

Challenges and Potential for Exporting U.S. Transitional Organic Soybeans to the Japanese Consumer Cooperatives

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Japan was the second largest market for U.S. soybeans in 2004 with purchases of \$1.0 billion. Competition for the regular soybean market has increased from other countries and now Brazil and Argentina total 45% of the total world soybean exports compared to the US which has 48%. The American share of the market has been maintained due to the rapid acreage and yield increases. Because of the increased international competition, though, a refocus is necessary to market to Japan's high value tofu market. The soybean is the quintessential item in the Japanese diet and is only rivaled by rice in the number ways it can be served. In 2000 the food soybean usage was 60% tofu, 15% natto, 11% miso, 6% soy protein, 5% soy sauce, 2% frozen tofu, and 1% soy milk. Each region of Japan has its own varieties that are grown for tofu, miso, or natto. The potential marketing of Ohio transitional organic soybeans was examined between 2000 to 2005. The research involved 4 trips to Japan, various communications with Japanese consumer cooperative and tofu factory staff, research into consumer opinions, and plot trials at OARDC and local farms in Ohio.

In 2000, the Japanese government estimated the market for organic food was about US \$250 million. For 2003, the International Federation of Organic Agriculture Movement (IFOAM) estimates \$350-450 million. Domestic "organic" production declined after April 1, 2000 due to new JAS certification requirements. Due to the high humidity in Japan, local organic growers mention the need for insect sprays as one of the key reasons for not being able to grow organic vegetables. A significant change in the Japanese market has been the rapid rise of the Consumer Cooperatives which have sales of approximately \$26 billion and lead the nation in food retailing. Although considerable variation exists between the consumer cooperatives in each prefecture, all favor locally grown food and foster social relationships between producers and consumers. With regard to organic soybeans, most consumer cooperatives such as Coop Kobe will buy foreign organic soybeans while others such as Miyagi will not buy foreign organic soybeans because they want their own local farmers to profit by the organic premium.

Consumer cooperatives in Japan foster close relationship between producer and consumer through establishing *sanchoku* relationships. Normally *sanchoku* producer groups share a geographic vicinity such as being in the same township and grow crops according to the guidelines of the national federation or local coop specifications. Faces, addresses, and even phone numbers of the local producers are shown on the product label.

There is considerable difference between tofu manufacturers regarding tofu bean quality preferences. All cooperatives market tofu with a label showing whether the soybeans used were domestic, non transgenic, chemical-free, or organic. This provides the opportunity for US transitional soybeans to be marketed as "chemical-free" or "low input". Domestic Japanese varieties are favored because of their higher protein, nitrogen solubility index ratings, and shape. Coops and independent tofu factory owners interviewed favored the

Vinton 81 variety because of its taste and high level of tofu production. The American transitional soybeans are ideal for the cooperative generic brand of tofu that is contrasted on the shelf with the higher priced domestic soybean tofu. As a result, soybean price is a key factor. Tofu factories were open to other varieties besides Vinton if tofu quality was not sacrificed. Because Vinton81 yield is relatively low, trials using organic manure were started in Ohio.

On April 1, 2000 a new set of organic labeling and certification standards came into effect that lowered domestic organic production because domestic producers will not be able to meet the strict guidelines. Previously the Ministry of Agriculture, Forestry, and Fisheries (MAFF) guidelines were voluntary and did not require third party certification. Organic sales volume, though, is only a fraction of the overall volume as there are many intermediate categories between organic and conventional such as “identity preserved”, “low input”, and “pesticide-free”. Under the new JAS organic guidelines, products grown in a field where no agricultural chemicals have been used for over three years are called “organic” (yuki 有機) whereas products grown in fields where no agricultural chemicals have been used from between six months to 3 years are called “organic in transition”. “Organic” and “organic in transition” require certification and are enforced through strict penalties. Unlike its American NOP counterpart, however, the new law provides separate categories for “no-pesticide”, “no-chemical fertilizer grown”, “reduced-pesticide grown”, and “reduced-chemical fertilizer grown”. These “no” and “reduced” categories are not certified by a third party. Some prefectures have labels for “low chemical input.”

Effective April 2001 there was a new system for labeling genetically modified (GM) crops, such as soybeans and corn, and processed foods made from them. The labeling requires corn and soybean products to be labeled if they are either “genetically modified” or “not segregated from GM produce”. “Identity-preserved non-GM” crops and processed foods need not be labeled but can be labeled as “identity preserved non-GM produce” or “GM-free”, etc. Transitional soybeans from Ohio were successfully marketed as IOM (Indiana, Ohio, Michigan), low input, non-GM, Vinton variety soybeans in 2004 for \$12/bushel at the farm gate.

Publications Resulting From This Work

- Moore, Richard 2005 (in press) Preserving Soybean Biodiversity in Japan: Reconsidering GMO, Pesticide-Free, Low Input, and Organic...Seeds of Resistance/Seeds of Hope: Crossing Borders in the Repatriation and In Situ Conservation of Traditional Plants. Edited by Virginia Nazarea, Robert Rhoades, and Paul Heald.
- Arai, S., and Moore, R. H.2004. Characteristics and Trends of Organic Agriculture in the U.S. Midwest. (Amerika Chuseibu ni Okeru Yuki Nogyo no Unko to Tokucho). In Japanese. Journal of Rural Economics Special Issue. (The Agricultural Economics Society of Japan).