



**North Dakota  
Department of  
Agriculture**

**USDA  
Specialty Crop Grant  
Agreement #12-25-G-0526**

**Final Performance Report**

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**June 23, 2009**

# Specialty Crop Grant Final Report

## Project A North Dakota Department of Agriculture Final Report

### **Outline of the Issue/Need for Projects**

Interest in growing and consuming locally produced foods has grown tremendously in the last several years. In 2003 there were only 10 formal farmers markets in North Dakota. Today that number totals over 50. Almost all of them are run by volunteer market managers and some do not yet have sufficient vendors to meet the demand of the people desiring fresh products. There are also many farmers markets that need assistance to better market their products. Most of the markets are in their infancy and need support for them to reach maturity. The purpose of this grant is to help them achieve that.

### **Projects undertaken to address the issue**

**Project 1:** A mini-grant program was created to increase signage, advertising and promotional activities for local farmers markets.

**Project 2:** A farmers market guide was developed to assist local economic developers, extension agents, farmers market managers, growers and others in creating and enhancing farmers markets throughout the state.

**Project 3:** Educational programs were developed to assist fruit and vegetable producers and farmer market managers and increase their effectiveness as producers and marketers.

**Project 1.** A mini-grant program was created to increase signage, advertising and promotional activities for local farmers markets.

### **Project Goals Achieved**

Twenty seven mini grants were distributed to local North Dakota farmers markets in 2007 and thirty mini grants in 2008 totaling \$22,250 for the purpose of enhancing their marketing through promotions, advertisements, and signage. Grants ranged from \$250-\$500 per market. Each of the markets receiving these mini-grants used a wide variety of marketing techniques.

Here is what some of the recipients of the farmers markets mini-grants said:

#### **Mary Wagar- Valley City Farmers Market**

“We would like to thank all those responsible for awarding us a \$500 mini-grant. All of our market members fell it was invaluable to the promotion of our farmers market.”

**Novina West – Devils Lake Community Market Manager**

“Thank you for extending the Devils Lake Community Market a mini-grant. We used the funds to greatly extend our radio advertising coverage as well as upgrading our print ads as well. This seems to have had an effect on bringing in new vendors as well the expected impact on shoppers.”

**Ramona Redding Lopez – Executive Director- Urban Harvest- Bismarck**

We had another amazing season bringing the arts, farmer’s market, local foods and shop local culture together in a family-friendly outdoor market environment. Thank you for all the work that you do to develop sustainable food systems throughout North Dakota.”

**Paulette Dailey- Minot Farmers Market**

“We greatly appreciate the extra money for advertising and also your hard work.”

**Diane Schmidt – Mandan Farmers Market**

“The Mandan Farmer’s Market would like to extend our thanks for the generous grant money provided by your department. It was used toward a new, larger sign which was placed at the market location on Main Street, Mandan.

**Cheri Reitmeier - Town Square Farmers Market – Grand Forks**

Thank you so much! For many organizations \$250 wouldn’t seem like much but for us, it goes a long way and it is much appreciated.

An onsite survey was made at 32 of the approximately 50 farmers markets in North Dakota during the summer of 2008. It revealed that 5,132 shopped at those 32 markets during the day of the surveys. This figure includes adults only and households. Two or more shopping together, such as husband/wife were counted as a single unit. Based on the fact that these 32 markets have 49 market days each week and the North Dakota farmer’s market season lasts 15 weeks, approximately 115,470 customer units can be attributed to these markets. This does not include the approximately 18 markets that were not surveyed. Because of a change in plans in the method of surveying the markets, a producer survey was not done.

**Results, Conclusions, and Lessons learned**

The goal of servicing 25 farmers markets with this program was met. These small grants go a long way in getting the message out in small town North Dakota about their local farmers markets. A survey of North Dakota farmers markets by the Department reveal that sales are increasing each year as more vendors and customers are become a part of the local foods movement.

**Project 2. A farmers market guide was developed to assist local economic developers, extension agents, farmers market managers, growers and others in creating and enhancing farmers markets throughout the state.**

**Project Goals Achieved**

A farmers market guide has been developed and can be found at the North Dakota Farmers Market and Growers website- [www.ndfarmersmarket.com](http://www.ndfarmersmarket.com) - for use by local economic

developers, extension agents, farmers market managers and growers. It was decided that the guide would not be printed to save resources so a grower's directory could be published. That directory has a map of the state listing the names of fruit and vegetable producers and farmers markets throughout the state. Five thousand copies have been distributed throughout the state as a guide to make both North Dakotans and out of state visitors aware of the availability of fresh fruits and vegetables.

### **Results, Conclusions, and Lessons learned**

The goal of increasing five new farmers markets over the past two years has been achieved. Producers and community leaders are hungry for information on how to develop local foods programs.

The following new farmer's markets were established:

- Valley City Farmers Market
- Bowdon Farmers Market
- Plain Food Farmers Market – Fargo
- Mohall Farmers Market
- Granville Farmers Market
- Glenburn Farmers Market

### **Project 3. Educational programs were developed to assist fruit and vegetable producers and farmer market managers and increase their effectiveness as producers and marketers.**

#### **Project Goals Achieved**

A state-wide educational seminar was held for fruit and vegetable producers and farmers market managers to increase their effectiveness and producers and marketers. Topics covered included:

- The Basics of High Tunnels & Extending Your Growing Season
- Success with High Tunnels – Plants that will work for you!
- Organic Production with High Tunnels
- The Art & Science of a Farmers Market Display
- Extension Master Gardener Program
- Farmers Markets Economic Impact in your Community
- North Dakota State University Fruit & Vegetable Projects
- Get Serious About Making Money at your Farmers Market

The Department helped sponsor the Northern Plains Sustainable Agriculture annual conference. Topics covered included:

- “Sing a New Song to the Earth: Meeting Future Food and Environmental Needs”
- In-field tests for soil quality and health
- Using soil biota to advance Soil quality and pest management
- Living in the Garden- Selling at the Market
- Using native plants in landscaping
- Eating locally year round

- Herbicide Spray drift
- Organic marketing for beginners

The Department organized a bus tour of high tunnels facilities in Minnesota. The one and a half day event included stops at the University of Minnesota-Crookston Research Farm and at producers in Thief River Falls, Erskine and Bagley Minnesota. At two of these locations were commercial gardens as well with a wide variety of fruits and vegetables. The North Dakota Department of Agriculture is grateful to the University of Minnesota Extension Service for assisting with this tour. Thirty three people participated.

No follow up survey after the educational seminars was conducted to determine the increase in producers or acreage. Anecdotal evidence does show that increases have occurred. At least 4 new producers of Community Supported Agriculture (CSA's) were established in the spring of 2009. A new high tunnel solar powered greenhouse is being constructed by a producer, the first one in North Dakota. A new commercial raspberry producer established their operation this year. Both of those producers attended the high tunnel tour last summer that was part of the educational program. Six new farmers markets have been established in the last year. Community gardens are spring up throughout the state.

Surveys for the educational seminars and tours were returned by approximately 75 people. The recipients were overwhelming pleased with the programs. No follow-up surveys have been conducted to determine the amount of expanded production. But as noted above, much positive activity has occurred.

### **Results, Conclusions, and Lessons learned**

These three events reached over 250 people, surpassing the goal of 150 growers and potential growers. Evaluations from these seminars by participants showed that producers were overwhelmingly pleased with the presentations and the tour and these events motivated them to expand production in the state. It was learned that the high tunnels could extend the growing season by 4-6 weeks in the spring as well as the fall with very reasonable capital investment. This is important to fruit and vegetable growers in North Dakota where the natural growing season is short. It was also pointed out that a person operating 3 high tunnels 30 feet by 96 feet could make a comfortable living with proper production management and good marketing skills.

### **Long Term Outcome Measures from these projects**

The long term effect of these three projects is that it has created an excitement amongst producers, potential producers, and hobby farmers that there are economic opportunities in production agriculture where large amounts of land and capital are not required. This grant help to provide some basic services to those interested in the production and marketing of fruits and vegetables.

### **Attachments**

Attached is a copy of the North Dakota Farmers Market Guide - Appendix A- and the North Dakota Farmers Market Directory – Appendix B.

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# **Specialty Crop Grant Final Report**

## **Project B North Dakota Farmers Market and Growers Association Inc. Final Report**

### **Outline of the Issue/Need for Project**

The North Dakota Farmers Market and Growers Association was formed in 2004 to promote the development of locally grown foods. In a short period of time the organization has grown and the public has become more aware of the benefits of locally grown food. As with all new organizations there was a need to address many issues to make the organization a viable source of information and support for this industry.

This project was designed to involve young people in vegetable production, provide product support to producers to enhance the growing season and provide a permanent source of funds that can help the North Dakota Farmers Market and Growers Association expand farmers markets in North Dakota.

### **Projects undertaken to address this issue**

**Project 1: Create a greater interest in vegetable production amongst young people of the state.**

**Project 2: Provide North Dakota fruit and vegetable growers with access to plants that can be transplanted at reasonable cost which would extend the season and encourage more producers in the state.**

**Provide a source of income to the North Dakota Farmers Market and Growers Association to sustain their programs and help grow the industry.**

**Project 1: Create a greater interest in vegetable production amongst young people of the state.**

### **Project Goals Achieved**

The purpose of this project was to provide an opportunity for students in five North Dakota schools to learn about the production and marketing of vegetables which would serve as pilot programs to encourage other schools to consider such projects. The ultimate goal was to increase the interest of young people in producing vegetables and a better awareness of good nutrition.

A Steering Committee comprised of representatives of the North Dakota Department of Agriculture, North Dakota Department of Public Instruction, Department of Vocational Education and a representative from the 5 + 5 Working Group was formed to seek out interested schools in this project and to provide oversight to the schools. Criteria for selection of the school included the degree of interest by school administrators, physical facilities available or could be made available, and cooperation from organizations within the community.

Three schools received grants of \$1,000 each and two schools received \$500 each towards the project.

Schools were asked to address one or more of the following criteria with their project:

- Education on the Inter-connection of People, Plants, and the Planet- Curricula, lessons or activities that connect people, plants and the planet are built into the education system. Lessons and activities addressing planting, growing, harvesting, packaging, and marketing can be integrated into classes such as: horticulture, science, mathematics, marketing, family consumer sciences, health & nutrition, physical education, creative writing, art classes: using vegetables to create dyes and prints, and others.
- Community Engagement- Involve community members: family members, extension agents, school staff & administration, local retailers and restaurants, senior centers, master gardeners, health coalitions, public health, student organizations, civic organizations and clubs in the planting, growing, harvesting, packaging, and marketing process.
- Service Learning Opportunities- Develop opportunities for participants to be of service to others in the community. Examples of service learning projects can be to grow produce for donation to a local food bank or low-income citizens, to generate funds for local charities, civic groups or other community projects.
- Leadership Skill Development- Students develop problem-solving skills, entrepreneurial skills and engage in teaming with peers, school staff, and community members. Students will learn new life-skills, which improve self-esteem and attitudes about school.
- Increased Vegetable and Fruit Consumption- Studies have shown that if students are actively involved in the growing and cultivating of their food, they are more apt to eat that food. Because locally-grown produce is fresh, it tastes better and the nutritional value is greater.
- Opportunities to Practice Construction Concepts- Students use their construction skills to construct a greenhouse, build raised beds or plot sections of gardening areas for the project.
- Opportunities to Market School-greenhouse or Garden Crops- Students harvest, market and sell the produce to the school, retail stores, restaurants and the community through a farmers' market, road side stand or grow crops to fill customer specific requests: Community Supported Agriculture (CSA)

### **Results, Conclusions, and Lessons learned**

The goal of providing a meaningful experience in vegetable production amongst youths in five North Dakota schools was achieved.

Below is a summary of the results achieved from the five schools selected.

Burlington/Des Lacs School highlights:

- Students, staff, and community members worked together to prepare the garden site, tend to the crops, harvest, and serve the produce.
- Some plants were started in the Des Lacs High School greenhouse, and high school students assisted the younger students.
- The produce was made available in the school salad bar, and used in classroom projects.
- A high school student volunteered to weed the garden as part of her community service hours and school staff and community members watered the garden.
- The fifth grade students were very pleased with the work they had done and a garden was continued the following year without special crop grant funding.

TGU Granville High School highlights:

- 200 premiums winners from the FFA exhibit at the North Dakota State Fair.
- Produce was donated to the local food pantry.
- Produce was available in the school salad bar.
- Some produce was frozen for use later in the school meals.
- Students, staff, and community members worked together to prepare the garden site, tend to the crops, harvest, and serve the produce.
- Grant funds and donations from the community helped the school purchase fence, and garden tools/equipment.
- Students and staff look forward to the garden project next year, and plan to use the greenhouse for vegetables and fruits this winter.

South Heart High School highlights:

- Peppers and tomatoes were planted in the greenhouse.
- Garden plot was selected on the school grounds.
- Over ten tons of manure compost donated by a local farmer was used to fertilize the garden.
- Garden supplies and equipment were purchased to start the garden project.
- FFA students were recruited to manage the project for a summer SAE credit.
- An “outdoor classroom” was created on the site.
- Produce will be used in the school lunch program.

Bowman County High School highlights:

- This was a cooperative venture with a local group called *Yesterday's Farmers* who are a seniors group that has a large garden plot in the city.
- High School students planted pumpkins, cabbage, cucumbers, tomatoes and squash potatoes in the greenhouse, and later transplanted them in the *Yesterday's Farmers* plot.
- Students planted peas, onions, beets and carrots directly into the *Yesterday's Farmers* garden plot.
- Students are cooperating with *Yesterday's Farmers* garden with the caretaking.

New Rockford-Sheyenne School highlights:

- School began working off of the existing OWLS outdoor wildlife/garden/flower site in the back of the school.
- Finished construction of a greenhouse and planted the seeds for their garden project.
- The greenhouse involves all students from elementary through high school and the FFA chapter plays a large role in the tending of the plants.
- FFA students cared for the seedlings through the summer and planting the garden as well.
- The garden is used by the elementary students for lessons in science, mathematics and other subjects throughout the years.
- Produce was sold at school events.
- The students were very pleased with the work they had done and look forward to continuing the project next year.

### **Results, conclusions, and lessons learned**

- Both grade school and high school students like to participate in agriculture production practices.
- Young people tend to eat more vegetables when they help with its production
- A school garden program can spur more interest in the FFA program
- Despite the work involved, teachers are stimulated by the positive reaction of the students to the project.
- School cooks are excited about utilizing produce that is grown in their school garden.

**Project 2: Provide North Dakota fruit and vegetable growers with access to plants that can be transplanted at reasonable cost which would extend the season and encourage more producers in the state.**

**Provide a source of income to the North Dakota Farmers Market and Growers Association to sustain their programs and help grow the Industry.**

### **Project Goals Achieved**

The purpose of this project was to examine possible ways for the ND Farmers Market and Growers Association (NDFMGA) to assist their members in the production and marketing of their products and to seek ways in which the Association can raise money to support the programs of the Association.

The North Dakota Farmers Market and Growers Association Board of Directors sent out a request for proposals to approximately 15 consultants for a feasibility study to address these issues. A four member committee was formed to review and make a recommendation to the Board from the two proposals that were received. The Committee recommended, and the Board approved, the selection of N.C. Doty & Associates, LLC to conduct the study. A complete copy of their report is found at the end of this report.

The consultant did an extensive survey of ND Farmers Markets to provide the necessary data to make recommendations.

The study provided a framework and a possible sense of direction to the ND Farmers Market and Growers Association as they mature as an organization.

One of the expected outcomes of this project was to provide North Dakota fruit and vegetable growers with access to plants that can be transplanted at reasonable cost which would extend the season and encourage more producers in the state. It was thought that this might be accomplished through the creation of a business entity within the NDFMGA. While the growers indicated little interest in that, it is encouraging that many are willing to move forward by expanding their own business to extend the growing season.

The study revealed areas where the Association might assist growers with services such as insurance that would be beneficial. The study also gave a starting point for the Association to seek sponsorships to help meet their goal of providing \$25,000 of income annually to meet the basic needs of the organization.

### **Results, conclusions, and lessons learned**

The study concluded that the North Dakota producers involved with farmers markets were not interested in the NDFMGA owning a greenhouse or a transplant business, but many did have an interest in owning that type of business themselves. The lesson learned is that it is important that the Board of Directors understand the needs and desires of the membership before proceeding with a program in which there would be little interest.

The study recommendations provide a wide variety of potential projects that the Association's Board of Directors might pursue to both provide service to its members as well as potential funding opportunities.

### **Long Term Outcome Measures from these projects**

Those students participating in the project are more likely to eat more vegetables in their diet throughout their lifetime because of the experience.

There is a greater interest by some students in exploring a possible vocation in production agriculture as a result of this experience.

Interest in schools to participate in a school garden project has increased as a result of this project. Forty teachers participated in a state-wide seminar in the spring of 2008 to learn more about how to establish a school garden project.

The data collected from the study gives a lot of insight to the functioning of North Dakota's farmers markets. The information will be helpful to producers and potential producers as they make production and marketing decisions. The data will also be valuable to lawmakers and other state wide leaders in making them more aware of the strength and potential that vegetable production can mean economically to the State of North Dakota.

**Attachment**

A copy of the complete report compiled by N. C. Doty and Associates for this project can be found in Appendix 1.

**Contact**

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# Specialty Crop Grant Final Report

## Project C Northern Plains Potato Growers Association Final Report

### Outline of the Issue/Need for Project

The purpose of this project has been to better position the potato industry in Minnesota and North Dakota to maximize profits for the potato growers through an aggressive breeding program, producer education program, marketing and promotional initiatives, and improving the financial position of our process growers through improved negotiated agreements.

### Projects undertaken to address the issue

**Project 1: Expand the number of varieties released from the breeding programs.**

**Project 2: Maintain the strength of the advertising campaign for products and upgrading of the marketing program equipment.**

**Project 3: Provide training for negotiator training teams.**

**Project 1. Expand the number of varieties released from the breeding programs.**

### Project Goals Achieved

- Expanded the number of varieties released from potato breeding programs in cooperation with North Dakota State University and University of Minnesota. One variety that was produced at North Dakota State University was pulled into the process system in the fall of 2008.
- Work is underway with a local processor to run a processing trial and finished product quality tests in conjunction with a major Quick Service Restaurant (QSR). Market acceptance and market demand is anticipated with release of this variety.
- In the effort to improve seed quality in the released varieties, a better system has been developed to improve seed quality in the released varieties. This system has allowed virus levels to be reduced to a point where they are at levels eligible for recertification and can be produced by seed growers. This eliminates that part of the risk assumed by this group of producers and will provide a more rapid increase in volume of disease free seed.

Five entries from the NDSU program were evaluated in the North Central Regional Potato Variety Trial (NCRPVT) including, bright red skinned selections suitable for the fresh market, AND00272-1R and ATND98459-1RY; the latter has yellow flesh. AOND95292-3Russ, a dual-

purpose russet suitable for tablestock and frozen processing was included in the russet/long white trial. ND8304-2 and ND8307C-3 were entries in the NCPRVT chip trial.

Promising advanced selections include red tablestock selections ND4659-5R, ND8555-8R, and ND6002-1R. Dual-purpose russet selections, AOND95249-1Russ, ND8229-3, ND8068-5Russ and AOND95292-3Russ possess excellent processing quality and appearance, in addition to the need for reduced inputs. Several cold chipping selections continue to look promising, including ND5775-3, ND7519-1, ND8304-2, and ND8305-1. Tissue culture plantlets of ND6002-1R were deposited with the North Dakota State Seed Department for multiplication for producer and industry evaluation.

Information for plant variety protection and cultivar release was collected for this variety, with anticipation of release consideration in 2009. We have discovered that AOND95249-1RUSS is frying up darker than anticipated according to the processor and Quick Service Restaurant. Release will be dependent on further testing.

### **Results, Conclusions, and Lessons learned**

Breeders now have several varieties which need to be increased to improve seed availability as well as develop cultural practices to improve their productive capabilities. Current breeders have several varieties that would work in the process / frozen industry and need to be produced and processed to prove their characteristics work in today's competitive market.

### **Project 2: Maintain the strength of the advertising campaign for products and upgrading of the marketing program equipment.**

#### **Project Goals Achieved**

- Doubled the advertising expenditures and therefore the resulting coverage and infiltration to the target markets.
- Placed strategically integrated advertisements into sectional editorials of produce publications with editorial covering this region.
- Improved and upgraded marketing program equipment. The new food show equipment and booth design have improved direct interaction with buyers at food show events.
- The Association attended and displayed at the National Restaurant Association show in Chicago. This show was a huge success as potato dish samples were provided to nearly 3,000 show participants at a pace of 80 samples per hour.
- Weekly conference calls among fresh potato shippers have created an avenue of trust and cooperation, eliminating price undercutting, resulting in higher prices for producers.

Other exhibits included:

July 2008: Exhibit at North Dakota State Fair, Bismarck, ND

August, 2008: Exhibit at Russ Davis Food Show, Wadena, MN  
Exhibit at Northern Plains Potato Growers Field Day, Tappen, ND  
Exhibit at Northern Plains Potato Growers Field Day, Hoople, ND

October 2008: Exhibit at Produce Marketing Association Convention, Anaheim, CA

January 2009: Exhibit at North Dakota Grocers Association, Fargo, ND

February 2009: Exhibit at International Crop Expo, Grand Forks, ND  
Exhibit at Upper Midwest Food and Hospitality Show, Minneapolis, MN

March 2009: Exhibit at Ag Day, Bismarck, ND  
Exhibit at North Dakota Winter Shows, Valley City, ND

May 2009: Exhibit at National Restaurant Show, Chicago, IL

The video and web stream have not been completed to date. This is a project that will require more time to film the video portion and the resulting web streaming opportunities.

### **Results, Conclusions, and Lessons learned**

Through the use of this grant The Northern Plains Potato Growers Association has more than doubled its advertising expenditures and therefore the resulting coverage and infiltration to its target markets. The advertising campaign is also matched by member shippers on a pay to participate basis. Alongside the ads, shippers ran their own proprietary advertisements improving saturation and effectiveness. Strategically integrated advertisements were placed into sectional editorials of produce publications with editorial covering this region. The publications included Produce Business Magazine, The Produce News newspaper, and The Packer newspaper. The equipment portion of this grant has made significant improvements. Along with improving communication, computer upgrades have allowed greater capabilities to do more in-house creation and design. The new food show equipment and booth design have improved the curb appeal as well as buyer interaction at these events. Improvements in the conferencing services have paid dividends to producers in increased farm revenues.

### **Project 3. Providing training for negotiator training teams.**

#### **Project Goals Achieved**

- Training was provided for negotiation team members. Fifteen members of the negotiating teams received training.
- During 2008, the Association created another bargaining cooperative for the fresh potato industry. This fledgling company has over 50% participation in its first quarter of existence. The group has also linked itself to a new national organization called United Potato Growers of America, which utilizes the same communication practices and principles as we have developed

### **Results, Conclusions, and Lessons learned**

As a result of the strategic planning sessions, contracts were successfully negotiated realizing the largest single year contract price increases of any region in the US and Canada.

Producers for each fry plant in ND will receive an increase in contract value of over \$1 per hundredweight, an increase of over 20% on some farm operations.

### **Long Term Outcome Measures from these projects**

Contracts were entered into with North Dakota State University and the University of Minnesota to support a new extension agronomist for potatoes, resulting in an immediate positive impact as well as a long-term impact.

As a result of the new bargaining cooperative formed, the organization can analyze inventory, demand and shipments and create a relationship to price of the product. Movement and shipments can now be predicted to avoid negative pricing situations. This addition to the industry has and will continue to positively impact pricing and market confidence through an improved level of awareness of market dynamics.

As a result of this research effort, breeders have enough material to make 2 or 3 releases in each of the next 4- 5 years.

In an effort to streamline bargaining and other activities in the Midwest potato states, the Association is committed to working together for joint benefit and cost savings wherever possible.

The projects conducted with the assistance of the United States Department of Agriculture Specialty Crop Program have helped the continued forward movement in varietal development, initiated positive direction in improving cultural practices and have improved market prices for both the fresh and process potato segments within our industry.

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# Specialty Crop Grant Final Report

## Project D North Dakota Nursery and Greenhouse Association Final Report

### Outline of the Issue/Need for Project

There were no guidelines for what constituted North Dakota grown nursery and floriculture products. There was no specific marketing program to promote the labeling and sale of North Dakota grown nursery and floriculture products.

### Projects undertaken to address the issue

**Project 1: Develop North Dakota Grown criteria for nursery and floriculture products.**

**Project 2: Identify current growers of North Dakota nursery and floriculture products.**

**Project 3: Develop marketing products to promote the sale of North Dakota nursery and floriculture products.**

**Project 4: Educate professional growers in North Dakota about the program and give them a chance to label and market their locally grown products.**

**Project 5: Provide the buying public with an easily identifiable choice to buy locally grown nursery and floriculture products.**

**Project 1. Develop North Dakota grown criteria for nursery and floriculture Products.**

### Project Goals Achieved

A committee of North Dakota Nursery and Greenhouse Association members met starting in March 2007 to develop North Dakota grown criteria for trees, shrubs, evergreens, perennials, and bedding plants. The criteria were reviewed, modified several times, and finally approved in January 2008.

### Results, Conclusions, and Lessons Learned

Developing the criteria took longer than expected. Even though guidelines were available from the American Nursery and Landscape Association and the Minnesota Nursery and Landscape Association, they needed to be adapted to fit the growing season unique to North Dakota. However, we an excellent consensus was reached using input from North Dakota growers with over 75 years of industry experience.

## **Project 2. Identify Current Growers of North Dakota Nursery and Floriculture Products.**

### **Project Goals Achieved**

The North Dakota Nursery and Greenhouse Association worked with the North Dakota Forest Service and the North Dakota Department of Agriculture to identify Christmas tree growers in the state. The North Dakota Nursery and Greenhouse Association maintains a current listing of members and also a list of non-members that grow or sell other nursery and floriculture products.

### **Results, Conclusions, and Lessons Learned**

The North Dakota Forest Service was a great help in tracking down the Christmas tree growers in North Dakota. However, there were 2 or 3 more growers that were found via word of mouth and going through the nurseries listed at the state level. This also took more time than expected as many tree growers work at other jobs and were gone during the day. There were some people that were called up to 5 times before finding them home and near a phone. Some of the nurseries only sell their trees for landscape use, but some also sold trees for Christmas use and were added to the list. The final list was then distributed to garden centers and to the general public to encourage the purchase of locally grown Christmas trees. It was found there are many people who sell plants in the state. They only need a state license if they sell nursery stock so there is no state registration requirement for the rest. It took longer than expected to develop a listing, and this listing is in constant flux as owners retire, businesses close and new places start up quickly. A good listing list was compiled by researching the internet and word of mouth in the industry, thus assisting in making that listing available to the buying public.

## **Project 3. Develop marketing products to promote the sale of North Dakota nursery and floriculture Products.**

### **Project Goals Achieved**

The NDNGA worked with the North Dakota Forest Service and Absolute Marketing to update and produce 2 brochures by October of 2007. The first brochure was entitled Christmas Tree Production in North Dakota, and the second brochure was a listing of Christmas Tree Producers in North Dakota. Also produced was a brochure listing of NDNGA members in January 2008. 27,000 stick tags were ordered from Master Tag and distributed to North Dakota growers to designate North Dakota grown specialty crops such as flowers and vegetables in April 2008. North Dakota Grown tree tags, banners, and signs (all water-proof) were ordered from New Growth Marketing and distributed to nurseries and greenhouses in March and April 2008.

### **Results, Conclusions, and Lessons Learned**

4,000 brochures entitled "Growing Christmas Trees in North Dakota" were produced. Approximately 2,000 have already been distributed to NDNGA members, the general public, and County Extension offices.

1,000 brochures "North Dakota Christmas Tree Growers" have been produced and distributed. 1000 brochures listing bedding plant retailers and landscapers have been produced and distributed. Approximately 100 people stopped and picked up information about North Dakota grown products at the NDNGA booth at Marketplace held in Grand Forks, ND in January 2008.

It was good exposure. NDNGA Board of Directors was very concerned about being able to use the words “North Dakota Grown” in case another commodity group registered those words with the ND Secretary of State’s office. After contacting the Secretary of State’s office, the Association was told this was not an issue as the term was too broad to register. Therefore, it would be fine to use in ongoing promotional efforts.

**Project 4. Educate professional growers about the North Dakota Grown Program.**

**Project Goals Achieved**

Approximately 70 people attended the Fall Horticulture seminar in Minot sponsored by the ND Extension Service and supported by the NDNGA. 419 people attended the NDNGA Convention in Fargo in January 2008. The North Dakota Grown information was presented at both locations. There were also speakers at both locations to promote and answer questions about Christmas tree production as a specialty crop in North Dakota. Both Christmas Tree brochures were distributed at Minot and Fargo, and the brochures were sent to all NDNGA members as well. Both Christmas tree brochures were also sent to County Extension offices throughout North Dakota for reference and distribution to the public. Growers received order blanks for North Dakota grown promotional materials at the Convention in Fargo and needed to return the orders by March. The orders were compiled, and the signs, banners, and tags were ordered and distributed.

**Results, Conclusions, and Lessons Learned**

The Association found that the tags originally ordered from Master Tag were too small. They were 4” tags and got lost among the plants in the bedding plant packs. The next tags ordered were bigger and will stand out better in the bedding plant packs. Some of the large display banners had too much white and did not stand out enough according to feedback from 2 of the growers. That problem has been corrected by getting a blue background on the more recently ordered display materials. Originally it was hoped that 50 growers would use the North Dakota grown materials, but 74 are already participating.

**Project 5. Provide the buying public with an easily identifiable choice to buy locally grown nursery and floriculture products.**

**Project Goals Achieved**

The growers used the banners, signs, and tags purchased and distributed to help label and promote their North Dakota grown products. The NDNGA had a booth at Marketplace to promote Christmas tree production, the names of Christmas tree growers, and the NDNGA members who distribute trees, shrubs, perennials or bedding plants. The NDNGA sponsored a speaker on Christmas tree production as a specialty crop at Marketplace to promote additional growers in North Dakota.

**Results, Conclusions, and Lessons Learned**

The NDNGA was pleased with the number of people educated during the Marketplace educational show. It was very hard to measure the success of the program because of the unusual selling season that North Dakota experienced this spring. Normally, most plant sales come in April and May. However, the spring was very cold and wet in the eastern part of the

state and cold and dry in the western part of the state. Sales at most garden centers were flat or down up to 50% due to the weather and possibly economic conditions. Most of the businesses that used the North Dakota Grown promotional items were very pleased. Many especially reported increased vegetable sales as consumers are growing more of their own food due to safety and economic concerns.

### **Long Term Outcome Measures from these projects**

The following were the Expected Measurable Outcomes as included in our original grant application:

- This grant will make it possible to develop North Dakota grown guidelines and criteria for nursery and greenhouse crops. This has been completed.
- It will provide the buying public with an easily identifiable choice to buy locally grown North Dakota products. This has been started and is ongoing.
- It will give professional growers a chance to label and market their locally grown nursery and floriculture crops. This has been started and is ongoing.
- The success of the program will be measured by surveying participating growers to see if their customers have a buying preference for North Dakota grown products and if they need to order more labels and North Dakota grown promotional materials. This has been started and is ongoing. Due to the unusual spring weather and economic conditions, sales were hard to gauge. However, growers have asked for more materials. The following are some samples of the feedback from a few of the program participants:

Georgia Heitmann – All Seasons Garden Center, Grand Forks

“I think the signs were wonderful, and this program is a very good deal, a good beginning. We maybe did sell more because of it. It is the first time in 40 years that consumers are interested in where the plants are coming from. We did see more families shopping together, and we ran out of vegetables.”

Judith Duerr – The Flower House Garden Center, Mohall

“Soni and I liked the signs very much. This was not a good year to evaluate numbers of sales as it was late getting going because of the dry conditions and the cold. I would have appreciated a 6 inch label more than the 4 inch as they slip down so far into the pot/pack that they aren’t too noticeable.”

Larry Harmsen – Harmsen’s Greenhouse, LaMoure

“Loved the signs!”

Adam Volz – Sheyenne Gardens, Harwood

“Too much white on the banner. Liked the strip tags which worked well on the hanging baskets. The 4 inch tags were too small.”

Joleen – Larimore Flower Shop, Larimore

“We loved the materials. People noticed them, and they held up in the wind. Yes, definitely keep promoting the North Dakota Grown program. It maybe did help sell more product too.”

Jeff – Lowe’s Garden Center, Minot

“We used a lot of the strip tags for different items, and they worked well. We used the signs mostly by our spruce and pine display which we get from Lundeby Evergreens (Tolna, ND). Overall, I would say the program is good, helps set us apart from the box stores.”

The NDNGA would like to say thank you very much to the North Dakota Department of Agriculture staff and the US Department of Agriculture for providing the grant funds which have allowed us to do so much in promoting North Dakota Grown nursery and floriculture products.

**Contact**

Any questions regarding this grant should be directed to:

Mary Holm, Executive Director, NDNGA

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Neché, ND 58265

701-886-7673

Email: [holmgh@polarcomm.com](mailto:holmgh@polarcomm.com)

# Specialty Crop Grant Final Report

## Project E Northern Pulse Growers Association Final Report

### Outline of the Issue/Need for Projects

Dry peas, lentils and chickpeas, also referred to as pulse crops are an excellent and nutritionally diverse crop that could potentially be successfully utilized as a food ingredient or a base for new product development. However no commercial pulse ingredients were available in the marketplace to nutritionally enhance their existing product line. There were no technical product specifications and education materials available for the North Dakota grown pulses.

### Projects to Address the Issues

**Project 1: Develop technical quality specifications for pea, lentil and chickpea crops grown in North Dakota.**

**Project 2: Provide the technical quality info to North Dakota pulse industry at regional meetings such as Annual Convention, Pulse Days and Field Trips.**

**Project 1. Develop technical quality specifications for pea, lentil and chickpea crops grown in North Dakota.**

### Project Goals Achieved

The Northern Pulse Growers Association worked with the Northern Crops Institute and technical quality specifications for dry peas were developed. Physical, chemical and cooking properties of major dry pea varieties grown in North Dakota were evaluated. In addition dry peas were processed into split peas, pea flour, starch-rich pea flour and protein-rich pea flour ingredients. Quality analyses were investigated in terms of chemical and microbial quality attributes. Technical specifications for pre cooked dry yellow and green pea flours were developed. Effects of roasting on physical, chemical, nutritional and microbiological attributes of pea flour were monitored.

### Results, Conclusions, and Lessons Learned

Moisture, test weight, brightness, greenness and yellowness scores of dry pea cultivars were analyzed. Results indicated variability in terms of greenness and yellowness scores. Dry pea cultivars grown in North Dakota had similar moisture, test weight and brightness scores. Green pea varieties showed lower yellowness and higher greenness scores which was related to cotyledon color. Pea color might be a significant attribute which may be used to alter baked and extruded snack product color attributes.

Total protein, starch, resistant starch and starch damage analysis were conducted in order to determine the differences within the cultivars. All chemical attributes of North Dakota dry pea

cultivars showed statistically significant differences. We observed that protein content was negatively related to starch content, which might be related to genotype, region or seasonal differences.

Moisture, protein, starch, fiber, fat and microbial quality of pea starch, pea protein and pea fiber products were analyzed. Results indicated that pea ingredients offer a wide range of protein, starch and fiber contents which may improve the nutritional and technological properties of food products.

Furthermore precooked pea flour was developed and found to be a stable and safe ingredient. Precooked pea flour with low protein dispersibility index (PDI) scores could be an excellent ingredient to improve flavor attributes. Precooked pea flour might be produced in many combinations based on time-temperature profile. Lower viscosity could be improved with low temperature – low steam pressure applications. Optimization is required in the process. Specifications should be based on PDI and flavor. Estimated shelf life is expected to be more than 1 year (18 months).

Pulse ingredients were observed to be excellent ingredients in terms of technological, nutritional and microbial attributes which can be used in product development applications.

**Project 2. To provide the technical quality information to North Dakota pulse industry at regional meetings such as Annual Convention, Pulse Days and Field Trips.**

### **Project Goals Achieved**

The Northern Pulse Growers Association worked with the Northern Crops Institute Pulse Specialist Dr. Mehmet Tulbek on these project goals. Mehmet Tulbek provided technical quality information to North Dakota pulse growers and processors during the project timeline as well as worked with three national companies in developing new pulse ingredients and utilizing in marketplace.

### **Results, Conclusions, and Lessons Learned**

The Association worked in collaboration with two major pulse processors in the State of North Dakota on domestic market development in order to replace high cost ingredients such as egg whites, dried eggs, soy protein concentrate, whey protein concentrates. Pea flour, lentil flour, chickpea flour, pea starch concentrate, pea protein concentrate samples were sent to Kellogg's, Kraft, Frito Lay companies.

Collaboration was done with two major food companies on the utilization of pulse flours as an ingredient in pasta, pasta sauce and texturized flour products. Rheological tests were conducted and reported to industry contacts (Kelloggs).

Contact was established with Caremoli-USA which is the major supplier of Barilla Pasta Company. This company produces pre cooked pea and chickpea flours and provides solutions for high protein high fiber ingredients. Contacts have been made and product (pasta) development projects were conducted with the company's ingredients.

Mehmet Tulbek attended regional pulse annual conventions and field days; interacted with pulse processors and assisted two regional companies in developing new ingredients. In addition Mehmet Tulbek attended national and international meetings and promoted North Dakota grown pulse crops, presented pulse quality data, value added processing applications and other technical materials to pulse end users.

### **Long Term Outcome Measures from these projects**

The following were the Expected Measurable Outcomes as included in our original grant application:

- This project will help develop the pulse processing industry in the State of North Dakota, which will create jobs and increase value added processing applications. We anticipate 3 processing plants running in the State of North Dakota by the end of this project which would mill, split and fractionate pulses – This has been started and is ongoing.
- Development of pulse ingredient specifications will help North Dakota pulse industry supply a consistent market to domestic food industry. In the next four years we expect to have 150,000 acres of pea, lentil and chickpea crops grown only for milled and fractionated pulse flour ingredients – This has been started and is ongoing.
- This acreage will constitute a high-end product in pulse market, which will have 30-55 ¢ / lbs price range which is 3-5 times more than pulse crops. Price of fractionated ingredients will be 10 times more than whole pulse crops, which will be in the range of 90-98 ¢ / lbs. Thus the overall economical outcome will significantly increase due to the value added specialty processing applications - This has been started and is ongoing. In 2008 due to the high grain prices there has been great interest by the U.S. food industry as a cost reduction ingredient and major sales took place. Although the prices significantly dropped the interest to pulses remain still high.

### **Acknowledgements**

The Northern Pulse Growers Association would kindly acknowledge the invaluable support of the North Dakota Department of Agriculture staff and the US Department of Agriculture for providing the funds which have allowed us to promote North Dakota grown pulses in domestic markets.

### **Contact**

Any questions regarding this grant should be directed to:

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# Specialty Crop Grant Final Report

## Project F Northarvest Bean Growers Association Final Report

### Outline of the Issue/Need for Projects

The dry bean industry has only recently begun to organize efforts leading to scientifically credible health claims. No mechanism existed to summarize existing scientific literature, and coordinate/focus newly funded investigations into the most important components of dry beans of greatest importance to consumers.

### Projects Undertaken to Address the Issue

- Project 1: Commission Scientific Literature Review**
- Project 2: Develop a sustainable organizational strategy for Northarvest to advance a program of scientific investigation**
- Project 3: Host a conference of scientists, policymakers, nutritionists to formulate research priorities**
- Project 4: Provide a forum for the exchange of scientific information and priorities between/among Northarvest, and other members of the supply chain**
- Project 5: Form a Scientific Advisory Committee for decision-making on funding of research priorities**

### Project 1. Commission Scientific Literature Reviews

#### Project Goals Achieved

A comprehensive review of the literature on dry beans and human health was commissioned to Dr. Maurice Bennink and Ms. Elizabeth Rondini of the Food Science and Human Nutrition Department of Michigan State University at East Lansing, Michigan. Their report, some 46 pages in length, and entitled “Beans and Health: A Comprehensive Review,” was received in final form in February, 2008.

#### Results, Conclusions, and Lessons Learned

The literature on beans and human health suggested that the areas of a) diabetes/obesity, b) heart health, and c) cancer had been the subjects of most attention by the scientific communities. Across these areas, many studies were suggestive of favorable health benefits to humans accruing from the consumption of dry beans. The current status of the literature however, did not support an application for an unqualified health claim. However, the literature review

enabled collaborators and conference members (below) to focus discussions and narrow discussions to areas of highest probability of “bearing fruit” in subsequent studies.

**Project 2. Develop a sustainable organizational strategy for Northarvest to advance a program of scientific investigation**

**Project Goals Achieved**

A review of literature was undertaken by Dr. William Lesch, Department of Marketing at the University of North Dakota, Grand Forks, North Dakota, investigating the rationale, methods of operation, and recommendation for procedures to be followed by Northarvest in initiating its scientific program and advisory council. His report entitled “A Research Strategy and Procedures for the Scientific Health Advisory Committee of the Northarvest Bean Growers Association,” (14 pp) and accompanying suggestions for “Committee Bylaws” (4 pp), were received in January, 2008, and December, 2007, respectively.

**Results, Conclusions, and Lessons Learned**

It is difficult for small, specialty vegetable organizations to adequately fund meaningful and sustainable programs involving human clinical research. However, by utilizing seed monies as incentives, at least one other organization has been very successful in leveraging and aligning federal funds (NIH) in support of organizational goals. Adopting the model already utilized by the U. S. Soybean Board, Northarvest may expect to attract scientists into its program of study and broaden the available scientific literature on beans and health without being the primary financier. The recommendations were adopted by Northarvest and the program was initiated.

**Projects 3 and 4. Host a conference of scientists, policymakers, nutritionists to formulate research priorities  
Provide a forum for the exchange of scientific information and priorities between/among Northarvest, and other members of the supply chain**

**Project Goals Achieved**

Dr. Jerry Combs, Director of the USDA Grand Forks Human Nutrition Research Center, organized and convened a day-long conference of scientists, nutritionists, policymakers and advisors with the intention of developing a strategy to guide research investments made by Northarvest and to focus future requests for proposals in the respective scientific disciplines. This was held at the Center on May 29, 2008, and included invited members from the United States and Canada affiliated with Universities, Centers, and the Food and Drug Administration. The resulting report of the Conference entitled “Beans and Health Workshop” identified issues associated with market acceptance of beans, regulatory hurdles, the status of Canadian research efforts, and establishment of a credible scientific foundation for both consumer acceptance and regulatory satisfaction. A statement on the status of research into the links between the use of beans and cardiovascular disease, the use of beans and the prevention of certain types of cancer, the use of beans and weight management/obesity, and the use of beans and general nutrition/health was produced, along with general recommendations for research priorities. Research priorities recommended by the group included the areas of cardiovascular health, weight management/prevention of obesity, and colon health. These areas of benefits were

specifically tied to elemental components of beans.

The first gathering of the scientific advisory committee to set our research agenda was face to face. That meeting took place at the GFHNC May 29<sup>th</sup> 2008.

The second advisory committee (6 members, we now call them a peer review panel and they were chosen by Communiqué who runs our DBHRP) was established to evaluate and score the 34 submitted research projects. They did not need to meet face to face because each panel member was assigned to only review submitted proposals relative to their field of expertise and submit back to Communiqué their independent scored evaluation.

This process is one the United Soybean Board established 8 years ago under the guidance of Communiqué. After we learned about the Soybean success and how they got to where they are, we followed in their footsteps.

### **Results, Conclusions, and Lessons Learned**

The conference served to underscore several important conclusions and lessons. First, the rather “scattered” nature of research into dry beans and health can benefit from one or more organizations investing in carefully identified priorities, i.e., not all areas of opportunity are likely to yield equal (or desirable) outcomes. Secondly, and resulting from the interaction among constituents with different goals and domains of interest, all participants gained by seeing the “whole” of the processes leading up to successful (or, unsuccessful) health claim applications, and took away improved understanding of the process overall. Thirdly, the results of this conference lead directly to priorities for funding to be used by Northarvest in implementing its strategy to achieve a broader and stronger research foundation on beans and human health. A copy of the report on the conference is attached as Appendix D.

### **Project 5. Form a Scientific Advisory Committee for decision-making on funding of research priorities**

Following the success of the conference on dry beans and human health, a subset of scientists (chosen only in part from Conference attendees) was formed to comprise the Advisory Committee. This specific Committee was charged with evaluating pilot proposals according to the terms of a program on Dry Beans and Human Health, an outcome/recommendation of the report by Dr. Lesch (above).

### **Project Goals Achieved**

The Committee was formed and comprised of experts in the range of areas of interest identified as priorities for research investigation. This panel, including Dr. Jerry Combs (USDA-Grand Forks, ND), Dr. Ross Welch (USDA-Ithaca, NY), Dr. Nikil Dhurandhar (Louisiana State University, Baton Rouge, LA), Dr. Kalidas Shetty (University of Massachusetts, Amherst, MA), Dr. Joanne Slavin (University of Minnesota, Minneapolis, MN), and Dr. Penny Kris-Etherton (Penn State, University Park, PA), reviewed/screened/ranked some 34 final pilot proposals according to the application of some nine criteria, and made recommendations for the support of ten (10) proposals. This resulted from some nearly 150 researcher inquiries into the Northarvest program.

## **Results, Conclusions, and Lessons Learned**

The management of a large scale research program such as has been undertaken here, requires considerable planning, the inclusion of qualified partners, and considerable long-range planning if it is to be effective. Such programs can be successful, as was the case here, with the assistance of experienced managers. The current strategy, now fully implemented, has proven successful in attracting qualified researchers into the conduct of research into dry beans and human health.

## **Long-Term Outcome Measures**

Northarvest has only recently concluded its first round of funding, resulting in ten (10) approved proposals. Owing to circumstances beyond the control of Northarvest, two otherwise successful applicants withdrew from further pursuit of their projects. The remainders either have, or are expected shortly to have completed submissions to NIH R01 programs for human research.

Northarvest will track (through its consultant Communiqué) the progress of these researchers in the competitive review process. Outcomes expected of this program will include some portion of funded proposals, the initiation of research programs, and the production of peer-reviewed articles useful to the support of health claims at the level of the Food and Drug Administration.

Northarvest expects at this time to continue the program indefinitely.

Northarvest extends its deepest appreciation to the Commissioners and staff of the North Dakota and Minnesota Departments of Agriculture, and the United States Department of Agriculture for their efforts to advance this and related programs.

## **Attachments**

See Appendix D entitled "Results of recent symposia on Dry Beans and Health" dated July 10, 2008.

## **Contact**

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# Farmers Market Guide

## Prepare by the North Dakota Department of Agriculture

Dear Friends,

Quality, locally grown freshness and price are the “big three” when it comes to shopping for food. You can get all three at North Dakota farmers markets, where consumers buy their food from the people who grew it from seed - their friends and neighbors - the people they know they can trust.

Farmers markets provide agricultural producers with additional sources of income, and in some cases, a principal source of income.

Local communities also benefit by attracting people who often stop elsewhere in the communities and spend money on food, fuel and other necessities.

We have compiled this booklet to help individuals, groups and communities organize, promote and operate farmers markets. It covers a wide range of topics from rules and bylaws to permits, location and taxes. If you need more information, please call us at the North Dakota Department of Agriculture (NDDA) at (800)-242-7535.

The North Dakota Farmers Market & Growers Association Inc., (NDFMGA) was started in 2004 to help promote farmers markets and create awareness and educate our communities on locally grown and processed foods that are available right here in North Dakota. If your vegetable/fruit operation or your farmers market is interested in becoming a member of this association, please complete and submit form at the back of this booklet, or you can always call the toll free number listed above for NDDA.

I hope you will take this opportunity to make a difference in your community by helping to organize a farmers market! It's good for you, your community and North Dakota farmers and ranchers.

Sincerely,

Patti Patrie  
NDFMGA, President  
[www.ndfarmersmarkets.com](http://www.ndfarmersmarkets.com)

### **Acknowledgments**

This guide would not be possible without the resources and advice from several sources. First we would like to thank the Grand Forks Town Square Farmers Market for generously allowing us to use pictures from their market and other useful materials that appear in the appendix. Sakakawea Farmers Market gave us permission to publish their bylaws, which appear in the appendix. Patti Patrie of Patrie's Raspberries on the Prairie was also kind enough to allow us the use of pictures from her own pick-your-own operation.

The state departments of agriculture were also valuable resources that contributed a wealth of information that helps make this guide a comprehensive farmers' market resource. Massachusetts, Minnesota and Kansas were especially helpful in this effort.

Lastly, we would like to acknowledge the support of the United States Department of Agriculture (USDA) who provided us with a specialty crop grant that presented us with the financial resources needed to turn the idea of a farmers' market guide into reality.

We truly appreciate everyone that contributed something to this guide and we hope you all enjoy the result of our efforts.

### **A Farmers Market Defined**

The term farmers' market can refer to a variety of things. For instance, it is common to find a sign bearing the words "farmers' market" at a roadside stand, the produce section at a supermarket or a flea market. For the purpose of this guide, however, a farmers' market is defined as a building, structure or place used by two or more vendors assembled together on select days of the week to sell products directly to consumers. A farmers' market is a communal effort. Vendors usually have some democratic control.

Farmers' markets, new or old, serve many functions. They are a place to do business and trade. They also support social and community activities. Their festive atmosphere provides a relaxing and even entertaining place to shop and meet with friends. Farmers' markets provide a pleasant alternative to crowded supermarket shopping. They provide consumers with high quality produce which, because of its freshness, is often more nutritious than produce sold at stores.

Farmers' markets are a direct marketing outlet. By cutting out middlemen, they offer farmers a more profitable way to sell their produce. They also give producers and consumers the chance to interact. In other words, farmers' markets are many things to many people. They help family farmers, preserve agriculture and provide high-quality fresh produce to consumers. Most importantly, they are fun!

Every farmers' market begins differently. If you are thinking about starting a farmers' market in your community, it helps to know why. You may take this for granted, but being able to express it will help you state your goals and form a strategy which will work.

### **Beginning a Farmers Market**

Producers, community members, and even youth can be the initiators of a farmers' market. The purpose of this guide is to help channel the efforts of all interested people.

It is important to formulate specific goals in planning a farmers' market. Do you want to increase your farm income by selling specialty vegetables at retail prices? Do you want to promote local agriculture or encourage community interaction? You may have several goals, and some may compete with each other. It may help to list them in order of importance.

Once you have clearly defined your own goals, recruit others interested in having a farmers' market in your community. Can you find an organization to sponsor the market? They may be able to provide you with valuable resources like secretarial support or a copying machine. Is there a general sense that there is a need for the market?

To answer these and many other questions, start planning the market well in advance of the growing season. Leave yourself several months for research, development, locating a site, recruiting farmers and promoting your opening.

The *North Dakota Farmers' Market Directory*, a free publication of the North Dakota Department of Agriculture, is a great resource for locating area farmers' markets. Consider visiting with an established farmers' market in your area. They can be a great resource in forming your farmers' market.

First, make sure you have a distinct idea of your goals and can clearly articulate them. Once you have clearly defined your purpose, prepare a short summary of your intentions so that you can leave them with each person you contact. Make certain that your name and phone number is easily identified on the handout. As you set out to

measure support for a farmers' market, don't neglect to contact the various groups and organizations in your community.

### **Developing a Strategy**

When you have developed a list of people and groups to be contacted, you are ready to hit the streets. Be sure to take along a pen, copies of your handout and plenty of paper to record vital information. Always obtain good contact information including the name, address, phone number and e-mail address. This information will allow you to quickly mobilize a strong support base as well as provide a mailing list for future market newsletters.

Locating the producers can be the most difficult part of establishing a farmers' market. While the best contact is person to person, you may have to rely partly on a few well-placed posters, radio announcements, and word of mouth. It is also a good idea to contact the editor of the local newspaper about doing a story on the possibility of starting a farmers' market in the community.

The best candidates for growers are usually small-scale farmers and large-scale gardeners, but neither will participate unless they have an incentive. After you have contacted several interested farmers who have shown some interest, schedule a meeting to get them involved with the initial planning. Share with them the opportunities and advantages of selling at a farmers' market.

### **Permits**

The need for permits will vary from place to place. Check with your local Chamber of Commerce or other relevant community offices to find out if any permits are required. You may have to attend a public hearing to get a special permit for outdoor sales.

It takes time to investigate and obtain all necessary information on permits. Allow at least a two-week safety margin. You may need a business license, liability insurance, approval from your local Health Department and a lease agreement before opening the market.

### **Insurance**

Inquire about necessary insurance policies before opening your farmers' market. Find out whether you are required to have insurance to operate on the site you have chosen. It is recommended to review basic liability policies even if they are not required. Liability insurance is one of the most expensive start-up costs for a farmers' market. It is important that you make every effort to get the best deal for your insurance dollar.

### **Health**

It is always important when selling or serving food at a farmers' market to comply with any applicable health department regulations. In North Dakota, the State Health Department has no regulations concerning farmers' markets. The reason for this is ND Century Code 23-09.2, Food Preparer's Education Act that came about during the 1989 legislature. Under the code, it states:

*“because facilities are not always available for the preparation of food on-site for sale to the ultimate consumer at a farmers' market, bake sale, or similar enterprise, it is the intent of the legislative assembly to exempt those persons from preparing food in licensed or approved kitchens...”*

Because of this, the State Health Department does not regulate farmers' markets but is available to offer educational support to food preparers. However, your local health unit may have some regulations. **Check with your local health unit to learn about the rules concerning farmers' markets.** Some local health departments may prohibit the selling of prepared food products at farmers' markets. Also, not all cities/counties are covered by a local health jurisdiction. The State Health Department, in that case, will handle any questions you might have.

Following is a listing of the local health units in North Dakota and the phone numbers to call for information on setting up or operating at a farmers' market in those cities/counties:

City of Bismarck	355-1300
City of Fargo	241-8258
City of Grand Forks	746-4636
First District Health Unit, Minot (Bottineau, Burke, McHenry, McLean, Renville, Sheridan, Ward Counties)	852-1376
Custer Health Unit, Mandan (Grant, Sioux, Oliver, Mercer, Morton Counties)	667-3370
Southwest District Health Unit, Dickinson (Adams, Billings, Golden Valley, Bowman, Slope, Dunn, Hettinger, Stark Counties)	483-0171
Upper Missouri Health Unit, Williston (Divide, McKenzie, Mountrail, Williams Counties)	774-6400

If you would like to read more about ND Century Code 23-09.2, Food Preparer’s Education Act, visit:  
<http://www.legis.nd.gov/cencode/t23c092.pdf>.

### **Tax**

Since many of your growers may have no experience selling directly to the consumer, you will want to inform them of any special tax requirements. Food is a non-taxable item so you will not be required to get a sales tax permit. However, if you are selling crafts or other gift items you will be required to get a sales tax permit. There is also a special event form available for non-food participants who only sell items at one or two events per year. You can obtain more information from the State Tax Department.

As sales tax varies from city to city, tax must be assessed at the rate at the point of sale (city that hosts the market), not the rate at the place of business (city of origin of products). Vendors may either add tax to the purchase price (plus tax) or include it in the purchase price (tax included). It must be made clear to the buyer if the sales tax is included in the purchase price or added to the product price.

The whole issue of collecting sales tax and obtaining seller permits and tax identification numbers will tend to make some growers shy away from direct marketing. However, when someone takes the time to explain how simple the process is, the fears should go away.

Be sure to keep accurate records of income, as this must be reported in your annual income tax filings!

**ND Office of the Tax Commissioner**  
(701) 328-2770  
<http://www.nd.gov/tax/>

### **Funding**

Funding is always a concern when starting any community project. There are several avenues you can explore for obtaining funding for developing a community farmers’ market. Specialty grants are available through the United States Department of Agriculture or you may submit a proposal for an Agricultural Products Utilization Commission (APUC) grant.

**To find more information visit:**  
[www.usda.gov](http://www.usda.gov)

## **Labeling**

Other issues to address are labeling requirements on processed foods. Food labeling requirements fall under state and federal regulation. All packaged foods need to be labeled. For questions and concerns regarding labeling and selling of processed foods contact the North Dakota Department of Health.

### **Product labels must include:**

- The name of the product
- The name, address, and zip code of the manufacturer, packer, or distributor
- A listing of ingredients in decreasing order of predominance by weight
- A net weight or volume statement
- Nutrition information if required

## **Location**

It is important to consider a variety of factors when selecting the location of a farmers' market.

### **Consider the following:**

- Where is it located?
- Does it provide adequate space for the market at its current size?
- Does it provide adequate space for growth?
- Is it publicly or privately owned?
- What are the zoning regulations that apply to it?
- What permits will be required to use it?
- What liability policies must be purchased to insure it?
- Does it have convenient parking nearby?
- Is it handicapped accessible?
- Is it highly visible?
- Is it in or near an area with lots of pedestrian and/or vehicular traffic?
- Does it provide certain amenities (such as shade trees, electricity or a restroom)?
- Is it in the downtown area?
- What are the advantages and disadvantages of using this site?
- Is there ample parking?

## **Pricing**

Pricing is one of the most challenging tasks for both individual vendors and a group of vendors collaborating at a market. While it is important to recognize the rights of each vendor to establish prices for products, it is equally important to recognize the effect of pricing on the market as a whole. Vendors, particularly those selling produce, are vulnerable to price undercutting, referring to the action of one or more vendors establishing prices for their products that are marked below those of comparable products. It is a tactic often used to dump large quantities of vegetables quickly. Experienced farmers' market vendors identify this practice as the single biggest threat to the health of a market as a whole.

The association of vendors must carefully consider whether it should dictate the terms by which prices are established. Sometimes this can be done informally by consulting with other vendors and agreeing on a price. Other markets elect to formalize this process by including a section in the bylaws of the market.

## **Market Rules**

Operating a market efficiently requires a lot of hard work. A clearly defined set of rules will contribute to higher productivity and less hassles once the market is established. It will also eliminate confusion and many of the problems a new market may have.

The rules should generally include: the name of the market, the market's dates and hours of operation, products for sale, allowable products (including non-food items), set-up time for market vendors, stall assignments, available remaining space requirements, vendor responsibilities, what is provided to the vendors, market fees, and the rights and privileges of the market.

Clearly defined rules will help a market run smoothly. There will be less room for questioning and more productivity in the market if the rules are obeyed.

## **Market By-laws**

Bylaws clearly define the market rules. The bylaws give the organization a formal process that they can refer to on how to operate the market. The purpose, location, operating hours, and listing of officers should be included within the bylaws. A brief description of each officer's duties can also be helpful. This guideline will help newly elected board members know exactly what is to be expected of them.

The bylaws also contain the foundation for decision making. This section can include information on membership, meetings, elections, amendments, dues, liquidation, and fees. Bylaws set a standard for the market.

It is important to continually revise your market's bylaws. Make it work for your own local farmers' market. Although most of the things listed here will apply to most farmers' markets, it is always important to customize the bylaws to your own organization. Bylaws can be amended to reflect changes in your market at any time.

## **Sample Bylaws**

(Enter your Farmers' Market Name)

### ***Article I. Name***

The name of the association shall be (Enter Your Farmers' Market Name).

### ***Article II. Election Procedures***

(Or some method of selection of officers)

One vote per grower, family or partnership

Officers will be elected by majority vote

Officers will be elected for (put in number) year term

If a vacancy on the Board of Directors appears, the remaining board members shall fill the vacancy by appointment until the next annual meeting at which time membership shall elect someone to complete the remainder of the term.

### ***Article III. Board of Directors/Officers***

(Not necessary to have a Board, but some type of delegated group to make decisions.

The Board of directors shall consist of (number of members) members, including (suggestions: Chair, Vice-Chair, Secretary/Treasurer and/or separately.) Directors shall serve (number of years) terms.

### ***Article IV. Roles and Duties of Board of Directors/Officers***

(These duties need to be done for market operation. Below are suggestions on titles and roles.)

The Board of Directors/Officers shall set the policies of the organization. This must include deciding the rules, location, hours of operation, dues and/or fee structure and membership requirements and enforcement procedures.

Chair – shall preside at all meetings; oversee the management, organization and execution of the business of the market.

Vice-Chair – shall perform the duties in the Chair's absence.

Secretary/Treasurer – shall record the minutes of all proceedings of the market. He/she shall perform all duties

pertaining to the Office of Treasurer and present a complete statement of the financial affairs of the organization to the annual meeting.

#### ***Article V. Meetings***

The regular annual meeting shall be held at such time and place as determined by the Board of Directors/Officers.

Notice of annual meetings shall be published to membership at least 30 days prior to date of annual meeting.

The Farmers' Market shall meet at least annually.

#### **The Market Manager**

Organizing a market can be time-consuming and stressful at times. A farmers' market in any community helps cultivate a social atmosphere that is positive for anyone who attends the market -people of all ages enjoy farmers' markets. However, creating a fun and welcoming atmosphere at a farmers' market can be hard work.

This is where the role of the market manager can be beneficial to the farmers' market. Is there someone willing to take on the extra responsibility of managing the farmers' market? A market manager takes care of many details and makes sure that the market is running smoothly and efficiently.

A market manager can have many responsibilities. To do the job well, the market manager should be able to relate with both the producers and consumers.

#### **A market manager's duties may include:**

- Recruiting farmers
- Pricing
- Space allocation
- Ensuring quality, home grown products
- Promotion and advertising
- Encouragement
- Securing permits/licenses

***Recruiting farmers*** - To operate a successful market, you must have the farmers there to sell produce! A market manager can aid in the recruitment of producers. Ask the North Dakota Department of Agriculture for listings of farmers/growers in the area. The county extension office should be able to offer names to contact as well. Agricultural groups often have newsletters. Advertise! Let them know you want growers to participate in a farmers' market.

***Pricing*** - The farmers can either set their own prices or the market manager can help set the prices. Either way, inform the farmers of local prices of produce or give them copies of weekly agricultural price reports. Set rules for the producers - the prices should be displayed! This eliminates feelings of suspicion between the market vendors. Work with all members of the farmers' market. Decide together what system for pricing would work best for the market.

***Space allocation*** - Set guidelines and discuss them with all members. Make sure you adhere to them strictly. This eliminates problems in the long run. Make sure these rules become a part of your bylaws.

***Ensuring quality, home grown products*** - Make sure the rules are specific. Do you want to set a rule stating that all products available must be sold and grown only from the seller? Customers like to know where the produce is grown. This rule makes decision making easier. Set guidelines on selling uniform products. Produce should all be cleaned and sold in the same manner.

***Promotion and advertising*** - Think of creative ways to entice the press to do a story on your farmers' market. Make it newsworthy. The best publicity is free publicity! Have a grand opening for the season. Try to entice people from all over your community to participate. Community support is essential to the success of a farmers' market. In addition, if the people in the community like the farmers' market, they will advertise by word-of-mouth.

Develop an advertising budget, evaluate results, and adjust future promotions accordingly. Advertising is important, and you'll want to start right away. Don't wait until it's too late. Many newspapers, magazines, and radio stations set deadlines for advertising. You may need to submit an ad many days in advance in order for it to appear in time to adequately promote your farmers' market.

**Encouragement** - Encourage communication, creativity and participation. Reward members for creative booth designs, hard work, and dedication to maintaining the successful farmers' market.

**Securing permits/licensing** – Request information from the fire department, tax department and police department to determine the patents/licenses necessary to operate the market. Be sure to distribute any information to all market vendors.

### **Advertising and Promotion**

The success of your farmers' market depends on gaining exposure. No matter what method you use, the message must be both informative and motivational. Develop a media mailing list including all local newspapers, radio stations, television stations, and organizational newsletters. Free publicity in the form of public service announcements on radio, television, and in newspapers is usually the most effective.

#### **Some forms of publicity are:**

- Press Releases
- Public Service Announcements
- Circulars/Fliers/Posters
- Commercial Advertising
- Displays

**Press Releases** - The basic vehicle for getting your message to the media is a press release. Your first press release should accomplish several things. It should inform the public that a market is forming, it should solicit growers, and it should invite interested persons to your first meeting.

#### **Basic press release guidelines:**

- Don't be wordy. Be concise and to the point.
- The lead sentence should contain the main point of the story.
- Be sure to provide the who, what, when, where, why and how information.
- The release should be typed, double spaced, and have at least a one-inch margin on all sides.
- At the top of the page type the name, address and telephone number of your organization's contact person.
- Also at the top, type FOR IMMEDIATE RELEASE or specify a release date.
- Ensure that everyone has a copy at least one week before you wish your press release to appear.
- Follow up the mailing with phone calls asking if they can use the story or need additional information.

**Public Service Announcements** - Public Service Announcements (PSA) are free radio and television spots for community activities. Consider preparing a PSA to increase the awareness of your farmers' market. Prepare your PSA much as you would a press release, except note the time it takes you to read the announcement aloud. Radio stations usually want PSAs that are either 10, 15, or 30 seconds in length. Another avenue to consider is utilizing a community's local access channel on cable television. Talk with the station's director to learn exactly what format is required.

**Circulars/Fliers/Posters** - Since printed circulars and posters cost money to produce and distribute, volunteer labor and donations can be very helpful. If your organization has the resources, circulars can effectively publicize a market. They serve as a more permanent announcement that can be kept for future reference. Keep your circular or poster direct and simple. Only include information necessary for conveying your message. A cluttered or rambling circular will detract from the main point and discourage people from reading. Location, time, dates, parking and contact information should always be included.

**Commercial Advertising** -There may be times when paid advertising is deemed necessary. You can decide between newspaper, radio, television or a combination there of. While these mediums may be more expensive, their benefits are long lasting. Commercial advertising is often the most beneficial and cost effective during the first year of the market. While free community sponsored publicity will help to announce the opening of the market, commercial advertising will serve as a reminder to the public that the market is an on-going event that will last throughout the summer. Ads should make an effort to publicize popular seasonal produce. These items will tend to draw bigger crowds and all growers will benefit.

**Displays** - The physical appearance of each producer's display can greatly influence a customer's perception. In order to convey a positive experience, be sure each display is clean, the shopping environment is hazard-free, and the display conveys an overall pleasant experience. Vendors should be encouraged to care for their area and present themselves professionally. Each display should also prominently identify the producer's name.

### **Direct Marketing**

Farmers do have other options available to them when considering selling directly to the consumers in the market. Direct marketing encompasses farmers' markets, pick-your-own operations, roadside markets and home deliveries.

### **Pick Your Own Operations**

In a "Pick-Your-Own" (PYO) or "U-pick" operation customers drive to a farm to personally select and harvest a crop. This eliminates most of the harvest and transport work for the grower. Most successful PYOs are known for a specialty crop, such as strawberries, raspberries, corn or others.

Customers are attracted to the farm-fresh products and "farm experience" PYOs offer. Successful PYO operators have quality products and prices, the willingness and patience to work with consumers and a commitment to working long hours and weekends.

Some advantages to the farmer include saving harvest labor and storage costs, possibly less discarded product and more return per acre. People are less critical of fruit or vegetable quality when they pick their own versus when they judge produce on the shelf.

Have a good location. Since the customer must go to the farmer, a favorable location is crucial to the PYO operator's success. Your farm should be easy to find or have good signs and directions to locate the farm.

Make harvesting easy. Consider a succession of same-crop plantings for a longer harvest season. The family that picks a bushel of tomatoes in July may want to come back for more in August. Consult crop production guides, like those available through the Extension Service for crop management information.

Provide disposable containers such as deep cardboard trays for harvesting berries or beans or reusable containers, such as two-to-four quart pails. If you sell by weight, standard containers that weigh the same will save you time when you figure the actual cost of produce picked. If you sell by volume, provide half-pint, pint, bushel and other standard container sizes. Encourage people to bring their own containers. They'll save money and you'll save time and trouble stocking containers. A PYO operator needs to provide suitable parking, check-in and check-out stations, transportation to picking sites and supervision of customers.

Provide supervision. You need supervision in any area where you allow customers, not just for liability reasons, but for better business. Supervisors should direct people to the exact locations where they can pick and should show them how to harvest and handle produce without damaging crops. Employees should be able to answer questions about product growth, storage, and preparation. They should be knowledgeable about pricing, specials, container sales, and other policies.

Offer recreation. Enhance the recreational value of your business by making the picking experience comfortable and fun for the customer. Provide drinking water, picnic areas, large trash cans, wash areas and toilets. Add to your income by selling pre-picked produce, snacks, soda and other items.

### **Pick-Your-Own Keys to Success:**

- Have the ability and desire to work with people and children
- Be willing to work dawn to dusk and weekends
- Grow top quality produce and sell at competitive prices
- Have a good location
- Be known for a specialty item
- Promote heavily, especially the recreational value of the farm experience
- Have good risk prevention and adequate insurance

## **Roadside Markets**

The roadside “stand” can be a portable wagon, truck or just a cash box on a table next to a bushel of corn. Some roadside stands attract many tourists, depending on their proximity to parks, resorts and other attractions. But the bulk of business must come from local consumers in order for most stands to be successful.

Roadside sellers must be friendly and knowledgeable about product ripeness, preparation and storage. They must stick to regular prices, days and hours. The stand or market must offer quality products, variety and attractive displays. An attractive roadside market can supplement family income, but it is usually not the only income source.

Choose a prime location. Location is critical to the roadside marketer’s success. The business must be easily accessible. Impulse buying by passing motorists is usually not sufficient to generate a profitable sales volume. A well-traveled road or highway off the farm may be a desirable location. Contact your county/local officials for any regulations and to obtain any necessary building permits.

Start with a simple design. A simple sturdy small portable stand that allows easy access by customer and seller but keeps rain, wind and sun off you and your display may be all you need. Display produce on or in front of counters or on tables.

### **Roadside Market Keys to Success:**

- Good visibility and accessibility to the road
- On the farm or in a farm setting
- Cater to local customers
- Quality produce
- Attractive, clean displays
- Well-informed, friendly employees
- Clear pricing policies
- Steady business hours

## **Home Delivery**

Many consumers who receive home-delivered farm goods value the convenience of the services and like to believe the delivered products are of superior quality.

Profits from home deliveries must cover the additional time and transportation costs this marketing alternative requires. The business relies on imagination, ingenuity and strong advertising. Word-of-mouth, creative newspaper ads and direct mail can tell customers you are willing to home-deliver.

Many successful home delivery companies maintain good customer relations to make their customers feel special and to promote loyalty. If you are just starting out, call your customers personally to find out whether they are satisfied with your product. If you have a solid customer base, try publishing a quarterly newsletter with articles about product uses and recipes, nutrition, health, area recreation and more.

### **Home Delivery Keys to Success**

- Have unique products with a reliable supply
- Frequent mailings or visits to keep in touch
- Ways to list products and services
- Reliable delivery methods

## **Sample By-Laws**

### **Sakakawea Farmers’ Market Bylaws**

#### **Preamble:**

The objective of the Sakakawea Farmers’ Market shall be to provide surrounding communities with quality, fresh home grown and home made products in a timely manner in convenient locations. This organization will also provide information to encourage and improve marketing and production of such products and promote farmers’ markets in any way that it can.

## **Article I: Name**

This Association shall be known as Sakakawea Farmers' Market.

## **Article II: Membership**

Section 1. Membership is available to any person that offers home produce items for sale. Each seller must have membership and pay their dues and assessments before selling at any farmers' market. Officers reserve the right to refuse membership to anyone who does not meet the standards of this organization.

Section 2. Membership dues and fees will be set by the membership at the annual meeting; they currently are \$50.00 dues per year and a \$50.00 advertising assessment due on July 1<sup>st</sup> if deemed necessary by the members. There will be a \$25.00 fee for non-selling members, if non-selling dues are not paid, renewal of membership is up to a vote of the membership.

Section 3. Members may be expelled from membership with cause by majority vote of the membership at any meeting. Notice with respect to any expulsion must be made at least five days prior to such meeting. Members not paying annual dues and fees shall forfeit all rights to membership and have their names taken from the roll.

## **Article III: Officers**

Section 1: Officers shall consist of a President, a Vice President, a Secretary, and a Treasurer, whom shall have one year terms of office to be elected by the membership at the annual meeting.

## **Article IV: Meetings**

Section 1: The regular annual meeting shall be held in the first quarter of each calendar year at such time and place to be determined by the officers. There shall be a minimum of one meeting per calendar quarter thereafter.

Section 2: Special meetings may be held upon call of the President of by majority of the officers.

Section 3: Notice by phone of special meetings shall be made to each member at least 7 days prior to the meeting. The date, time, and place, as well as the nature of the business to be transacted, shall be included in the notice. Regular meeting time, date and place will be set at previous meeting.

Section 4: Each direct member of this organization shall be entitled to one vote on all matters submitted to a vote of the members.

Section 5: Direct members in good standing shall be eligible to hold any office in this organization.

Section 6: Twenty-five members or 50% of the membership, whichever is less, shall constitute a quorum at any regular or special meeting.

## **Article V. Responsibility of Officers**

Section 1: The President shall preside at all meetings of this organization. He shall sign any contracts or documents executed on behalf of the organization. He or she shall perform all duties incident to this office.

Section 2: The Vice President shall perform the duties of the President in case of absence. He or she shall perform other duties as designated by the members.

Section 3: The Secretary shall record the minutes of all proceedings of the organization and shall receive the file proceedings of committees. He or she shall hold all official documents and sign, along with the President, any contracts executed on behalf of the organization. The Secretary shall perform all other duties incident to the office

of Secretary and be responsible for the roll of the members.

Section 4: The Treasurer shall account for all receipts and disbursements of the organization. He or she shall perform all duties incident to the office of Treasurer and present a complete statement of the financial affairs of the organization to the annual meeting.

Section 5: No obligation of expenses shall be incurred and no money shall be appropriated without prior approval of the membership. All checks issued for this organization shall be signed by the Treasurer and the President or other member designated by the officers.

Section 6: The books of the Treasurer may be requested to be presented to the Officers at any time for audit. The books of the Treasurer shall be presented to the membership at the annual meeting.

Section 7: The officers are authorized to solicit and accept contributions or donations as may be needed to develop or carry out the program of activities of this organization.

Section 8: The Officers are authorized to hire an executive coordinator to serve this organization.

#### **Article VI: Committees**

Section 1: The Officers may appoint committees from the direct membership to work on projects which are in the best interest of the organization and its members. The Officers shall determine the number of members on each committee and the function and duties of said committee.

Section 2: The direct membership may direct the Officers to appoint committees to work toward the purposes as outlined in the preamble of this organization.

#### **Article VII: Markets**

Section 1: Market dates and times shall be set by the membership; they currently are:

Hazen	3:00 pm MT	Monday	All Season's Arena
Beulah	3:00 pm MT	Wednesday	South of Cenex
Pick City	3:00 pm MT	Friday	Main Street

Section 2: Market starting times will be strictly enforced. First offense is a verbal warning, second offense is a \$10.00 fine, third offense is a \$50.00 fine. All fines must be paid before selling at the next market.

Section 3: Members must sell only products produced themselves, no members will be allowed to sell products brought in from non-members or shipped in. Selling sub-standard products will not be allowed.

Section 4: Each member will set their own prices but are encouraged to follow this organization's guidelines. There will be no price gouging or product dumping at the market.

#### **Article VIII: Market Standards**

Section 1: Each member is responsible to keep their areas neat and clean. Areas must be cleaned up after each use.

Section 2: No one under the age of 14 will be allowed to sell without adult supervision.

Section 3: Each seller must have an individual membership and pay their own dues and fees; this includes all organizations, charitable or otherwise.

Section 4: Each member must guarantee their products as represented; failure to make good on any product that is sub-standard will be grounds for expulsion from this organization.

Section 5: Each member shall be responsible for their own liability insurance. Sakakawea Farmers' Market will not carry insurance for each individual member.

Section 6: Definition of seller: Any person or group of people offering home produced items for sale.

Section 7: Members may be removed from this organization by the officers if they willingly and knowingly violate the provisions of these by-laws. There will be no refunds of membership dues or fees if any member is expelled for any reason.

#### **Article IX: Amendments**

These by-laws maybe amended by a majority vote of the direct membership at any annual or special meeting provided the contents of the proposed changes are included in the call of the meeting.

#### **Article X:**

These by-laws have been adopted on April 9, 1999 by the members of Sakakawea Farmers' Market.

### **Sample Market Rules**

#### **Town Square Farmers' Market – Vendor Guidelines**

*Updated 3/14/08*

**2008 Season Dates: 15 Saturdays running from June 21<sup>st</sup> to Sept 27<sup>th</sup>, 9:00am to 2:00pm**

The Town Square Farmer's Market (TSFM) provides a local outlet for producers to sell their products. In return for fees paid, vendors are supplied with venue and established clientele, advertising, marketing and promotions. Each vendor must supply their own tables, chairs, tablecloths, signs, money for change and bags.

The following items may be sold at TSFM Market:

- Fresh produce, honey, wood products, herbs, eggs, flowers and other agricultural products
- Baked goods from a certified kitchen (questions about certified kitchens should be directed to the Grand Forks Health Department at 701-787-8100).
- Hand-crafted items
- Prepared foods from a certified kitchen
- Other products and/or services as approved by the Market Steering Committee. If you have an item or product you would like considered, please contact a member of the Market Steering Committee at 218-779-1382 or via e-mail: [tsfarmersmarket@yahoo.com](mailto:tsfarmersmarket@yahoo.com)

#### **GUIDELINES**

1. Items sold are limited to regionally-produced agricultural products and food/crafts manufactured by local vendors. All produce and goods should be of high quality.
2. The Market is held in Grand Forks Town Square (3<sup>rd</sup> Street and DeMers, downtown Grand Forks). **Advertised market hours are Saturdays from 9:00am to 2:00pm but sales may begin as soon as you are ready. Unloading and setup for vendors may begin at 7:00am on Saturdays. We encourage all vendors to be ready for sales by 8:30am as many customers come early.** Vendors will be assigned spaces on a day-by-day basis so please seek out the TSFM Manager upon arrival.
3. **Vending Space will be assigned based on arrival time at the market. The TSFM Manager will not 'hold' or 'guarantee' a space.** Seasonal Vendors must notify the TSFM Manager by 3:00pm Friday if they are not attending the next day's Market. More advance notice is preferred. **If a vendor does not communicate regarding attendance at the market, their 'regular' space may be assigned to another vendor as early as 8:15am.**
4. All displays and signs should be appropriate and in keeping with the spirit of the Market.
5. During the season, vendors may be asked to submit gross sales figures (rounded off to the nearest dollar) to the Market Manager. If a vendor sells in more than one category, a gross receipt slip must be filled out for each category. These figures are confidential; only aggregate figures will be available to the public. Vendors will be notified prior to market session if gross receipts will be collected for that day.
6. Each vendor must maintain a clean and orderly area on all sides of their display (including the area behind their display). Vendor display and storage areas shall not extend beyond the space allowed. **All electrical cords must be taped down.**

7. The Market Manager is responsible to implement Operations Policies during Market Sessions and as determined by the Steering Committee.
8. Each Market day, your space must be cleared of debris when you leave. Any significant amount of debris shall be taken home with the vendor and will not be deposited in the public trash barrels in the Town Square. Under no circumstances are vendors to pile up debris on the ground within Town Square.
9. The Market is run by member volunteers, TSFM Steering Committee and Market Vendors. Vendors are encouraged to help out in the functioning of the Market and have one vote each in determining Market policies that arise for membership consideration.
10. New vendors are subject to a jury prior to selling at TSFM. Eligibility for selling all products and/or services will be determined by the Steering Committee.
11. Vendors are responsible for meeting local, state and federal government requirements regarding their sales activities with TSFM. **TSFM is required to submit vendor information to the North Dakota State Tax Commissioner. For more information regarding ND Sales Tax please visit [www.nd.gov/tax](http://www.nd.gov/tax)**
12. The TSFM may request proof of insurance from vendors; this insurance is each vendor's responsibility.
13. Memberships are non-transferable. Season vendors are not allowed to "sublet" their vending spaces. If you are absent, the Market Manager will reassign your spot.
14. **The TSFM does not guarantee or reserve parking for vendors.** Vehicles are not allowed on the cobblestone in the square. Please be prepared with carts to carry your merchandise. Please treat other vendors with courtesy and respect when loading and unloading.
15. **FOOD TRAILER: If you are a food vendor in a trailer, wagon or other free standing operation:** While an area can be blocked off for food wagons, these spots are neither reserved nor guaranteed. Any food trailer must be approved by the Grand Forks Public Health Department, 701-780-8100.

#### VENDING SPACE FEE SCHEDULE

##### Canopy Area: Available as Season Pass Only

Small canopy (14' x 10')	\$250.00
One Half of Large canopy (approx. 10' x 9')	\$200.00
-This is a shared space with another vendor	

<b>Open Courtyard Area:</b> Non-covered space (average 12' x 10')	
Season Pass	\$175.00
Single Session Pass (One Day)	\$20.00
Three Sessions (Three Days)	\$45.00

**Must Pay in Advance to Receive the 3-Day Rate**

##### Special Youth Vendor rate - \$5 per Market session

Ages 15 and under, open courtyard only

*There is a high demand for canopies with the right of first refusal from previous year's seasonal canopy vendors.  
After each year's initial deadline, open canopies will be assigned according to the date which applications were received.*

*If, during a Market Session a canopy becomes available, it may be utilized by another vendor for a nominal up charge at the discretion of the Market Manager.*

**2008 Season Dates:** 15 Saturdays running from June 21<sup>st</sup> to Sept 27<sup>th</sup>, 9:00am to 2:00pm

#### Sample Vendor Application

Town Square Farmer's Market

### 2008 VENDOR APPLICATION

Town Square Farmer's Market

Please return this application to:

	For office use only:
<u>Dates</u>	<u>Paid</u>

**PO Box 13954, Grand Forks, ND 58208-3954**

Contact Name: \_\_\_\_\_

Business Name (if applicable): \_\_\_\_\_

Address: \_\_\_\_\_

Phone (required): \_\_\_\_\_

*We appreciate additional numbers such as cell phones, alternate numbers, etc.*

Email: \_\_\_\_\_

What products do you plan to bring for sale at the market? *Circle one*

Agricultural                  Food                  Crafts                  Other

If other, please describe: \_\_\_\_\_

*If selling baked goods or preserved items, they must be prepared in a certified kitchen and you must also sign and return the required release form (on back side). The Town Square Farmer's Market is subject to impromptu inspections by the Grand Forks Health Department. Please see Vendor Guidelines for a listing of products that may be sold at the market.*

What type of pass are you purchasing? *Circle one*                  DAILY                  SEASONAL

Daily passes only – What days do you plan on attending (if known):

\_\_\_\_\_

Memberships are non-transferable. Space will be assigned when payment is received.  
2007 Season Pass vendors have right of first refusal on their canopy spaces.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Print Name: \_\_\_\_\_

**2008 Season Dates:** 15 Saturdays running from June 21<sup>st</sup> to Sept 27<sup>th</sup>, 9:00am to 2:00pm

**2008 Rate Information:** Seasonal Canopy \$250.00    Seasonal ½ of Large Canopy (shared) \$200.00

Courtyard Season Pass: \$175.00    Daily Rate: \$20.00 daily or **Pay in Advance**, three days for \$45.00

**No rainout refunds. The Market goes on, rain or shine!**

**Sample Liability Release Form**

**Town Square Farmers' Market  
For prepared/processed food vendors - certified kitchen use form**

I understand that all food prepared or processed for resale in the State of North Dakota at the Town Square Farmer's Market must comply with the State of North Dakota's rules and regulations for such items.

Therefore, all foods must be prepared in a certified and inspected kitchen.

All food prepared or processed in any state other than North Dakota must comply with all federal rules and regulations to include nutrifacts labeling as well as the use of a federally inspected kitchen.

It is the seller's responsibility to ensure compliance with all regulations including on site at the Town Square Farmer's Market.

The Town Square Farmer's Market will not be held liable for any failure of the seller to comply with applicable regulations.

Violation of these guidelines which result in any liability will be grounds for forfeiture of membership and selling privileges until proof of compliance is received.

More information about pertinent rules and regulations can be obtained from the Grand Forks Public Health Department at 151 South 4<sup>th</sup> Street, Suite N301, Grand Forks, ND 58201 (701-787-8100).

A list of Certified Kitchens is available from the Grand Forks Health Department upon request.

Signature: \_\_\_\_\_

For Business: \_\_\_\_\_

Date: \_\_\_\_\_

### **Sample Press Release**

#### **FOR IMMEDIATE RELEASE**

(Contact Name)

(Address)

(City, State, Zip)

(Phone Number)

(Website)

(Email Address)

Calling all fresh produce lovers! The (*farmers' market name*) will begin another season of farmers' markets on (*date*) at (*time/location*). This summer, consumers will be able to enjoy a regular supply of locally grown produce each (*week/month*) by shopping at the (*farmers' market name*).

The president of the (*farmers' market name*), (*name*), says "(*quote*)."

If you would like to receive more information about the (*farmers' market name*) please contact (*name*) at (*phone number*).

###

### **Resources**

***The North Dakota Farmers Market & Growers Association, Inc.***

[www.ndfarmersmarkets.com](http://www.ndfarmersmarkets.com)

***North Dakota State University Extension Service***

<http://www.ag.ndsu.edu/extension/>

Link to information on growing fruits/vegetables; food safety; food preservation and much more!

***United States Department of Agriculture***

Farmers' Market Resources

[www.ams.usda.gov/farmersmarkets/](http://www.ams.usda.gov/farmersmarkets/)

***North American Farmers' Direct Marketing Association***

[www.nafdma.com](http://www.nafdma.com)

***The New Farmers' Market***

***Farm-Fresh Ideas for Producers, Managers & Communities***

New World Publishing, Auburn, Ca.

Vance Corum, Marcie Rosenzweig & Eric Gibson

***How to Organize and Run a Successful Farmers' Market***

Massachusetts Department of Agriculture

[www.state.ma.us/dfa/markets/farmersmarkets/Start\\_a\\_market.htm](http://www.state.ma.us/dfa/markets/farmersmarkets/Start_a_market.htm)

***Minnesota Farmers Market Association***

[www.mfma.org/](http://www.mfma.org/)

***Starting a Seasonal Open-Air Market in Kansas - A Market Organizer's Field Guide***

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

[www.oznet.ksu.edu/library/hort2/S140.pdf](http://www.oznet.ksu.edu/library/hort2/S140.pdf)

***North Dakota Department of Agriculture***

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Bismarck, ND 58505-0020

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Website: [www.agdepartment.com](http://www.agdepartment.com)

E-mail: [ndda@state.nd.us](mailto:ndda@state.nd.us)

Appendix B



[www.ndfarmersmarkets.com](http://www.ndfarmersmarkets.com)

Appendix C

**Feasibility Study  
North Dakota Farmers Market and Growers  
Association**

**By**

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## **North Dakota Farmers' Market Marketplace**

Farmers' Markets have been operating in North Dakota for decades. The North Dakota Farmers' Market and Growers organization was launched in 2004 with North Dakota Department of Agriculture sponsored meetings that were conducted state wide. Farmers' Market information meetings were held in all areas of the state as well as Marketplace for Kids in Grand Forks, Williston, Fargo/Moorhead, Bismarck, and Jamestown.

In the course of this study, three surveys were taken of its membership. The first survey was sent to 52 Farmers' Markets (50% return response). A second survey was sent to 12 Farmers' Markets (75% return response) that indicated on the first survey that they were available to respond to additional questions. The third survey was sent to 65 fruit and vegetable growers (49% return response). The growers are also referred to as farmers' market vendors, but for purposes of uniformity, this study will use the term "Growers."

Several survey Farmers' Market respondents listed continual market operation for decades. The Valley City (1879), Fargo (1979), Dickinson (1981), and West Fargo (1985) Farmers' Markets have been operating successfully over the years. Over the last four years, efforts been made by the North Dakota Department of Agriculture to formally organize a state-wide Farmers' Market organization.

The North Dakota Department of Agriculture has been successful in recruiting members for the North Dakota Farmers Market and Growers Association. The Association has grown to over 118 listings on its web site. Fifty two North Dakota Farmers' Markets were identified for contact in an initial survey during the course of this study. Sixty five Growers were also identified for contact in another survey for the study. Many of the Farmers Market operators are also listed as Growers. Farmers Markets that returned surveys are operating at more than 30 cities statewide during the summer and fall months.

Farmers' Markets that returned surveys were located at Carpio, Elgin, Stanley, Carrington, Pembina, Valley City, Grand Forks, Drayton, Churches Ferry, Rugby, Devils Lake, Mandan, West Fargo (two locations), Bismarck, Bowbells, Bismarck, Velva, Dickinson, Burke County, Fargo (two locations), Mohall, Minot, Langdon, Enderlin, and LaMoure. The North Prairie Farmers Markets group is the most organized Farmers' Market organization within North Dakota. The group operates markets in North Central North Dakota in eight cities that include Bowbells, Carpio, Granville, Kenmare, Minot, Powers Lake, Stanley, and Velva.

## **Farmers' Markets Nationwide**

State Farmers Market organizations researched for this study have been organized either under a State agency, such as a State Department of Agriculture (Missouri Department of Agriculture for example), a State University System (Michigan State University for example), or as a non-profit trade organization (Internal Revenue Code Section 501 (c) (6) trade association or 501 (c) (3) charitable organization.

Other intra-state organizations, such as the Portland Farmers Market Association (Oregon) and the Pacific Coast Farmers Market Association (Bay Area California) are organized as non-profit trade organizations. State and Intra-state Farmers Market Associations provide services for their members whether they are Farmers Markets or Growers. Services primarily are limited to providing information on establishing, operating, and controlling Farmers Market activities.

Many Farmers Market Associations require modest annual dues that are normally less than \$100 per year. Annual dues are not sufficient to provide adequate funding for Associations. Farmers Market Associations derive most of their annual revenue from Federal, State or County funding that is dedicated toward promoting safe, locally

grown food and locally produced crafts.

Some Farmers Market Associations that have a regulatory Farmers Market territory monopoly due to State or County legislation obtain revenue by assessing a higher fixed stall fee or a stall fee that is a percentage of sales (2% of sales is common) from their vendors. Some Farmers Markets have leverage over their vendors by securing ideal Farmers Market locations with abundant customer traffic. With either an exclusive territory or a lock on an ideal market location, a Farmers Market can levy higher stall fees that provide steady revenue.

The State of North Carolina owns five Farmers’ Markets that are operated by the North Carolina Department of Agriculture. Their Raleigh Farmers’ Market is operated 7 days a week year around. The State of South Carolina owns and manages three regional state Farmers’ Markets in South Carolina which are operated from vendor fees. They are located in Columbia, Greenville, and Florence.

The Florida Department of Agriculture has partnered with community development agencies to develop community Farmers’ Markets. The city of Sanford and the Florida Department of Agriculture and Consumer Services have worked together to add coolers, fixtures, processing equipment and storage facilities to their Farmers’ Market, which is the oldest state-owned farmers’ market in the United States. The State of Virginia owns Farmers’ Markets and has respective counties as operating entities. The State of Georgia also owns and operates Farmers’ Markets.

## North Dakota Fruit and Vegetable Growers

The study identified 65 North Dakota Fruit and Vegetable Growers who supply vendors and operate as vendors in North Dakota Farmers’ Markets. Growers were sent a survey where thirty two respondents (49%) returned the surveys. This study describes the interest Growers have in owning/operating greenhouses and high tunnels. This study also addresses Growers’ interest in purchasing group liability or health insurance from the Association. This study also identified the produce that Growers are most interested in purchasing as transplants and most interested in growing in high tunnels.

## Farmers’ Markets Selling Seasons

Farmers’ Markets in North Dakota generally have an abbreviated time for marketing due to the short growing season in northern latitudes. Table 3 and Figure 3 show the number of markets open at various selling season periods during the summer and fall.

<u>Marketing Season</u>	<u>Number of Markets</u>	<u>Marketing Season</u>	<u>Number of Markets</u>
July – September	7 Markets	August – October	2 Markets
July – October	6 Markets	June – October	1 Market
June – September	3 Markets	July – August	1 Market
August – September	2 Markets	July – August	1 Market

Table 1: Market Seasons by Responding Farmers’ Markets



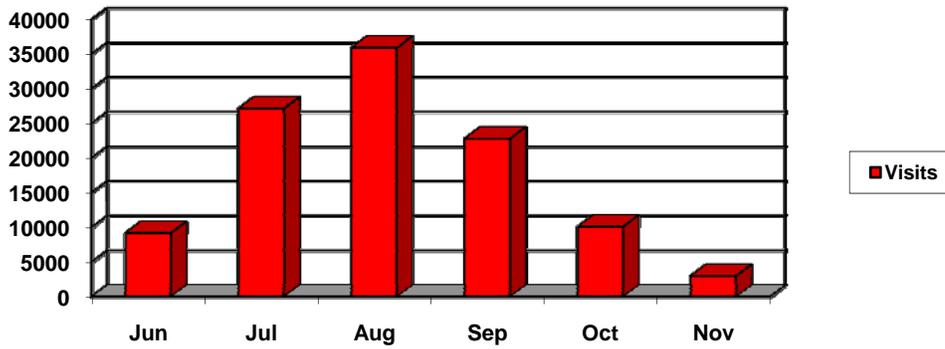


Figure 2: Number of Customer Visits per Month for 26 Reporting Markets

Many of the customers counted as frequenting the 26 reporting Farmers Markets are repeat customers. However, from a marketing standpoint, the data refers to 108,194 opportunities to deliver a message from the Farmers Market, its Vendors, or its Sponsors. Remember that 26 respondents are only 50% of the number of Farmers Markets in North Dakota. Conservatively, the 26 Farmers Markets that did not respond to the survey should add tens of thousands more customer visits to the 108,194 identified through the survey. It is estimated that North Dakota Farmers' Markets attract more than 150,000 visits per summer.

Table 5 and Figure 5 show that thirty five percent (35%) of Growers participate in North Dakota Farmers' Markets during the month of August. The months of July, August, and September account for eighty six percent (86%) of the yearly Grower activity. The survey to Growers produced some interesting results concerning the interest in extending their growing season with greenhouses or high tunnels.

May – 0  
 June – 44  
 July – 171  
 August – 261  
 September – 217  
 October – 61

Note: Some vendors may attend more than one Farmers Market so number of vendors is less than indicated by the sum shown.

Table 3: Number of Vendors at North Dakota Farmers Markets per Month

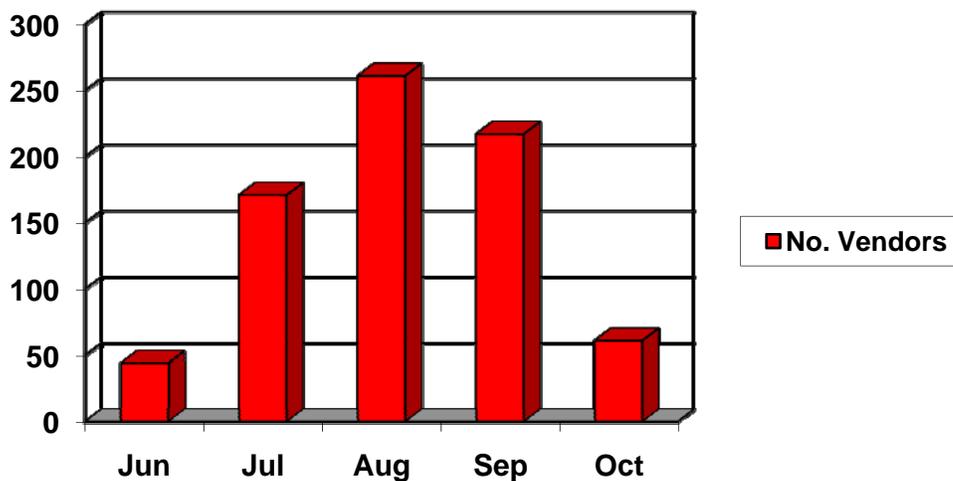


Figure 3: Number of Vendors in North Dakota Farmers' Markets by Month

## North Dakota Green House Operations

The USDA Economic Research Service reported in 2004 that Nursery and Greenhouse operations produced over \$10 million in revenue, which accounted for 0.2% of North Dakota's agricultural commodities output and accounted for 0.06% of total U.S. Nursery and Greenhouse commodities output. North Dakota was ranked 47 out of 49 reporting states in output and exceeded Nevada and Wyoming.

The North Dakota Nursery and Greenhouse Association membership is generally engaged in the production of vegetable and ornamental plant transplants for home and garden use. A minor amount of greenhouse production in North Dakota is sold to Farmers' Market Growers. An objective of this study was to find out the interest in Farmers' Market Growers purchasing transplants from greenhouse operators and owning/operating greenhouses and high tunnels.

## Products and Services to Increase Fruit and Vegetable Production

### *Transplants, Greenhouses, and High Tunnels*

Operators of Farmers' Markets and their Growers are always interested in generating increased revenue each year. An obvious way of increasing revenue is having more products available over a longer time frame each year. In order to accomplish this, Growers must have the capability to begin their growing season earlier and extend their growing season later each year. Simply put, the extension of the growing season requires the use of greenhouses or high tunnels to provide an extended growing environment for Growers' crops.

The Grower survey showed a significant level of interest (~50% of respondents) by responding Growers in extending their growing season through the purchase of transplants from greenhouse operators, owning/operating greenhouses, and owning/operating high tunnels. Interestingly, Growers revealed their tendency toward independence by not being interested in owning/operating high tunnels with other Growers.

Growers showed a marked level of interest in purchasing transplantable plants to extend their growing season. Many are already engaged in growing transplants in their own greenhouses, however, fifty two percent (52%) of Grower survey respondents indicated (Figure 6) that they are interested or strongly interested in purchasing transplants to extend their growing season.

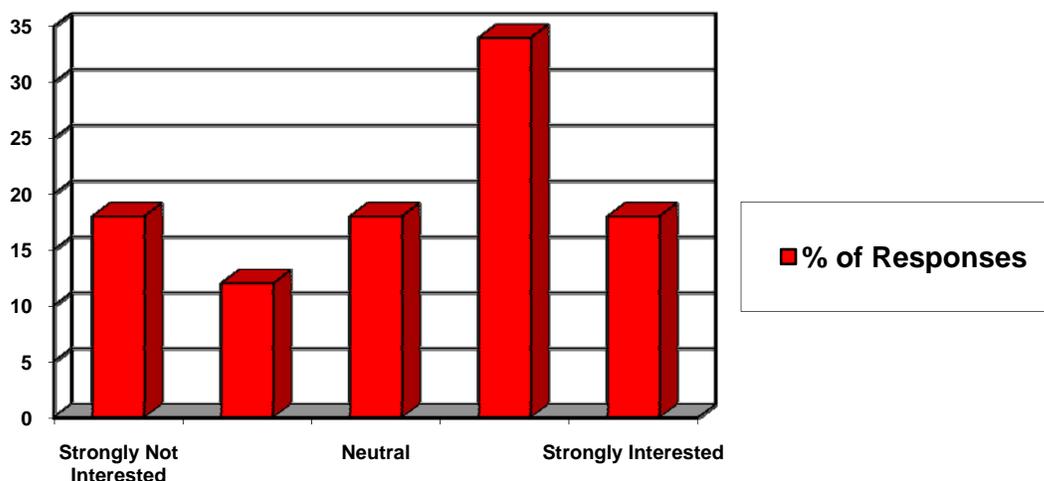


Figure 4: % of Growers Interest Level in Purchasing Transplants

Interestingly enough, fifty two percent (52%) of respondents to the Grower survey indicated that they are interested or strongly interested in owning/operating greenhouses (Figure 7). It stands to reason that the question of interest in transplants should mirror the interest in owning/operating greenhouses. It is evident that a slight majority of North Dakota Growers are interested in owning/operating greenhouses to obtain transplants.

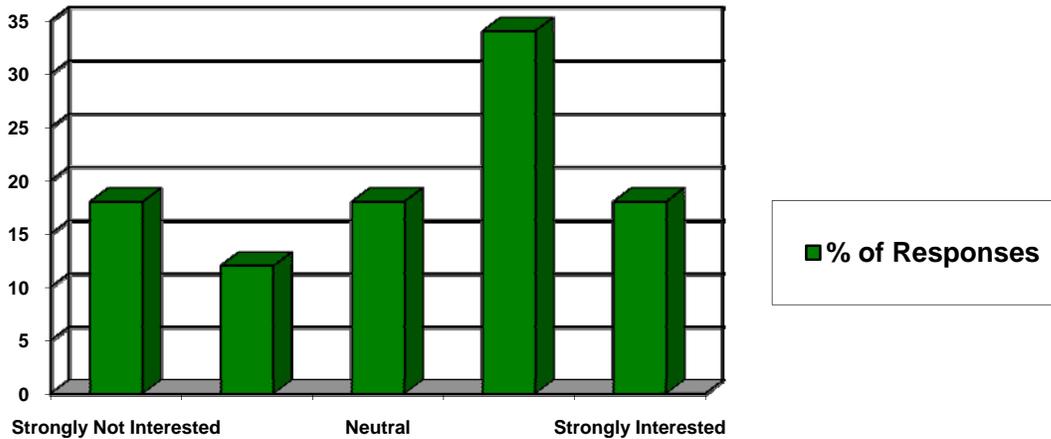


Figure 5: % of Growers Interest Level in Owning/Operating Greenhouses

The Growers responding to their survey indicated that forty nine percent (49%) were also interested or strongly interested in owning/operating high tunnels (Figure 8). Analysis of the data showed that those interested in owning/operating greenhouses were also interested or very interested in owning/operating high tunnels. About one half of Growers surveyed were interested or very interested in owning/operating greenhouses and high tunnels along with obtaining transplants.

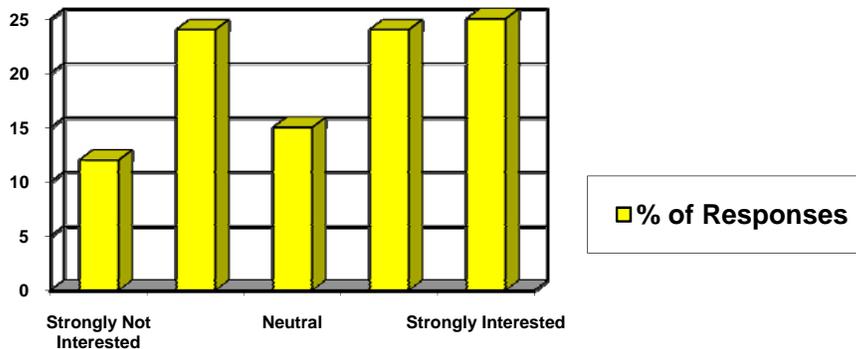


Figure 6: % of Growers Interest Level in Owning/Operating High Tunnels

A clue to the individuality of North Dakota Growers lies in the survey response to the level of interest in owning/operating high tunnels with others. (Figure 9) The survey respondents were decidedly against that concept in the most part. Only twenty four percent (24%) of respondents were interested or strongly interested in owning/operating high tunnels with others and 52% were not interested or strongly not interested. The responses would lead toward limiting the organizational role of the North Dakota Farmers’ Market and Growers Association to that of a non-profit entity. Establishing a cooperative or a for-profit Association may not appeal to the majority of North Dakota Growers.

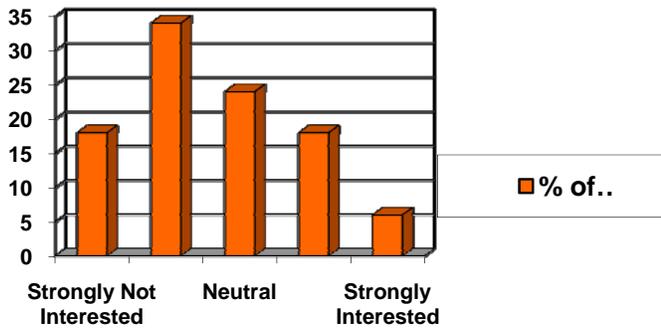


Figure 7: % of Growers Interest Level in Owning/Operating High Tunnels with Others

## Demand by Growers for Early Fruits and Vegetables

Survey respondents indicated that they view tomatoes, peppers, and onions as viable transplants to extend their selling season as shown in Figure 10. Growers surveyed indicated that they would grow a somewhat different mix of vegetables with high tunnels as shown in Figure 11. Most Grower respondents were conscientious about indicating demand % for transplants and high tunnels even if they were not interested or strongly not interested in either.

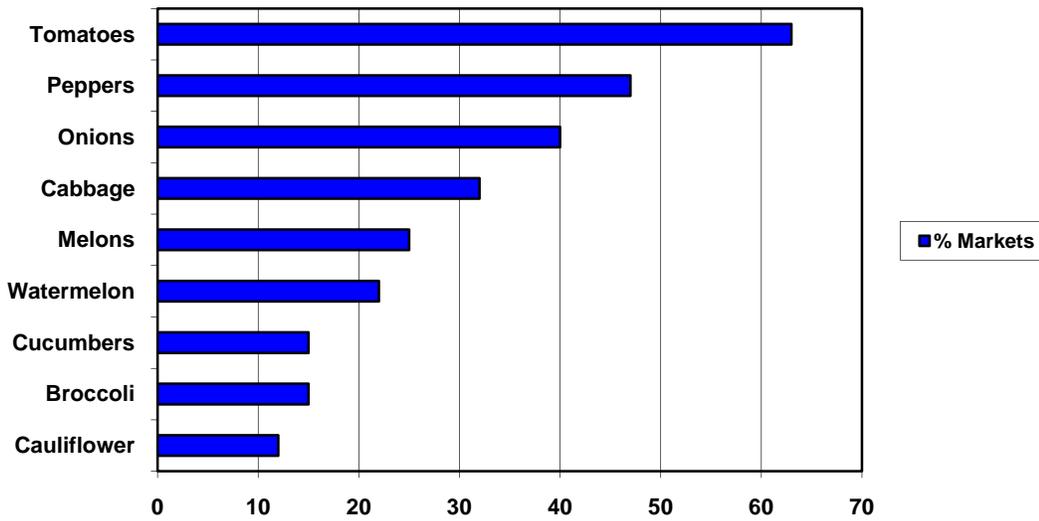


Figure 18: Demand % for Transplant Vegetables

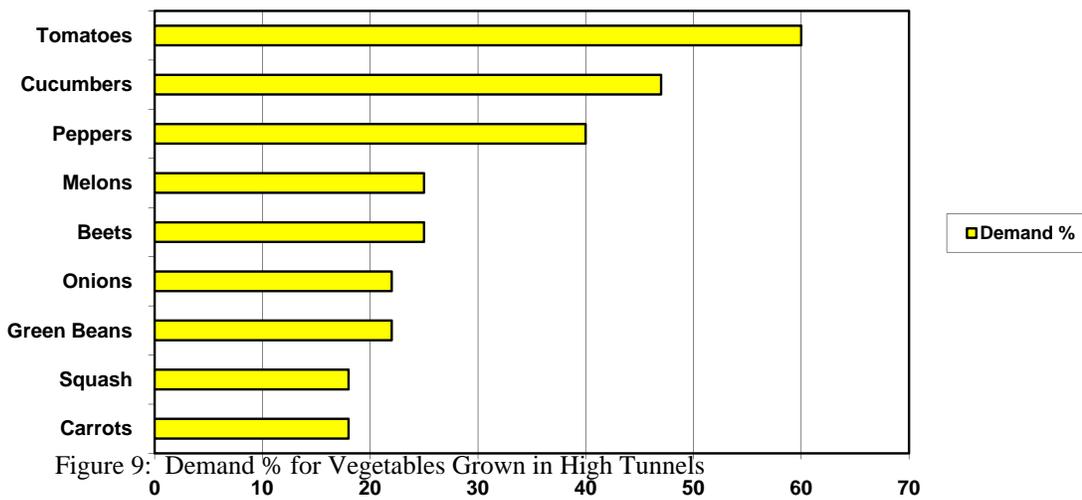


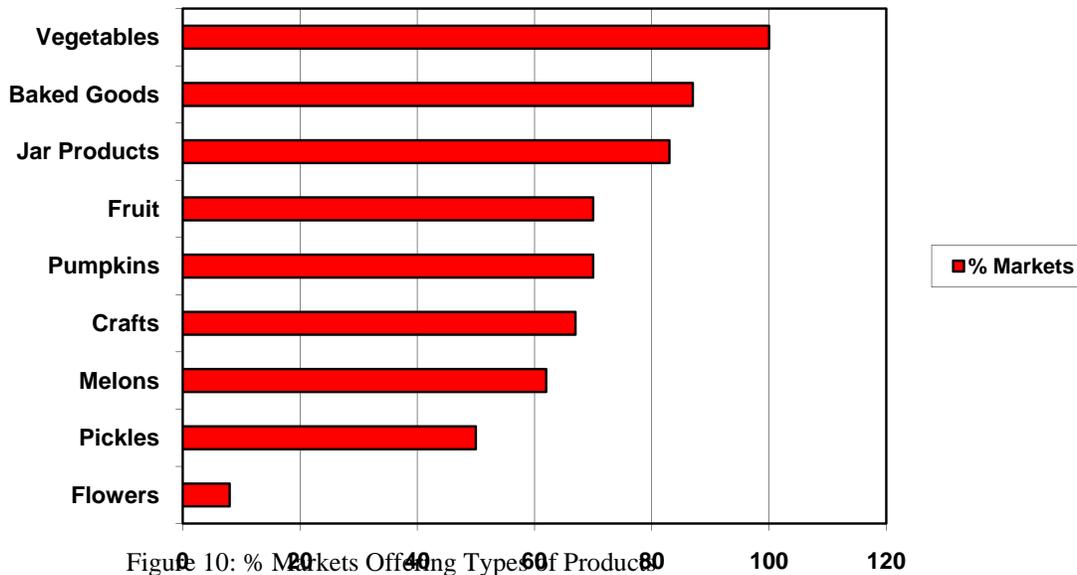
Figure 9: Demand % for Vegetables Grown in High Tunnels

## Supply of Locally Grown Fruits and Vegetables in North Dakota

Table 6 show the number of markets offering Farmers' Market product categories. Figure 12 shows the percent of markets that carry specific product categories.

Vegetables	26 Markets
Berries	17 Markets
Apples	16 Markets
Melons	15 Markets
Pumpkins	17 Markets
Crafts	16 Markets
Jar Products	20 Markets
Bread	19 Markets
Baked Goods	21 Markets
Pickles	12 Markets
Cut Flowers	2 Markets
Fine Art	1 Market
Jewelry	1 Market

Table 4: Number of Markets Offering Product Categories



## Demand for Locally Grown Fruits and Vegetables in North Dakota

Survey results showed that Farmers' Markets have increased in number in North Dakota in the last four years. Table 1 and Figure 1 show the number of Farmers' Markets started in North Dakota per year.

### *ND Farmers' Markets - Year Started*

1979	– 2 Markets
1981	– 1 Market
1993	– 1 Market
1995	– 2 Markets
2000	– 1 Market

2002 – 1 Market  
 2003 – 1 Market  
 2004 – 2 Markets  
 2005 – 5 Markets  
 2006 – 2 Markets  
 2007 – 6 Markets  
 Not Reporting – 2 Markets

Table 5: Number of Farmers’ Markets Started in Identified Years

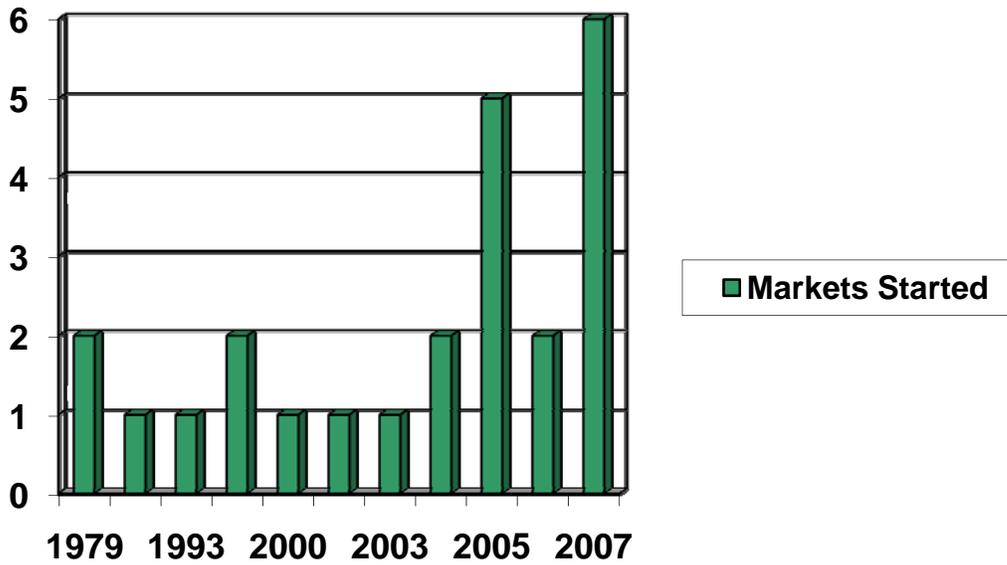


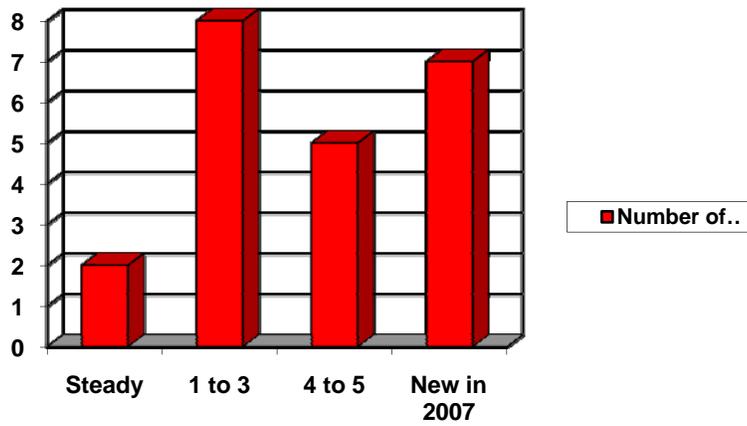
Figure 11: Number of Farmers’ Markets Started per Year

Respondents of the initial Farmers’ Market Survey showed that the development of Farmers’ Markets has accelerated since 2004. It is interesting that 57% of the Farmers’ Markets that responded to the survey started their operation after 2003. Obviously, the learning curve for many Farmers’ Market operators has been steep in order to successfully develop their markets in a short period of time. The North Dakota Department of Agriculture has been instrumental in providing guidance and information for all North Dakota Farmers’ Markets.

Not only is the number of North Dakota Farmers’ Markets growing, but Farmers’ Markets are reporting significant growth by adding vendors each year as reported in Table 2 and Figure 2.

One to Three Vendors Added per Year -	8 Markets
Four to Five Vendors Added per Year -	5 Markets
Started in 2007 -	7 Markets
Steady Number of Vendors per Year -	2 Markets
Growth Not Reported -	1 Market
Ceased Operation -	1 Market

Table 6: Annual Growth by Adding Vendors as Reported by Farmers’ Markets



**Number of Vendors Added Annually**

Figure 12: Number of Markets Reporting Adding Vendors Each Year

The most popular days of operation for Farmers' Markets are Saturday and Thursday. Table 7 and Figure 13 show the number of Farmers' Markets operating during specific days of the week.

Day(s)	Number of Markets
Saturday	5
Thursday	5
Friday	2
Wednesday	2
Tuesday	2
Monday	1
Sunday	1
Monday & Thursday	1
Wednesday & Saturday	1
Tuesday & Saturday	1
Tuesday & Friday	1
Monday & Wednesday	1
Monday, Wednesday & Saturday	1
Tuesday, Thursday & Saturday	1
7 Days per Week	1

Table 7: Days of Operation for Farmers' Markets

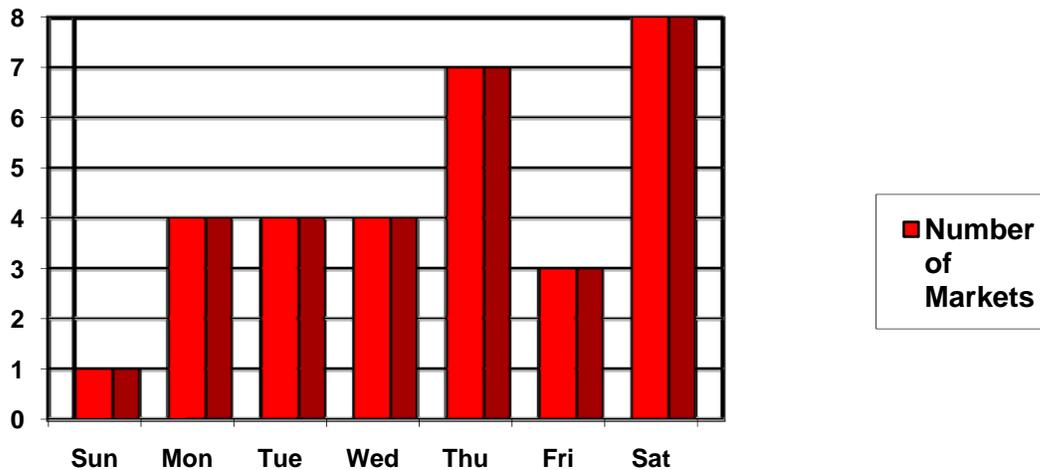


Figure 13: Farmers' Markets Day of the Week Preferences

North Dakota Farmers' Markets are very comfortable in using a wide variety of marketing methodologies to communicate to consumers. Table 8 and Figure 14 show that most Farmers' Markets use several types of advertising and marketing

<u>Marketing &amp; Advertising</u>	<u>No. Markets Using</u>
Road Signs	19 Markets
Bill Boards	8 Markets
Newspaper Ads	23 Markets
Posters	15 Markets
Web Sites	10 Markets
Brochures	8 Markets
Flyers	9 Markets
Radio Ads	12 Markets
TV Ads (Cable)	1 Market
Word of Mouth	23 Markets
E-Mail	1 Market
Banners	1 Market
Calendars	1 Market

Table 8: Utilization of Marketing and Advertising Methods

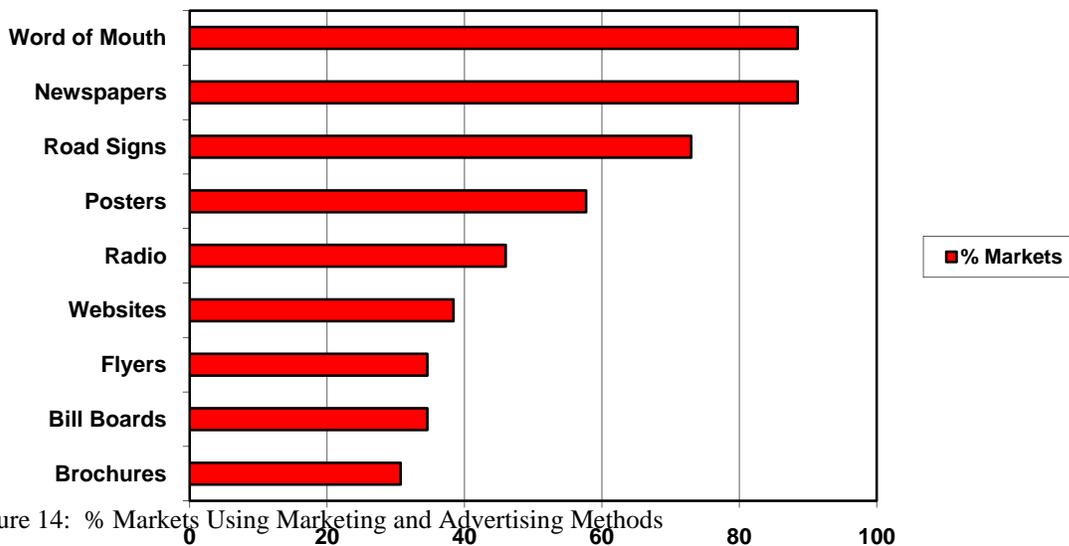


Figure 14: % Markets Using Marketing and Advertising Methods

## Recommended New Products and Services for Farmers' Markets and Growers

### *Insurance Coverage*

As reported earlier in this report, many state-wide and regional Farmers' Market Associations provide group liability insurance services. In some states, such as Washington, liability insurance is required for both Farmers' Markets and vendors at Farmers' Markets. Considering that Farmers' Markets and their Growers live in a litigious society, adequate liability insurance is recommended.

Washington State Farmers Market Association offers liability insurance coverage to its member markets and vendors through a group policy program managed by our insurance broker. Liability insurance, generally in the amount of \$1 million, is required by almost all property owners (including cities) where public events take place. The WSFMA program covers each participating member market site with \$5 million aggregate limit, \$1 million per occurrence. For the market year 2007, new markets pay \$400 for one year of coverage. Markets that purchased insurance through WSFMA in 2006 will pay \$375. The annual renewal date is April 1st.

The North Dakota Farmers' Market and Growers Association could be the platform for an insurance carrier to provide quality group liability insurance. The primary reason for providing this service is to ensure that Association members have quality insurance that will protect their company and personal assets from legal issues that may occur in the operation of their businesses.

Two carriers have been contacted to obtain group liability insurance. The two firms shown below will be submitting quotes to Ms. Stephanie Sinner, North Dakota Department of Agriculture.

Shane R. Larck  
 Ihry Insurance  
 303 3<sup>RD</sup> St.  
 Page, ND  
 Phone: 888-781-7055  
 Fax: 701-668-3200

Brian Wilbur  
 Pacific Insurance Partners  
 2328 Pacific Ave, ,  
 Forest Grove, Oregon 97116  
 Phone: 503-357-7111  
 Fax: 503-359-0340  
 Email: [brian@PacificInsPartners.com](mailto:brian@PacificInsPartners.com)  
 Website: [www.PacificInsPartners.com](http://www.PacificInsPartners.com)

To determine the demand for liability insurance, Farmers' Market and Grower surveys included questions on the need for group liability insurance. Table 9 and Figure 15 show the number and percentage respectively of responding Farmers' Markets in North Dakota that carry liability insurance. Only one third of responding Farmers' Markets reported carrying liability insurance.

Markets with Liability Insurance	8 Markets
Markets without Liability Insurance	15 Markets
Markets Not Reporting	1 Market

Table 9: Number of Reporting Farmers' Markets that Carry Liability Insurance

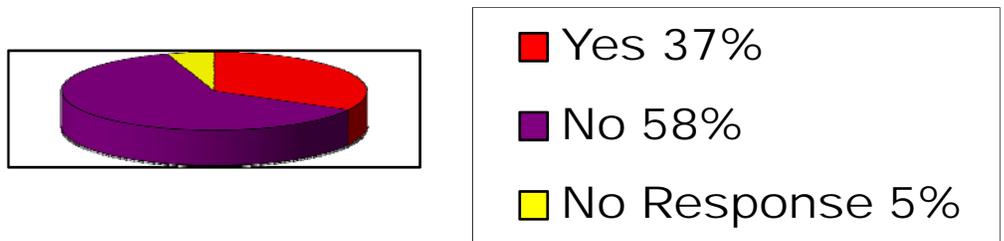


Figure 15: % of Reporting Farmers' Markets with Liability Insurance

Many of the Farmers' Markets that carry liability insurance also require their vendors to carry liability insurance as well. Table 10 and Figure 16 show the number and percentage of Farmers' Markets that require their vendors to insure themselves. Only 37% of responding Farmers' Markets require their vendors to carry liability insurance.

Markets Requiring Vendors carry Liability Insurance	9 Markets
Markets Not Requiring Vendors carry Liability Insurance	14 Markets
Markets Not Reporting	1 Market

Table 10: Number of Reporting Farmers' Markets that Require their Vendors to Carry Liability Insurance

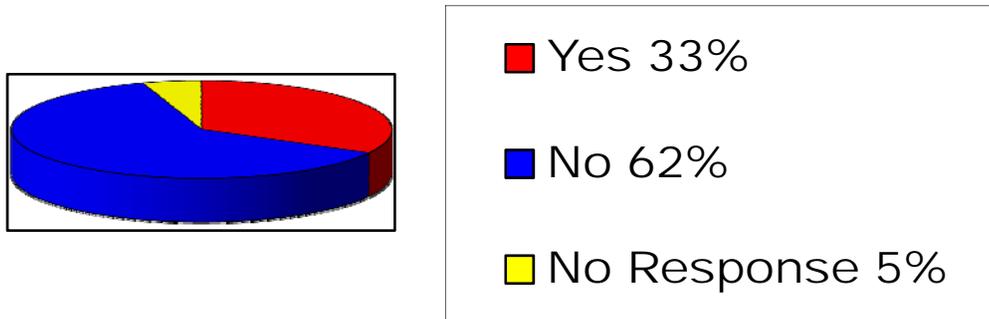


Figure 16: % of Reporting Farmers' Markets that Require their Vendors to Carry Liability Insurance

In a follow up survey to North Dakota Farmers' Markets, sixty seven percent (67%) of the nine respondents stated that they would be interested in purchasing North Dakota Farmers' Market and Growers Association sponsored liability insurance if the policy provided cost benefits compared to non-group policies. Conversely, only thirty three percent (33%) of the nine follow up respondent Farmers' Markets indicated that they would be interested in group health insurance.

Only thirty eight percent (38%) of Farmers' Markets were willing to be contacted with follow up questions as shown in Table 16 and Figure 22. Of the ten Farmers' Markets contacted with a follow up survey, nine (90%) responded. The follow up survey indicated that fifty five percent (55%) of follow up survey respondents were willing to feature sponsor signage and promotional materials. sixty seven percent (67%) of the nine respondents stated that they would be interested in purchasing North Dakota Farmers' Market and Growers Association sponsored liability insurance if the policy provided cost benefits compared to non-group policies. Conversely, only thirty three percent (33%) of the nine follow up respondent Farmers' Markets indicated that they would be interested in group health insurance.

Yes	10 Markets
No	16 Markets

Table 11: Number of Farmers Markets Willing to be Contacted for Follow Up Questions

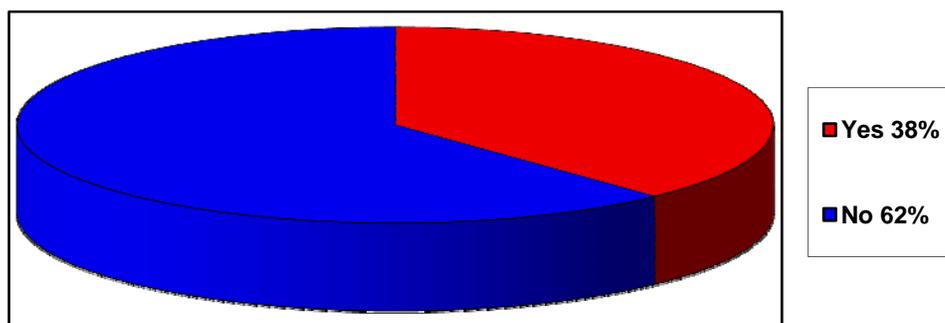


Figure 17: % of Farmers Markets Willing to be Contacted for Follow Up Questions

In addition to identifying how many Farmers' Market's need to carry liability insurance, the Grower survey sought to identify how many Growers would be interested in purchasing group liability insurance. Table 11 and Figure 17 show the number and percentage of Farmers' Markets that require their vendors to insure themselves. Fully 60% of responding Growers would be interested in purchasing liability insurance, which mirrors the interest of Farmers' Markets in purchasing liability insurance.

Growers Interested in Liability Insurance	19 Markets
Growers Not Interested in Liability Insurance	12 Markets
Markets Not Reporting	1 Market

Table 12: Number of Reporting Growers that are Interested in Purchasing Group Liability Insurance

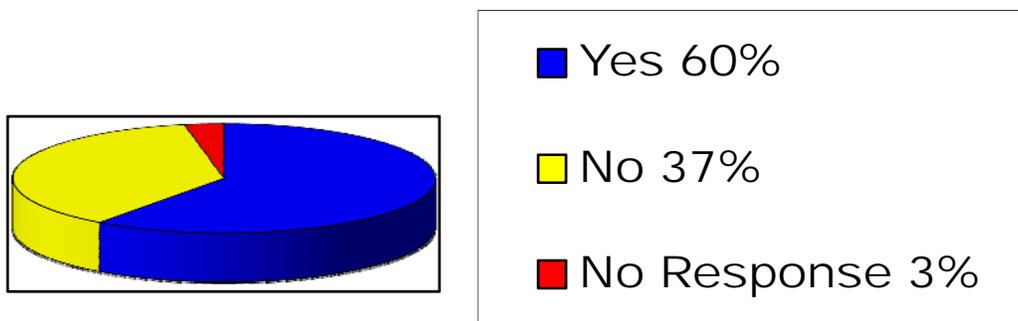


Figure 18: % of Reporting Growers Interested in Purchasing Group Liability Insurance

Similar to the follow up Farmers' Markets responses, only about one third (32%) of Growers had an interest in purchasing group health insurance as shown in Table 12 and Figure 18.

Growers Interested in Health Insurance	10 Markets
Growers Not Interested in Health Insurance	21 Markets
Markets Not Reporting	1 Market

Table 14: Number of Reporting Growers that are interested in Purchasing Group Health Insurance

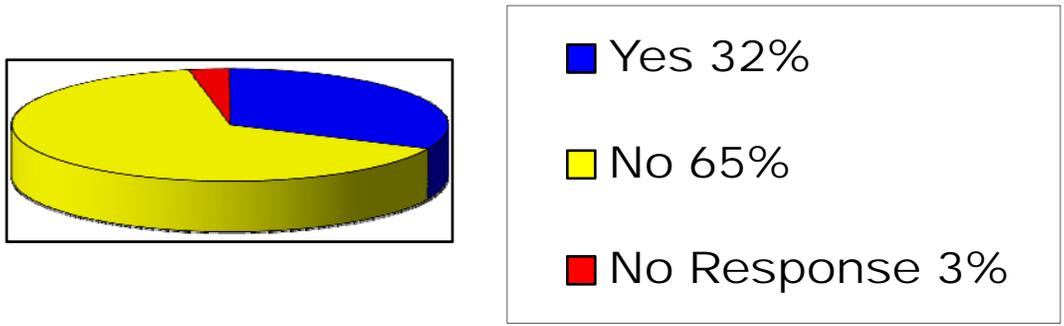


Figure 20: % of Reporting Growers Interested in Purchasing Group Health Insurance

### *Sponsorship Income*

Associations often rely upon sponsorships for a significant portion of annual income, especially if they are operated as a non-profit organization. It is recommended that the North Dakota Farmers' Market and Growers Association be organized as a 501 C3 or a 501 C6 non-profit organization due to initial capitalization constraints and the nature of the Association's mission.

In order to determine the willingness of the Association membership to engage in soliciting and featuring sponsors at Farmers' Markets, the Farmers' Market survey asked a series of sponsorship questions. The percentage of Farmers' Markets that had sponsorships in 2007 (Figure 19) was at forty percent (40%). Of the ten out of twenty five reporting Farmers' Markets (Table 13), one reported a donated lot with liability insurance, one reported receiving a small amount of funds, one reported receiving services from their local Extension Office, three reported receiving financial assistance from the Association, one reported receiving donated billboard space, and three reported receiving money, products and services donations. Overall, sponsorships and donations were appreciated by the Farmers' Markets but were a small part of each Farmers' Market's operations

Money	4 Markets
Services	3 Markets
Products	0 Markets
Money, Services, & Products	3 Markets
None	15 Markets

Table 15: Number of Farmers' Markets Reporting Sponsorships

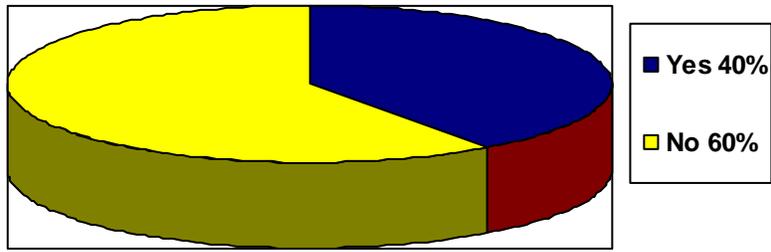


Figure 21: % of Farmers' Markets Respondents that have Sponsorships

The number of Farmers' Markets that provide advertising space for sponsors was limited to six Markets (23%) as shown in Table 14 and Figure 20.

Yes	6 Markets
-----	-----------

No	19 Markets
No Report	1 Market

Table 16: Number of Farmers' Markets Providing Advertising Space for Sponsors

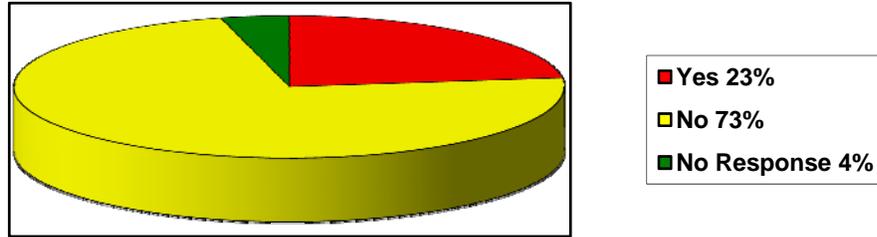


Figure 22: % of Farmers' Markets Providing Advertising Space for Sponsors

The Farmers' Market survey indicated that a majority of Farmers' Markets were willing to explore providing Advertising Opportunities for Sponsors. Table 15 and Figure 21 show that fifty three percent (54%) responded with yes and eleven percent (11%) responded with maybe.

Yes	14 Markets
Maybe	3 Markets
No	8 Markets
No Response	1 Market

Table 17: Number of Farmers' Markets Willing to Explore Providing Advertising Opportunities for Sponsors

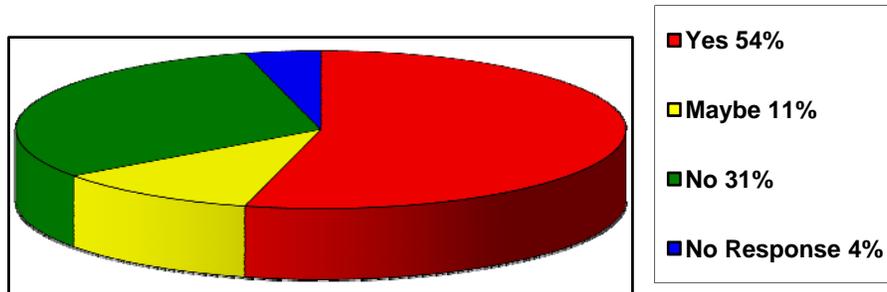


Figure 23: % of Farmers' Markets Willing to Explore Providing Advertising Opportunities for Sponsors

Sponsors that may have an interest in funding a non-profit North Dakota Farmers' Market and Growers Association logically would have common objectives as the Association. Those organizations that are interested in the benefits of consuming local produce include health oriented foundations, energy suppliers, insurance companies, health care providers, State government agencies, and horticultural supplies providers. In North Dakota, these companies could include the following organizations:

Dakota Medical Foundation  
 4152 30th Avenue South, Ste 102  
 Fargo, ND 58104-8403  
 Contact: J. Patrick Traynor Phone: 701-271-0263

North Dakota Association of Rural Electric Cooperatives  
 3201 Nygren Drive NW  
 Mandan, ND 58554

Contact: Dennis Hill Phone: 701-667-6413

Blue Cross - Blue Shield, Noridian Mutual Insurance Co.  
4510 13th Avenue SW  
Fargo ND 58121-0001  
Contact: Denise Kolpack Phone: 701-282-1485

Farmers Union Insurance Company  
1415 12th Avenue SE  
Jamestown, ND 58401  
Contact: Gary Geiszeler Phone: 701-252-2702

North Dakota Tourism Department  
Century Center  
1600 E. Century Ave. Suite 2 PO Box 2057  
Bismarck, N.D. 58502-2057  
Contact: Heather LeMoine Phone: 701-328-2525

North Dakota Department of Health  
600 East Boulevard Avenue  
Bismarck, N.D. 58505-0200  
Contact: Melissa Olson Phone: 701-328-2372

Agassiz Seed and Supply  
445 7th St. NW  
West Fargo, North Dakota 58078  
Contact: Kim Alberty Phone: 701-282-8118

Table 18: Potential North Dakota Farmers' Market Sponsors

## ***Grant Income***

The North Dakota Farmers' Market and Growers Association should continue to apply for Federal and State grants to continue communicating the benefits of locally grown produce for health. The North Dakota Department of Agriculture has successfully obtained grants from the United States Department of Agriculture. The Association should continue to work with the North Dakota Department of Agriculture to obtain Federal USDA grant funds.

The following notice was published on February 7, 2008 in the Federal Register:

The Agricultural Marketing Service (AMS) Farmers Market Promotion Program (FMPP) announces funding of approximately \$1 million in competitive grant funds for fiscal year (FY) 2008 to increase domestic consumption of agricultural commodities by expanding direct producer-to-consumer market opportunities. Examples of direct producer-to-consumer market opportunities include new farmers' markets, roadside stands, community supported agriculture programs, and other direct producer-to-consumer infrastructures. AMS hereby requests proposals from eligible entities from the following categories: (1) Agricultural cooperatives, (2) local governments, (3) nonprofit corporations, (4) public benefit corporations, (5) economic development corporations, (6) regional farmers' market authorities, and (7) tribal governments. The maximum award per grant is \$75,000. No matching funds are required. AMS strongly recommends that each applicant visit the AMS Web site at <http://www.ams.usda.gov/FMPP> to review a copy of the FMPP Guidelines and application package preparation information to assist in preparing the proposal narrative and application package. Applications should be received at the address below and must be postmarked not later than March 24, 2008.

The North Dakota Farmers' Market and Growers Association has considered obtaining USDA, Women, Infants and Children (WIC), Senior Farmers' Market Nutrition Program (SFMNP) approval. The WIC program provides supplemental foods, health care referrals and nutrition education at no cost to low-income pregnant and post-partum women and to infants and children up to 5 years of age who are found to be at nutritional risk. The SFMNP provides coupons to eligible senior citizens that for purchasing produce from certified farmers that are participating in the program.

Eligible recipients in the two programs are issued coupons that can be used to buy fresh, unprepared fruits, vegetables and herbs from farmers or farmers' markets that have been approved to accept coupons. The North Dakota Department of Agriculture would be responsible for authorizing individual farmers and farmers' markets. Only farmers and/or farmers' markets authorized by the Department of Agriculture may accept and redeem coupons. Individuals, who exclusively sell produce grown by someone else, such as wholesale distributors, cannot be authorized to participate.

## ***Community Supported Agriculture***

CSA Community Supported Agriculture (CSA) is gaining momentum in areas of the country with mature Farmers' Markets, fueled by an increasing demand for local food and a desire to reconnect with nature and the farmers who grow the crops. CSA is a partnership between Farmers and their consumers. CSA allows Farmers to share farming's risk and rewards with their consumers. CSA involves a community of consumers who pledge to financial support a farm.

At the beginning of each growing season, CSA members pay a fee to cover the cost of the farm's operations and the farmer's salary. In return, each member receives a weekly share of the farm's produce, which can be fresh vegetables and herbs, fruit, honey, eggs, and meat. For farmers, CSA offers a fair, steady source of income and a method of sustaining the small family farm. Consumers get fresh, nutritious great-tasting produce grown in a sustainable manner a local farmer they know and trust.

CSA agriculture is not for every Grower, however, it could be of benefit to those Growers that have access and delivery means to larger metro markets. Weekly delivery of produce would require either a delivery route to CSA member homes or a common delivery point where CSA members would pick up their weekly produce. In any case, CSA Growers nearer large population centers have logistic advantages in marketing and produce delivery.

## **Recommendation for a Business Entity Structure**

A 501(c)(3) public charity is able to attract tax-deductible charitable contributions from individuals and corporations and grants from private foundations. A donor does not obtain a charitable contribution deduction for a gift to a 501(c)(6) trade association and as a practical matter private foundations will not make grants to them.

The primary reason for forming a 501(c)3 is simple – it is a common requisite to receiving government and foundation grants; and individuals who give to a 501(c)3 charity may receive a personal tax deduction for their donation. In addition, there are other benefits such as exclusion from property and paying sales tax (not from collecting sales tax), and discounted postage rates.

A trade association is not limited in the amount of lobbying it may do in pursuing its members' interests, while a charity may lobby only so long as it is not a substantial portion of its activities. As a matter of governance, the IRS likes a (c)(6) trade association to be a membership organization, while a (c)(3) charity can be governed by a self-perpetuating Board.

### **501(c)(3) Privileges**

- Exemption from Federal Income Tax
- Exemption from F.U.T.A.
- Tax Deductibility for Donors
- Eligible for Government & Foundation Grants
- Eligible for Bulk Mailing Permit
- Some B & O and Property Tax Exemptions
- Gambling Permits
- Credibility

### **501(c)(3) Responsibilities**

- Keep Adequate Records
- File Required Returns
- Provide Donor Substantiation
- Obey Disclosure Laws
- Generate Public Support
- Avoid "Excess Benefit"
- Shun Political Activity
- Limit Legislative Activity
- Limit Unrelated Business Activity

Source: Ford Foundation, W.K. Kellogg Foundation, PEW Foundation

Table 19: Key Characteristics of 501(c)(3) Organizations





- Most North Dakota Farmers' Markets do not carry liability insurance nor does the majority require their vendors to carry liability insurance.
- Most North Dakota Farmers' Markets are interested in purchasing group liability insurance from the Association.
- Most North Dakota Farmers' Markets are not interested in purchasing group health insurance from the Association.
- Most North Dakota Growers are interested in purchasing group liability insurance from the Association.
- Most North Dakota Growers are not interested in purchasing group health insurance from the Association.
- Most North Dakota Farmers' Markets do not have Sponsors nor do they provide advertising opportunities for Sponsors.
- Most North Dakota Farmers' Markets are willing to explore providing advertising opportunities for Sponsors.

The following are recommendations for the Association:

- It is recommended that the Association should establish itself as a 501 C3 charitable organization.
- It is recommended that the North Prairie Farmers Markets organization be the managing entity for the Association.
- It is recommended that Ms. Cori Otto, member of the North Prairie Farmers Markets, be appointed the Association's Director.
- It is recommended that the Director's primary function is to communicate the benefits of locally grown produce to North Dakota consumers to increase consumer awareness and expenditures for the benefit of the members of the North Dakota Farmers' Market and Growers Association.
- It is recommended that the Association seek potential Sponsors that have been identified beginning with Noridian, which has indicated that it should be contacted by the Association.
- It is recommended that the Association continue to seek Federal and State grant opportunities. The USDA AMS Farmers Market Promotion Program Grant has a deadline of March 24, 2008.
- It is recommended that the Association be the sponsor for group liability insurance for both North Dakota Farmers' Markets and Growers.
- It is recommended that the Association continue to sponsor annual meetings for its Farmers' Markets and Growers.
- It is recommended that the Association continue to maintain a close relationship with the North Dakota Department of Agriculture as a strategic partner.
- It is recommended that the Association seek to obtain Federal, State, Local, or private financial programs to assist its members in developing greenhouse and high tunnel operations to extend their selling seasons.

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Appendix D

# Results of Recent Symposia on Dry Beans & Health

*A Report to the  
Board of Directors  
of the  
Northarvest Bean Growers  
Association  
Frazee, MN*

William C. Lesch, PhD  
Professor  
Department of Marketing  
University of North Dakota  
Grand Forks, ND

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Marketing Communication**

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## ACKNOWLEDGEMENTS

This project was underwritten by a *USDA Specialty Crop Block Grant* administered jointly by the states of North Dakota and Minnesota. Thanks to Ms. Lisa Fang, and Mssrs. Kurt Markham and Chuck Fleming for their assistance. Additional funding provided by the *Northarvest Bean Growers Association*. Project approvals and oversight were provided by the Northarvest Promotion Committee and Executive Vice President Tim Courneya.

This report was produced by Ms. Corrine Iverson, Staff Associate in the Marketing Department at the *University of North Dakota*, Grand Forks.

The warm and capable scientists and support staff of the *Grand Forks Human Nutrition Research Center* contracted with *Northarvest* to host the *Beans for Health Workshop* on May 28, 29, and 30, 2008, results of which inform a major portion of this report. Participants contributing to the three-day event included:

Dr. Jerry Combs, Director, Grand Forks Human Nutrition Research Center (organizer)  
Dr. Tom Badger, Director, Arkansas Children's Nutrition Center  
Dr. Maurice Bennink, Dept. of Food Science and Human Nutrition, Michigan State Univ.  
Dr. Jay Cao, GFHNRC  
Dr. Jerry Combs, Center Director, GFHNRC  
Mr. Tim Courneya, Director, NBGA  
Dr. Julianne Curran, Pulse Canada Health Program  
Dr. Kathy Ellwood, CFSAN, FDA  
Dr. Clifford Hall, Department of Cereal and  
Food Science, NDSU Ms. Bonnie  
Hoverson, dietitian, GFHNRC  
Dr. Janet Hunt, GFHNRC  
Dr. Bill Lesch, Department of Marketing, UND  
Dr. Len Marquart, Department of Nutrition and Food Science, University of Minnesota  
Ms. Angie Scheet, dietitian, GFHNRC  
Mr. Steve Veile, Communiqué, Inc.  
Dr. Gary Weaver, gastroenterologist, Maine  
Dr. Ross Welch, USDA, Ithaca, NY  
Dr. Lin Yan, GFHNRC

Thanks to all for their time, advice, and other contributions to a successful meeting. Grand Forks,

## EXECUTIVE SUMMARY

North Dakota July

10, 2008

*More than one-third (36%) of shoppers said their desire to reduce the risk of developing health conditions had a lot of influence on their food-purchasing decisions...<sup>1</sup>*

The food industry is amidst a revolution—a *health* revolution—marked in part by the reformulation and repositioning of foods, with strong orientations to human health benefits. The *Grocery Manufacturers Association of America* has estimated that more than 10,000 products have been introduced in the last five (5) years that included nutritional improvements.<sup>2</sup> Monitoring and responding to these changes, the Northarvest Bean Growers Association recently attended the *CICILS/PTIC Pulse health and Nutrition Symposium* held in May, in Puerto Vallarta, Mexico<sup>3</sup>, and conducted the *Beans and Health Workshop* in Grand Forks, North Dakota, to prepare a responsive organizational strategy.

This report details the presentations and findings from those conferences. In summary, these include the following.

- World-wide, the pulse industry has come to realize the health benefits of pulses generally, and dry beans in particular. Several national trade organizations/foreign governments/private firms around the world have organized programs trumpeting the health benefits of beans and pulses.
- The industry has come to realize the need for credible human health research as a prerequisite to successful health communication and product positioning. This is a regulatory requirement, and consumers are ever more interested and receptive to its value.
- Existing research on dry beans is inadequate to support the FDA's most stringent form of health claim, one based upon *significant scientific agreement*. Current and planned research may enable this, and other forms of marketing communication that consumers find valuable.
- Future human research contemplated by Northarvest should focus upon cardiovascular health as a first priority, potentially unraveling the links between fiber, resistant starches and/or other dry bean attributes, and cholesterol reduction.
- Current/additional research on the relationship between beans and glycemic index seems warranted owing to the well-established relationship between consumption of beans and blood glucose levels.
- The soy industry has, by analogy, provided a logical and promising strategy to leverage public funds in support of the Northarvest agenda for human health research.
- Opportunities to partner with Pulse Canada on a common human health research agenda are worthy of exploration and discussions are underway to identify the bases for the same.

1 Elizabeth Sloan, *Top 10 Food Trends*, [Food Technology](#), April 2007, p. 35.

<sup>2</sup>Alex McNally, *Industry is Taking Healthy Eating Seriously, Poll Finds*, at [www.nutraingredients-usa.com/news/print/NewsBis.asp?id=82626](http://www.nutraingredients-usa.com/news/print/NewsBis.asp?id=82626) accessed may 23, 2008.

<sup>3</sup> Dr. William Lesch, author of this report, attended the day-long event on pulses and health.

## **CICLS/IPTIC CONFERENCE PRESENTATIONS**

### **OVERVIEW OF THE CONFERENCE**

The Pulse Health and Nutrition Symposium held in Puerto Vallarta, Mexico, May 20, 2008, was a first ever event by the international organization to focus on the health aspects of pulses. The conference was primarily organized by Mr. Gordon Bacon, Chair, Science and Nutrition Committee of IPTIC, and the CEO of Pulse Canada. The day-long activities were held at the Sheraton Buganvillas Resort and Convention Center at the beginning of the annual conference schedule.

The Agenda can be found in Appendix A (attached) and included a keynote address by health communications expert Mr. Bill Layden (FoodMinds), and an overview by Dr. Enrique Jacoby (Pan American Health Organization). A morning research panel focused upon the role of pulses in the prevention and treatment of diabetes and obesity, the role of beans in the prevention of cancer, and the contributions of pulses to cardio-vascular health/disease control. The afternoon presentations included topics on public campaigns involving health aspects of pulses in Australia and Mexico, an academic study of the economic value of health at-tributes, and the advertising campaign strategies recently advanced by the Bush Brothers company of the United States. Each is described in turn. The original presentation slides can be accessed at [http://www.cicilsiptic.org/members/stat/2\\_2008.htm](http://www.cicilsiptic.org/members/stat/2_2008.htm).

### **KEYNOTE PRESENTATION & ENVIRONMENTAL REVIEW** **THE TIME IS NOW FOR PULSES: HARNESSING KEY SYSTEMS DRIVERS AROUND THE GLOBE** **TO INCREASE DEMAND AND** **SALES OF PULSES**

Mr. Bill Layden has many years of experience as a consultant to the food industry, including well-known industry names as Kraft, Proctor and Gamble, and others, along with commodity organizations such as the National Cattlemen's Beef Association and the Almond Board of California, the latter of which he assisted in the development of its seminal health positioning strategies. His theme: the time is now for pulses.

Drawing from recent statistical data on consumption of tree nuts, Mr. Layden underscored the successes of the Almond Board in increasing demand and prices for almonds following promotional efforts surrounding the health attributes of the commodity.

The dietary context facing all food producers today was then characterized: consumers can be categorized as 'overfed,' 'underfed,' or 'misfed.' There have been strong increases in the number of persons incurring obesity, or who can be attributed as overweight, circumstances that apply in both adult and child-aged populations, and common in industrial countries of the world. This is at least in part attributable to a 'Western diet' high in carbohydrates and fats, and low in fiber. Hunger continues to be a problem in large number: perhaps 15+% of the world can be defined as undernourished or malnourished. These conditions favor the use of pulses as cost-effective, healthy solutions.

Consumers, particularly those in industrialized countries, have increasingly demanded 'healthy' foods. Mr. Layden introduced a range of survey data in support of 'healthiness' of foods as a consideration by consumers, and the growth in new product introductions referencing healthy attributes. Other consumer factors in market success include the impact of production on the environment and the authenticity of source. Members of the supply chain for pulses, he argued, owing to the manner of pulse production, high levels of pulse health factors, and under-promotion, should capitalize on this conflux of factors to reverse the now- declining trend in demand for their products.

He recommended that the industry "take a page from the almond playbook," and develop an industry-wide strategy for the pro- motion of pulses, and suggested a range of factors that would be important to success.

Key Points? The market environment for pulses has at perhaps no other time been predisposed to be more receptive to messages about the health qualities of pulses. While the factors contributing to this differ between developed and under developed countries, the outcome is the same and favors promotion of the category. The industry could benefit in a manner akin to that of almond growers and others, but success will require a new organizational structure and thinking.

## **SESSION PRESENTATIONS**

### *HEALTH ISSUES: A GLOBAL PERSPECTIVE*

Dr. Enrique Jacoby is a medical doctor with a master's degree in public health employed as the Regional Advisor on Nutrition at the Chronic Disease Unit of the Pan American Health Organization. In that capacity he has worked with Ministries of Health among the countries of Chile, Brazil, Mexico, Ecuador, Bolivia, Columbia, Cuba, Costa Rica and Argentina. With more than 20 years experience in the arena of public health, Dr. Jacoby is well qualified to discuss the gaps in understanding the role of diet and lifestyle with public health. The focus of his address was on changes in diet favoring "poor nutrient densities" (including fast foods, processed foods, refined cereals, red meat and milk), and their contributions to chronic disease.

The rise in chronic disease as a source of world mortality is a marker of our times. Cardiovascular disease was recently reported by WHO as the leading cause of death, worldwide, a trend that shows no signs of abating; some 2/3rds of mortality can be linked to diet and physical activity.

As populations improve economically, they appear to reduce the actual quality of food intake as measured by nutrient density. "Cheap" foods are also among the least dense with respect to nutritional values (oils, butter, sugar, desserts; compared with fish-shellfish, vegetables, fruits). Quantity, not quality, has become the 'cornerstone of the (contemporary) food system.' Some four (4) crops account for more than 3/4 of the calories consumed by U.S. consumers: corn, soy, wheat and rice. As a result, nutrient availability to humans is in decline. This has been facilitated by lifestyles favoring lesser time for home food preparation (averaging only 24 minutes per meal in 2005; down from 45 minutes in 1960), and dilution of the value by society for the rituals and societal engagement surrounding the context of the meal.

Nonetheless, some indications are that these trends may be reversing, including greater respect for customer needs, stronger roles among public health actors, and appreciation of the health values of good dietary practice.

Key Points? The world's diet is becoming less healthy and this is being reflected in increased rates of mortality from chronic disease. Populations are coming to realize this, and there is growing appreciation for the contributions to health that can be made by improved diet and lifestyle. "Look at your food basket. If your grandmother wouldn't recognize the food you see (as food), you probably shouldn't eat it."

### *THE ROLE OF PULSES IN THE PREVENTION AND*

Dr. Este (HH) Vorster earned the Doctorate in physiology in 1987 and is currently Director of the Africa unit for Trans-disciplinary Health Research at the North-West University, South Africa. She has many years experience as a public health expert, including the Presidency of the Nutrition Society of South Africa (twice), and as invited expert and chair of various WHO/FAO panels. The rise in diabetes and obesity is alarming, affecting those in both developed and underdeveloped countries, perhaps in greater proportion those of the latter. Strong evidence exists to suggest that pulses may be part of the solution to this epidemic caused by poor nutrition.

Developing countries suffer from the problem of both under- and over-nutrition while the developed world is experiencing high rates of growth in obesity and type-2 diabetes. There is evidence that these adverse health conditions are linked with ethnicity in both settings

(developed/under-developed), increased rates of urbanization, and aging. The incidence of obesity among children has been well-documented in the United States as well as world-wide, and differences exist among adult men and women.

A matrix of factors are to blame for the increased incidence of diabetes and obesity (societal, behavioral, biological) and their associated causes of mortality (cancer, cardiovascular disease, other). It is important to recognize the system of factors and how they interact, and develop solutions that span multiple generations, realizing that the goals of food security, safety, affordability, and health are impacted by a range of cultural, individual/household/community factors.

Pulses, foods high in favorable carbohydrates and protein, low in fat, and good sources of trace minerals and other important nutrients, can play a vitally important role in alleviating the ills of current food patterns. Evidence is mounting to suggest that their use increases feelings of satiety, lowers blood glucose, improves nutritional status, lowers cholesterol and improves gut health perhaps lowering the incidence of certain cancers. Thus, pulses are ideally located to address both over-nutrition and under-nutrition.

Key Points? Both underdeveloped and advanced societies require good nutrition if we are to improve health and quality of life. The incidence of obesity and diabetes is increasing in both settings and pulses can make important contributions to the reduction of ills associated with under-nutrition as well as over-nutrition in these contexts.

### *RECENT FINDINGS ON THE ROLE OF BEANS IN CANCER TREATMENT AND PREVENTION*

Dr. Terry Hartman is a nutrition epidemiologist at the Pennsylvania State University. Dr. Hartman earned the PhD at the University of Minnesota and completed a Master's Degree in Public Health at the Harvard School of Public Health, and then went on to post-doctoral work at the US National Cancer Institute. The last ten years of her career have included the investigation of the role of diet in the incidence of breast, prostate and colorectal cancers. Attributes of beans—including fiber—may play important roles in the reduction of incidence of a variety of cancers.

Cancer arises from a number of causal factors and often takes a decade or more to reveal itself. Potential anti-carcinogenic components in dry beans include a range of phytochemicals, starch, and dietary fiber. In addition, diets high in beans may, as a result, be lower in other potentially harmful substances, contribute to satiety, and are also sources of other important nutrients.

Existing research on the linkages between pulses and cancer suffer from a number of limitations, including the lack of randomized trials, the use of dissimilar definitions of variables under investigations, a lack of validity in questionnaires, and the lack of underlying variance in usage of beans among western cultures. Some studies do suggest reduced incidences of certain cancers in light of use of beans and other legumes. Early indications are that prostate- and stomach cancer are included. Data on colon cancer incidences are not conclusive, and are the subject of an ongoing study in which she is currently participating as a lead investigator. This is a controlled feeding study which is designed to increase validity of conclusions. Both insulin resistance and adenomas, as well as a number of other endpoints are being studied (cholesterol levels, bacterial profiles, satiety). A model has been developed outlining the role of dry bean attributes in the metabolic processes associated with the endpoints referenced (above).

Key Points? Indications are that dry bean use is correlated with the reduction of factors known to contribute to the generation of certain types of cancer. This series of controlled feeding studies is intended to contribute to scientific understanding of the metabolic processes underlying the control that may be exerted by dry bean attributes, on those processes. Outcomes from this study should be released later in 2008.

## *DIETARY PULSES AND IMPROVEMENTS IN BLOOD VESSEL FUNCTION IN CARDIOVASCULAR DISEASE*

Dr. Carla Taylor is a Professor in the Department of Human Nutritional Sciences at the University of Manitoba, Canada. Upon receipt of the PhD in Nutritional Sciences at the University of Guelph (Canada), she undertook post-doctoral appointments at the University of Michigan and University of Washington-Seattle. Her current research interests include investigating the links among obesity, diabetes and cardiovascular disease. This investigation focused upon understanding the “stiffness” that occurs in the vascular system as a result of atherosclerosis, and whether the consumption of pulses can be an effective counter-measure in reduction of this condition.

Cardiovascular disease is the leading cause of death in advanced countries, responsible for roughly one-third of annual mortality in the United States. It is increasing due to the growth in prevalence of obesity and diabetes, but the latter conditions can be countered through regular use of a) low glycemic index foods, b) fiber, and c) consumption of flavonoids. Unfortunately, few rigorous studies have utilized pulses as the source of these three factors.

Atherosclerosis is characterized in part by “hardening” of the arteries, i.e., they lose their elasticity with the deposition of plaque. It was hypothesized that the daily use of pulses would improve cardiovascular health by increasing the levels of certain hormones produced by adipose tissues. A study was designed and executed to test this hypothesis in which test subjects consumed a daily serving (1/2 cup) of beans, lentils, or chickpeas. Dependent variables included blood vessel function, a variety of clinical assessments including blood samples.

This project is still underway with results expected late this year.

Key Points? The role of fiber, starches (affording the low glycemic index), and a variety of flavonoids in managing cardiovascular health continues to be studied by scientists, with recent attention to diets including pulses. This study of various pulses is intended to clarify the role of these compounds in managing the range of factors that result in atherosclerosis, and will contribute to our understanding of the importance of pulses as part of a healthy diet.

## *THE SIZZLE OF SCIENCE SELLS: MARKETING PULSES AS A VALUABLE PART OF THE AUSTRALIAN DIET*

Dr. Christine Hawkins is Executive Chairperson of Go Grains Health and Nutrition Limited, an independent membership organization supporting the grain industry of Australia. Established in 2005, Go Grains includes members from across the supply chain of grains and grain products, and is focused upon promoting the health values of grains and pulses. Her presentation described the bases upon which grains and pulses are being re-positioned in the Australian market.

The goal of Go Grains is to “increase the value of the Australian grains industry by influencing decisions consumer make about the foods that they buy,” an outcome enabled by the independent, informed, and credible positions advanced by the organization as it develops and delivers new information, processes and technologies of value to the industry. This is accomplished through the delivery of seven essential functions, including leadership, promotion, relationship building, advocacy, measurable accountability, market reconnaissance, and industry collaboration. Objectives of Go Grains include the establishment and maintenance of contemporary and effective health based positioning for grains that differentiate them from other foods. The organization does so by developing science-based communications, conducting consumer research studies, carrying out research and development, and facilitating industry activities.

Since consumers do not have clear and comprehensive understanding of the health benefits of grains, the challenge to the industry is apparent, and involves increasing consumption to “healthy” levels, achieving a 4+ servings daily outcome.

The Go Grains group is continuing its efforts domestically, and expressed considerable interest in

international collaborations on human research.

Key Points? The Australian food market suffers from a lack of knowledge about the health aspects of grains, including pulses, and the Go Grains mission is to address this issue. The organization has arranged a program at many levels involving multiple partners with the intention of increasing daily consumption of these products to four (4) or more servings daily. The group is interested in partnering with others with similar interests to conduct mutually beneficial research.

### *MEXICO BEAN PROMOTION CAMPAIGN*

Mr. Jose Luis Aguilar is the Director of Client Services at Slogan Publicidad, a communications firm in Mexico City, Mexico. His presentation addressed efforts undertaken by the office of the Secretary of Agriculture, Farming, Rural Development Fish and Food of Mexico, to increase Mexican consumption of beans. In Spanish, the report is available at the website:

<http://www.cicilsiptic.org/members/stat/22008.htm>.

### *MEASURING THE BENEFITS TO INDUSTRY OF HEALTH AND ENVIRONMENT ATTRIBUTE MARKETING*

Dr. Paul Thomassin is Associate Professor of Agricultural Economics at McGill University-Montreal. He earned the PhD from the University of Hawaii in Agricultural and Resource Economics and has held Visiting Appointments at the Australian National University-Australia, University of Hawaii, and University of Auckland-New Zealand. His talk centered on identifying factors important to consumers' choice of food products, including factors of health and production.

Consumers can be expected to maximize the value of their purchases, and many food purchases require that they make trade-offs. For example, consumers value safe food, but at what point will they be less willing to pay for that benefit, or to achieve absolute certainty of knowledge that every food choice is completely safe in all regards? In this study, the investigator used a survey approach to unravel the values associated with price, safety, health and environmental effects for tomatoes, milk and chicken. The sample included households from the island of Montreal (n=500), with a high rate of response (> 70%). Findings from the study revealed that consumers were willing to pay more—approximately \$0.50 more per kilogram for a tomato produced under conditions with more favorable environmental production practices that also afforded fewer human health risks, but was also less attractive in the market. Moreover, when given a choice, consumers avoided genetically modified products, tended to favor health and products produced under “sound” production practices.

By analogy, the researcher reasoned that pulses, given their environmentally favorable production profile, their desirable food profile and comparatively low cost, could benefit from improved market positioning on those dimensions.

Key Points? Consumers decide what to buy based not only on price, but on a range of factors, increasingly to include perceived health benefits as well as how the product was produced. Pulses appear to have features of production (environmentally “easy on the land”) and consumption (“healthy”) that make them good candidates for promotion to consumers on those bases.

### *MOVING FORWARD*

Ms. Sara Rose is Director of Strategic Business Development at Bush Brothers & Company, Knoxville, TN. She has been the elected President of the Beans for Health Alliance, and is a member of the Steering Committee of the Pulse Canada Innovation Project. Ms. Rose provided an overview of the domestic market focusing on the consumer, and efforts underway at Bush Brothers to re-position beans around health qualities.

Bush Brothers' holds the nation's largest market share of canned beans and has recently been developing a comprehensive strategy for addressing the health component. Bush's goal is to increase bean consumption by leveraging health and nutrition messages based on what is already known about the healthy attributes, and what is understood about consumer predispositions.

The focal market for Bush's will be main-stream American households with children, representing about one-third of all American households. Bush Brothers & Company is of the opinion that current science will not support health claims, but there is otherwise much that is known about beans that can be used relative to health messaging that does not require regulatory review. Consumer research for example, indicates that the public does not necessarily position beans as belonging to the vegetable group, but most consumers also intend to eat more vegetables. Thus, Bush Brothers has developed the slogan "Beans. The 'Vegetable with More'" around which it is advancing its campaign. The "more" is predicated on high fiber and high protein aspects of beans, and the message is being placed in a national print campaign including health, food, lifestyle, and parenting magazines. The focus is upon first growing the bean category.

Moreover, a website has been developed to aid in home preparation of beans through greater awareness and availability of recipes. Bush has partnered with the leading recipe provider [allrecipes.com](http://allrecipes.com) to deliver some 1,000 bean recipes and associated nutritional information. This has been combined with contests and electronic press kits to generate local interest and greater involvement with the web site. And, Bush has commissioned scientific papers, held discussions with government and consumer opinion leaders as well as other industry members to promote the nutritional aspect of the category.

Key Points? Bush Brothers and Company is committed to the re-positioning of the bean category around the health benefits. It has recently launched a national campaign in support thereof, and is actively collaborating with others in the industry to promote the overall category. The next generations of bean users need a clear understanding of the healthy aspects of beans. Increasing awareness of beans as vegetables, and providing home recipes, is expected to increase use.

## **THE GRAND FORKS CONFERENCE: BEANS FOR HEALTH WORKSHOP**

### *OVERVIEW OF THE CONFERENCE*

Pursuant to the terms of the USDA Specialty Crop Block Grant Program, Northarvest partnered with the Grand Forks Human Nutrition Research Center to sponsor this conference on the topic of beans and human health. An agenda for the event can be found in Appendix B, attached.

Separately, Northarvest previously gathered scientists in 2003, also at the Center. That conference however, was not informed by the range of research documents now available to the field, especially those analyses commissioned by Pulse Canada.

This convocation involved a number of informational presentations including reviews of the elemental composition of beans, a review of consumer behavior and motivations, regulatory considerations in achieving an approved health claim, and a review of recent pulses-human health investigations underway by sponsor Pulse Canada. And, while the afternoon session also included an overview of the funding strategy utilized by the US Soybean Board, the bulk of the time was devoted to developing an understanding of priority areas of research into human health and beans.

These topics are each described on the following pages. A summary of the Workshop is presented. See Appendix C.

### *EDIBLE BEANS- A FUNCTIONAL FOOD AND SOURCE OF FUNCTIONAL INGREDIENTS*

Clifford Hall III is affiliated with the Department of Cereal and Food Sciences at North Dakota State University, Fargo. Dr. Hall was co-author (with Mehmet Tulbek) of the report commissioned by Northarvest entitled Composition and Usage of Edible Beans – A Literature Review, received in 2007.

Dr. Hall's presentation outlined the dominant and minor fractional components of dry beans with an eye to those of consequence to human health. Protein, as well as carbohydrates (including fiber, starch,

and sugars) make up the bulk of any dry bean, although there are some varietal variations. Lipids make up a very small portion of the bean, and it is this low fat content that is of considerable interest to dietitians. There is also considerable interest among food scientists for the fractions of polyphenols owing to their expected functional food values.

The literature does not thoroughly reflect efforts to understand how these values may be changed as a result of the manner of preparation, although evidence exists to suggest that some do. And, the bioavailability of some fractions represented in content, may be limited.

Key Points? Dr. Hall also described efforts recently underway at North Dakota State University to utilize bean flours in the production of snack foods. These centered on the development of “corn curl” comparables using bean and flaxseed, with testing for texture, taste and other variables of consumer interest.

Dry beans vary in their composition, and questions concerning the bioavailability of some elements. Those issues relate to how the various components interact during digestion, as well as how they may be affected by the choice of preparation for use. Dry beans are a very healthful food by nature and present with many research possibilities.

Early indications are that a snack food can be developed from bean flour that has qualities similar to those currently in production but utilizing corn flour.

### *SELECT MARKETING CONSIDERATIONS IN FORMING A DRY-BEAN-HUMAN HEALTH RESEARCH AGENDA*

Dr. Bill Lesch is Professor of Marketing at the University of North Dakota, and a frequent consultant with Northharvest on issues of consumer communication and marketing.

Dr. Lesch spoke of the flat-to-declining level of consumption for many classes of beans, and for the whole of the bean category. He presented data taken from a Bush Brothers national survey of 2005 pointing to declining use of beans as a main dish, as part of a main dish, as a side dish, and as part of a side dish. In general, beans are declining in use as an ingredient in home-prepared meals, more so than other ingredients.

Adults spend far less time preparing meals (down by one-half since 1960), spend more of their income at restaurants, eat fewer complete meals (grazing is on the increase), and the available forms of beans are not conducive to quick preparation/snacking as may be preferred by consumers. Youth do not appear to be as enthused about bean use, and a recent survey by Bush Brothers revealed that fewer than one-half of consumers attributed beans to belong to the vegetable category.

Since consumers seek healthy foods, beans continue to have qualities both sought and desired by today’s consumers. Dr. Lesch presented results from a range of national studies underscoring consumers’ strong, if not growing interest in linking diets with health, suggesting that more promotion of the healthy aspects of beans is needed. He concluded with reference to the need for research into human health in areas including beans’ fiber, and starches as beneficial to the control of weight and diabetes, as well as cholesterol.

Key Points? While per capita consumption of beans continues to be problematic, consumers are receptive to health communications touting dietary benefits of foods. Beans are well positioned for such communications given their “healthy” compositional profiles, and with additional research on human health benefits, the platform for beans could be further strengthened, with the goal of increasing use.

### *EVIDENCE-BASED REVIEW SYSTEM FOR THE SCIENTIFIC EVALUATION OF HEALTH CLAIMS*

Dr. Kathleen Ellwood is Director of the Nutrition Program Staff in the Office of Nutrition, Labeling and Dietary Supplements at the Center for Food Safety and Applied Nutrition (CFSAN), a division of the U.S. Food and Drug Administration (FDA). Dr. Ellwood addressed the FDA-regulatory process surrounding application and consideration of health claims and health information used in food promotion and labeling.

Dr. Ellwood began by reviewing the bases for regulation of labeling and marketing communication, and referencing the Congressional standard for significant scientific agreement (SSA), otherwise known as an unqualified health claim. Owing to court challenges, the FDA also provides for qualified health claims and Dr. Ellwood pointed out that the process of review for both is the same; the level of scientific evidence is characterized along a continuum, with unqualified claims meeting the highest standards for evidence, and qualified health claims satisfying lower thresholds of certainty of support for a particular claim being advanced. She carefully reviewed the standards and process by which a claim is scrutinized by the Agency, including the nature of the evidence and the nature of the study design. The FDA has articulated which endpoints (outcomes) are considered relevant for the area of health interest (e.g., diabetes markers include blood glucose level, insulin resistance; colon/rectal cancer involves assessment of polyps). Only human studies can be considered, and studies using randomized subjects, control groups, appropriate statistical techniques and including subject compliance checks are given the most weight.

Dr. Ellwood described the process of review surrounding lycopene found in tomatoes to illustrate. She did the same with chromium picolinate and its relationship with type 2- diabetes, as well as green tea and the asserted link with reduction in breast cancer.

Key Points? Dr. Ellwood's review clarified the nature of labeling and promotional statements available to marketers. Consumers don't only rely on unqualified health claims in their decision-making, and there is evidence that considerable confusion can be found among consumers about the content of a health claim, i.e., there is the possibility, no matter how undesirable, for miscomprehension.

Standards for designing studies were discussed and clarified. The process of review was exemplified using recent "case histories" with an eye for what to avoid. And, it was suggested that there may be information currently available useful in an application for a structure-function claim, and/or content disclosures, also of interest to consumers as they compare food ingredients for health aspects.

### *PULSES AND HEART DISEASE/DIABETES: RESEARCH GAP ANALYSIS FOR HEALTH CLAIM SUBSTANTIATION*

Dr. Julianne Curran is Manager of Market Innovation for Pulse Canada, headquartered in Winnipeg. With a doctorate in Nutrition from the University of Manitoba, Dr. Curran has overseen much of the health-related research activities initiated by Pulse Canada. The bulk of Dr. Curran's presentation addressed recently commissioned reviews of literature spanning years of published research on beans and pulses. These reviews assisted Pulse Canada to establish their own agenda for human research involving beans and other pulses.

First, it must be noted that in the area of pulses and cardiovascular disease, that there are few studies in the published literature that would be given much consideration by the US regulatory authorities owing both to their small number, and design flaws. Of some fourteen (14) studies identified by one consultant as marginally relevant, seven (7) could be considered most valuable. Of those, four (4) presented evidence in support of lowered cholesterol and other favorable markers as a result of use of beans and/or chickpeas. An additional report commissioned for the same purpose (alternative consultant) reported similar, but not identical conclusions. In sum, the data are mixed, the number of studies not sufficiently large at this point in time to support a successful application.

On the question of pulses and their effects on diabetes and related markers, a range of studies are available to examine a range of outcomes.

There appears to be a growing body of literature establishing the ability of pulses to reduce postprandial glucose, with a large number of studies supporting this relationship. Similarly, the linkage between pulse consumption and glycemic index is strong, i.e., use of pulses can significantly lower glycemic index when compared with controls (18 studies).

There is not a body of evidence to show a relationship between diabetes prevention and use of pulses. The strongest data to date suggests that use of pulses has favorable effects on postprandial numbers in both healthy and diabetic subjects.

Dr. Curran described design issues that have been identified by Pulse Canada as important to newly commissioned studies in both areas, and briefly discussed ongoing studies by that sponsor, the results of some of which may be available later this year.

Key Points? The number of studies in the area that are of pulses generally, and beans in particular, intended to unravel the link between cardiovascular disease and their use, is small, and the outcomes of such studies somewhat inconsistent. The number of studies examining the effects of pulse consumption on postprandial blood glucose is large, the data far more consistent, and the outcomes suggestive of a possible favorable regulatory application for a structure-function claim. The utility of pulse consumption in preventing diabetes remains an area of little study.

Features of well-designed studies were described and discussed in the context of regulatory standards, and compared with ongoing research sponsored by Pulse Canada.

## SUMMARY

The Agenda for this Workshop included considerable time for discussion among the participants on issues at the intersection of health, beans, consumers, and regulatory policy. And, there was time also devoted to discussion of a funding strategy for any research to subsequently be funded in part or whole, by Northarvest.

Appendix C includes the report of the Workshop, as prepared by conference organizer Dr. Jerry Combs, Director,

Grand Forks Human Nutrition Research Center. This section affords an overview of those findings not otherwise referenced in the presentation summaries found above.

### *REVIEW OF SCIENTIFIC DISCUSSION/OUTCOMES*

The bulk of the afternoon session was structured by “give and take” among the participants surrounding the state of knowledge on the role of dry beans in affecting human health in three (3) areas, including: beans-cardiovascular, beans-weight management/diabetes/satiety, and beans- cancer. The goal of the session was to summarize the knowledge of the participants on the state of the science in these relationships and assess informally the gaps in knowledge that might need to be addressed in order to satisfy regulatory requirements associated with a health claim or health-related statement in some form.

Table 1 in the report of the Workshop (see Appendix C) suggests that in the near-term, the most promising opportunity for research associated with an unqualified health claim, may be in the area of cholesterol-related studies. The favorable relationship between use of beans and lower cholesterol may be associated with the high fiber content, and/or nature of starches found in beans, or other factors. Also, the participants noted the very clear relationship demonstrated in a large number of studies linking the control of blood glucose following meals including beans. This may afford the basis for acknowledgement of a structure-function claim, or, may require additional evidence. In either case, this evidence is very strong as-is, and should be considered carefully.

Evidence for the use of beans in the prevention of diabetes is not strong. Nor, is the quality of evidence (as of this date) adequate to understand the links among beans and various cancers, especially as regards any application for a health claim. The “distance to go” in both of these health sectors appears to be considerable, and may require several well-designed studies over years, to establish.

The role of bean consumption in weight management and the area of satiety continue to be of interest, although the evidence today is incomplete.

Considerable data exists on the qualities of beans (high in certain nutrients; low in “anti-nutrients”) that may be useful in content for labels, or worthy of still further scientific investigation

on their roles in general health.

Specific pathways or mechanisms of influence, were identified, and a working set of research priorities has been formulated/recommended to include generally cardiovascular health, weight management/obesity prevention, and colon health.

#### *FUNDING NORTHAR VEST'S HUMAN RESEARCH STRATEGY*

Mr. Veile<sup>1</sup> (Communiqué, Inc.) provided an overview of the nature and outcomes of a co-funding strategy that his firm has managed on behalf of the US Soybean Board. In sum, the US Soybean Board “seeds” what it considers to be promising research, in an attempt to assist researchers in their applications for federal funds disbursed under NIH guidelines. According to Mr. Veile, the Board reviews/ establishes soy-health research priorities, solicits research abstracts, then “seeds” highest ranked abstracts upon submission of a full-blown NIH proposal. Approximately 1-in- 10 NIH submissions (overall) receives funding, and the Board investment has been approximately \$100,000 per year for some seven years. This has been associated with the receipt of roughly \$12 million in NIH funds to targeted research projects, and has met with the satisfaction of the sponsor.

#### *SELECT CONCLUSIONS FROM THE CONFERENCE*

Many in the pulse industry, and many in the dry bean industry, have come to recognize the value now, and into the future, of product positioning which is based upon dimensions of human health. The Symposium held in Puerto Vallarta in May included speakers from around the world extolling the value of pulses generally and dry beans in particular as important dietary factors in human health. These conclusions applied to a variety of nationalities and arose under varying economic, social, and underlying health conditions. The industry has awakened to the possibility of using health claims and health information in marketing positioning strategies, and indeed, some are doing so now.

Industry representatives and health researchers are beginning to organize platforms for research into the link- ages among various attributes of dry beans and human health. Firms are coming to realize the importance of carrying out such research as a predicate to effective and ethical marketing communication, and health researchers require stable funding in order to carry-out their work. Dry beans have not received the health research attention that has been showered upon soy, and in terms of research platform, are not yet well positioned to achieve even one, US-approved, unqualified health claim useful to marketing communication. The need to organize and prioritize efforts in the area of human research is under- scored daily in the food-press, as claims have been achieved for a variety of commodities, some containing compounds similar to those found in dry beans. If dry beans are to succeed in growing demand as a category of foods, health positioning seems to be necessary both now, and in the long-term. Underlying consumer factors are strongly entrenched that will ensure demand for health- based foodstuffs for generations to come.

Northarvest is nearing conclusion of its initial efforts to establish a human health-beans research agenda. The organization has 1) sought and obtained scientific input for identifying research priorities, 2) has identified a funding strategy which promises to utilize public research funds (thereby potentially dramatically increasing the impact of scarce resources), and 3) has taken steps to emplace a knowledgeable and experienced agent to manage the day- to-day activities associated with preparing, soliciting, screening, and accounting for high quality research studies. This strategy, of course, requires the “long view” since studies of human health necessary to aid in marketing communication efforts require years to position, execute, report, and assemble in preparation for government re- view.

Northarvest should continue its efforts to develop a human health research platform focused upon clearing FDA hurdles. It should also re-focus its efforts to develop marketing communication platforms based upon existing knowledge of bean-health linkages. These insights will provide fresh reasons for consumers to re-introduce beans into their diets, and should be expected to work synergistically with efforts being undertaken by one or more industry members (see e.g., Bush Brothers). The dry bean industry could benefit from these efforts since 1) consumers are not very knowledgeable about the

existing healthy aspects of dry beans, 2) consumers are, at this moment, very receptive to health messaging, 3) considerable existing research has not been leveraged in a manner conducive to developing favorable consumer awareness and comprehension of bean benefits.

This twin strategy—conducting needed human health re- search in order for the industry to maintain a competitive posture on the health dimension of market positioning, while also communicating known benefits of bean use— should be implemented as funds permit.