



## Knowledge Synthesis

### CREATING VALUE-ADDED PRODUCTS FROM NATURAL RESOURCES

*Martin Pyle*

*January 2010*

#### INTRODUCTION

*This knowledge synthesis is part of The Monieson Centre's Knowledge Impact in Society (KIS) Project, a three-year endeavour to connect academic knowledge with economic development needs in Eastern Ontario. The synthesis is an accessible presentation of the latest research on issues affecting rural Eastern Ontario. The knowledge synthesis topics were determined through information gathered at 15 community workshops run in partnership with the Eastern Ontario Community Futures Development Corporation network. The KIS Project is funded by the Social Sciences and Humanities Research Council of Canada. For more information, visit [www.easternontarioknowledge.ca](http://www.easternontarioknowledge.ca).*

Eastern Ontario's agriculture and forestry sectors are showing an increased interest in creating value-added products from local natural resources. At the most basic level, added value can come from either transforming a product in some way, or providing an additional service which complements the product itself. While specific solutions vary from resource to resource and are dependent on funding options, this paper offers real-world examples to generate ideas for future consideration.

#### CHUDLEIGH'S: A CASE STUDY

Milton is located in Southern Ontario, about 40km west of Toronto. It recently made headlines when the results of the 2006 Census named the town the fastest growing community in Canada. The population at the last census stood at 53,900 residents, an increase of 71.4% over the previous five years.<sup>1</sup> However, this community is rooted in an agricultural past and is still surrounded by many active farms. Established in 1957 in Milton, Ontario, Chudleigh's has evolved from a 'pick-your-own' orchard to a thriving business encompassing both an entertainment farm and a commercial bakery. The orchard has an on-site children's play area, restaurant and retail store which sells baked-goods, crafts and other related products. Nearby, the commercial bakery provides goods for a number of grocery stores across North America. Chudleigh's provides a good case study for examining how to add value to raw resources.

---

<sup>1</sup> "Census Data Confirms Projected Growth in Milton," Town of Milton, News Release, March 13, 2007, [http://www.milton.ca/execserv/press\\_releases07/Final\\_NR\\_Census06\\_Mar07.pdf](http://www.milton.ca/execserv/press_releases07/Final_NR_Census06_Mar07.pdf) (accessed January 4, 2010)

## DIFFERENT BUSINESS, SAME CUSTOMERS

### *Adding Value through Experiences*

As with many farms in Ontario, Chudleigh's originally adopted a 'pick-your-own' business model because it reduced overhead costs by transferring labour to the customers. This approach was appealing to customers who would come out, pick a large amount of fruits and vegetables, and then return home to make preserves to last throughout the winter. Recently, however, several societal changes have led to this model being less profitable.

First, there has been an increase in the number of families where both adults work full-time. Second, the advent of Sunday shopping has created greater competition from retail stores. Both of these factors have resulted in people having less time and more activities competing for that time. Furthermore, globalization and improved transportation systems allow grocery stores to bring in fresh fruit year-round at reasonable costs. The art of making preserves is gradually disappearing with each new generation, as the need and the time available to do so are both on the decline. The net result of these factors is that people who show up to pick-your-own farms are purchasing fewer fruits and vegetables.

One grower in the Toronto area calculated that in the early 1990's the average per-person sale was \$8, and each person ate \$1 worth of fruit while picking (a self-administered discount which was seen as fair by both parties). By the early 2000's, their ratio had switched to an average purchase of \$0.80 and an eating discount of \$1.50<sup>2</sup>. Clearly, this model was no longer feasible for growers. What has emerged, though, is a new model which seems to be working.

Research in marketing has long-recognized that when people buy a product, they are really purchasing a service. In other words, people buy products to help achieve a goal that they have. For example, a person will buy a drill not to own the product, but rather because of the things it allows him or her to do (e.g., make holes). This service-oriented view of consumption is closely related to the experiential view of purchases, where people pursue options that involve "...fantasies, feelings and fun."<sup>3</sup> Recently, the ideas of co-creation and co-production have become important in marketing research, as companies try to find new and better ways to attract and keep customers<sup>4</sup>. The premise of co-creation and co-production is that people will see value in being able to immerse themselves in the consumption process as active participants.

In the case of farms such as Chudleigh's, the owners are realizing that people are no longer coming out of necessity, but rather for the experience of being on a working farm. Given that more and more children are growing up with only a rough idea about where their food comes from, going to a farm has become a family outing. Out of the ashes of the pick-your-own model, the entertainment farm has emerged.

Also known as agri-tourism, the entertainment farm can require a change in perspective for many farm owners. In addition to all of the work involved in raising livestock and/or growing crops, this path

<sup>2</sup> Catherine Poster, "Radishes and Rutabagas and a Bit of Razzmatazz," *The Toronto Star*, August 2, 2007, <http://www.thestar.com/comment/columnists/article/245489> (accessed January 8, 2010).

<sup>3</sup> M. Holbrook and E. Hirschman, "The Experiential Aspects of Consumption: Consumer Fantasies, Feelings and Fun," *The Journal of Consumer Research* 9 (1982), 132.

<sup>4</sup> Stephen L Vargo and Robert F. Lusch, "Evolving to a New Dominant Logic for Marketing," *Journal of Marketing* 68 (January 2004), 1-17.

requires that owners also take on the role of show-person, mixing with the public and providing the staff to take care of the needs of the customers. Shifting to an entertainment farm also requires the construction of attractions which will bring customers to the location. This can include features such as mazes (rope or corn), play structures and on-site restaurants (see Appendix A for additional ideas). One study found that people are looking for an average of four hours of entertainment for each hour they need to drive, so the experience needs to be able to meet the demand.<sup>5</sup>

The entertainment farm can also be an opportunity to showcase local talents in a centralized location. Chudleigh's and similar entertainment farms frequently have a gift shop with crafts and small gifts available for purchase. In a symbiotic relationship, the gift shop can seek out local artists and craftspeople to display their work, benefitting both parties.

In addition to directly serving families and other customers, farm owners can also use the facilities of an entertainment farm to provide educational tours. The Ontario Ministry of Education curriculum requires students to be taught the differences between urban and rural life, and also includes food units which highlight farming.<sup>6</sup> Country Heritage Park, another facility in Milton, offers an interactive educational experience which takes advantage of the region's farming history. This museum-like site has collected a variety of exhibits and artifacts and displays them in a natural setting, with costumed staff to "showcase the evolution of rural life and food production in Ontario."<sup>7</sup> Chudleigh's also offers programs for local schools in the fall where they teach fruit growing and processing to students.

Examples of entertainment farms already exist in Eastern Ontario, and showcase some of the possible opportunities for adding value to a working farm. In the town of Munster, just outside of Ottawa, the Saunders Farm offers seasonal entertainment such as a maze and spray park, and special Halloween-themed attractions. The farm also promotes itself as a location for special events such as weddings and corporate retreats.<sup>8</sup> Similarly, the McMaze farm, located in St Andrews West just north of Cornwall, offers year-round entertainment opportunities.<sup>9</sup> A unique offering at McMaze is the pumpkin seed planting opportunity in the spring. Visitors are encouraged to plant a pumpkin seed and return frequently to watch it grow – an innovative way to promote repeat visits.

The Haliburton Forest and Wild Life Reserve demonstrates that experiential attractions need not be limited to crop growing farms.<sup>10</sup> This organization has taken advantage of the available natural resources and built attractions which *highlight* the unique features of the area, with canopy tours taking people through the treetops and educational programs. The Wilton Cheese Factory in Odessa is another example of a facility which offers experiential entertainment (e.g., tours, a wedding location), but also demonstrates another option for adding value to resources – by processing them and selling the finished goods.<sup>11</sup>

<sup>5</sup> Tracey Tyler, "Butter Tarts Lure Tourists to Travel Tasty Trail," *The Toronto Star*, December 3, 2008, <http://www.thestar.com/article/547275> (accessed January 8, 2010).

<sup>6</sup> *Social Studies, Grades 1 to 6; History and Geography, Grades 7 and 8*, The Ontario Curriculum (Toronto: Ontario Ministry of Education, 2004).

<sup>7</sup> Country Heritage Park, <http://www.countryheritagepark.com> (Accessed January 8, 2010).

<sup>8</sup> Saunders Family Fun Farm, <http://www.saundersfarm.com/pages/SAUNDERS-ABOUT.html> (accessed January 15, 2010)

<sup>9</sup> McMaze Farm, <http://www.mcmaze.ca> (accessed January 15, 2010)

<sup>10</sup> Haliburton Forest and Wild Life Reserve, <http://www.haliburtonforest.com/index.html> (accessed January 15, 2010)

<sup>11</sup> Wilton Cheese, <http://www.wiltoncheese.com> (accessed January 15, 2010)

### *Adding Value through Production*

Although entertainment farming may work for communities located near population centres, this may not be an option in more remote locations. In this case, another option for adding value to raw resources is required, and one where Chudleigh's again provides a possible solution. In addition to the entertainment farm business, Chudleigh's has also developed a commercial production facility.

Chudleigh's bakery began as a small-scale operation serving the local community (and the on-site restaurant) with fresh baked goods. In 1990, a fire started in a remote building and spread to destroy the retail store, bakery and cider press. Despite this setback, the business continued to grow, and now the current commercial facility, re-built in 2007, is an 82,000 square foot bakery employing 150 full time staff. The Apple Blossoms (Chudleigh's signature dessert), pies and other desserts are now available through a number of locations, including Metro and M & M Meat Shops. By integrating the processing of the raw resources, the owners saw an opportunity to add value by using available skills and resources and focusing on a few key products.

Current marketing research suggests that organizations add value to products by embedding them with knowledge and skills. Along each step in the process, from raw resources to finished product, someone makes a contribution by changing the product and passing it along. For example, the farmer has knowledge about the soil and water tables on his or her land and the required skills to produce the crop of wheat. The wheat gets transported to a mill, the mill processes the wheat into flour, the flour is baked into bread, and the bread is sold at the store. From seed to bread, at each step in the process, someone adds value through specialized knowledge and skills for the next stage of customers. One way to retain some of this added value is by processing the raw resources locally.

Unfortunately, the costs involved in immediately establishing a full-scale processing facility can be substantial and out of reach for many communities. However, smaller-scale options do exist, and through reinvestment into the business, gradual growth can occur. One of the first steps is to determine how your existing resources are typically transformed into processed goods. With this list in mind, the next step is to determine the skills of the available workers and how this knowledge can be exploited to take on some of the processing within your community. Finally, you will also need to determine the proper outlet for distributing the processed product. Although national distribution through chain-stores may be the ultimate goal, smaller specialty shops are more receptive to carrying smaller quantities of products until a demand for the product and the supply capacity of your facility increases.

For example, perhaps the main crop in your community is corn destined for human consumption. A small portion could perhaps be diverted to a small operation making products such as corn relish. With the availability of label printers at the home-office level, professional packaging can be achieved at a fairly low cost. Distributing the product to retail outlets may begin simply, with the rental of a small truck and a long drive.

The same small-scale beginnings hold for forestry products as well. Industrial saw mills have enormous capacity but also high startup costs. However, companies such as Norwood Industries provide a range of portable saws and planers starting from around \$15,000.<sup>12</sup> Further, because of their portable nature, a group of community members may be able to pool their resources and share the equipment. While the

---

<sup>12</sup> Norwood Industries, Inc. [http://www.norwoodindustries.com/en/Home\\_Norwood\\_Sawmills.aspx](http://www.norwoodindustries.com/en/Home_Norwood_Sawmills.aspx) (accessed January 8, 2010).

capacity of these saws is insufficient to supply major retail stores, it is possible to find niche uses for the semi-finished boards. This can include serving local furniture makers or homebuilders with quality products.

Both of these examples share a common thread: prior to setting up a processing facility, you need to determine what market your products can serve and how best to do so. This may require finding other people or organizations of a similar size with a specific need, and working together to figure out how to best serve both parties. Furthermore, it may be helpful to investigate some of the current trends to determine how they can be exploited. For example, organic produce are typically sold at a higher price than non-organically raised products, and there is a growing demand for products made using sustainable methods.<sup>13</sup> The environmental movement (e.g., “Think Globally, Act Locally”) encourages people to buy products which are manufactured close to their community to reduce the impact from transportation.<sup>14</sup> All of these ideas can not only help you to determine your target market, but can serve as a basis for promoting your goods.

While starting an operation to process your available resources might sound promising, many communities face the problem of not having any single investor willing to commit the required resources. In order to share the risks involved and reduce the required investments, a group of interested individuals can consider the benefits provided by a co-operative. Similar to a public corporation, a co-operative (or co-op) is “an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise.”<sup>15</sup> Using this type of business model can reduce the risks involved in starting a new operation. First, the actual financial costs can be distributed widely. Second, this distributed ownership also means that the new venture can be *supplemental* to other sources of income. In other words, if a single individual tries to start a new processing operation, that individual risks everything and must devote all his or her time to maintaining the business. By using a co-op model, individual operators can maintain their primary sources of income and divide the time needed for the new venture to become operational. As an added bonus, co-ops can have a social benefit to communities by drawing them together under a single goal.

The ideas outlined thus far are primarily focused on establishing some form of production within your community. Encouraging an external operation to set up in your community may provide an alternative option. Toyota has set the benchmark for efficient production and is an innovation leader, even outside the automobile manufacturing industry. One of their business practices involves the co-location of plants in close geographic proximity to their suppliers. This practice allows Toyota to hold very little inventory by instead receiving smaller and more frequent deliveries from the supplier. This business model may also serve to optimize transportation costs. Rather than transferring bulky unfinished goods to a plant and subsequently transporting the finished product to the distributors, the costs associated with the first step are eliminated. Using these ideas, it may be worthwhile to have a community member

---

<sup>13</sup> “Sustainable Business Practices: IISD’s Checklist,” International Institute for Sustainable Development, [http://www.bsdglobal.com/tools/principles\\_sbp.asp](http://www.bsdglobal.com/tools/principles_sbp.asp) (accessed January 8, 2010).

<sup>14</sup> “Where Does Your Food Come From?” FoodRoutes Network, <http://www.foodroutes.org/whycare.jsp> (accessed January 8, 2010); “Why Buy Local?” Local Harvest, <http://www.localharvest.org/buylocal.jsp> (accessed January 8, 2010).

<sup>15</sup> “What is a Co-operative?” Ontario Co-operative Association, 22 October 2009, [http://www.ontario.coop/pages/index.php?main\\_id=70](http://www.ontario.coop/pages/index.php?main_id=70) (accessed January 8, 2010).

look for and contact larger companies which process your region's resources to determine whether a relationship can be developed to build a processing plant in your area.

## SAME BUSINESS, DIFFERENT CUSTOMERS

When considering how to derive better value from your resources, one option is to think about how those resources are currently being used. Familiarity and inertia often keep us on a single path, doing things because 'that is how we've always done them'. For example, a farmer may have a certain rotation of crops for his or her fields, based on the soil and water conditions. That same farmer will likely have an existing outlet (or multiple customers) for each of the harvests. In such cases, it may be of some value to consider what *else* could be planted that may yield a higher return on the crop. Furthermore, are there other uses for your crop? It may be worth the time investment to find out whether these alternative uses may pay more for your harvest, or if there are certain kinds of crops which could be planted in lieu of an existing crop.

If your business is raising livestock, there may be other animals which can be raised instead of (or in addition to) those you are currently raising. In both cases, it is important to look at trends in the general culture and do your best to anticipate how people are changing their needs and preferences. From an animal husbandry perspective, alpacas are a relatively new addition to Canadian farms (the first animals arrived in Canada in 1992) and their presence here has spawned a number of new outlets for their fibre.<sup>16</sup> Likewise, Stirling, Ontario farmers Martin Littkemann and Lori Smith found a niche market raising water buffalo to supply Canadian producers of buffalo mozzarella cheese.<sup>17</sup>

From a forestry perspective, the same ideas hold. While crops and animals reach maturity and harvesting much faster than trees, a forward-looking policy may be beneficial. When replanting trees, it may be worth considering whether or not a different species may lead to future options for the harvested product. The difficulty is balancing the short-term needs for a long-term gain. For instance, some hardwoods, like oak, may take anywhere from 70-120 years to mature, while poplar can be harvested after 40 years.<sup>18</sup>

## KEY TAKEAWAYS

- Identify the ways in which your available natural resources *can* be processed
- Take stock of your resources, including the skill sets of available employees, and determine what you *could* produce
- Find a match between your resources, the available skills in your community, and where potential customers will see value
- When looking at commercial production: start small, and aim for growth

---

<sup>16</sup> "Alpaca 101: History," Alpaca Canada, [http://www.alpacainfo.ca/alpaca\\_101-02.htm](http://www.alpacainfo.ca/alpaca_101-02.htm) (accessed January 8, 2010).

<sup>17</sup> Joanne Chianello, "From Milk to Mozzarella," *The Ottawa Citizen*, November 21, 2009  
<http://www.ottawacitizen.com/business/From+milk+mozzarella/2248579/story.html> (accessed January 19, 2010).

<sup>18</sup> "FAQ," Industrial Timber & Lumber, <http://www.itlcorp.com/InfoCenter/FAQ.aspx> (accessed January 8, 2010).

## APPENDIX A – ENTERTAINMENT FARMING ENTERPRISES AND TECHNIQUES<sup>19</sup>

Wineries with Friday happy hours	Educational tours	Historical re-creations
Arts & crafts demonstrations	Farm schools	Living history farms
Farm stores	K-12 schools	Heirloom plants and animals
Roadside stands	Outdoor Schools	Civil War plantations
Processing demonstrations	Challenge Schools	Log buildings
Cider pressing	Movement-based retreat centers	Maple sugaring
Antique villages	Native American villages	Sheep shearing
Herb walks	Frontier villages	Wool processing
Workshops	Collections of old farm machinery	Sorghum milling
Festivals	Miniature villages	Apple butter making
Cooking demos	Farm theme playgrounds for children	Fee fishing/hunting
Pick-your-own	Fantasylands	Farm vacations
Pumpkin patches	Gift shops	Bed and breakfasts
Rent-an-apple tree	Antiques	Farm tours
Moonlight activities	Crafts	Horseback riding
Pageants	Crafts demonstrations	Crosscountry skiing
Speakers	Food sales	Camping
Regional themes	Lunch counters	Hayrides
Mazes	Cold drinks	Sleigh rides
Crop art	Restaurants	Rest areas for snowmobilers or cross-country skiers
Pancake breakfasts during sugaring season	Pizza farms	Themes (apple town, etc.)
Bad weather accommodations	Native prairies preservation	Picnic grounds
Tastings	August "Dog Days"—50% off dogwoods if customer brings picture of family dog, etc.	Shady spots for travelers to rest
Buffalo	Campgrounds	Hieroglyphics, rock art
Dude ranches	Indian mounds, earthworks art	Hunting lodges

<sup>19</sup> Katherine L. Adam, "Entertainment Farming and Agri-Tourism," National Sustainable Agriculture Information Service, 2004, <http://www.attra.org/attra-pub/entertainment.html> (accessed January 8, 2010).