Draco is a broadly adapted great northern bean variety ideally suited to Nebraska and Colorado production regions.

Draco has shown higher yield potential than traditional great northern beans, such as Marquis and Beryl. Draco has excellent upright architecture, higher pod set and good dry down making it a great candidate for direct harvest.

Assuming a 112 lbs./AC yield advantage compared to Marquis. Growing Draco will potentially increase your profit by $50/AC on $45/cwt. beans. This amounts to $5,000 on 100 acres and the added benefit of upright architecture.

Plant Variety Protection for GN Draco <06107> is contemplated. Unauthorized propagation of this variety is prohibited.

All variety information presented herein is based on field and laboratory observations. Actual crop yield and quality are dependent upon many factors beyond our control. Since environmental conditions and local practices may affect variety characteristics and performance, we disclaim legal responsibility therefore. Read all tags and labels. They contain important conditions of sale, including limitations of warranties and remedies.

To purchase seed, contact your local kelley bean representative.

www.kelleybean.com
Bean Harvest 2017 has been a mixed bag with weather being a big factor. Who knew climate change would bring mud puddles with moss growing in them.

The future is looking bright for NDBGA. The Board of Directors would like to welcome Debi Fitts as the new publisher of The Bean Bag as well as office manager and the go to person for the NDBGA. If any bean growers are in the area of the Panhandle Station in Scottsbluff, drop in and say Hello to Debi.

The NDBC hosted a Reverse Trade Mission. Don’t know how many beans got sold at the time, but we did hand out cookbooks with recipes full of Great Northern and Pinto Beans as we try to stir up some interest overseas. To meet people from around the world and see how they use dry beans and how we here in Nebraska can meet their needs is intriguing. Sometimes it is like fitting a Round Peg in a Square Hole. Then all the Government Agencies get involved.

Be Safe. Happy Harvest 2017!
Getting toddlers and preschoolers to try new foods like beans can be a challenge. Kids in this age group aren’t known for their adventurous eating habits after all. But helping young children enjoy new foods is one way to improve their nutrition and establish lifelong healthy eating habits. Try these approaches to introducing beans into your child’s meals:

**Keep it Low Keyed.** Offer tiny servings of beans alongside familiar, well liked foods. For example, place just a tablespoon of beans on the plate with popular foods like macaroni and cheese or mashed potatoes.

**Be Patient.** Don’t force your child to try new foods but do gently persist. Research shows that it can take as many as 10 exposures to get a young child to take that first bite. If your child turns up his or her nose at baked beans, offer them again a week later. Keep offering them so that eventually they won’t look quite so new and unfamiliar.

**Be a Role Model.** Let children see you enjoying beans, but without making too big a deal about it.

**Keep it Easy.** Try mashed beans that can be scooped up with crackers. Larger size beans like Great Northern Beans can be served as finger food.

**Make it Fun.** Stir grated carrots into pureed beans to make sandwich filling and then cut the sandwiches into fun shapes with cookie cutters. Or spread the filling on flatbread, roll it up and slice into pinwheels.

**Get Children Involved.** Kids are likely to be more enthusiastic about foods they’ve helped prepare. Let them help mash beans for spreads or stir chopped tomatoes into black beans. If your family has a garden, growing beans from seed is a fun and educational activity for young children.

As I sit here in the corner of my new office, and of this Bean Bag edition, I am reminded how life can change so quickly. I am so very thankful for this new position as office manager for NE Dry Bean Growers Association, but at the same time I am sad for the friends and family of Barbara Butterfield, who passed away last May.

47 years ago I married my best friend, Vance, a farmer, and I quickly learned when you marry a farmer you marry the land as well, for the good and the bad years. Farming is a solid, rooted, sway with the wind life and it has been a great place to raise our four children, Mistie, Dan, Andy and Amber.

We got lucky and were blessed with four wonderful sons and daughters-in-law, Travis, Becky, Allana and Bob! Now we have bragging rights for eleven grandchildren, twelve with a granddaughter-in-law, and three beautiful great grandchildren!
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Results Of The 3-Year Dry Yellow Pea Survey

By Robert M. Harveson

Due to the continued interest in dry yellow peas and the corresponding increase in acreage throughout western Nebraska, we have completed a comprehensive 3-year survey study (2015-2017) to identify the most prevalent and important disease issues in Nebraska production. This project was funded by the Nebraska Department of Agriculture’s Specialty Crops block Grant system.

Over the last three years we have visited and surveyed more than 90 fields (30 in 2015, 41 in 2016, and 20 in 2017). We have collected and processed more than 700 samples cumulatively from these fields representing the majority of the counties in western Nebraska that grow peas, including Sheridan, Box Butte, Sioux, Morrill, Keith, Garden, Deuel, Cheyenne, Kimball, Banner, and Scotts Bluff. We additionally visited two seed production fields in central Nebraska in Arnold County, northeast of North Platte in 2015.

By far, the most consistently occurring problem that has been observed across the entire region for all three seasons is a bacterial blight of pods and foliage (about 75% of the samples collected). These diseases are caused by a complex of at least two different, but closely related pathogens: *Pseudomonas syringae* pv. *pisi* (*Psp*) and *Pseudomonas syringae* pv. *syringae* (*Pss*). The *Pss* pathogen is well-known to dry bean growers in Nebraska as it is the causal agent for the bacterial brown spot disease. *Psp* is more restricted in host range causing a leaf spot and blight disease primarily on peas. In one location in 2015 we found another bacterial disease called pink stain, caused by *Erwinia rhapontici*. This finding was published as a first report for this uncommon disease occurring in Nebraska. We also suspect that yet another bacterial pathogen may be involved in this disease complex. As a result of this study we have additionally acquired approximately 20-25 isolates presumed to be in the genus *Xanthomonas* and a number (35+) of unidentified isolates. All these unknown isolates will have to be tested eventually for pathogenicity on peas as a part of their continued identification and characterization.

In addition we also collected and tested another approximately 95 plants that were affected by root/stem diseases. We isolated and identified fungal isolates consisting of *Fusarium* *spp.*, *Rhizoctonia solani*, *Pythium* *spp.*, *Sclerotinia sclerotiorum*, and *Macrophomina phaseolina*. These five soilborne pathogens are responsible for Fusarium, Rhizoctonia, and Pythium root rots, white mold, and ashy stem blight, respectively. Lastly we also identified another foliar fungal disease, powdery mildew, in one late-planted field in the 2015 season.

Previous reports have suggested that the pea bacterial blight pathogen, (*Psp*) was an early-season, cool weather pathogen, restricted primarily to the lower part of the plant canopy. Thus it should not theoretically pose a severe risk for Nebraska producers once conditions become hot. However, we have consistently noted bacterial infections on pods and upper leaves occurring from numerous fields in all 3 years of the survey during the heat of mid-summer. It is likely that this is due to brown spot which is more commonly associated with warm weather conditions. The discovery of many *Xanthomonas*-like isolates was somewhat surprising, but their role is yet unknown.

The bacterial pathogen, *Xanthomonas axonopodis* is known to be caused by two distinct diseases of dry beans (common and fuscous blights), but is thought to be rare in peas. Perhaps this survey has uncovered the presence of other previously unidentified bacterial diseases in Nebraska pea production such as common blight and pink stain?

Bob’s Favorite White Chili Recipe

There are hundreds of recipes for white chili that are readily available in books or on-line. By white chili, I mean one that features chicken, green chiles and cumin. It is often a good change for me from the more traditional tomato/chile powder/beef-based recipes. This recipe is a hybrid, combining together my favorite ingredients taken from other white chili recipes that I have tested over the years.

- 1.5 – 2.0 lbs cooked chicken (shredded or cut in small pieces)
- 1 large onion chopped
- 6-8 Poblano or Anaheim/Hatch green chiles, roasted, peeled and chopped or 1.0-1.5 cups chopped chiles (8-12 oz – frozen or canned)
- 1 can of sweet corn or hominy
- 1 can of chickpeas (garbanzo beans)
- 2 cans of great northern beans or ½ lb cooked dry beans
- 4 cups water or chicken broth
- ¾ Tbs oregano
- 1 tsp coriander
- 1 Tbs ground cumin
- 1 tsp cumin seeds
- 1 tsp lemon pepper
- salt and pepper to taste
- Brown chicken in a little vegetable oil or use poached chicken pre-cooked. Add all other ingredients, bring to a boil, then lower heat and simmer slowly for 2-3 hours. I like to eat this with white rice.
The Bean Bag – Autumn 2017

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NDBGA was organized and filed papers of incorporation with the State of Nebraska in November 1982

The purposes of the Association, as defined in the by-laws are:

1. To promote research and informational programs in dry bean production, marketing and utilization.
2. To see ways to develop, promote and maintain domestic and foreign markets for dry beans.
3. To carry out other activities that seem reasonable and appropriate for improving the conditions under which dry beans are produced and marketed including cooperation with departments and agencies of local, state, national and international governments.
Farm to school efforts are sweeping across the country and taking root in local communities. This is largely in part due to national support provided in 2010 by Congress, establishing mandatory funding for a farm to school competitive grant and technical assistance program through the Healthy, Hunger-Free Kids Act. This year, the Nebraska Department of Education is one of 65 projects spanning 42 states and Puerto Rico receiving funding through the USDA Farm to School Grant Program.

Grant funds will help develop Nebraska Thursdays, a program that brings schools together to serve a Nebraska-sourced meal in the cafeteria on the first Thursday of each month. Nebraska Department of Education Nutrition Services is partnering with the Center for Rural Affairs to roll-out a pilot program in five school districts across Nebraska in the 2107-2018 school year. The five participating districts are Wayne, Litchfield, Thayer Central, Overton and Omaha Public Schools. Each school kicked off their Nebraska Thursdays program in October 2017, also in celebration of National Farm to School Month, and showcased a variety of local foods on the plate, like roast pork, school greenhouse grown tomatoes, Norfolk melons, and Nebraska milk. The program will roll out statewide in the fall of 2018.

Nebraska Thursdays helps to educate on accessing, using and promoting local foods, creating a pathway for these foods to be available on school menus. Schools will receive resources and materials to take a step forward in purchasing, processing, and promoting local food in schools.

According to the 2015 U.S. Department of Agriculture Farm to School Census, nationally farm to school programs have invested more than $789 million in local communities; offered 17,089 salad bars with healthy options to students and staff; and grown 7,101 school gardens. Approximately 1,039 school districts serve local foods during the peak season in the summer months and 1,516 school districts start farm to school early in their pre-K programs. Here in Nebraska, 29% of school districts surveyed said that they participate in farm to school activities. That’s 71 districts with 458 schools and 188,637 students.

Nebraska is a state rich in agriculture, beef, hogs, eggs, dairy products, dry beans and potatoes all rank as top leading agricultural products in the state. School greenhouses and gardens are growing in numbers, and as they grow, education and nutritional benefits are as diverse as the fruits and vegetables being produced. There are multiple streams for accessing local foods.

There is value in farm to school for the cafeteria, the classroom and the community. Each dollar invested in farm to school stimulates an additional $.60-$2.16 of local economic activity. Income increases for individual farmers on average by 5% in sales and establishment of a long-term revenue stream, according to the National Farm to School Network.

The Nebraska Department of Education Nutrition Services is receiving support from the Nebraska Dry Bean Commission, Midwest Dairy Council and the Nebraska Beef Council to undergo this project, as well as Omaha Public School Nutrition Services. Stay tuned for success stories at pilot schools, and in 2018-2019 as the program rolls out statewide!
Ensuring Greater Opportunity for Agriculture

By Congressman Adrian Smith

As demand for high-quality food continues to rise worldwide, opportunity keeps growing for Nebraska agriculture. I am proud to represent the Third District, which is the top-producing agriculture district in the country. This designation is a direct result of the tireless work of producers like you who have made our state a leader in feeding the world.

The industry also faces challenges, from low commodity prices to damaging fires and drought, which reinforce the need to ensure we are doing all we can in Congress to provide certainty in agriculture policy.

It is crucial to hear directly from producers as we prepare to draft the next farm bill. This is why I held a farm bill listening tour this year with stops in Aurora, Beatrice, Broken Bow, Scottsbluff, and South Sioux City as well as a telephone town hall open to all Third District residents.

These open forums led to constructive discussions about what is and is not working in the current farm bill and how we can improve agriculture policy moving forward. Many attendees spoke about the importance of crop insurance, which is a vital and successful public-private partnership we must continue to support.

As a member of the Ways and Means Committee, I also continue to push for more opportunity for Nebraska producers to sell their products around the world. Renegotiation among the United States, Canada, and Mexico on the North American Free Trade Agreement (NAFTA) is underway, and I am optimistic producers can benefit from modernizations as long as the current market access granted to U.S. exporters through NAFTA remains the baseline. I have repeatedly stressed this to the Trump administration, with a receptive response.

We are clearly seeing the results of inaction on trade in Japan, which in July raised its tariff to 50 percent on frozen beef from the U.S. and other countries with which it does not currently have trade agreements. The higher tariff has led to a 26 percent decline in U.S. frozen beef exports to our trading partner.

I introduced a resolution in the House earlier this year in support of negotiating a bilateral trade agreement with Japan to prevent losing further market share in this crucial economy.

Here at home, we have a once-in-a-generation opportunity to benefit all Americans through a simpler, fairer tax code. Our national debt now exceeds $20 trillion, which is a devastating tax on future generations. The best way to tackle our debt is by growing the economy through better tax policy and holding the line on spending.

The tax reform framework, which we released at the end of September, outlines our plan for bringing relief to taxpayers at every income level with a focus on middle-class families. It incentivizes greater business investment with full and immediate expensing for at least five years, which encourages producers and business owners to make necessary upfront investments to create jobs, increase wages, and spur economic growth. The framework also lowers the rate on pass-through businesses to 25 percent, recognizing the importance of small businesses and producers to our economy.

The death tax, which equates to double taxation, threatens the ability of producers and small business owners to pass their livelihoods on to their children and grandchildren. The framework eliminates the death tax once and for all so family-owned farms, ranches, and small businesses are not hit with a large IRS bill following the death of a family member.

Overall, we need to be bold on tax reform to maximize the long-term positive impacts on the economy. In fact, permanent reform can drive double the economic growth as short-term tax cuts. This is a united effort among the Trump administration and both congressional chambers, and I am encouraged by the positive response since we rolled out the framework.

On the Ways and Means Committee, we are already working on turning the framework into a bill this fall, and we remain committed to getting a bill on President Trump’s desk for his signature by the end of the year.

In Congress, my top priority is ensuring greater opportunity for Nebraskans. Agriculture is the lifeblood of our economy, and as co-chairman of the Modern Agriculture Caucus, I will keep working to get the government out of the way and open more markets for Nebraska producers.
Every fall, the fields of western Nebraska are golden brown as busy machinery collects the season's harvest. Although the season for dry edible beans is now coming to a close, Nebraska producers know another one isn't too far off. Minds are already turning to the planning season because our farm families understand that to do their job well, they always need to be one step ahead.

Planning is especially important given the current economic climate. We can agree the last few years have been tough for agriculture; producers are dealing with low prices, soaring input costs, and less certainty. This downturn affects every Nebraskan because agriculture is the economic engine of our state with one in four Nebraska jobs directly tied to the industry.

During this tenuous time in agriculture, we need smart regulatory policies. I serve on the Senate Environment and Public Works Committee, which has oversight over the Environmental Protection Agency (EPA). As a member of this committee, I have worked to roll back the harmful EPA regulations standing in the way of prosperity for our farmers and ranchers, such as regulations affecting on-farm fuel storage and duplicative pesticide permitting restrictions.

Ensuring Nebraska’s water resources remain under local control and not the heavy hand of bureaucrats in Washington is also a focus of mine. Ag producers are good stewards of our water and they depend on this resource to provide for their families. The previous administration’s Waters the United States (WOTUS) rule would have expanded federal control of water and posed serious economic harm to Nebraskans. I’m pleased to see President Trump take steps to withdraw WOTUS and I look forward to continuing my work with the administration to protect local control of our water.

In times of uncertainty, folks in agriculture rely on a strong safety net. That’s why I’m committed to safeguarding crop insurance and maintaining other important risk management farm programs.

On that front, I recently sent a letter to President Trump encouraging him to maintain the U.S.-South Korea (KORUS) Free Trade Agreement. I also met with South Korea’s Trade Minister, Kim Hyun-chong, to discuss the strong strategic alliance between our two countries. Trade with South Korea provides great economic benefits to Nebraska’s families and I am going to keep working with Minister Kim, my colleagues in Congress, and the administration to develop trade opportunities for Nebraska producers.

The production season for many across our state is coming to a close, but the work is not over. There are more plans to make for next year and more to do to promote the sound agriculture policies Nebraska producers need and deserve. Together we can turn these plans into a reality and grow a stronger Nebraska.
Foreign dry bean buyers experience dry bean harvest first hand.

Foreign dry bean buyers from Mexico, Malaysia, Switzerland, Japan, South Africa, Costa Rica and Brazil were in Western Nebraska September 14-15, 2017 to witness first-hand dry bean harvest.

This group was sponsored by the Nebraska Dry Bean Commission (NDBC) and the US Dry Bean Council (USDBC) utilizing Foreign Agriculture Service (FAS) Market Access Program (MAP) funding.

While in Nebraska, the group had the opportunity to visit Jerald Meisner’s farm to see pinto bean harvest near Scottsbluff, Nebraska.

Mother-nature provided excellent harvest conditions during this year’s reverse trade mission, allowing for the participants to view dry bean harvest during their brief stay in Western Nebraska.

While in Nebraska the reverse trade mission were hosted by Kelley Bean Company for dinner, toured New Alliance Bean in Alliance, NE to see up close dry bean processing and participated in industry one-on-one meetings.

Exploring new export markets and maintaining established export markets is critical for the Nebraska dry bean industry. According to USDA Foreign Ag Service, in 2015 the value of Nebraska dry bean totaled $41.4 million.

The top five export markets were:
1. European Union $13.6 million
2. Dominican Republic $9.7 million
3. Turkey $9.7 million
4. Mexico $2.6 million
5. Malaysia $1.9 million

USDBC received $1.3 million in USDA MAP and FMD funding in 2017 and another approximately $400,000 in emerging markets funds.

USDBC has 8 contractors covering all of the European Union, Japan, China, India, all of Southeast Asia, Turkey, Sub-Saharan Africa, all of the Americas plus Mexico.
As I write this, the combine dust is flying, trucks are rolling over the bean elevator scales and the dry bean crop is disappearing out of the fields at a rapid pace. The only problem with this picture, is that it is the middle of October... Our patience is being tested this year, but fortunately we were blessed with a couple of weeks of beautiful October weather to allow harvest to progress and get this crop in the bins. The quality of the crop was somewhat damaged by frost and moisture, but overall it ended up in good shape considering the weather delays. In addition, most producers in the area seem to be happy with yields.

The Commission continues to work on new ways to promote our product and this year we’ll be teaming up with a food writer and photographer to help tell our story. Amanda Paa, the author behind “Heartbeet Kitchen” came out to the bean fields of western Nebraska for a visit this fall. Even though the weather wasn’t completely cooperative, we were able to find both a cutter and a combine for her to ride in while she was here. She will be writing a blog post on what she experienced on her visit and developing a couple of dry bean recipes for us. We are very excited to see the material she puts together! You can see a sneak peek of some of her photography from the trip on our NE Dry Bean Commission Facebook page. Amanda is a huge dry bean fan and you can find several delicious recipes on her blog featuring them. Visit HeartbeetKitchen.com and stay tuned for her first post for the Commission, which will be published some time in November and will be shared to our Facebook page.

In September we hosted a group of dry bean buyers from around the world as a part of the US Dry Bean Council’s Reverse Trade Mission. They were able to visit a couple of different producers’ fields, ride in combines, tour a processing facility and interact with producers and industry members during the industry dinner. We really appreciate the willingness of our producers to participate in these prime opportunities we have tell our story. Whether meeting with buyers or food writers, you are the ones who tell our story the best, so keep it up!

Nebraska Dry Bean Commission Research Reporting and Planning Session will be held December 8th at the Panhandle Research and Extension Center Blue Stem Room beginning at 9:00 A.M. This meeting is open to the public, bean growers are encouraged to participate.
North American Free Trade Agreement negotiations update

By Cindi Allen, MPM
NDBC Grower Representative

A lot has been happening in trade this year. Below is a recap of both the North American Free Trade Agreement (NAFTA), talks now in Round 4, and United States Korea Free Trade Agreement (KORUS) reopened by the Trump administration and USTR Lighthizer.

NAFTA is in Round 4, of a planned 7-10 rounds of renegotiating the agreement. The U.S. is unique, in a effort to maintain transparency; daily briefings are held twice a day with cleared advisory committee members in a side room. During these briefings cleared advisors are able give voice to multiple industries that depend upon trade. On the other hand, Canada and Mexico, with an observed lower level of transparency, have limited to 60 member delegations comprised of businessmen and government officials representing their respective countries.

Daily briefings include updates from chief negotiators recapping the day, lively discussion, questions, concerns, and directives from cleared advisors. Cleared advisory members also have access to respective negotiators during the day. With that said, Ag advisors hold a distinct majority in the room.

As a member of Agricultural Policy Advisory Committee, I have been able to participate in each round as a cleared advisor. Agriculture has always been the darling of NAFTA, with most commodity groups taking the position of “Do No Harm.”

Surprisingly Mexico and the U.S. are very closely aligned and have consolidated most text. As a result, Mexico and the U.S. are attuned to the former Transatlantic Pacific Partnership Free Trade Agreement (TPP) language. Canada, however, has been more tactical in their approach sticking closely with the text from NAFTA 1.0 instead.

NAFTA – What we know...

Ambassador Lighthizer signaled out 8 specific objectives for the US trade negotiations.
1. Trade deficits
2. Rules of Origin
3. Country of Origin
4. Labor agreement
5. Currency manipulation
6. Dispute settlement procedures
7. Anti-dumping includes market distorting practices
8. Reciprocal trade in agriculture

Further...

The Trump administration wants to incorporate a 5 year sunset clause into NAFTA. However, some farm organizations have suggested a 10 year sunset clause instead.

The U.S. goal in dispute settlement is to maintain U.S. sovereignty versus a dispute panel to resolve issues.

The U.S. and Mexico both would like to complete renegotiations by year end.

Canada, not so much.

Canada would like to eliminate all in-kind and monetization of food-aid.

USTR Ambassador Lighthizer opening remarks reminded all in attendance of the importance of NAFTA to agriculture and the family farmer. We will see a greater focus on agricultural in forth coming rounds of renegotiations.

The United States Korea Free Trade Agreement (KORUS) –What we know...

U.S. food and agriculture exports are a net positive for the U.S. balance of trade with Korea. U.S. ag production is going to increase well into the future and this increase in production cannot be absorbed in the domestic market. We must continue to increase U.S. exports of ag products. There is increasing demand world-wide for our products. South Korea is our sixth-largest market for agricultural exports, and KORUS has greatly contributed to this growth by cutting tariffs and lifting other regulatory restrictions on our ag exports. KORUS has been very beneficial for U.S. beef exports to Korea, which is now the second largest export market for U.S. beef. Science-based trade measures and the ultimate elimination of Korea’s 40 percent tariff on U.S. beef have resulted in very large increases in U.S. beef exports to Korea. The story is very similar for U.S. pork exports. Provisions of KORUS that have made this possible should be carefully protected.

It is my understanding that significant barriers remain for U.S. food-grade soybean exports, related to a South Korean government-run trade company and the tariff and quota structures that give that company a virtual monopoly. The government company imposes a high mark-up on South Korean consumers. It is my understanding that corn and wheat products carry a zero tariff under KORUS. Renegotiation of KORUS would provide an opportunity to update seed innovation and plant breeding rules that could make U.S. seeds more widely available to South Korean farmers. The adoption of international standards would help a great deal, including rules related to Sanitary and Phytosanitary (SPS) practices. KORUS contains a chapter on SPS, but it is written at a high level of generality.

Live animal trade (poultry and livestock) with South Korea has suffered from import bans during various periods. Standards and practices employed by South

(continued to next page)
Nebraska Agriculture Farm Bill Listening Session held at Nebraska State Fair.

Listening Session held on Friday, September 1, 2017 at the Bosselman Center on the Nebraska State Fairground in Grand Island, Nebraska.

Nebraska’s dry bean industry has identified the following areas of priority for the 2018 Farm Bill.

- The 2014 Farm Bill retained the planting restrictions of fruit, vegetables and dry pulse crops on acres eligible for payments under Title I commodity programs (payment acres). The Nebraska dry bean industry would strongly encourage retaining this planting restriction in the upcoming Farm Bill.

- Reauthorization of Specialty Crop Block Grants with increased funding and a formula to determine the funding amounts to the States based on production value and acreage along with the reauthorization to set aside a portion of each year’s funding for multi-State projects.

- Reauthorization of the Expansion of the Specialty Crop Research Initiative (SCRI) and the Farmers Market and Local Foods Promotion programs.

- Reauthorization of Trade Promotion Programs; Market Access Program (MAP), Foreign Market Development Program (FMD). The Nebraska dry bean industry supports maintaining funding for the MAP program at the existing level of $200 million annually and the FMD program funded at $34.5 million at full authorized levels in 2017 and the 2018 Farm Bill.

- Reauthorization of Domestic Feeding Programs and International Feeding Programs; the Nebraska dry bean industry supports the continuation of in-kind food aid programs and the increased use of dry beans in food aid rations in McGovern Dole School Feeding programs, Food for Progress and Food for Peace.

- The Nebraska dry bean industry supports the Federal Crop Insurance program and opposes any changes to the Agricultural Act of 2014 that would weaken the program.

Nebraska Dry Bean Commission and Nebraska Dry Bean Growers Association would like to thank Kendall Busch, Mitchell, Nebraska dry bean growers, for carrying written testimony to the congressional delegation.

The agricultural groups sponsoring the listening session include:

- Nebraska Cattlemen
- Nebraska Corn Growers Association
- Nebraska Dry Bean Commission & Nebraska Dry Bean Growers Association
- Nebraska Farm Bureau
- Nebraska Pork Producers Association
- Nebraska Grain Sorghum Producers Association
- Nebraska State Dairy Association
- Nebraska Sugar Beet Growers Association
- Nebraska Wheat Growers Association
- Rural Radio Network

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Korea related to such bans would be improved by the including international standards on these topics in a renegotiated KORUS.

The KORUS chapter on technical barriers to trade is written at a high level of generality and has not been fully implemented by South Korea. Greater regulatory cooperation would be mutually beneficial.

Overall, a lot has been happening and the pace is very fast.
This article will provide an overview of the policies and processes associated with the release, protection and commercialization of plant varieties developed at University of Nebraska-Lincoln (UNL).

The Institute of Agriculture and Natural Resources policy on the release of plant varieties and germplasm is guided on the following overarching principles: plant breeding activities are generally funded by public funds and therefore all variety releases must be made having in mind the best interest of growers, the University of Nebraska and the general public; the policy should not restrict the free exchange of germplasm among breeders or hinder cooperative efforts among other public or private entities; and the policy should allow for the expeditious entry of varieties into the seed or propagation trade and which gives the best chance for acceptance of growers. UNL plant breeders develop germplasm and varieties of important agronomic, horticultural and forest crops under a plant improvement program. A variety to be released must be distinctly superior to existing varieties in one or more characteristics of importance or superior in overall performance in areas where adapted or offer unique characteristics as a parent for breeding purposes.

A Crop Variety Release Committee composed of plant breeders, the Department Heads of Agronomy and Horticulture, Entomology and Plant Pathology review the application documents for a variety release and make a recommendation to the Dean of the Agricultural Research Division. Once the variety release is approved, a statement of release is distributed among stakeholders, growers, private and public entities related to the crop being released. A decision regarding varietal protection under the Plant Variety Protection Act (PVP) will also be made at this time. Subsequently, an invention disclosure describing the variety will be submitted to NUtech Ventures, a University-owned affiliate responsible for the marketing and licensing of plant germplasm. Husker Genetics, the University’s foundation seed group, is also involved for foundation seed increases and support of commercialization of varieties and hybrids.

Regarding licensing of varieties, NUtech Ventures will license released varieties only after they have been publically announced via the Bean Bag, NUtech Ventures website, and in cases where an exclusive licensee is sought, via a request for proposal (RFP) process; also publically announced. The financial terms of licenses will be based on the nature of the variety, the scope of the license, and will be consistent with royalty rates for similar germplasm/varieties.

The net revenue that NUtech Ventures and the University retain after expenses is distributed to the breeder(s)/inventor(s), UNL, and to the College/Department to support further research activities, according to Regents and campus policies.

The overall goal of our breeding and licensing programs is to create and commercialize excellent germplasm to create value for our ultimate stakeholders, the growers and producers of Nebraska and the region.
Predicting Dry Edible Bean Prices

During Dry Bean field day, I showed the attendees a statistical approach for predicting the prices of Pinto and Great Northern Bean varieties. Economics teaches us that the supply and demand of a good determine its price. Thus, factors related to the supply of dry edible beans should be tested for their accuracy in predicting dry bean prices. Determining what factors of supply and demand influence the price of each bean variety can be tricky. Data regarding supply factors by variety are easier to come by than demand factors by variety. Below are factors I considered:

- Number of acres of dry beans planted nationally
- Dry bean beginning stocks
- National marketing year average corn price
- Year

Data for these factors where collected by USDA NASS for each year from 1987 to 2016, and run through a regression analysis in Excel.

Pinto Beans

At Dry Bean field day, I showed that the price of Pinto beans (Price \( p \)) can be predicted using two factors, the number of Pinto beans planted in the U.S. (Acres \( p \)) and the price of corn (Price \( c \)).

\[
Price \ p = 25.02 - 1.7 \text{ Acres} \ p + 4.03 \text{ Price} \ c
\]

In other words, Pinto beans have a base price of $25.02 per cwt., for every 100,000 acres of Pinto beans planted in the U.S., in a given year, the price is reduced by $1.70/cwt. However, for every $1/bu of the price of corn, the price of Pinto beans will rise by $4.03/cwt.

Year and beginning stocks of Pinto beans did not have a statistically significant impact on the price of Pinto beans.

During dry bean field days, it was asked, “Would soybean prices be a more accurate way of predicting dry bean prices?” This question required more statistical analysis.

Farmers know that the prices of crops are related to one another. Often, when the price of corn goes up or down, the price of soybeans and other crops follow. When two factors are related like this, it can cause an issue in regression analysis called multicollinearity. Factors need to be tested against one another for this problem to ensure the validity of the equation.

As expected, Price \( c \) and national marketing year average soybean price (Price \( s \)) are highly correlated. Thus, only one of these factors, Price \( c \) or \( s \), should be used in the regression to predict Price \( p \). But, which one is more accurate?

A Mean Absolute Percent Error (MAPE) test was run to determine which factor is more suitable for predicting Price \( p \). This test shows how accurate the forecasting ability of the regression is, showing its inaccuracy as a percentage. Through the process of this analysis, Price \( c \) had a MAPE of 29.39 when used in the regression and Price \( s \) had a MAPE of 29.44. Both Price \( c \) and Price \( s \) are inaccurate at forecasting the Price \( p \) about 30% of the time. However, the Price \( c \) performed slightly better (0.06%). Thus, I will continue to utilize Price \( c \) as a valid factor in Pinto bean price prediction.

Great Northern Beans

The same process was used to forecast the price of Great Northern beans (Price \( G \)). The analysis found that Price \( G \) can be predicted using two factors the beginning U. S. Great Northern bean stocks (Stocks \( G \)), and one of the following: Price \( p \) or Price \( c \) or Price \( s \). Year and number of Great Northern acres planted did not a statistically significant impact on Price \( G \).

The MAPE test showed that Price \( G \) resulted in the lowest amount of inaccuracy at 12.42%. Thus, the following equation can be used to predict the price of Great Northern beans.

\[
Price \ G = 20.81 - 0.08 \text{ Stocks} \ G + 6.11 \text{ Price} \ c
\]

In other words, Great Northern beans have a base price of $20.81 per cwt., for every million pounds of beginning stocks of Great Northern beans, in a given year, the price is reduced by $0.08/cwt. However, for every $1/bu of the price of corn, the price of Great Northern beans rise by $6.11/cwt.

No one can predict the prices with 100 per cent accuracy. The methods above are used to gain more insight into the dry edible bean market. This research showed that the price of Pinto beans are less predictable than Great Northern beans given the factors analyzed. Furthermore, it revealed Pinto beans rely more on current production (acres planted) and Great Northern bean prices rely more on carry-over stocks (beginning stocks). Both varieties prices can more accurately be predicted using the national marketing year average price of corn than soybeans.
UPCOMING TRAINING EVENTS:

QuickBooks
Cost: $55/participant
Limited to 5 participants per location

Jerry Terwilliger teaches the basics of desktop QuickBooks in a 5 hour workshop, focusing on the record keeping needs of farmers and ranchers. In this workshop, participants will learn how to input transactions, use accounts, categories, inventories, invoices, and run common reports. This workshop is being offered in collaboration with the Center for Rural Affairs Rural Enterprise Assistance Project and the SBA Women’s Business Center.

- Oct. 30 from 9:00 a.m. – 5:00 p.m. at the Kimball County Extension Office.
  To register call Aaron Berger 308-235-3122
- Nov. 6 from 9:00 a.m. – 5:00 p.m. at the Dawes County Extension Office.
  To register call Jack Arterburn 308-327-2312
- Nov. 15 from 9:00 a.m. – 5:00 p.m. in Mullen (location TBD).
  To register call Bethany Johnston 308-645-2267
- Nov. 16 from 9:00 a.m. – 5:00 p.m. at the Cherry County Extension Office, Valentine.
  To register call Jay Jenkins 402-376-1850
- Nov. 27 from 9:00 a.m. – 5:00 p.m. at the PREC, Scottsbluff.
  To register call Jessica Groskopf 308-632-1247

Quicken
Cost: $20/participant
Limited to 10 participants per location

Nebraska Extension Educators will teach the basics of Quicken in a 2.5 hour workshop, focusing on the record keeping needs of farmers and ranchers. Participants will learn how to input transactions, use categories, tags, and memos, and run common reports.

- Scottsbluff Nov. 9 from 5:30p.m. to 8:30 p.m. at the Panhandle Research & Extension Center. To register call Jessica Groskopf, 308-632-1247.
- Scottsbluff Nov. 13 from 5:30p.m. to 8:30 p.m. at the Panhandle Research & Extension Center. To register call Jessica Groskopf, 308-632-1247.
- Kimball Jan. 25 from 5:30p.m. to 8:30 p.m. at the Kimball Courthouse Annex. To register call the Kimball County Extension Office, 308-235-3122.

Quicken Office Hours
Cost: FREE
1 hour per person/couple

Call Jessica Groskopf 308-632-1247 to schedule.
Nebraska Extension Educators will assist farmers and ranchers with specific questions they have about Quicken. Participants will need to provide their own computer with quicken installed, and records.

- Sidney Nov. 8 by appointment only at the South Platte NRD Meeting Room.
- Scottsbluff anytime by appointment only at the Panhandle Research & Extension Center.
- Kimball Jan. 29 by appointment only at the Kimball Courthouse Annex.

Grain Marketing Workshops:
Futures & Options
Cost: Free, Lunch included
Limited to 40 participants per location

Grain marketing workshops focus on futures and options will be offered at several sites across Nebraska to assist grain producers minimize losses during this time of low prices.

Workshops are funded by the Nebraska Corn Board. Complimentary lunch is provided at each location. Each workshop is limited to 40 participants.

Nebraska Extension Educators will present strategies for using futures and options to protect farmers from adverse market movements. The workshops feature the Marketing in a New Era simulator and the Grain Marketing Plan smartphone application.

Register by calling Jessica Groskopf 308-632-1247 or by visiting http://go.unl.edu/marketingworkshops

- Scottsbluff Jan. 9 at the Panhandle Research and Extension Center from 9:30 a.m. to 3:00 p.m.
- Hemingford Jan. 11 at Farmer’s Coop from 9:30 a.m. to 3:00 p.m. Lunch sponsored by Farmer’s Coop.
John Dillman, Regional Sales Manager for Betaseed Inc. reported on the Progressive Agriculture Safety Day with the Chamber of Commerce Agribusiness committee:


These stations were manned by volunteers from local businesses. And, local businesses donated to purchase items for each student to take home a – bicycle helmet, first-aid kit, water bottle, sunglasses, information on sugar and local agriculture.

This is our 7th year of holding the Safety Day with a total attendance of 1,100 students, 280 volunteers. The Progressive Agriculture Safety Day began in 1995 and through 2016 total attendance in 41 states and 9 Canadian Providences has been 6,600 Safety Day events – 1,200,000 students – 328,000 volunteers. The Safety Day is held to educate students on safety to reduce and hopefully eliminate students being injured and/or killed with a farm accident.
The Little Wild Bean Eater:
One day Little Wild Bean Eater decided to roam the bean field to find grasshoppers. Unfortunately he did not mention this adventure to his mother who was busy loading the wash machine.

After several panicky moments of searching, his mother spotted his little red head bobbing up and down, while he ran in the bean field. Calling him in with the dinner bell, she admonished him greatly for disregarding the rules of home departure.

The little boy calmly looked at his mother and said, I had to catch some grasshoppers for dinner mom, you didn’t want me to get hungry did you?

And mom worries about him not wanting to eat beans?

Guacamole Dip With Chips:
15 oz. can white beans, rinsed and drained
1 avocado, peeled and pitted
1 medium tomato, diced
1 Tbsp. lime juice
2 Tbsp. cilantro fresh & chopped
Salt and pepper to taste
Tortilla chips

Combine avocado, beans and lime juice in a food processor. Process until blended and smooth. Put in a bowl and add tomato and cilantro. Serve with salt and pepper to taste and with Tortilla chips.
Great Northern and Pinto Beans lower plasma cholesterol in hamsters fed high fat diet by promoting cholesterol excretion

An Tien Nguyen  
Sami Althwab  
Haowen Qiu  
Carlos Urrea  
Timothy P. Carr  
Vicki Schlegel*  
University of Nebraska – Lincoln

Coronary heart disease (CHD) is a major health concern in the United States, causing 1.7 million hospitalizations and over 600,000 deaths each year and resulting in annual costs of $58 billion. A primary risk for CHD is high low-density lipoprotein (LDL) cholesterol (Fernandez & Webb, 2008), which is disproportionately high (28-32%) in the U.S. Because LDL levels are strongly correlated to dietary fat intake (Jakobsen et al., 2009), it is expected that the above cited statistics will be maintained or even increase as dietary choices established during early ages are not easily altered (Frémeaux et al., 2011). Administration of cholesterol lowering drugs, such as statins, is commonly used to treat high cholesterol. However, a variety of potential side effects of the drugs has prompted the discovery of several heart healthy food ingredients including phytosterols, dietary fiber and polyphenols (Bursill & Roach, 2007; Erkkilä & Lichtenstein, 2006). The latter two components are present in dry edible beans (DEB) at levels higher than most natural systems, including fruits and vegetables. Despite that fact, research on any type of DEB as potent protectors against high cholesterol caused by a fatty diet is non-existent. Therefore, the objective of this study was to determine the effects of great northern beans and pinto beans on high cholesterol induced by an athrogenic diet.

Golden Syrian hamsters were chosen for this study as their cholesterol metabolism is similar to human. A group of 11 hamsters was fed either a low fat diet, a high fat diet or high fat diet supplemented with raw great northern or pinto beans at a level of only 5% (w/w) of the diets in a period of 4 weeks. Plasma and fecal samples were collected for the screening of cholesterol biomarkers. After collection, plasma was analyzed for total, high density lipoprotein (HDL) and non-HDL cholesterol while liver samples were analyzed for total cholesterol. Cholesterol excretion in the forms of bile acids and neutral sterols were examined from fecal samples. No significant difference in the amount of food consumed between groups regardless of dietary types and supplements suggesting that great northern and pinto bean added to high fat diets at 5% (w/w) were palatable and introduced no reversed effect to the normal growth of the hamsters. The results showed that both bean supplements were able to reduce plasma cholesterol. As shown in Fig. 1, a striking reduction, i.e., 50%, in non-HDL cholesterol occurred in the group of hamsters fed a high fat diet supplemented great northern beans. (It should be noted that non-HDL is a fraction of plasma lipoprotein that has more than 90% of low density lipoprotein (LDL) as its composition.) Interesting, pinto beans also reduced non-HDL induced by high fat diet, but only by ~30%.

A strong and negative correlations between plasma cholesterol and fecal cholesterol excre-
tion occurred in this study, indicating that great northern and pinto beans reduced cholesterol in part by promoting the excretion of cholesterol via feces in the forms of bile acids and neutral sterols (Fig. 2). The data further revealed that hamsters excreted over 300% more cholesterol in the feces of animal fed great northern beans supplemented high fat diet. Cholesterol excretion was much less for the pinto beans, (~40%) (Fig. 2). A strong and negative correlations between plasma cholesterol and fecal cholesterol excretion occurred in this study, indicating that great northern and pinto beans reduced cholesterol in part by promoting the excretion of cholesterol via feces in the forms of bile acids and neutral sterols.

In conclusion, great northern beans and pinto beans are strong protectors against the elevation of cholesterol caused by high fat diets, with great northern beans being more potent. These results were unexpected considering that pinto beans contain higher levels of chemically diverse micronutrients, which have been shown to process health promoting properties. However, other studies, albeit limited, are emerging showing the potent health benefits of white beans, but this research does not include great northern beans. It must be noted that we recognize these studies were conducted with raw beans, a state that is not consumed by humans. However, raw beans were used to provide a point of reference to feed back to the bean breeders to enhance the possible cholesterol lowering components or to food developers so as not to compromise the cholesterol lowering agents during the processing procedures. More studies are in progress on the effects of cholesterol in response to beans grown in Nebraska subjected to different cooking processes. By thoroughly characterizing the cooked beans with the raw beans, identification of the heart health components are expected. We further anticipate studies using human subjects and optimal cooked bean to validate positive results from the animal work. Most important, research into potential health benefit of these bean varieties is expected to promote the consumption, thus elevate the market price of the beans, thereby moving this dietary food into the niche, and high lucrative, functional food market.

Reference

Figure 2. The percentage of change in Non-HDL cholesterol in hamsters fed great northern bean and pinto bean supplements compared to high fat group, which was normalized to animal fed a high fat diet.
It can be challenging to simultaneously maintain yields and soil quality in any production system. Dry beans appear to be the most susceptible of all crops grown in Western Nebraska to yield reductions when grown on degraded soils. Because of their shallow roots, dry beans have a limited volume of soil in contact with roots for optimal development. It is thus essential for the plant to have a well-developed root system to extract nutrients from the soil for plant growth and maximum seed production.

In western Nebraska, beans are often grown in fields that have been leveled for irrigation, intensively farmed or have been affected by wind and water erosion, all of which can decrease soil organic matter/soil carbon (C). Lack of soil C is a significant indicator of a degraded soil. When beans are grown on degraded soil, plants are prone to less vigorous foliar growth, chlorosis, poor root development, and poor emergence due to soil crusting. Furthermore, lighter colored soils low in organic matter warm up slower and have less potential to produce nutrients from mineralization. Many intensively cultivated soils in the Great Plains have lost 30 to 50% of the original C level.

Soil C is a key indicator of soil quality or health as it affects many soil physical, chemical, and biological processes and properties. Increased soil C reduces compaction risks and improves soil structure, water holding capacity, cation exchange capacity, and microbial activity. Soil C loss can be particularly negative in coarse-textured soils like many of those in western Nebraska. Restoring the soil C lost is thus a high priority to enhance crop production in general and specifically dry bean production.

This year, a field research study was initiated in the Panhandle at a low-productive field under center-pivot to assess carbon-rich char (also known as cinder), biochar from pine trees, composted manure and municipality compost as potential amendment to restore the soil quality and increase bean production. Beans are a target study crop because improved soil quality could decrease soil crusting, enhance emergence and root development. This project will generate research information on char, biochar, municipality compost and composted manure application rates and benefits, which will be used to provide recommendations to dry bean producers for the utilization of these products.

Aerial imagery early in the season showed an encouraging evidence of these products, particularly char as potential soil amendment (Figure 1). Studies on other C-rich materials have shown some promising results, but field trials on the soil and bean yield benefits of these potential soil amendments have been just initiated in NE Panhandle. Stay tuned as we are compiling yield and soil data and getting ready to share with you.

Please feel free to contact Bijesh Maharjan at bmaharjan@unl.edu or 308-6321732 with any soil and soil fertility questions. Figure 1. Aerial imagery was collected at bean emergence using a drone. All five rates of char (10, 20, 30, 40, and 60 tons/acre) were greener early in the season in all four replications (only one rep is depicted here).
Our latest analysis shows that U. S. dry bean exports to our key markets in Central America continue on an upward trend. Exports to Costa Rica, Panama, El Salvador and Guatemala are all up significantly as of the latest FAS/GATS report. In some cases, the number are quite significant. U.S. dry bean export to Panama are up over 60% to 5,000 MT, up 48% in Guatemala to 3,370 MT and up 57% in El Salvador to 3,289 MT for the period September 2016 to July 2017, compared to the same period last year. The U.S. dry bean industry still faces numerous trade challenges in the region from trade agreement enforcement, TRQ administration, and competition, but the story so far this year, is one of success.

We believe this is due in part, to the very targeted and creative marketing and promotional campaigns that USDBC has been conducting in the region. In addition to hosting a team of major food manufacturers from Central America, USDBC has been holding nutritional and cooking seminars in conjunction with local experts.

During the first week of October, USDB has been running different seminars on cooking with bean ingredients throughout the region under the banner, “Todo con Frijol,” or Everything with Beans.

While beans are a staple of the Central American diet, U.S. origin beans haven’t always been competitive nor well known. That is all changing, there are new seminars planned for 2018 and a trade mission to the region coming up December 5-12, 2017. This is an exciting time for U.S. dry bean in Central America.

Ready for Another Successful Year of Partnership with USDA/FAS

USDBC has received its Market Access Program (MAP) and Foreign Market Development (FMD) program allocations for the 2018 year. USDBC allocations, not including the GBI Program and Emerging Markets program is about $1.1 million, more or less the same as 2017. USDBC is anticipating an additional $400,000 or so in funding from other funds, not yet allocated.

USDBC is grateful to FAS for their continued support of our global export programs and look forward to another year of successful partnership in promoting agricultural exports and moving our beans around the world. “We will remain vocal and assertive about ensuring continued funding of both the MAP and FMD programs in the next Farm Bill and standing with our colleagues in the agricultural trade community to ask for a doubling of both budgets” stated Rebecca Bratter, USDBC Executive Director.
Please Help!

We are updating our mailing list after every issue of “The Bean Bag”. If your mailing address has changed, please call 308-633-1387 or mail the changes to us. If you raise beans, are a land owner or a bean processor, please let us know. Also, contact us if you are no longer involved in the bean industry, but still receive “The Bean Bag”.

We are committed to using your check-off Dollars wisely!

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