

**Thumb Oilseed Producer's Cooperative
Ubly, MI**

<http://www.thumboilseed.com/index.html>

**Ag-of-the-Middle Task Force
Middle-Marketing Food Enterprises
Regional Case Study**

a) **Background of the enterprise** (the context [biophysical setting, market conditions, and commodity chain structure], initial strategy, evolution of strategy and enterprise structure, dynamics and resources involved in getting started; amount of start-up capital required?)

Thinking of the lower peninsula of Michigan as a mitten, the thumb region is well north of Detroit and surrounded by Lake Huron. Ubly is virtually dead center in the Thumb region. Historically the area was a major supplier of fruits, vegetables, dairy and other food products to the Detroit area. Today, it is largely a region of corn, soybeans and sugar beets. Thumb Oilseed Cooperative was started in 1998 through the efforts of a group of ten soybean farmers and then-county agricultural agent Jim LeCureux in the Thumb Region of Michigan. The initial intention was to add value to the grower's crop and improve the economic viability of their farms. The Mission of Thumb Oilseed is *"To create a processing business that increases farm income by adding value to the oilseed products produced by the member."* They intended to "take it further down the supply chain." In the initial stages of development the group investigated potential "value-added products" including hexane and soybean oil. A simple reality, the inability to use a flash camera when visiting a hexane processing plant due to explosion potential, convinced the group that a more natural product, pressed oil, was more to their liking. The cooperative started with a soybean crushing plant that opened in July 1999 and a business plan that called for marketing of crude soybean oil and meal feed. There were no guidelines as to type of soybean delivered in the original business plan – any soybean was taken for processing from members. Due to marginal profitability, there was early debate over whether to continue producing animal feed. It became clear that developing customer loyalty around animal feed was not a viable strategy. Simultaneously (February 2000) the company contracted to take delivery of Thumb Oilseed crude oil notified them that they would be shutting down in November 2000. Thus, within the first year it became clear that the original business plan was not feasible– animal feed would not make money and they lost their market for crude, pressed oil. The business plan evolved very quickly. It became clear that converting all parts of the soybean to human food products or ingredients was necessary. In addition, crushing was necessary but not sufficient. Thus, they built a refinery, importing the first of its kind in the U.S. from India, in December, 2001. Shortly thereafter a meal sizer was added to develop soy pellets that could be marketed for soy sauce production. As of June, 2003 a soy flour plant is operational. Immediate future plans involve development of crude lecithin capacity from oil processing by-products.

Startup capital was generated from producers. Shares were offered through two stock offerings. Shares were priced at \$1,250 per share plus a 500 bushel delivery commitment. Members must be growers and had to purchase at least 2 shares. There are now a total of 1726 shares

outstanding and 180 members of the cooperative. After the second share sale membership peaked at 210 growers. However, some found it to difficult to segregate a small number of bushels for delivery to the cooperative. Membership in the cooperative is drawn from a ten county area with the majority in Huron, Tuscola and Sanilac counties in the “Thumb” region of Michigan.

Total delivery commitment is 863,000 bushels with a total crushing capacity of 1.2 million bushels. These soybeans are all non-GMO varieties. At initiation of the cooperative there was no delineation of soybean variety. However, in fall of 2000, following discussions about market niche and where they could make a premium it was determined that they would work towards developing a “natural” product. Commencing with the spring 2001 planting all soybeans committed and accepted by the cooperative were non-GMO. This was not an easy transition as many growers are producing significant acreage of soybeans with the remainder often in GMO crops. This necessitates segregation of planting, managing, harvesting and handling the cooperative commitment. Growers are paid one price up to the commitment level and a different price for delivery beyond the commitment.

b) Organizational form/scale/leadership (nature & legal form of the enterprise, number of members, capitalization and other major financial indicators, amount of product, leadership & decision-making structures, changes over time and reasons for changes)

The Thumb Oilseed Cooperative is incorporated as a Section 521 Cooperative. It has an elected board of directors with 7 members. These are divided into four areas with some having more than one representative based on number of area members. In September, 1999 JoAnn Rutkowski was hired as COO.



Soy Beginnings was created as a marketing subsidiary of Thumb Oilseed Cooperative. Soy Beginnings offers soy products in a variety of quantity packaging including liter, gallon and 35 lb boxes. The brand name, Nexsoy® oils, is available in 55-gallon drums, industrial totes, tankers and railcars. They currently crush about 4200 bushels per day.

c) Nature of products and the “value chain” (production, processing, distribution/marketing—including strategic alliances with other organizations)

The products produced by the Thumb Oilseed Cooperative are non-GMO soybean derivatives for human consumption. These include a cold-pressed oil, flour, soy grits, soy meal for bakery, beverage and food product applications.

Their primary strategy is bulk processing of these food items and ingredients. They do a very minimal amount of packaging on site and in Chicago. They are keeping their eyes on the potential for more extensive packaging at the Ugly site sometime in the future. Currently they sell drums, totes and 35 lb boxes out of Chicago. They currently have contracts for brand labeling of their products with several distributors/retail outlets.

The oil is sold domestically as well as in Canada, Korea, and Japan. Flour and soy grits are sold in Canada (flour), Korea (flour plus sized soy grits), and Japan (sized soy grits for soy sauce). Domestically the soy flour is being utilized to produce “high protein, low carbohydrate” tortilla chip for natural food stores. This is a response to the enthusiasm of consumers for high protein diets.

In addition, the plant is certified by QAI for organic processing. They process crude organic soybean oil for resale. However, this is not from soybeans grown by Cooperative members.

d) Economics of the enterprise (pricing strategies, nature of competition/competitors; rough gross and net incomes for the enterprise and for enterprise members)

Currently, the cooperative pays a commodity driven tailgate price and end of year profits are returned to shareholders. The farmer members are not receiving a premium on their soybeans or a profit share at this time. The initial business plan outlined a five year horizon for realizing premiums and they are currently in the fifth year. The last five months indicate that they are on target.

The Cooperative would like to move away from Chicago Board of Trade price setting and set their price internally, in essence pricing the non-GMO soybeans as a value added product but haven't been able to do that yet. The original business plan has been reworked dramatically since originally conceived in response to external factors and realities in the marketplace. While they originally focused on crude oil and animal feed meal they now focus on purified products available for human consumption or immediately available as food ingredients. Even with this strategy there is a great deal of competition. For example, Iowa is developing a number of processing plants for textured vegetable protein and other products. However, many of them can't do non-GMO and identity preserved products. Even with strong competition there is a sense of a great deal of opportunity in the marketplace for enterprises such as Thumb Oilseed Cooperative.

e) Key opportunities & challenges engaged (strategies for recognizing and engaging opportunities and challenges)

When the Cooperative was founded the business plan was developed around crude oil and animal feed processing. However, it quickly became clear that they weren't making a lot of progress producing feed meal. In order to realize a premium on the soybeans it was absolutely necessary for them to move towards the human food market utilizing all parts of the bean. This realization occurred simultaneously with a rapid increase in negative publicity by Greenpeace and others around GMO crops. They recognized that if they wanted to create a niche in the “natural product” market they would need to process non-GMO soybeans. Hence, the decision was made to process only non-GMO soybeans beginning with the 2001 season.

In the ingredient and oil market they also recognized the necessity for Kosher certification and maintain this certification at an annual cost of \$9,000. They have also initiated American Institute of Bakers (AIB) certification. This will allow them to contract with large manufacturing companies without needing a pre-purchase visit.

f) **Replicability in other settings** (How adaptable is the enterprise to other settings? How generalizable is the strategy? What are the implications for sustainable agriculture and alternative commodity chain activities elsewhere?)

The market for food ingredients is vast. Soybeans are converted into a wide array of food ingredients with this processing plant only scratching the surface. Soybean oil is used very widely. Given the broad acreage currently devoted to soybeans, their ubiquitous nature in the food system and the scale of processing equipment available this is a highly generalizable strategy for commodity crop producers. However, it is not without its hazards. The Thumb Oilseed Cooperative has had to be very nimble in its first five years to recognize and adapt to opportunities in the marketplace. While establishing a niche it is still fragile and necessitates constant market development. They are functioning at about 65% crushing capacity and thus need greater market development to move towards full capacity.

The Cooperative is both relatively small by national standards and non-trivial within Michigan. In 2002 Michigan soybean acreage averaged 38.5 bushels. Thus, the Cooperative is currently crushing approximately 22,400 acres out of a Michigan total of 2.05 million acres (or about 1% of the total acreage). This should certainly be considered a scale that is to be highly prized as a model for value chain development in the commodity crop sector. It has the potential to improve viability for a group of some 200 farmers in Michigan while providing an industry within a community.

g) **Research, education/demonstration, or policy changes that would strengthen the enterprise or similar enterprises** (What inputs from research, education, or policy institutions were drawn on and found useful? What research, education, or policy inputs would strengthen enterprises like the one being described?)

The Cooperative has made use of research, extension and government support to the extent possible. Jim LeCureux, former agricultural agent in the Thumb Region worked a great deal with the initial group and continues his activities with them on a modest scale. They used other expertise at Michigan State University as well. Recently research was conducted at USDA by Katherine Warner utilizing Nexsoy to investigate differences in soy oil characteristics produced in various ways¹. Thumb Oilseed Cooperative also commissioned a study at Texas A&M to investigate differences in their oil which they now use as part of their promotional materials. State and federal policies have not inhibited development of the business to date. The Michigan Department of Agriculture has been helpful on several occasions. These include: reimbursing the Cooperative for some food show costs and providing help in developing international opportunities. In addition, Michigan Works has helped by providing a class on government contracting (Recently the COO of Thumb Oilseed was the only non-auto industry person in the class). They have started to look at the school lunch program in Michigan as a possible market. Basically, the sense of the COO is that they have used these sources of information and help to the extent that they have had time to pursue.

¹Katherine Warner Effects of expeller pressed soy oil on flavor on French fried potatoes and frying ability. Peoria IL USDA, ARS_NCAUR (Paper to American Oil Chemists Society, May 2004).