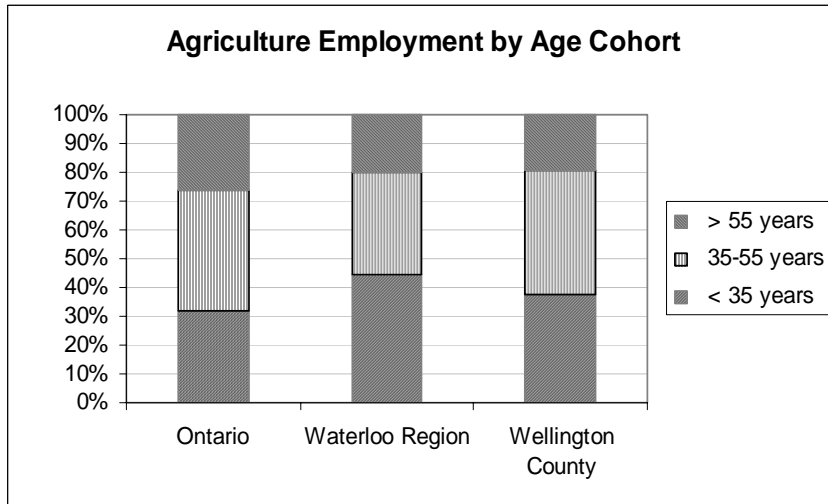


Figure 3: Agricultural Employment by Gender (2001) - Ontario, Waterloo Region, and Wellington County

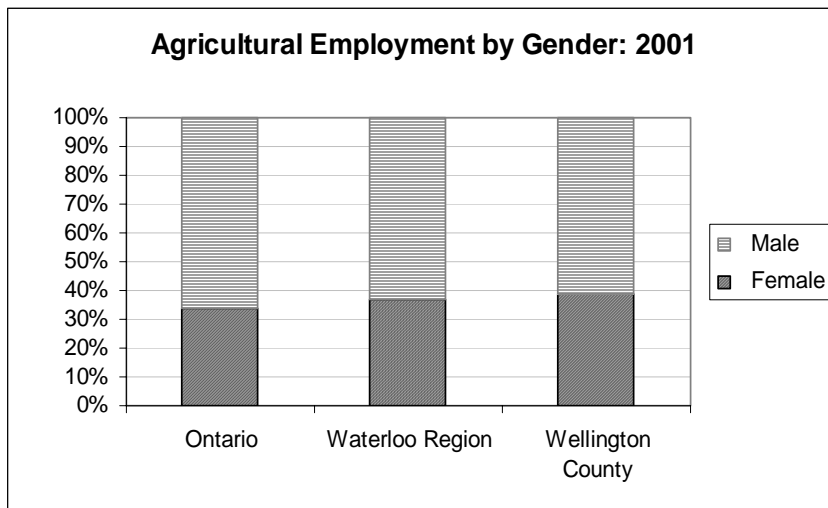


Table 6: Change in Agricultural Employment Composition for WWTAB, BGHPGTTB², and Ontario- 1996 to 2001³

Area	Industry Major Group	1996		1991		Change 1991-1996	
		Absolute	% of total	Absolute	% of total	Absolute	% of total
WWTAB	Agricultural Industries	7,715	2.6	9,070	3.3	-1355	-14.9
	Service Industries Incidental to Agriculture	1,730	0.6	1,220	0.4	510	41.8
BGHPGTTB	Agricultural Industries	16,690	11.0	17,410	11.8	-720	-4.1
	Service Industries Incidental to Agriculture	1,040	0.7	900	0.6	140	15.6
Ontario	Agricultural Industries	109,380	2.2	122,635	2.4	-13255	-10.8
	Service Industries Incidental to Agriculture	14,380	0.3	11,880	0.2	2500	21.0

Summary points for Agricultural Employment and Farm Operator Characteristics

- **Average Age:** The average age of farm operators in the training board area is lower than the provincial average.
- **Age Breakdown:** The age breakdown by cohort statistics reveal that both Waterloo Region and Wellington County have a greater proportion of middle-aged and younger workers in agriculture, in comparison to Ontario, although the proportion younger than 35 years of age is significantly higher for Waterloo Region.
- **Female Agricultural Workers:** The proportion of female agricultural workers is greater than the provincial average in both Waterloo and Wellington, with females making up approximately 5% more of the total agricultural workforce in Wellington County when compared to Ontario.
- **1991 and 1996 Comparisons:** Table 6 illustrates that while employment in agricultural production activity declined between 1991 and 1996, employment in agriculturally related service activity has increased substantially in all areas. The increase in agricultural service employment in the WWTAB area was nearly double that for Ontario as a whole, and much higher than that for the BGHPGTTB area.

Broad Waterloo Region and Wellington County Agricultural Employment Characteristics and Trends

The 2001 Census of Agriculture reveals several important characteristics and trends for agricultural employment in Waterloo and Wellington, including the following:

- Both census divisions demonstrate a lower median operator age than that for both the province and the country. However, the basic statistics for farm operator age do not take into account the effect of the presence of a significant Mennonite population (of several different orders or sects). This reality adds complexity to many agricultural statistics resulting from a number of factors, including higher birthrates, different employment dynamics, and different ownership situations that exist within the Mennonite communities. Given the significance of the local Mennonite populations, one has to keep these factors in mind when discussing agricultural employment and operator statistics.
- Average farm operations for both Waterloo Region and Wellington County are more capital intensive, generate higher average gross receipts, and produce higher net revenues, in comparison to the provincial average. However, the difference between Waterloo Region and the province for all of these characteristics is much greater than that in Wellington.
- The presence of a significant Mennonite population significantly influences the overall employment/socio-economic situation for both the region and the county.

AGRICULTURAL EMPLOYMENT TRENDS AND ISSUES

Concepts and Definitions

Modern agriculture encompasses a wide range of industrial activity normally categorized in virtually every major sector and sub-sector as defined by the North American Industrial Classification System (NAICS). Production agriculture alone is subdivided into approximately 90 categories within NAICS. Table 7 outlines terms and their definitions as they are used throughout this report.

Table 7: Agricultural Activity: Terms and Definitions

Term	Definition/Alternative Term/Application
Agriculture	All economic or industrial activity related to agriculture in the broadest sense
Agri-Business	All activity related to agriculture other than actual primary production activity
Production Agriculture	Primary activity (i.e., farming activity in the traditional sense)
Producers	Individuals or companies involved in primary agricultural production activity
Primary Agricultural Activity	A sector that includes farmers ⁴ and all other food producers.
Secondary Agricultural Activity	A sector that includes all those involved in the processing, preparation, manufacturing, packaging, storage and distribution (including transportation of unprocessed and processed food), wholesaling and distribution of food products.
Tertiary Agricultural Activity	A sector that includes employment in all the services that support primary and secondary agricultural activity. Examples of this activity include equipment sales and services, financial services, veterinary services, and specialized farm construction and maintenance services

Broad Trends Affecting Employment in Agriculture and Agri-Business in Canada and the United States

A number of the trends affecting and interrelated with agricultural employment issues in Ontario are shared with various other economic sectors across North America. Some of the broad trends are discussed in the following sections.

Increasing Farm Size and Decreasing Numbers of Farm Operations:

The size of North American farm operations has been increasing and intensifying⁵ for the past few decades (Statistics Canada, 2002; USDA, 1997). Growing farm size, the push for production efficiency, and the intensification of capital requirements for farming have driven down the number of individual farm operations in North America. Those small family-farming operations that are not incorporated into larger single-family farms or corporate operations may be put to some other rural land use, or converted to residential, commercial, or industrial uses through urban expansion.

The growth in farm size is attributable to many factors, which include the following:

- Decreased operational margins for individual operations (Statistics Canada, 2002) have stimulated the accumulation of more land.
- Increased number of large corporate-controlled operations.
- Increased vertical and horizontal integration of the entire food production system, which has a negative effect on operational margins.
- Increased competition, need for economic efficiency, and market distortion as a result of globalization.

An Aging Agricultural Workforce

The workforce of the production agriculture sector is significantly older and is aging more rapidly than the total national workforce. This can be attributed to the small and declining proportion of the workforce made up of young workers (< 35 years old) (Statistics Canada, 2001b). While the age cohorts below 35 years of age make up approximately 40% of the overall Canadian labour force, farm operators in these cohorts represent only 12% of total farm operators.

In Ontario, the proportion of young farm operators is now below 11%, a significant decline from 15% in 1996. This proportion varies across the sub-provincial regions and across different types of production (Yourk, 2002). In Southwestern Ontario, for example, there are more young operators in cash crop or dairy operations, and in farm operations with a multi-generational history.

In both the Regional Municipality of Waterloo and Wellington County, the age distribution of farm operators is similar to the provincial and national situation. Almost 23% of the region's operators are 35 years of age or younger, and the average age of farm operators is 46. These numbers suggest that the region faces the potential for a longer-term shortage of skills in agriculture, particularly if present trends are not reversed.

The decline in the number of young farm operators is attributable to a number of factors, which include the following:

- Increased capital is required to enter production agriculture as few farm transfers take form of a direct inheritance (Hoppe, 1997).
- Increased land values.
- Ongoing financial risk exacerbated by international trade barriers.
- Long hours involved in maintaining production.
- Increased demands of business management with modern operations.
- Discouragement from older operators to potential entrants into industry because of their own perception of a livelihood that suffers from low return on human and financial investment.
- Decrease in the traditional pool of replacement farmers as a result of off-farm migration, effects of the "Baby-boom", and declining birth rate.

Many researchers argue that the extent of the aging phenomenon in the agricultural workforce has serious long-term implications for agricultural production. These implications include a lack of skilled farm operators/workers to achieve nationally desired and/or required production levels in many commodities, and the potential for lost opportunity with respect to the transfer of skills and knowledge from older farmers to younger farmers. Others argue that the lack of replacement farmers will not be problematic as technological advances and new management structures will require fewer workers to produce any given level of output. Regardless of the extent of technological change, there will always be a need for a significant number of workers in agriculture, and those workers will need to have higher levels and new combinations of skills to be successful.

The Growing Importance of Off-Farm Employment

The proportion of Canadian farms that derive a portion of their income from off-farm employment has risen significantly in the past two decades (part-time off-farm employment increased by approximately 50% between 1982 and 2002). In 2002, approximately 68% of farm families had at least one adult member working in non-farm employment (Martz and Brueckner, 2003). While more women work off the farm than men, the greatest increase in off-farm work has occurred among the latter. The increase in off-farm work has decreased the segregation of farm work along gender lines. However, off-farm work also means that operators and their families often face serious time constraints. While off-farm employment generates income to invest in the farm, operators have to make difficult time management choices.

The Increased Use of Technology in Agricultural Production

The production side of agriculture has witnessed as much substitution of technology for labour as any other sector in North America. Recent decades have brought increasingly sophisticated technology to farm production, including computerization and biotechnology. These technologies have influenced farming practice directly (e.g., computers in farm management) and increasingly through integration with mechanical systems (e.g. electronics in farm equipment) and across the entire production system (e.g. computer financial/business management systems integrated with geographic information systems, supporting the application of biotechnology across the entire production system).

Food System Integration

The North American food system has seen rapid integration and concentration across the entire spectrum from “land to mouth.” A small number of large international corporations control an increasingly large proportion of the entire food system (Kirshenmann, 2003a, and 2000b; Hefferman; 1999). The insatiable drive for economic efficiency results in low operational margins for producers and may reduce the ability of operators to pay heed to the land stewardship and environmental concerns that they would otherwise address. In turn, these potential limitations influence the lifestyle attributes often prized by farm operators and their families.

Long-Term Decline in the Perceived Value of Agricultural Careers

The perception of agriculture has changed dramatically in recent decades both among those familiar with agricultural operations and among the general population⁶. As mentioned earlier, potential young farmers are quite familiar with the negative aspects of working in agriculture. As a whole, producers and other agricultural workers may never have had a more pessimistic outlook regarding their occupations and careers. For example, a 2001 study in the United States found that only one-quarter of farmers and ranchers felt that they were better off than five years previously (Allen, 2001). This “insider” perception of agricultural hardship and the negative implications of industrialized agriculture affects young people who might otherwise be drawn to the sector.

On the part of the public, a limited and superficial understanding of subsidy “wars” and the seemingly low “public good” value of agricultural support programs are among the drivers of misperception about the industry. However, recent research suggests that attitudes to agriculture and the entire food system are shifting, with consumers showing more interest in knowing where their food comes from, and a willingness to become better informed about food production and the realities of modern agriculture. It is difficult to determine whether this shift will have a positive impact on the perception of agricultural careers, or will contribute to the enhancement or stabilization of employment within the industry.

Evolving Rural Demographics and Social-Cultural Change

Generally, rural populations in North America are increasing. However, with a decline in the proportion of the rural population involved in agriculture, the social and cultural landscape of rural areas is evolving away from the traditional agricultural environment. As a result there is greater potential for conflict between agricultural and non-agricultural residents as well as a dilution of the common values and community supports once part of a more homogeneous agricultural setting. At the same time, urban development may have a positive impact for agriculture by stimulating employment

growth through niche markets, increasing the potential for value-added production, and by creating better access to support services, especially in urban-adjacent areas.

BROAD ONTARIO TRENDS FROM THE CENSUS OF AGRICULTURE (2001 AND 1996) AND ADDITIONAL SOURCES

- Continued decline in the number of census farms.
- Increased average farm size (acreage and operational gross receipts).
- Increased net receipts for farms since 1996.
- Continued decline in operating margins.
- Decreased proportion of young operators (< 35 years of age) since 1996⁷.
- Younger farm operators are more likely to be employed in off-farm work.
- Constant proportion of female farm operators in the province, with Ontario having one of the highest percentages of all provinces.
- Increased involvement of Canadian women in core farm tasks from 1982.
- Higher proportion of women 29 to 39 years of age operating farm equipment compared to women over 50 years of age.
- Technology, youth contributions, and changes in social opinion have all influenced the higher participation rate of young females in farm operations.

Attempts to Address, Stabilize, And Improve Agricultural Employment: Canadian and Perspectives

Most countries in the developed world, including Canada, have a long history of governmental and non-governmental attempts to improve agricultural employment and livelihoods, with variable results. These interventions are discussed in the following sections.

Subsidies

Subsidies are direct or indirect methods of managing prices (for inputs and outputs) and production levels in an effort to preserve, improve, or promote national agricultural activity. In spite of the global popularity of agricultural subsidies there are many local, national, and international drawbacks to their use (AAFC, 2000b).

Discussion of subsidies often promotes conflict on a number of levels, including national and regional autonomy, cultural, social, and even economic development philosophies. Nationally and regionally, viewpoints vary from those that see subsidy programs as hastening the decline of rural communities to those that view them as a natural progression in contracting traditional agricultural employment in the name of modernizing and increasing efficiency in the entire agricultural sector.

The federal government has employed an array of agricultural subsidies in recent decades. The three most recent programs are as follows (NFU, 2003a)⁸:

- Crop Insurance (CI) (large yield losses on specific crops).
- Canadian Farm Income Program (CFIP) (large decreases in gross revenue).
- Net Income Stabilization Account (NISA) (farmers and government match funds to build up reserves to deal with revenue declines).

In spite of direct and indirect subsidization in recent years, the profit margins on Canadian farms as a whole have continued to narrow (Statistics Canada, 2002a). Furthermore, the proportion of farm

incomes derived from government programs has increased substantially, while market incomes have declined (AAFC, 2002a).

Rural Economic and Social Development Initiatives

This category of intervention encompasses a host of methods aimed at improving rural economies and/or improving rural social conditions. Many are explicitly directed toward maintaining, supporting, and/or improving employment and livelihoods in agriculture. Assessment of the relative economic, employment, and social impacts of the wide range of rural development initiatives is highly interpretive. From the perspective of the agricultural community, recent development initiatives have bypassed agriculture. Other groups argue that agriculture is not a good investment of funding and effort, to the view that agriculture already receives enough assistance in other ways. Nationally, this debate is influenced by geographic differences in the economic importance of agriculture and media portrayal of agricultural issues. To many, diversification or improvement in local or regional economies often means essentially writing-off existing activity, including agricultural production.

Facilitating Transitions from the Agricultural Industry

The Canadian Agricultural Policy Framework (APF) is comprised of six interrelated elements: *Food Safety and Quality*, *Environment*, *Business Risk Management*, *Renewal*, *Science and Innovation*, *Gaining Recognition for Quality*, and *Maximizing International Opportunities*, and *Consultations*. The APF includes a deliberate effort to facilitate the augmentation of production activities with other business activity, and the transition of some farm operators away from production agriculture. Through assessment, funding, and resource support services for operators, the framework intends to build on existing secondary businesses and skills (AAFC, 2002b).

Revisiting Co-operative and Alternative Production and Marketing Structures

One response to uncertainty in agriculture has been to revisit alternative business structures, especially producer, processor, and marketing co-operatives. The recently renewed interest in this business structure may be reflective of a desire to regain local control over production, employment, and livelihoods, and an effort to reduce financial uncertainty. While Canadian co-operatives have enjoyed considerable success they face increasing competition from the same concentrating global market forces that make them appealing to potential members (CCA, 2003).

Value-Added and Niche Development

Many individual producers are reacting to economic uncertainty by attempting to increase the value-added nature of their operation—adding more value to products before they leave the farm, and thus capturing economic value that would normally accrue higher in the production chain. Niche development includes activities where operators produce a product or service that is in high demand by a relatively small (usually local) component of the population. Some value-added and niche activity may be facilitated by existing government programs providing innovation knowledge and advice, product/service support, and marketing/business expertise. These are skill groups that may not have been given significant attention in previous mainstream agricultural training initiatives but are becoming increasingly important.

SKILL AND TRAINING TRENDS, ISSUES, AND NEEDS IN AGRICULTURAL EMPLOYMENT

A Changing Federal Approach to Training and Development

While not without criticism, the evolving Agricultural Policy Framework (AAFC, 2003), clearly demonstrates a distinct shift in federal and federal-provincial-territorial policy with respect to agricultural training and skills development. For example, the federal government has moved from supporting traditional approaches to individual agricultural operator training to indirectly providing funding for the support of business and technical skills development. The shift potentially places more responsibility on operators to identify and justify their own training needs. An important component of this new approach is an explicit government attempt to build on existing secondary businesses and skills and use direct funding and resource access to entice marginal producers to develop other alternatives and to exit from agricultural production.

While the support services-and-resources approach to training and skills development is widely accepted as an effective approach, there is some research to support the need for a broad traditional approach to training. For example, the Saskatchewan Council for Community Development (SCCD) recently released a report that includes the following recommendations (SCCD, 2003) for training programs:

- Keep producers up to date on changes to agriculture.
- Increase training for agribusiness managers in skills such as financial planning, marketing, communications, leadership, and human resources.
- Promote partnerships between colleges, universities, and training centres.
- Cooperation between the industry and governments in the development of a centre for agribusiness training and education.
- Agricultural training programs and providers should seek provincial alliances.
- Provide information in ways that accommodate a large number of producers.

In spite of the uncertainties surrounding on-line learning (accessibility, time required, Broadband access), it is clear that the Internet has and will continue to have a strong influence on agriculture. As an example of the importance of the World Wide Web, it has been estimated that in 2003, 10% of the world's 4 trillion dollar market in agricultural goods will be traded on line.

The Increasing Importance of Biotechnology

All aspects of agriculture are being influenced by rapid developments in biotechnology. If there is one group of agricultural skills that appears to be in significant demand, it is those related to Biotechnology. Because of its cutting edge nature and the industry's entrepreneurial atmosphere, occupations in biotechnology are demanding skill sets, requiring both breadth and depth.

A Discussion of Labour Market, Employment, Skills and Training Issues in Agriculture

The current agricultural labour force situation is complex, with skill shortages and new skill needs varying across sectors. While there is not a large body of comprehensive research into agricultural skills shortages, issues, and potential solutions in Canada, existing research has provided some specific insight.

Employment, Labour Market, Training, and Skills Implications From Broader Agricultural Economic Research and Commentary From Canada and the United States

- Development of and maintenance of community leadership skills has been identified as a major rural priority (Rural Secretariat, 2002; Pletsch, 2003), particularly given the Canadian federal government’s changing approach to agricultural training, and to agricultural support programs.
- Production agriculture jobs with low skill requirement exist, are often filled by migrant workers, and do not appeal to Canadian workers.
- There has been recent research interest in the definition/analysis of farm work/farm incomes.⁹
- Recent interest in changing gender roles with respect to work and income.¹⁰

Employment, Labour Market, Training, and Skills Implications from Previous Agricultural Economic Impact Studies in Ontario

Many agricultural economic impact studies have been conducted in Ontario since 1998. While the labour market and skills related findings vary somewhat by geographic area, some common elements emerge from the research and include the following:

- While skills specific to an occupation and/or sub-sector will always be important, success in agricultural production occupations is increasingly dependent on a diversity of skills, especially overall management skills.
- Preference of farm operators for workers with previous farm experience (problematic given the reality that there is a decline in the number of workers).
- Farm operators need increasingly sophisticated business management skills, not only farm financial management skills, but also the skills and knowledge to understand the broader economic and market realities, and the implications for their operations.
- Producers and agri-business operators continue to place a high value on so-called “soft skills” (attitude, work ethic, and interpersonal communication skills), and also the proven ability and interest in continuing to learn and adapt to new occupational and farm business realities and opportunities.

Common Labour Market, Employment, and Skill Development/Training Themes From Discussions With Key Informants in Waterloo-Wellington

- In spite of many challenges and rapid change across the industry, there are many opportunities for employment and career success in agriculture. People will always need to eat, and there will always be a demand for workers in food production and agricultural support and service activities.
- Agricultural activity is business activity—success ultimately depends on generating profit. More than ever, successful agricultural activities depend on the application of sound business skills.
- While the labour demand, and therefore the employment opportunities, in traditional production activities continue to decline, new employment and career opportunities continue to develop within agriculture. These opportunities include those that arise as many facets of production are contracted out to specialists. Many dairy producers, for example are having more of their fieldwork contracted out to custom operators. Capital, knowledge requirements, and time demands are increasingly converting producers into advanced managers who select expertise and specialized inputs for “everything outside of the barn.” Other types of

opportunities include those that arise from new production and marketing niches, and new combinations of old and new agricultural activities.

- Agriculture, from production through support and service activities, to research and development, is an increasingly complex sector. Career success depends on post-secondary education, continuous learning, skill development, and the ability to adapt to ongoing economic and career change.
- Production agriculture is increasingly capital intensive. Entry-level producers (youth), governments, and industry organizations need to continue to work together to develop creative ways of meeting the capital challenge to facilitate the successful entry of younger producers. This has never been more true than now and during the next decade or so, as approximately one half of current production assets will be changing ownership in one way or another.
- Youth interested in agricultural careers should also be creative and open-minded in their approach to finding careers. Current producers need to encourage youth to do the following:
 - Seek post-secondary education. This will serve them well both within agriculture, and if they need or desire to seek employment in other economic sectors.
 - Gain off-farm work experience. This provides many benefits, including exposure to other types of agricultural careers, other business management styles, an opportunity to assess whether production activity is really where they want to be employed, and a broader understanding of agriculture as a comprehensive activity and its relationship to other economic activity.
 - Seek niche activities and be open to combining activities that support an agricultural livelihood.

The Importance of Agricultural Biotechnology

As mentioned earlier, agricultural biotechnology is a significant and growing economic activity at the national level. The effects of this activity are evident within the training board area, especially for Guelph-Wellington. The synergy stimulated by the combination of the University of Guelph, OMAF, and biotech-related private research, development and production activity in and around Guelph has resulted in one of North America's most significant agriculture and food related biotechnology clusters. The list of biotech firms, research institutes, and related organizations located in and around Guelph is already extensive, and this list is growing rapidly.

Taken as a whole, this activity represents a significant number of highly skilled jobs and a substantial contribution to the Guelph-Wellington economy. Another impact on Waterloo-Wellington is the reality that this activity provides area agriculture with an extensive array of expertise and resources that are directly influencing local agricultural production and the associated service and support activities.

Given the scientific advances being made and the demand that competition and low profit margins place on producers, the Guelph-Wellington agricultural biotechnology cluster is likely to continue to grow and diversify. This growth will likely be accompanied by an ongoing need for workers with advanced and diversified skills. While some aspects of biotechnology are controversial, a situation that is understandable given its cutting edge nature, the potential for employment generation is positive, including new opportunities in the closely associated higher education activity at the University of Guelph and other local institutions.

¹ The primary source of the data for the tables and figures in this report, unless otherwise noted, is the Statistics Canada 2001 Census of Agriculture (and earlier where appropriate). The data for Waterloo Region is derived from tables contained in: *Growing Food and Economy: Economic Impact Study of the Agriculture and Food-Related Sectors in Waterloo Region*. Data for Wellington County is taken directly from various tables contained in the Initial Data Release for the 2001 Census of Agriculture, by Statistics Canada. Other sources for individual tables or figures are noted accordingly.

² BGHPGTTB is the Bruce, Grey, Huron, Perth, and Georgian Triangle Training Board. It is used in this table for comparative purposes, because it borders the WWTAB area to the North and West, and it is another local training board area where agriculture is an important industrial activity.

³ Data for this table was taken from special tabulations compiled for the local training boards using data from Statistics Canada census, 1991 and 1996.

⁴ Canadian federal agencies, such as Statistics Canada and the Canadian Customs and Revenue Agency (CCRA), consider a farmer as someone who derives 51% of their income from farming. As is discussed later in this literature review, the current definition of farmer is sometimes problematic when one is attempting to understand primary agricultural employment, as an increasing number of Canadian farmers derive a significant portion of their income from off-farm employment.

⁵ Statistics for the United States (USDA National Agricultural Statistics Service) 2002 census are not yet available, but earlier agricultural data suggests that average farm size increased from 364 acres in 1964 to 487 acres in 1997 (USDA, 1997). There have been anomalies in this trend, with the 1997 census indicating that average farm size had decreased somewhat in comparison to 1992.

⁶ The various ON agricultural impact studies conducted by HCA and others highlight these perceptions explicitly and implicitly. For example, refer to the *Middlesex Agricultural Sector Assessment Study*, conducted by HCA in 2000.

⁷ The census reveals that multi-generational farms and larger operations more likely to have younger operators and younger workers.

⁸ Some would argue that these most recent interventions are not subsidies at all, at least in relation to programs in other nations, because they are designed to react to extreme situations (climatic and economic/market extremes, for example), they take effect after certain conditions are met or encountered, and none attempt to offset more than partial losses experienced by producers. It can be argued that there really are not direct, or even indirect agricultural subsidies in Canada, at least in relation to the situation in other countries including the United States, and those within the European Union.

⁹ For example, see Korb, 1997 and Allen, 2001

¹⁰ An example of a recent Canadian agriculture and gender study is *The Canadian Farm Family at Work: Exploring Gender and Generation*. In Ontario, WRED is currently conducting a study on evolving skill development needs for rural women. The article by Pamela Ferdinand also provides insight into the evolving role of women in farming in the U.S.

References

- Agriculture and Agri-Food Canada (AAFC). 2003. *Overview of the Agricultural Policy Framework*.
<http://www.agr.gc.ca/cb/news/2002/n20620ce.html>
- , 2002a. Farm Financial Survey, 2002 – Highlights.
http://www.agr.gc.ca/spb/fiap/publication/survey/survey02/highlight02_e.html
- , 2002b. *Renewal Consultations Framework Factsheet*. Part of the feedback from consultations meetings on the Agricultural Policy Framework, phase one wave one.
http://www.agr.gc.ca/cb/apf/index_e.php?section=info&group=consult&page=consult1_04
- , 2000. *A Portrait of the Canadian Agri-food Industry*.
- Allen, John C., Rebecca Vogt, and Sam Cordes. 2001. *Living in Rural Nebraska: Quality of Life and Financial Well-Being. A research report published by the Center for Applied Innovation, Nebraska Institute of Agriculture and Natural Resources*.
- Author not available. 2000a. *Growing Pains*. Vol. 354, The Economist, 03-25-2000
- Author not available. 2000b. *Survival Kits: How Farming is Reinventing Itself*. Vol. 354, The Economist, March 25.
- Author not available. 2001. *United States: In the Great American Desert: The Future of Farming*. The Economist, December 15, pp 44.
- Canadian Co-Operative Association (CCA). 2003. *Revitalizing Canada's Agricultural Co-Ops*. Newsletter. Spring 2003 Vol. 7, No. 1.
- Cummings, Harry and Associates. 2000. *Middlesex County Agricultural Assessment Study*.
- Hefferman, William et al. 1999. Consolidation in the Food and Agriculture System: Report to the National Farmer's Union. Department of Rural Sociology, University of Missouri. Columbia Missouri. http://www.nfu.org/images/hefferman_1999.pdf.
- Hoppe, R. A. 1997. *Retired Farm Operators: Who Are They?* Rural Development Perspectives, Vol. 11 No. 2.
- Kirshenmann, Frederick. 2002a. *Toward an Agricultural Research Agenda for the 21st Century*. Presentation to the annual meeting of the Baker Council, ISU department of Agronomy. March 25.
- , 2002b. *A Revolution in Agriculture*. Presentation to the Glynwood Agriculture Initiative Conference: Connecting Communities, Farmers, and Food. May 3, Cold Spring New York.
- Martz, D., and I. S. Brueckner. 2003. *The Canadian Farm Family At Work: Exploring Gender and Generation*. Centre for Rural Studies and Enrichment, St, Peter's College Saskatchewan.
- National Farmers Union. 2003a. *Safety Nets and the Future of the Family Farm in Canada*. A Report to the Minister of Agriculture as Part of Consultations on the Agricultural Policy Framework. January.

- 2003b. *NFU young farmers criticize APF proposals*. Regional Country News. May.
- Pletsch, Carolyn. 2003. Interview. Executive Director of the OATI Learning Group. May.
- Saskatchewan Council for Community Development (SCCD). 2003. *Study Reveals Need for Training: Centre of Agribusiness Education Recommended. Responding to Change: Agricultural and Rural Development Opportunities*, March 2003.
- Statistics Canada. 2002a. 2001 Census of Agriculture – *Canadian Farm Operations in the 21st Century*. <http://www.statscan.ca/Daily/English/020515/d020515a.htm>.
- 2002b. 2001 Census of Agriculture: *Profile of Canadian Farm Operators*.
- 2002c. *Profiles of Canadian Farm Operators: Who's Minding Ontario's Farms?* <http://www.statcan.ca/english/agcensus2001/first/profiles/03ont.htm>.
- 2002d. 2001 Census of Agriculture Farm Operator Data: Initial Release. Statistics Canada Daily. May 15. <http://www.statscan.ca/Daily/English/020515/d020515a.htm>
- United States Department of Agriculture (USDA). 1997. Census of Agriculture. Historical Highlights: 1997 and Earlier Census Years. Vol. 1, Table 1. http://www.nass.usda.gov/census/census97/volume1/us-51/us1_01.pdf.
- The Rural Secretariat (Agriculture and Agri-Food Canada). 2002. The Second National Rural Conference: Charlottetown Action Plan (Priority areas identified from the conference proceedings). http://rural.gc.ca/conference/rap-par2_e.phtml#principal.
- Yourk, Darren. 2002. *Canada's Farmers Growing Old*. Globe and Mail Update. November 20.

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