

Farming on the urban fringe – The economic impacts of niche and local marketing strategies

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1.0 Objectives and Background

Long-term survival of productive agriculture at the urban fringe is threatened by high land prices, fragmentation of farmland, and the lack of appreciation for normal farm practices by non-farming neighbours. Some farmers have responded to these challenges by adapting and taking advantage to meet the demand for fresh farm produce by local residents and restaurants, or provide an agricultural experience. Meanwhile jurisdictions at different levels have implemented policies to protect farmland (e.g., zoning, taxes) and right-to-farm legislation, while offering varying levels of support to marketing initiatives. Even with these efforts, the total number of farms in Canada continues to decrease, and many farmers, especially those at smaller scales, feel marginalized and unsupported.

Hedonic models of farmland values show that prices per unit area decrease with increased parcel size and distance from major cities (Cotteleer et al. 2008; Huang et al. 2006). Conversion of agricultural land to urban uses is associated with further expectations for development, and thus greater price increases. These expectations often result in disinvestment in the agricultural sector – the idling of farmland or switching to activities that use more mobile capital (Berry 1978). Alternatively, agricultural producers near cities adapt and maintain economic viability by intensifying land use or modifying the production system to serve specialized urban markets. For example, greenhouse, market vegetable, and organic production tend to be concentrated near urban centres (Beauchesne and Bryant 1999; Frederiksen and Langer 2004; Purdy 2005).

Consumer support for locally produced agricultural products has increased significantly with recent public awareness campaigns that focus on climate change and other environmental sustainability issues. Academic research and NGOs locally and internationally have identified significant environmental and social benefits provided by organic and locally-oriented food production. In addition to using fewer external inputs (viz., energy) than typical conventional farming (Hoepfner et al. 2005; Stockdale et al. 2001), agro-ecological methods such as commonly used in organic agricultural production have been shown to reduce soil erosion and nutrient losses by leaching (Poudel et al. 2002; Reganold et al. 1987), and to increase biodiversity of both crops and

native species on the farms (Bengtsson et al. 2005). Organic agricultural practices have resulted in some improved soil quality (Glover et al. 2000), but in other cases reduced amounts of available nutrients (Gosling and Shepherd 2005). Therefore, the entire agricultural system needs to be considered when determining impacts on environmental sustainability.

While much current support for locally-produced food centres around reducing greenhouse gas production by eliminating significant transportation requirements, locally-produced food also contributes to communities by providing social value, food quality, and consumer awareness of food sources. The health impacts associated with increased appreciation for local food (often fresh fruits and vegetables) has prompted provincial education and health authorities to lend support to the marketing of local agricultural products (Government of British Columbia 2007). However, agricultural observers note that such official support for local agriculture has also been part of previous programs that are now discontinued.

The success and survival of farms on the rural-urban fringe is also impacted by the need for and the effective (or not) implementation of buffers between divergent land uses. Governments and others can also work to encourage sufficient social capital in the community (Libby and Sharp 2003). Social capital – comprised of relationship networks, trust, reciprocity or positive emotions – reduces conflict between non-farming and farming neighbours, and can impact the effect and utility of different policy choices in land-use management.

The objective of this research was to explore and document some of the key economic issues that affect the long-term success and environmental sustainability of agricultural production that is utilizing local marketing strategies on the urban fringe. A survey of farmers on southern Vancouver Island examined the characteristics of organic production and local marketing, and explored some of the impacts of tri-level policy (local, provincial and federal). While this population shares certain characteristics with most farmers in BC, being located near a large urban centre with both negative and positive impacts from the city makes them somewhat unique as well.

2.0 Research Methods

We administered an in-person survey of farmers on the Saanich Peninsula¹ who market products locally and/or utilize organic production practices. A list of 89 farmers was compiled from four related data sources – the Certified Organic Associations of British Columbia (COABC), the Southern Vancouver Island Direct Farm Marketing Association (DFMA), the LifeCycles Good Food Directory (LC), and the Vancouver Island Travel Guide (VITG).² An advertisement was also sent out to local list-serves and posted at local farm supply stores to increase visibility and draw attention from those who

¹ The Saanich Peninsula includes the Municipalities of North Saanich, Central Saanich, and Saanich, and for the purposes of this study, Victoria. Because it has a very small number of farms (7 farms in the 2006 Agricultural Census), data from Victoria was amalgamated with Saanich for the Agricultural Census, and we will do the same to allow comparison of data from our study with data from Statistics Canada.

² With numerous farms cross-listed, the number of farms from the various source lists was as follows: COABC (21), DFMA (58), LC (42), and VITG (31). The contact lists are publicly available at www.certifiedorganic.bc.ca, www.islandfarmfresh.com, www.lifecyclesproject.ca, and victoriabc.com.

may have been missed by the original compilation, but the latter had no impact and our final list contained 83 farms.

A sample of 33 potential survey participants was selected at random from the list. A letter of invitation was sent to selected farmers, and a follow-up telephone call placed to determine willingness to participate and to schedule an interview time. We made repeated efforts to contact farmers by telephone and were unable to reach five people (four did not return telephone calls and the other was out of the country for an extended time). Two people on our list did not produce any food products for sale or were going out of business, and so were removed. Three others declined, with two explaining that they were too busy to participate, and the other under too much farm-related stress.³ Therefore, with these 23 participants we had a 70% response rate. Two additional participants from a farm cooperative were added during the survey process after we interviewed a fellow member of their group, bringing the total to 25.

Survey questions addressed farm size (area and income), capital investments (land, facilities, and equipment), employees, type of products grown/raised, marketing, off-farm work, and opinions on various policy-related issues. The survey was administered in-person, usually taking one to two hours to complete.

3.0 Survey Results

3.1 Farm and Farmer Characteristics

This study tried to focus on farmers whose agricultural activities demand a significant part of their time or provide a significant part of their livelihood. Therefore, we targeted farmers who make agriculture a primary source of income and/or a primary work activity. Table 1 compares key results from the survey with census data from Statistics Canada.

The 2006 Agricultural Census of Canada reports that 65% of farms on the Saanich Peninsula have gross farm receipts of less than \$10,000. With a few exceptions, these are not farms for which agriculture makes a significant contribution to household income. Only 20% of our survey respondents were in this category (see Table 1), and all respondents reported more than \$2500 annual gross farm receipts. As in the census, only 20-25% of farms reported carrying farm-related debt, significantly lower than the Canadian average of 60%.

Female farm operators account for only 28% of all farm operators in Canada, but this proportion is significantly higher for BC (37%) and the Saanich Peninsula (39%). The total number of operators per farm was quite a bit higher in our survey than the census, as was the proportion of female operators (at approximately half). Therefore, the greater involvement of women in our survey could be due either to higher reporting of spousal involvement in a farm or a greater number of female main farm operators in the organic and direct marketing farms we surveyed. A significant majority (76%) of those surveyed employed some farm labour, but only 44% had the equivalent of one or more full-time employees. The larger farms (>\$400,000 gross) averaged more than 11 full-time employees each.

³ The farmer declined to participate because of stress related to BC Assessment's recent reinforcement of non-ALR farm classification status in the region, which has resulted in split residential/farm classification for over 100 farms, significantly increasing property taxes and causing much public debate.

Table 1. Farm characteristics in Saanich, Central Saanich and North Saanich – survey results compared with 2006 Agricultural Census

	All Farms		> \$10,000 gross receipts	
	Survey	Census	Survey	Census ^a
Farms with < \$10,000 gross farm receipts	20%	65%	-----	-----
Average gross receipts (\$)	196,000	82,000	245,000	217,000
Farm-related debt (% of farms)	20%	23%	25%	
Average amount of debt (\$)	480,000	559,000	480,000	
# of operators/farm	2.0	1.4	2.1	
Farms with only 1 operator	24%	61%	20%	
Female operators (% of total)	52%	39%	49%	
Average age, years		55		
# of years farming	16	n/a	17	n/a
Paid agricultural work				
Farms with employees (%)	76%	37%	85%	
Weeks of paid work/farm	153	120	189	
Total farm area (acres/farm)	32.3	25.0	39.1	
Land owned (acres/farm)	22.0	20.6	26.4	
Farm Size Categories (% of farms)				
< 10 acres	48%	60%	45%	
10-69 acres	44%	33%	45%	
> 70 acres	8%	6%	10%	
Land Use (acres/farm) ^b				
Land in crops	17.2	12.1	21.2	
Natural land for pasture	0.2	4.1	0.3	
Woodlands, wetland, & Xmas trees	2.1	3.0	2.5	
Organic farm (certified in parentheses), % of farms ^c	64% (36%)	28% (3.3%)	55% (35%)	
Machinery & Equipment Value				
Farms with tractors	72%	72%	75%	
Average value of tractors ^d	105,000	20,096	117,000	

^a Census data for farms with >\$10,000 gross receipts is forthcoming

^b All land-use values are reported as a proportion of the total number of farms, even if some farms may not have any land in the respective category

^c Census reports farms as organic if 50% or more of gross receipts are in that category

^d Average tractor value was skewed by one farm with tractor value of over \$1 million

Since the survey sought out organic producers, the proportion of organic farms in the survey is understandably greater than for the census. This also corresponded to higher numbers of farm employees, perhaps due to the typically higher labour requirements of organic agriculture. The total land area per farm was higher for our sample than reported in the census. When comparing land-use between the survey and the census, farms in our survey had more cropland, less natural land for pasture, and somewhat less land in forest and wetland.

3.2 Defining Farm Success

With definitions of success ranging from financial to more less easily quantified or categorized explanations, determining whether a farm is successful is not easily accomplished. However, many of the answers to the survey question “Why do you farm?” contained characteristics that fulfilled a commitment to a certain way of life and set of values. Preliminary analysis of the survey data used a number of different measures to characterize success.

From a financial standpoint, 68% were unsatisfied with their current level of farm income, and felt that their farm income was insufficient to maintain their standard of living. This corresponded with an inability to build equity/capital given current farm income levels. However 60% felt that they make a positive return from farm investments.

Another measure of success is the ability of the farm to provide a majority of the household’s income. Of the farms with >\$10,000 gross farm receipts, 45% received the majority of their household income from the farm, and 25% gained more than 90% of household income from farming. Farmers that were less dependent on off-farm income tended to have more years of experience, although a couple of newer organic producers seemed to be bucking this trend. However, the more experienced farmers felt in general they were getting older and could not work as hard as in the past.

3.2 Opinions on Policy

The survey gathered likert-scale opinions regarding agricultural policies. These included attitudes towards zoning regulations, support for farm product marketing and farm-related services, urban edge planning, and agricultural tax incentives. Provincial and municipal regulations and agricultural policy have the greatest direct effect on farm economic status. Importantly, the farmers surveyed do not participate in federal programs because the application process is too onerous and they find the paperwork daunting.

For locally oriented vegetables and fruit, marketing of the product presented very few major challenges. Farmers were generally satisfied with the prices that they can charge for their products through direct farm market channels. They reported that they had no trouble selling their produce because of the high demand for local food. Only 32% expressed concerns about product prices and only 20% felt negatively affected by market competition. However, there was a general sentiment that regulation issues were tough on local producers but lax on imported food. Small producers of eggs, poultry and other meat expressed concerns about provincial marketing boards and meat processing regulations that have potential to put the last couple of remaining local processors out of business.

Input costs were a greater issue, with 60% of respondents indicating they were negatively affected by high input costs; meat producers were especially concerned about

the rising cost of grain. As the farmers age, they are finding it difficult to find capable labour, and lack of labour negatively affected almost half of respondents. Aside from the shortage of available meat processing facilities, farmers expressed general satisfaction with the amount of farm-related services. This seemed to be also related to the significant level of social capital in the local farm community, as all respondents said that other farmers were a valuable source of information and support. Many farmers indicated that agricultural conferences were very good, largely for the social element.

While farmers generally felt that local policy did not reduce their ability to make money farming, there were two exceptions. These were farms whose agricultural activities were hindered by municipal regulations because they had not adapted to address the innovative agricultural practices that were proposed. To prevent other such problems in the future, some effort to monitor trends in agriculture and best practices for innovative farm development could help inform municipal governments when making decisions about how to manage such things as large greenhouses or agri-tourism destinations.

4.0 Implications and Conclusions

Land costs and the availability of productive agricultural land for new or expanding farms were concerns expressed by many of the farmers surveyed. Production potential of land holdings was hard to gauge, because some people were not interested in expanding and had stewarded their land to a very high level of fertility. Others felt they had no hope of expanding because of the high price of land. Agricultural property tax rates play a significant role in reducing operating costs for local farmers, even to the point of providing reasonably priced rental land from landowners interested in the tax benefits.

From the survey responses, it was clear that customer demand is a key factor in the trend toward more environmentally friendly farm practices. Of the farmers using organic or IPM production methods, 88% indicated that customer demand played an important or very important role in this decision. From a policy perspective, education of consumers could drive positive environmental change in the local farming sector.

Urban neighbours are also important to agriculture in ways other than as consumers. The potentially negative externalities (e.g., nuisance and traffic issues) associated with proximity to the urban fringe were also important to many of the farmers surveyed. Provincial and municipal planners are well aware of these issues, working to improve edge planning and buffers between farms and cities. Further work in this area will continue to be necessary, and positive relationships in the community (social capital) play an important role in alleviating tension.

5.0 References

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