NORTHARVEST BeanGrower

VOLUME 26, ISSUE 3 WWW.NORTHARVESTBEAN.ORG SPRING 2020

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NORTHARVEST
BeanGrower

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VOLUME 26 ISSUE 3

GEARING UP FOR THE 2020 GROWING SEASON

In the spring issue of the Northarvest *Bean-Grower*, we are gearing up for the 2020 growing season. We have stories that deal with the agronomics of dry bean production and market news. As I write this column, another story is dominating everything we do and that's coronavirus.

Our world has been flipped upside down with COVID-19, bringing the global economy to a halt. 'Social distancing' and 'shelter-at-home' are now part of our vocabulary and our daily lives. By the time you read this I'm hoping we have returned to a more normal way of life.

Faced with the coronavirus pandemic, Agriculture Secretary Sonny Perdue highlighted the resilience of American agriculture. "This is what Americans do when times are tough—we adapt and overcome." Perdue also emphasized our food supply is strong and safe. "From the production of equipment, feed and fertilizer; to the farmer who puts the seed in the ground; to the packers, processors and truckers who bring that food to market; to the growers getting that food to consumers, America's food supply is safe and secure."

We're proud to be part of that food chain, producing a wholesome, nutritional and flavorful product.

Thank you and stay safe,

David Dickson, President
Northarvest Bean Growers Association

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Optimizing Row Spacing and Plant Populations for Sclerotinia Management in Pinto and Kidney Beans

By Michael Wunsch, plant pathologist, NDSU Carrington Research Extension Center

Seeding dry beans to narrow and intermediate rows facilitates faster canopy closure, increasing conversion of sunlight into biomass and increasing dry bean yield potential. However, it also increases the risk of Sclerotinia, or white mold, by trapping additional humidity within the canopy.

Producers concerned about white mold often seed dry beans to wide rows (generally 30 inches), sacrificing dry bean yield potential in the absence of white mold in order to reduce disease-related losses if white mold develops.

Previous research conducted with dry beans in Albert, Canada (navy beans) and Ontario (various market classes) confirms that wide rows reduce white mold, but indicates that seeding dry beans to wide rows can result in lower dry bean yields despite reduced white mold pressure. Similar results were observed in preliminary research conducted in Carrington and Oakes, North Dakota from 2012-2017

Despite modest reductions in disease conferred by wide rows, pinto bean yields were maximized in narrow rows except when disease pressure is very high. Across 13 replicated field trials conducted over 5 years, the yield advantage conferred by narrow (14-inch) rows versus wide (28-inch) rows averaged 410 lbs/ac when end-of-season white mold severity (percent of the canopy diseased) was 26-50 percent in narrow rows and 339 lbs/ac when disease severity was 51-75 percent in narrow rows. Yields were only maximized in wide rows when white mold severity was greater than 80 percent.

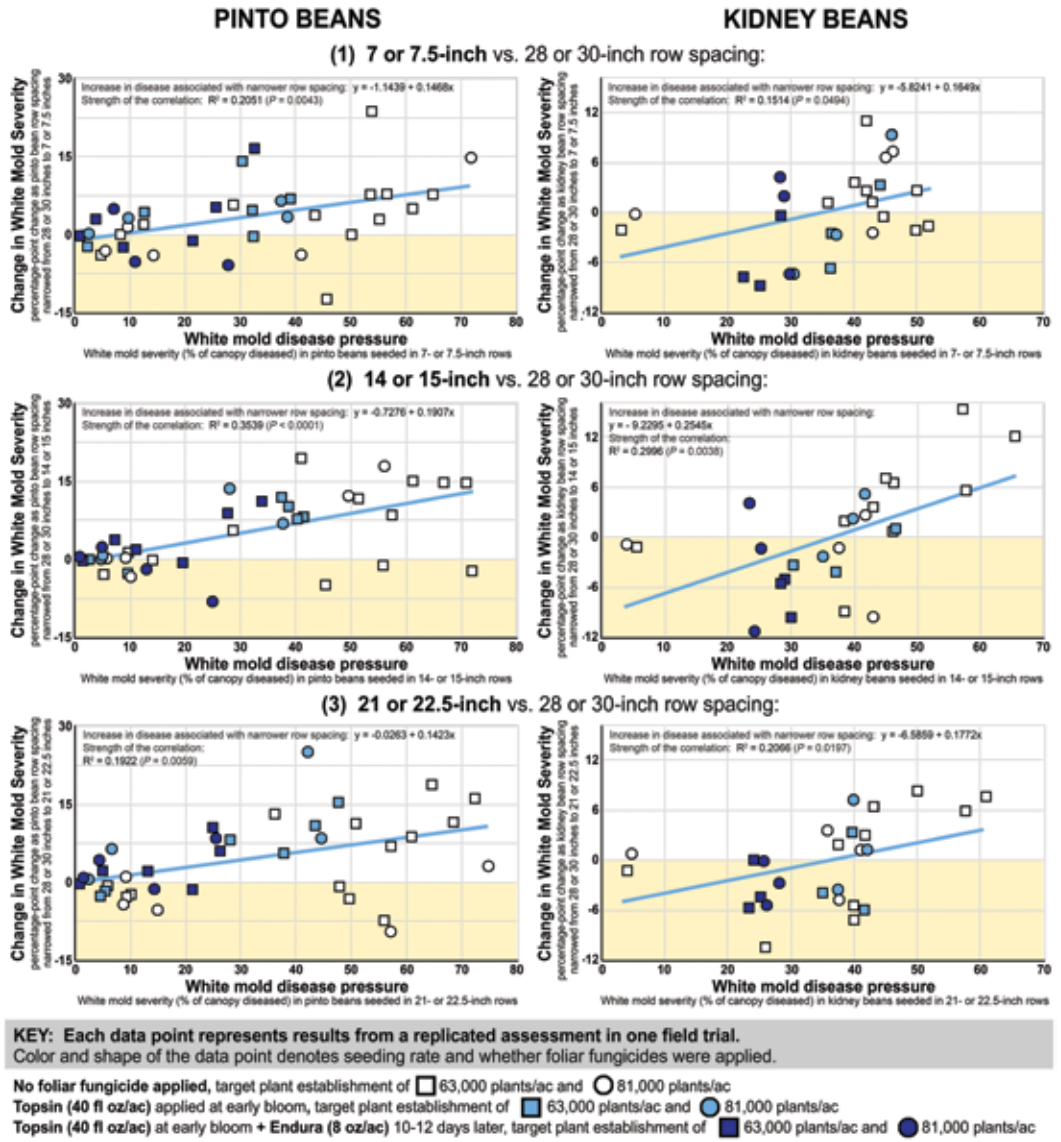

FIGURE 1. Impact of row spacing on white mold severity in 'Palomino' and 'Vibrant' pinto beans and 'Rosie' light-red kidney beans. Each data point represents results from one environment in one year. Seeding rate and foliar fungicide usage are denoted by the shape and shading of data points; see key at the bottom of the figure.

METHODS

This multi-year, multi-location study seeks to rigorously assess the impact of row spacing and seeding rate on the agronomic performance of pinto and kidney beans under white mold pressure. Field studies were established under overhead irrigation at Carrington and Oakes, ND in 2018 and 2019. Another set of studies will be conducted in 2020.

In 2018, *Palomino* pintos and *Rosie* light-red kidneys were evaluated in each of four row spacings (7, 14, 21 and 28 inches) and two seeding rates (70,000 and 90,000 pure live seeds/acre) in plots were 5 feet wide and 25 feet long, with dry beans grown without foliar fungicide (Oakes) or with zero, one versus two applications of a foliar fungicide (Carrington).

In 2019, *Palomino* and *Vibrant* pintos and *Rosie* light-red kidneys were evaluated in rows 7.5, 15, 22.5 and 30 inches apart in plots 10 feet wide and 25 feet long, with an interior 60 or 67.5- inch width assessed for yield. Plots were overseeded and manually thinned during vegetative growth to establish plant populations of approximately 60,000 or 90,000 plants/acre.

Assessments were conducted under conventional tillage or by direct seeding into winter rye. No foliar fungicide was applied or all row spacing and seeding rate treatments were evaluated in randomized, replicated blocks treated with zero, one or two foliar fungicide applications. When fungicides were applied once, Topsin (40 fl oz/ac) was applied when 80-100 percent of plants had an open blossom. When fungicides were applied twice, Topsin (40 fl oz/ac) was applied when 80-100 percent of plants had an open blossom and Endura (8 oz/ac) was applied 10 to 12 days later.

The percent of the canopy exhibiting white mold was assessed by individually assessing every plant in a 15-30-inch width on the entire length of the plot and calculating average disease severity across all plants, including those with no disease.

MAJOR FINDINGS

Seeding pinto beans to narrow (7-15 inch) or intermediate (21-22.5 inch) rows had no impact on

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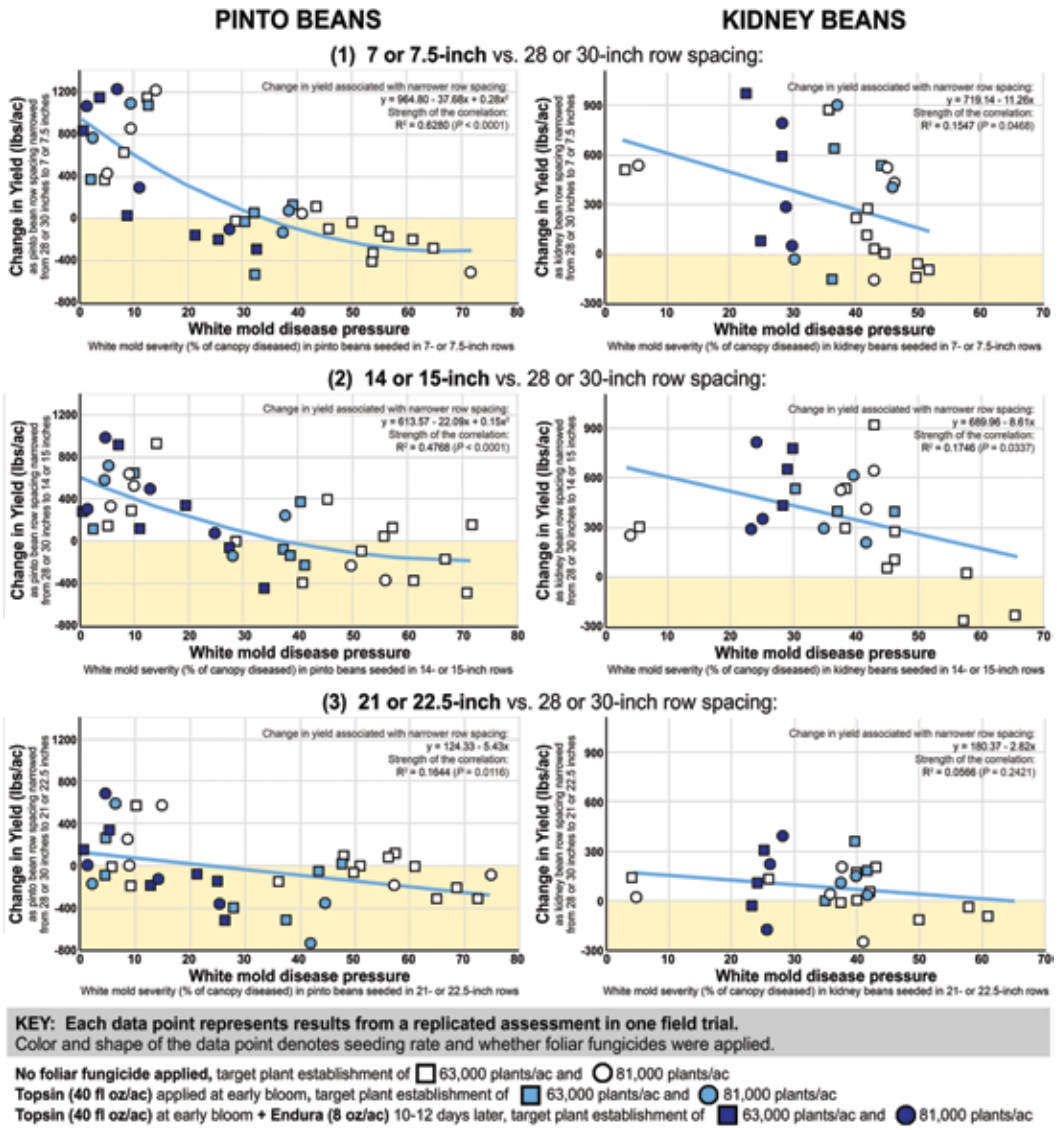

FIGURE 2. Impact of row spacing on dry bean yield in 'Palomino' and 'Vibrant' pinto beans and 'Rosie' light-red kidney beans. Each data point represents results from one environment in one year. Seeding rate and foliar fungicide usage are denoted by the shape and shading of data points; see key at the bottom of the figure.

white mold severity when disease pressure was low (less than 20-25 percent of the canopy exhibiting white mold at the end of the season). Under moderate to high disease pressure (more than 25 percent of the canopy diseased in the narrower row spacing), seeding pinto beans to narrow or intermediate rows resulted in increased white mold severity (Figure 1).

Seeding kidney beans to narrow (7-15 inch) or intermediate (21-22.5 inch) rows reduced white mold severity when disease pressure was low (less than 25-30 percent of the canopy exhibiting white mold in the narrower row spacing at the end of the season) and increased white mold severity under higher disease pressure (Figure 1).

The reduced white mold severity observed in kidney beans seeded to narrow rows when less than 25-30 percent of the canopy was diseased is consistent with observations made by crop advisors in Minnesota. Previous research conducted in Brazil and Alberta and suggests that maximizing the distance between plants, not the distance between rows, minimizes white mold when disease pressure is low.

The impact of row spacing on pinto bean yield changed as white mold pressure increased. Seeding pinto beans to narrow (7-15 inch) versus wide (28-30 inch) rows consistently maximized yield when end-of-season white mold severity in the narrow row spacing was less than 20 percent, with the highest yields observed in pinto beans seeded to 7-7.5 inch rows (Figure 2).

When end-of-season white mold severity in the narrow rows exceeded 45-50 percent, seeding pinto beans to wide rows consistently maximized yield. At intermediate levels of disease pressure, yields were often, but not always, maximized in wide rows (Figure 2). Seeding pinto beans to intermediate (21-22.5 inch) rows rarely optimized yield even under low to moderate white mold pressure (Figure 2). Results were consistent across seeding rates.

Kidney beans yields were maximized in narrow rows except under high white mold pressure. Seeding kidney beans to narrow (7-15 inch) versus wide (28-30 inch) rows consistently maximized yield when end-of-season

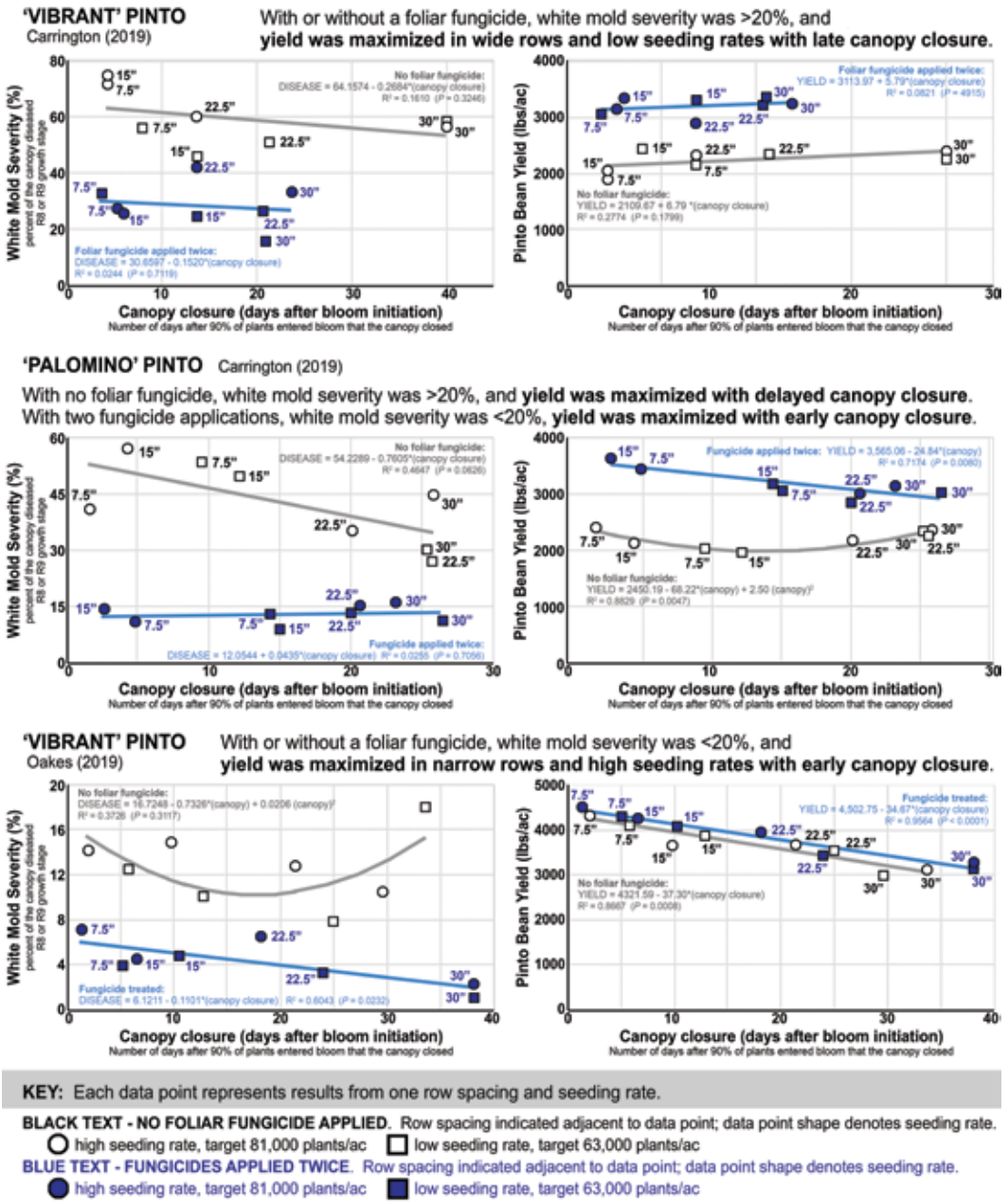

FIGURE 3. Impact of the timing of canopy closure on white mold severity and yield in 'Palomino' and 'Vibrant' pinto beans.

white mold severity in the narrow row spacing was less than 33 percent and often maximized yield when end-of-season white mold severity in the narrow row spacing was 33 to 50 percent.

Wide rows only maximized kidney bean yield when end-of-season white mold severity in the narrower row spacing exceeded 50 percent (Figure 2). Seeding kidney beans to intermediate (21-22.5 inch) versus wide rows generally optimized yield when white mold severity was less than 50 percent, but narrower row spacing (7-15 inch) conferred stronger and more consistent yield gains (Figure 2). Results were consistent across seeding rates.

The increased yield potential observed in pinto and kidney beans seeded to narrow versus wide rows is likely due to increased sunlight capture. Under conditions favorable for white mold, moisture is not limiting, and the increased sunlight capture associated with earlier canopy closure can confer strong gains in yield potential.

When white mold severity was below 20 percent in pinto beans and below 50 percent in kidney beans, yields were strongly correlating with the timing of canopy closure, with yields reduced as canopy closure was delayed (Figures 3 and 4). As disease pressure increased, the yield gains associated with earlier canopy closure were reduced or even reversed (Figure 3); under high white mold pressure, yield losses caused by increased white mold in narrow rows exceed the yield gains conferred by faster canopy closure.

High-resolution versions of all figures are available online at www.ag.ndsu.edu/carrington-rec/plant-pathology-1 or by searching for "NDSU Carrington Research Extension Center" and clicking on "plant pathology".

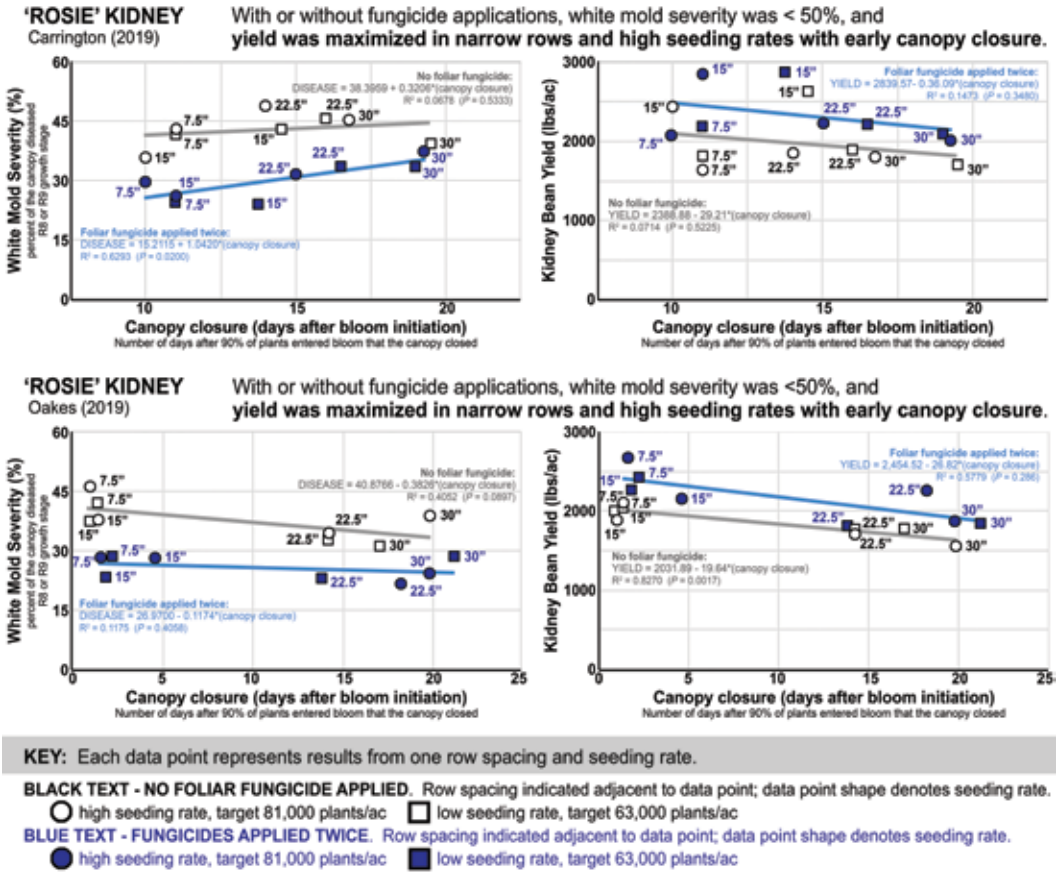

FIGURE 4. Impact of the timing of canopy closure on white mold severity and yield in 'Rosie' light-red kidney beans.

CONCLUSIONS

The results indicate that seeding pinto and kidney beans to narrow rows maximizes yield if white mold pressure is low to moderate, with the strongest yields observed in the narrowest row spacing. These results are similar to parallel research conducted from 2013-2017 in soybeans, and they suggest that row spacing decisions should be made on the basis of anticipated white mold disease pressure given the history of a field and the ability to manage white mold with fungicides.

Research on the impact of seeding rate and row spacing is ongoing, with a final year of field trials being conducted in 2020 with *Palomino* pinto beans and *Pink Panther* light-red kidney beans.

FUNDING

This research was made possible through the USDA Specialty Crop Block Grant program administered by the North Dakota Department of Agriculture.

RESEARCH STAFF

NDSU Carrington staff members Thomas Miorini, Billy Kraft, Kaitlyn Thompson, Suanne Kallis, Jesse Hafner, and Eric Allmaras played critical roles in the execution of this research.

2020 NORTHARVEST BEAN GROWERS SCHOLARSHIP
APPLICATION

The Northarvest Bean Growers Association is offering two - $1,000 scholarships to the children and grandchildren of members in 2020. The association is comprised of dry bean growers from North Dakota and Minnesota.

Applicants must meet the following requirements:

1. A parent or grandparent must be a current participating grower-member of the Northarvest Bean Growers Association.
2. Applicant must be planning to enroll or be enrolled in their first year of college or technical college.
3. Applicant must have at least a 3.0 grade point average from high school.

If the above criteria is met, the applicant must complete an application when applying for the scholarship. Applications must be received no later than June 1, 2020. The association looks forward to helping students with their educational goals.

DATE: _____

NAME: _____

ADDRESS _____

CITY: _____ STATE: _____ ZIP: _____

TELEPHONE: _____ DATE OF BIRTH: _____

EMAIL ADDRESS: _____

NAME AND ADDRESS OF PARENTS/GRANDPARENTS:

_____

_____

_____

NAME AND ADDRESS OF COLLEGE/UNIVERSITY PLANNING ON OR CURRENTLY ATTENDING:

_____

_____

_____

COURSE OF STUDY: _____

_____

Please type/print responses to the following questions on a separate sheet(s) of paper and attach to this page along with your reference letters. Please keep each response to 200 words or less.

1. Please list your scholastic achievements (GPA, Academic awards, Scholarships, etc.) Include current grades or transcript.
2. Demonstrated Leadership (Offices held in school, projects directed, athletic involvement, band, choir, FFA, student council, boys/girls state, etc.)
3. Service to Community (Volunteer work, theater groups, coaching and any other activities which have contributed to the betterment of your community)
4. Describe the benefit(s) of being involved with dry bean production for you and your family.
5. Career Plans?
6. At least two references *must be attached*

**Northarvest scholarship winners are asked to attend "Bean Day" January 2021

☐ Check if are willing to attend

**Enclose a recent wallet size photo that can be used with an announcement story if you are selected.

** Mail application to Northarvest Bean Growers Association, 50072 East Lake Seven Road, Frazee, MN 56544, or email nhbean@loretel.net, no later than June 1, 2020.

SIGNATURE: _____

NDSU Extension Provides Dry Bean Production and Market Updates During Getting-it-Right Workshops

Dry edible bean producers and crop advisers learned about North Dakota State University's current production research and recommendations during NDSU Extension's Getting-it-Right in Dry Bean Production workshops January 30 at Park River and January 31 at Fessenden, North Dakota.

"Dry bean production challenges include plant establishment, nutrition and protection, as well as harvesting and marketing a high-quality crop," says Greg Endres, NDSU Extension cropping systems specialist at the Carrington Research Extension Center. "These educational workshops assisted farmers with dry bean production decisions in preparation for and during the 2020 growing season."

Workshop presentations by Extension crop specialists and agents covered the following topics:

- Plant establishment factors: market type and variety selection, row spacing, populations, planting date, tillage systems, cover crops, tile drainage and ground rolling
- Plant nutrition, including seed inoculation and fertilizer application timing and placement
- Plant protection: disease management including root and stem disease and white mold (sclerotinia); weed management including Palmer amaranth and narrowleaf hawksbeard, and soil-applied herbicides, insect management
- A market update

Speakers and hosts included the participating Extension agents and Extension specialists: Endres, Dave Franzen, Extension soil science specialist; Joe Ikley, Extension weed specialist; Hans Kandel, Extension agronomist; Jan Knodel, Extension entomologist; Sam Markell, Extension plant pathologist and Frayne Olson, Extension crops economist.

Leann Schafer of New Rockford (right) and Eric Jorgenson of Leeds (left) spoke to farmers in attendance at Fessenden about the Northarvest Bean Growers Association.

Those presentations from the workshop can be viewed at tinyurl.com/gettingitright-drybeans.

In addition, presentations on weed management were given by Extension agents Brad Brummond of Walsh County and Lindsay Maddock of Wells County. A farmer panel also discussed unique management strategies such as

Kevin Regan of Webster (center) represents the Northarvest Bean Growers Association at the Park River dry bean workshop.

reduced-tillage systems, cover crops and harvest management. Kevin Regan of Webster, ND, Leann Schafer of New Rockford, ND and Eric Jorgenson of Leeds, ND also represented the Northarvest Bean Growers Association at the workshops.

"We talked a little bit about the mission of Northarvest, as well as our scholarship program for high school seniors," says Jorgenson. "Also covered were how checkoff dollars are being used for research and promotion to better the dry bean industry."

Overall, the workshop format was well received. Among the participants completing a written evaluation, 92% rated the usefulness of the topics as good or excellent. One, of the many, positive comments received includes: "Excellent line-up! Great knowledge of presenters and information specific to our region."

Northarvest partnered with NDSU Extension for the workshops, including providing financial support for refreshments and the noon meal. The association oversees promotion, research and marketing programs funded by dry bean checkoff dollars.

Another series of Getting-it-Right in Dry Bean Production workshops are tentatively scheduled for next winter in northeastern North Dakota.

Dry Bean Planting Intentions Increase for 2020

The Prospective Plantings report provides the first official, survey-based estimates of U.S. farmers' 2020 planting intentions. The National Agricultural Statistics Service's acreage estimates are based primarily on surveys conducted during the first two weeks of March from a sample of approximately 80,000 farm operators across the United States.

U.S. farmers intend to plant 97 million acres of corn in 2020. That is an increase of 8 percent from last year. If realized, this would be the highest planted acreage since 2012, with 38 of the 48 states expecting increased or unchanged acres. Soybean planting intentions are estimated at 83.5 million acres, up 10 percent from 2019. All wheat planted area is projected at a record low of 44.7 million acres. Nationwide, both winter wheat and spring wheat plantings are expected to decline 1 percent from the previous year.

In 2020, U.S. farmers intend to plant 1.37 million acres of dry edible beans. That is up 7 percent from the previous year's 1.29 million acres. Planted area is expected to be above last year in all estimating states except California.

Minnesota farmers intend to plant 215,000 acres of dry beans in 2020. That is an increase from 210,000 acres the previous growing season. In North Dakota, dry bean planting intentions are also expected to increase with USDA estimates coming in at 650,000 acres. When compared to 2019, that is an increase of 6 percent from 615,000 acres.

Actual plantings will depend upon weather, economic conditions and the availability of production inputs at the time producers make their final planting decisions. The full report is available at: tinyurl.com/NASSplantingintentions2020.

Dry Edible Bean Area Planted -- States and United States: 2018-2020

(Excludes beans grown for garden seed. Beginning in 2019, chickpeas are excluded)

	Area Planted			
State	2018	2019	2020[1]	Percent of Previous Year
California	48.0	27.4	16.0	58
Colorado	42.0	37.0	45.0	122
Idaho	185.0	47.0	48.0	102
Michigan	195.0	185.0	200.0	108
Minnesota	185.0	210.0	215.0	102
Montana[2]	395.0	(NA)	(NA)	(X)
Nebraska	140.2	120.0	145.0	121
North Dakota	635.0	615.0	650.0	106
Texas[2]	20.3	(NA)	(NA)	(X)
Washington	218.0	25.0	26.0	104
Wyoming	31.0	21.0	27.0	129
United States	2,094.5	1,287.4	1,372.0	107

(NA) Not Available.
(X) Not Applicable.
[1] Intended plantings in 2020 as indicated by reports from farmers.
[2] Estimates discontinued in 2019.

BEAN BRIEFS

EXTENSION SERVICES CANCEL FACE-TO-FACE MEETINGS

University of Minnesota Extension has canceled all face-to-face events, meetings and courses through May 15. The decision was made to safeguard public health during the coronavirus outbreak. All state and regional Extension offices are closed to the public, with faculty and staff working remotely. Those workers can be reached via e-mail and phone.

Additionally, NDSU Extension has postponed, canceled or offered alternative means of delivery of all face-to-face meetings, trainings, etc. This directive includes 4-H activities, programs taught by volunteers and all events sponsored by NDSU Extension. Postponement of activities is effective through May 15.

Editorial Note: *Given the nature of printing and publishing deadlines, please check the U of M and NDSU Extension websites for updates.*

GULFOOD SHOW A SUCCESS DESPITE LOWER TURNOUT

The annual Gulfood trade show took place February 21-25, 2020 in Dubai. The show occurred right before the cancellation of most global trade events in response to the coronavirus outbreak. Once again, the U.S. Dry Bean Council (USDBC) exhibited in the USA Pulses booth within the United States pavilion. Overall, show attendance was down about 20 percent this year given the global status of COVID-19. While the foot traffic to the USA Pulses booth was down, the level of interest from those who inquired was high. As a result, the USDBC generated 205 trade leads from 57 countries.

NORTHARVEST DIRECTORS ELECTED

The Northarvest Bean Growers Association board of directors certified the mail ballot election results at the 45th Annual Bean Day board meeting in Fargo, North Dakota. Northarvest district directors elected include:

District 3: Eric Jorgenson of Leeds, ND raises barley, spring wheat, pinto bean, soybean and corn. Eric is active as a director on the Northarvest Bean Growers Association and serves on the research, communication and scholarship committees. He also serves on a Farmers Union board, is involved with NDSU Extension and is a Board of Visitors member. Eric looks forward to working on market establishment and helping growers find better ways of producing and growing beans.

District 6: Justin Retterath of Washburn, ND raises dry beans, corn, soybean, spring wheat, alfalfa and Angus cattle. Justin is active as a director on Northarvest Bean Growers Association and serves on the legislative, promotion and policy and nominating committees. He also serves on the North Dakota Stockmen's Association and North Dakota Cutting Horse Association. Justin enjoys being on the board and helping promote the dry bean industry in the United States.

District 9: Thomas Arnold of Appleton, MN raises black beans, soybeans, corn, wheat and sugarbeets. He is active on the Northarvest Bean Growers Association as vice president and serves on the research, legislative, crop insurance and search committees. Thomas also serves on the Southern Minnesota Beet Sugar Cooperative and the Western Consolidate Cooperative. He enjoys serving on the board and promoting the use of dry beans, research, monitoring crop insurance coverage and being heard politically for the good of the dry bean industry.

2020 PLANS LAID OUT, USDBC OFFICERS REELECTED FOR SECOND TERM

The U.S. Dry Bean Council (USDBC) Board of Directors met in Cancun, Mexico on February 5 and 6 to conduct strategic planning for its worldwide export promotion programs and conduct association business.

With several new additions to USDBC's global staff, as well as new and enhanced programs around the world, all USDBC representatives and staff joined the International Promotion Committee for a day of review and planning. In the last year, USDBC has added new representation in the European/Middle East/North Africa (EMENA) Region, a new Regional Representative for the Americas, a Program Specialist in Colombia and permanent repre-

sentation in China, as well as a new Food Aid Specialist who came on board in early 2019.

These actions complement existing and established representation in the Americas, Japan and Southeast Asia. USDBC's global meetings reviewed among other issues:

- The ongoing response to retaliatory tariffs around the world, particularly in the EU
- New opportunities offered by a post Brexit trade regime in the UK
- A new competitive market position in Japan with zero duty import tariffs
- Challenges presented by the full implementation of the CAFTA/DR trade agreement
- The phase one trade deal with China

USDBC 2020 Board Officers (from left to right) Kevin Regan, Clint Stoutenburg and Deon Maasjo.

- Challenges to food aid programs.

Additionally, there was a dedicated strategy session on USDBC's Mexico program in 2020 and beyond to reflect on changing market dynamics and new programming.

All USDBC committees met on day two to review association business and programming in 2020, including a new global buyer event – BeanCon21 – and to inaugurate the newly formed Bean Innovation Committee.

This was also an election year for USDBC Board Officers. All current board officers were unanimously elected to a second term with Deon Maasjo of Oaks, ND as president, Clint Stoutenburg of Sandusky, MI as vice president and Kevin Regan of Webster, ND as treasurer.

A Market Update from China

IMPACTS OF COVID-19

Cases of coronavirus (COVID-19) have steadily declined in China since peaking in mid-February and are now nearly zeroing out. Regardless of gradual resumption of business operation, the outbreak has heavily impacted all business activities. AmCham China recently conducted a survey among more than 120 member companies and came up with following findings:

- 68 percent of member companies are facing China domestic business travel disruptions; 50 percent are experiencing significant revenue declines, and 39 percent say demand for their products is down.
- 58 percent of respondents expect the COVID-19 pandemic will cause some level of decrease to their industry's 2020 market growth.
- The Consumer and Research and Innovation industries are most pessimistic about COVID-19's impact on 2020 market growth, with 38 percent from both expecting a decrease of 50 percent or more.

The most recent data indicates a substantial decline in output. China Manufacturing Purchasing Manager's Index (PMI), a critical production index, fell by about 22 points in February (Fig.1). This index is highly correlated with exports, and such a decline implies a reduction in exports of about 2 percent on an annualized basis.

In other words, the drop observed in February spread over the year is equivalent to -2 percent of the supply of intermediate goods. Indicators on shipping also suggest a reduction in Chinese exports for the month of February. Container vessel departures from Shanghai were substantially lower in the first half of February with an increase in the second half. However, the Shanghai Containerized Freight Index continues its decline, thus indicating excess shipping capacity and lower demand for container vessels, Fig. 2.

Fig. 1 Source: Marin Traffic global ship tracking intelligence provider and Shanghai Shipping Exchange

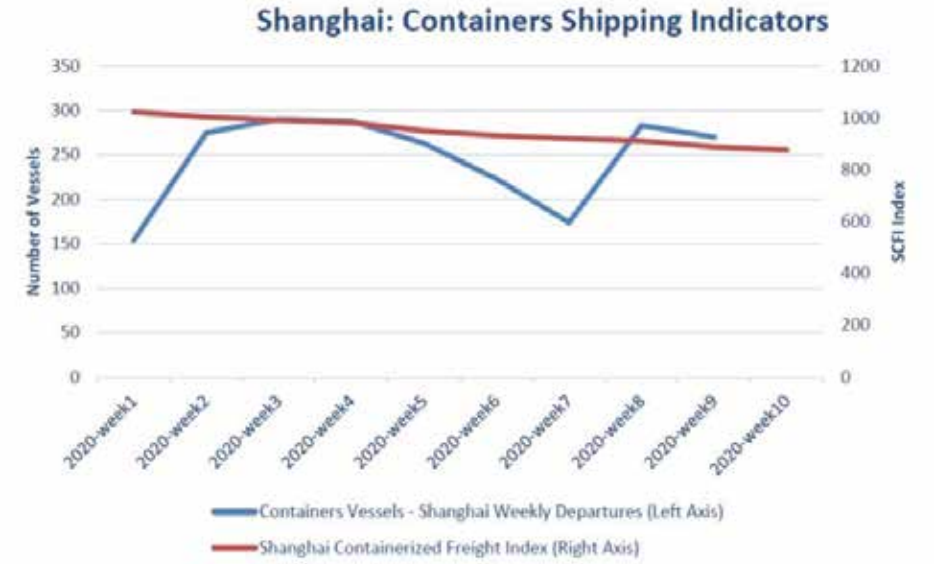

Fig. 2 Source: Marin Traffic global ship tracking intelligence provider and Shanghai Shipping Exchange

Given the timing of COVID-19 outbreak, there has been no noticeable impact on bean production, although transport restrictions and quarantine measures required by local government impeded farmers' access to input and output in February and early March. With the national government's mandatory measures to improve transportation (rapid temperature checks, etc.), transportation began return to normal in mid-March.

MARKET OVERVIEW

LSKB, RSKB and PSKB -- Light Speckled Kidney Bean (LSKB), Red Speckled Bean (RSKB) and Purple Speckled Kidney Bean (PSKB) are primarily produced in northeast

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China, including Heilongjing and Inner Mongolia.

By the end of March, besides those that were kept by farmers for seeds, inventory carried by local farmers and the co-ops are on low levels and primarily at hand of local traders. All the canned food companies and most large retailers shut down their operation in late January through early March and didn't resume their operation until mid-March. Trading was light in most partd of Q1 and started to pick up in mid-March.

Price of PSKB is 13-15 percent up from the same of period of last year, which might provide farmers with incentives to keep planting PSKB in May.

Black Beans -- Price of black bean has experienced big changes since 2016. Black bean farmers in Heilongjiang and Jilin Province have taken advantages of loopholes in the policy promulgated for subsidizing soybean growers since 2016 and kept expanding sowing area for black bean.

The result has been decreasing black bean prices since 2017. As the loophole was closed by local government early this year, it is expected the sowing area in Heilongjiang and Inner Mongolia will be cut down 10-15 percent this year.

DRKB -- One of the biggest consumers of DRKB in China is the hospital-

ity industry. As all of the hotels and restaurants shut down late January through early March due to the COVID -19 outbreak, DRKB trading has recovered slowly since mid-March.

Inventory level in production areas are low, with most of the inventory being controlled by traders now. Given upcoming imports of Myanmar red kidney bean, traders anticipation on price is mixed. Price for canned grade is $1,642 per metric ton (MT) and $1,443 for domestic retail grade.

LWKB (Lima Beans) -- Price of 50/100g grade LWKB was $2,386 in January. With gradual resumption of logistic transportation and business operation since mid-March, the price has been going up and reached to $2,429 in the last week of March.

At the moment, most of the inventory is carried by traders. The high price has put pressure on overseas orders. It is expected the price will be kept steady within next a couple of months with resumption of more business productions.

IMPORTS AND EXPORTS

With implementation of government policies on increasing subsidies to farmers in northern and northeastern China to help expand soybean acreage, China's bean production keeps shrinking, which has been reflected on China's import and export of dry beans.

China's import of dry beans (HS 07133390) in 2019 reached 7,820 MT, albeit small, 117 percent up from 2018. Export-wise, other than 2016, China's dry bean exports have been declining for almost ten years. In 2019, China's dry bean export reached to 171,883 MT, which is 17 percent down from 2018.

On a year-to-date basis, China's imports in January and February reached to 1,117 MT, 33.7 percent up from the same period of 2019. In the meantime, exports continued to decline at the beginning of this year. Export volume for January and February was 21,317 MT in total, down 4 percent from last year.

According to Chinese Customs, nearly 60 percent of import and export business are handled by traders located in Liaoning Province. This is not only because the Port of Dalian, the port handling most of dry bean import and export, is in Liaoning, but is also due to its easy access to the key production areas.

Source: U.S. Dry Bean Council

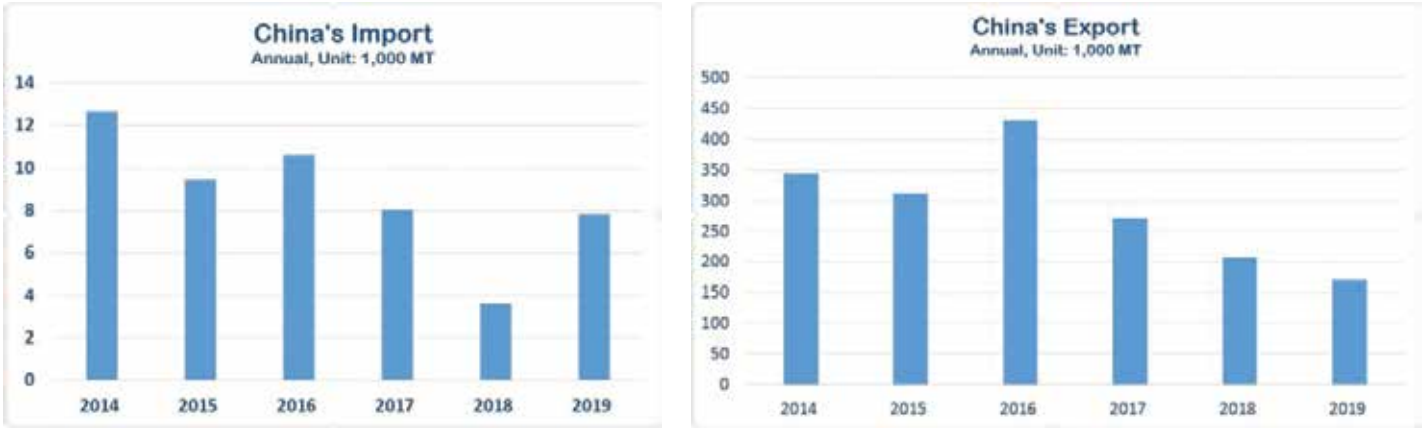


Fig. 6 -- China Dry Bean Import & Export, 2014 – 2019 (Source: GTA)

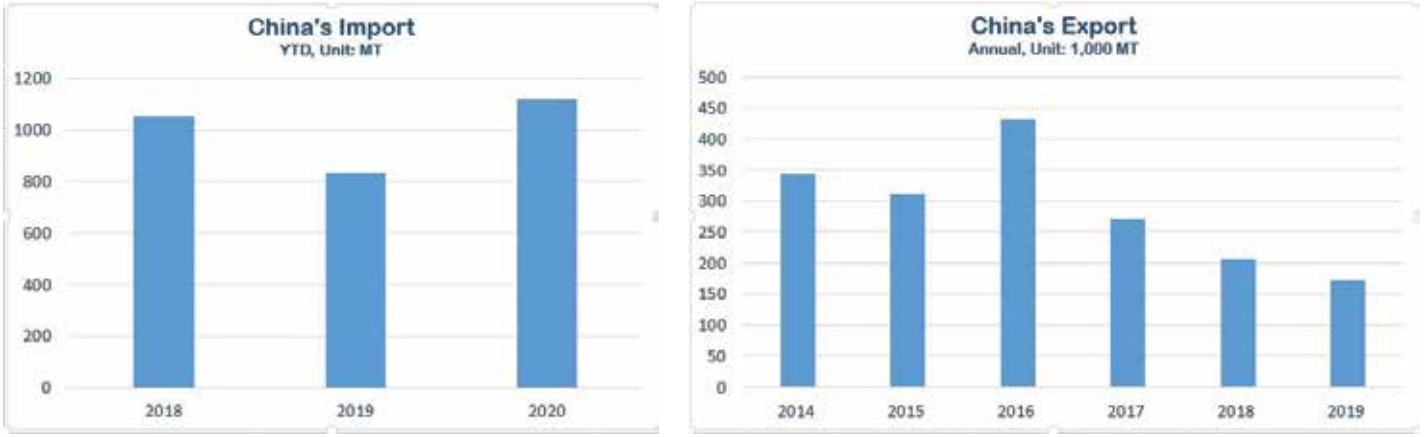
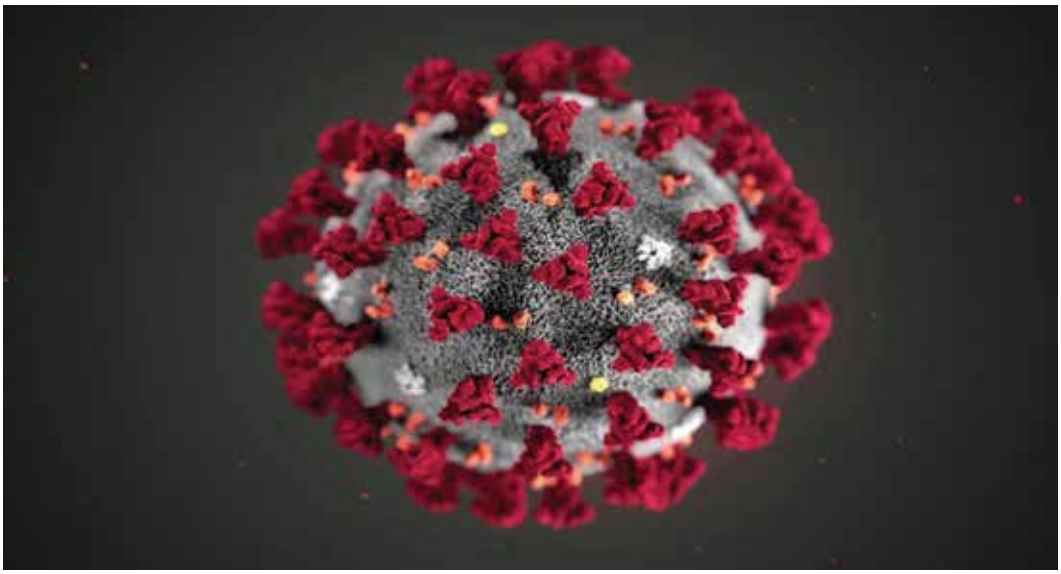


Fig. 7 -- China Dry Bean Import & Export, Jan and Feb, 2018 – 2020 (Source: GTA)

Dry Bean Industry Responds to COVID-19



As a global agricultural trade organization with roots in the U.S. heartland, the U.S. Dry Bean Council (USDBC) is deeply affected by the coronavirus (COVID-19) pandemic. This is an extremely challenging time for growers, for the country and for the entire world. Rebecca Bratter, executive director, USDBC emphasized, "The health and well-being of our staff and members is first and foremost. As such, we have taken appropriate precautions ensuring that all our staff work from home and do not travel. Despite the challenging circumstances and changing global landscape, USDBC remains fully operational. Our U.S. and global staff are all working full time to keep our global programs running."

All USDBC associated global events are canceled through the end of May

and possibly longer. The council will reevaluate in accordance with global standards and recommendations. All trade shows taking place during this time have been cancelled and rescheduled. Industry delegates will be in place at rescheduled events. "Global programming will be moving to new and innovative digital platforms in the very near future to make up for the current inability to conduct site visits and in person trade servicing until we can resume travel," said Joe Cramer, head of the USDBC International Program Committee (IPC). Bratter added, "While we are finding new ways to conduct our business and keep our finger on the pulse of global markets, our programs will continue to run at full capacity."

Reports of panic buying and a high demand for dry beans in response to the current situation have not gone unnoticed. Agriculture is considered a critical industry, and farmers are working full steam ahead to prepare for dry bean planting and to continue to meet U.S. and global demand without interruption. "We are taking the current demand patterns into account as we head towards planting season and will keep growing and processing high quality U.S. dry beans domestically and for the world. We are ready," emphasized USDBC President Deon Maasjo.

USDBC will be pushing out messaging and updates through digital and social media. For more information, please contact the U.S. Dry Bean Council at info@usdrybeans.com.

The U.S. Dry Bean Council (USDBC) was formed over forty years ago to represent farmers, dealers and corporate members who grow, handle, export and process dry beans grown in the United States. The purpose and mission of the USDBC is to provide a unified voice for the dry bean industry, and to promote the healthy attributes of our food to increase the consumption of beans grown in the United States. The USDBC strives to be successful in representing the diverse interests of the U.S. dry bean producers, handlers and processors, affecting the U.S. industry's ability to compete both domestically and globally.

From the Archives of the Northarvest Bean Growers Association

1 YEAR AGO: SPRING 2019

2018 Dry Bean Grower Survey -- A total of 241 growers responded to the 2018 Dry Bean Grower Survey, representing 15.2 percent of the year's total planted acreage. The previous year, 239 growers complete the survey. More than 32 percent of growers who responded ranked drought as the most significant production problem in 2018. Diseases and harvest were ranked as the next largest production problems. In 2017, water damage was number one on this list and drought was number two.

A New Look for Northarvest -- The Northarvest Bean Growers Association launched a newly revised website, www.northarvestbean.org. The new design highlights dry edible bean programs including production research, consumer outreach, development, nutrition research and promotion and regional and national promotion. Producer, consumer and buyer resources are easy to access on the new site. Also, a digital copy of Northarvest's Bean-Grower magazine is available for visitors.

5 YEARS AGO: SPRING 2015

Bean Veteran Worked His Way Up -- Star of the West Milling Co. manager Jim Engerhas had a hand in building the dry edible bean industry in North Dakota from the ground up. In fact, Enger was part of a construction crew that erected one of the first bean plants in northeast North Dakota. Enger was working on the crew that built an edible bean plant in Northwood, N.D., in 1972, and got to know company owners E. H. Walrath & Sons. After construction was completed, the owners asked Enger if he wanted a job at the plant.

Market Outlook: Tight to Manageable Supplies -- For about the third or fourth straight year, USDA projects no carryover of dark red kidney beans in 2015. This is despite

2014 production that was 38 percent larger than the previous year. Matt Stawowy, a dry bean trader with Steele and Company, told the Bean Day audience that demand for dark reds has been, is, and will likely continue to be very strong.

Stawowy estimated that 60 percent of last year's crop was already pre-sold at harvest time. "We are in a sold-out position on dark reds," said Stawowy. There's strong grower interest due to prices over $50 per bag, but the short supply of seed may limit acres of dark red kidney beans.

10 YEARS AGO: SPRING 2010

Initiating Health Communications for Dry Beans -- A new project, underwritten jointly by the Northarvest Bean Growers Association and a USDA Specialty Crop Block Grant, has resulted in a new, health-related website and electronic newsletter focusing on the health benefits of beans.

The website was developed by the Department of Marketing at the University of North Dakota College of Business and Public Administration. The goal is to identify the health qualities in dry beans that have high potential of qualifying for an unqualified health claim. The new website, www.BeanInstitute.com, was launched in February and represents the second pillar in the platform.

An Interview with RMA Administrator William Murphey -- During the recent Bean Day program,BeanGrower sat down with Murphy to discuss crop insurance issues.

BeanGrower: Certainly, there are risk management issues that are specific to the dry edible bean industry. The industry is looking for revenue protection. Where do we stand?

Murphy: The bean growers have been working with the agency for several years now. We've tried different approaches that have not been successful. Last year, we implemented a new program called Actual Revenue History, rather than APH, the Actual Production History. It is currently for cherries and citrus in California. It is a new concept, but it came from a program that we've been doing quite successfully for a few years in Texas.

15 YEARS AGO: SPRING 2005

Excited About the Russian Market -- East Grand Forks, Minnesota farmer Kevin Anderson and Gilby, North Dakota farmer Gary Paur represented Northarvest as part of a U.S. Dry Bean Council team at an international food show held in Moscow. "I am excited about the Russian market for beans," Anderson says. "There seems to be different things that we can offer them," he says. Russians grow some interesting looking beans, Anderson adds. One is called a "skirted" bean. The top half is white and bottom half is speckled (or vice-versa). It gets its name from the fact that the bean looks as if it is wearing a skirt.

Getting Closer: White Mold Resistance -- The bean industry is getting closer to developing white mold resistant beans. USDA recently announced the release of two pinto germplasm lines that have partial resistance to white mold. The lines are not good enough to be used commercially themselves, but they can be used in breeding to pass on white mold resistance to new commercial varieties. The lines come from crosses between Astec, an upright pinto, and Bunzi, a white mold resistant navy. USDA ARS, North Dakota Agriculture Experiment Station and Michigan State University developed the lines.

MN Dry Bean Council Election Results

The Minnesota Dry Bean Council held elections for Districts 3 and 4. Representing District 3 on the council is Don Stueve of Dumont, MN. Stueve raises dry beans, corn and soybeans in Traverse County. "My experience with the Dry Bean Council and the lessons learned as a grower every year help contribute to the continued success od the dry bean industry in Minnesota," he says.

Elected to represent growers in District 4 is Ryan Peterson of Clear Lake, MN. He raises kidney beans, rye, soybeans, corn and beef cattle in Sherburne County. "I feel that being involved in multiple aspects of farm research is a benefit as we continue to provide a safe, reliable food source for the world," says Peterson.

Northarvest Beans Promoted at Winter Conferences

By Adam Veile, Communique

WORLDS OF HEALTHY FLAVORS

The Worlds of Healthy Flavors conference was held this past February in Napa, California at the Culinary Institute of America. The conference is primarily for foodservice operators. Many attendees are decision-makers or plan menus for large organizations like 7-Eleven, Subway and Taco Bell, as well as moderate sized organizations, like hospital systems.

Top Takeaways -- Presenters believed that menus have got sustainability healthier in the past decade, but the obesity problem in the United States continues to get worse. Presenters see a move toward a flexitarian diet. The goal is to not to make consumers feel like they are dieting or giving something up, but to make delicious plant-based food options.

Sprouted foods were the subject of one presenter who said that sprouting foods for a few hours increases their nutritional benefits. The benefits of eating whole grains are multiplied when that grain is sprouted. Sprouted bread became the best-selling bread for Trader Joe's in 2019, so this trend is catching on. Beans were specifically mentioned as a food that can benefit from sprouting and this information has already been incorporated the weekly Bean Bites email.

Sponsorship -- As sponsors, the Northarvest Bean Growers Association was able to interact during sessions and discussions. Several dishes created by the CIA, were sponsored by Northarvest. These dishes, like much of the food at the event, were well received by the conference attendees.

HEALTHY KITCHENS, HEALTHY LIVES

The Healthy Kitchens, Healthy Lives conference was held this past February at the Culinary Institute of America (CIA) in Napa, California. The conference is geared toward health professionals. It pairs the latest in nutrition research with hands-on cooking demonstrations of delicious, healthy recipes for the healthcare professionals to pass on to their patients.

Top Takeaways -- While many dietitians were present, this conference is unique in that the majority of attendees are physicians. Nutrition education isn't often a focus for physicians. One doctor in attendance said the only nutrition education he has experienced was one class as an undergraduate. Often, in a medical setting, a dietitian will take over when specific nutrition advice is needed.

Conference organizers also see expanding the use and availability of teaching kitchens a priority. It is believed that many people do not prepare healthy foods simply because they do not have experience with cooking. Teaching kitchens seem like a positive for beans,

which many people feel are difficult to cook.

Beans were a common topic of discussion among the many break-out sessions at the conference. They seem to fit into the healthy dietary patterns, and the Mediterranean Diet was mentioned in several sessions.

A highlighted session was "Diet as Key Lever to Nurture a Healthy Gut Microbiome" with Drs. Justin and Erica Sonnenburg, two of the foremost experts in the world on the microbiome. They discussed the connection between gut bacteria and other aspects of human health.

The speakers mentioned fermented foods and probiotics as possible solutions. Only some people respond to probiotics, however. Importantly for beans, the people who respond positively to probiotics are those who eat more plants and higher fiber diets.

Northarvest Sponsorship -- In addition to attending the conference, the Northarvest Bean Growers Association had two major benefits: being able to plan a break activity and having a booth at the evening reception.

The break activity was a bean bag toss that involved knocking down pyramids of cups. The cups and bean bags had Bean Institute branding. The game was very popular. Attendees seemed to enjoy that the game was quick and simple, and the result was quite a bit of cheering and laughing.

During the evening reception, Bean Institute magnets were given out during both the cup game and at the booth. Hopefully, these will hang on their refrigerators and offer a periodic reminder to visit Bean-Institute.com. Brochures were also provided for those who wanted in more in-depth information. A bean cookbook was also provided as a door prize.

Northarvest was given a list of 371 attendees who agreed to receive emails from sponsors, and that list was added to the Bean Bite distribution list. Overall, the Healthy Kitchens, Healthy Lives conference is very favorable towards beans.

BEANS WITH SPRING GREENS

Recipe courtesy of VegKitchen

Leafy spring greens like spinach, arugula or watercress look and taste very appealing with pink beans or any other dried bean in the cupboard. The more garlic you add to this simple dish, the better. It is a perfect choice when you're looking to get more beans and greens in your daily fare!
(Prep time: 15 mins. | Cook time: 15 mins. | Total time: 30 mins. | Serves: 4 to 6)

Ingredients

1½ tablespoons extra-virgin olive oil
3 to 4 cloves garlic, minced
3 scallions, sliced, or a good-sized bunch garlic chives, minced
3 to 3½ cups cooked or two 15- to 16-ounce cans pink beans, drained and rinsed
1 teaspoon good-quality chili powder
6 to 8 ounces small-leaf spring greens (baby spinach, baby arugula, watercress, tatsoi, or any combination), rinsed well
Salt and freshly ground pepper to taste

Instructions

1. Heat the oil in a large skillet. Add the garlic and sauté over low heat until it just begins to turn golden. Add the scallions and sauté just until they soften a bit.
2. Stir in the beans and chili powder and cook over medium heat until heated through.
3. Add the greens to the skillet in 2 to 3 batches, covering and cooking down until wilted, making room for the entire amount.
4. Season to taste with salt and pepper and serve at once.

Northarvest Showcases Dry Beans at Healthy Kids Collaborative in Napa

The Culinary Institute of America's (CIA) Healthy Kids Collaborative is a year-round initiative designed to both accelerate innovation and deepen technical and professional expertise in K-12 school food. Faye Courneya, Northarvest Bean Growers Association, and Adam Veile, Communique USA, attended the Culinary Institute of America Healthy Kids Collaborative this past winter.

It is a unique and focused collaboration between school nutrition professionals, school chefs, suppliers and other stakeholders to create and advance culinary-driven, healthier foods for students.

While this CIA event is informative, whether it can change how our kids eat is a good question. The people attending have a passion to get tasty, healthy food back in all schools. Schools that have a chef and a working kitchen feed their students tasty, healthy food and enjoy their job.

This year, the Collaborative focused on what has transpired over the year and how to keep moving ahead.

The Collaborative asked food service professionals in attendance to contact their U.S. representatives to create legislation to change USDA practices so healthier food can be provided to children, along with additional funds. Larger metro areas have a summer food program with food trucks. The cost to students is free.

Some key takeaways from speakers and presenters at the event include:

- Educate staff first, then move on to students.
- Keep with a plant-based focus for schools.
- The Hispanic population does influence menu planning for schools.
- Schools are far behind with a healthy menu, so more work needs to be done with this.

This year's Healthy Kids Collaborative recipe development and tasting opportunity paired Northarvest with the Bertrand Weber, director of culinary and nutrition services, Minneapolis Public Schools (MPS) MPS has been at both CIA events and Weber is very active with the Collaborative/CIA. Rebecca Polson, culinary supervisor, MPS was also a presenter. Polson made one of the dishes provided by their summer food truck.

Northarvest will work together to develop two or three menu items for testing in the school district during the coming school year. Highlights will be shared via social media with using the hashtag #CIAHealthyKids. The full details, including photos, final recipes and test data, will be shared via email with the CIA.

In addition to this recipe development partnership with MPS, a Health Kids Collaborative working group will be developing several dozen plant-based recipes for schools over the next year. During 2019, the group developed 30 recipes, which are intended to be shared with schools to make preparing plant-based food options easier. Many of these recipes include beans, but it is a competitive space for legumes, with lentils and chickpeas frequently used as ingredients as well.

Faye Courneya, Northarvest Bean Growers Association, and Adam Veile, Communique USA, attended the Culinary Institute of America Healthy Kids Collaborative this winter.

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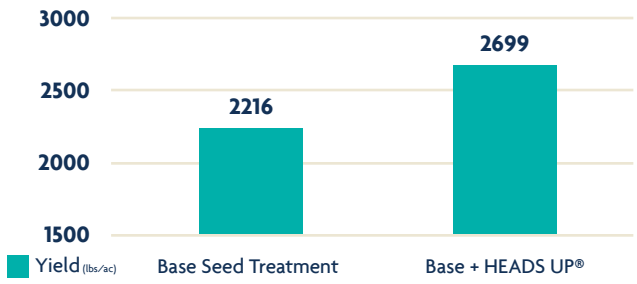

STUDY DETAILS
Location: Merrill, MI
Elevation: 660
Current Crop: Dry Beans, Navy
Previous Crop: Continuous Beans
Plot Size: 6' x 25', 4 reps, Harvest 3'x15'
Planting: 6/17/2019 – Late
Maintenance: 16oz Basagran, 4oz raptor, 8oz reflex, 12oz select max, 1% crop oil, 2lbs AMS, 9oz asana
Late Season: 70-75lbs N as Urea white mold & insect control sprayed at full bloom

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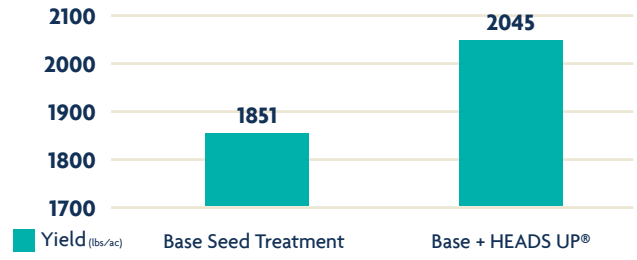

STUDY DETAILS
Location: Carrington, ND – NDSU Research Station
Elevation: 1,562
Current Crop: Dry Beans, DRK
Previous Crop: Spring Wheat
Plot Size: 5' x 30', 5 reps
Planting: 5/17/2019
Inoculum: Plots inoculated in-furrow with Rhizoctonia/Fusarium-infested proso millet and wheat, and Pythium-infested sorghum

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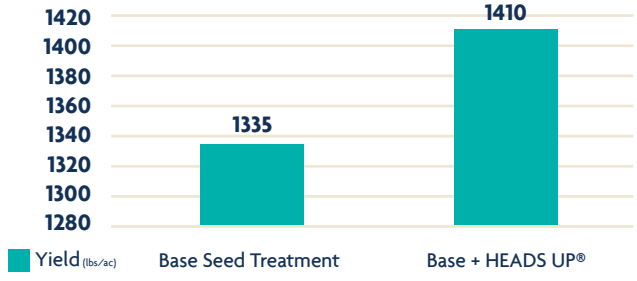

STUDY DETAILS
Location: Jerome, ID
Elevation: 3,672
Current Crop: Dry Beans, Cranberry
Previous Crop: Spring Wheat
Plot Size: 5' x 30', 4 reps
Planting: 6/11/2019

Data adapted from The McGregor Company 2019 Research Compendium

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Water Damage was Top Producer Problem in 2019, According to Dry Bean Grower Survey

For 30 years, dry bean growers have responded to an annual survey of varieties grown, pest problems, pesticide use and grower practices. Research and Extension faculty at North Dakota State University, along with directors of the Northarvest Bean Growers Association, developed the survey form.

The survey was mailed to all Northarvest bean growers and all participants of the survey were anonymous. A total of 256 growers responded to the survey, representing 141,464 dry bean acres, or 17.1 percent, of last year's total planted acreage. The previous year, 241 growers complete the survey.

In 2019, the two most popular varieties by class were:

- Pinto: 1. Monterrey 2. Torreon
- Black: 1. Eclipse 2. Zorro
- Kidney: 1. Dynasty 2. Montcalm
- Navy: 1. HMS Medalist 2. T-9905
- Pink: 1. Rosetta 2. Floyd

- Small Red: 1. Ruby 2. Viper
- Cranberry: 1. Etna
- Great Northern: 1. Draco 2. Taurus

More than 46 percent of growers who responded water damage to beans harvested as the most significant production problem in 2019. More than 38 percent ranked water damage to beans not harvested as the next most significant production problem. Hail and harvest were ranked as the next largest production problems. In 2018, drought was number one on this list and disease was number two.

New for 2019, the survey included questions about slow-darkening (SD) pinto bean varieties. When asked if SD varieties are a good alternative to regular darkening varieties, 42 percent of growers said yes, while 20 percent said no. If more SD pintos were available, 45 percent of respondents indicated they would grow more SD pintos and 54 percent responded no. The top reason why growers do not think SD pintos are a good alternative is because of their poor agronomic performance.

The worst weed problems in 2019 were kochia, lambsquarters and waterhemp. Basagran and Raptor were the most used herbicides by dry bean growers last year. Over 43 percent of respondents reported no insect problems in dry beans, while 24 percent experienced grasshoppers and 12 percent had leafhoppers. White mold was the most common disease in 2019, with more than 47 percent of respondents indicating its presence.

A grant from the Northarvest Bean Growers Association funded the survey.

JEFF MERTZ

Hurdsfield, North Dakota

Crops raised: pinto beans, wheat, durum, corn, soybeans, sunflowers, canola and peas

Tell us about your family history of the farm? How did you get into farming? The farm goes back to my grandfather who farmed, had a well drilling business and had custom threshing crews. My dad left the farm at a young age and worked in the ship yards out west and then went into the service during the Korean conflict. After that, he moved home and started farming on his own. It was a natural progression to move into farming, as it was all I knew. My plan after high school was to get into farming, but my parents had a different idea. They made it known that I must first go to college and get a degree then I could come back. I have two degrees, one in computer information systems and the other in business administration with an emphasis in finance. During my time away from the farm, I learned a lot about business by traveling to various facilities in the U.S. and Europe. However, my heart was not in it. I decided to quit and moved back to Bismarck and took a position as a programmer at a software development business so I could be closer to the farm and help on weekends. My mother passed away in February of 1992 and that is all it took for me to change priorities to be farming first.

How long have you been farming, and how long have you raised dry beans? I started farming full time in the spring of 1992 with my younger brother. I believe it was the mid 1990's when we started with pinto beans. We have seen the transition from the Picketts to land rollers and MacDon flex heads.

What has been your favorite piece of farm equipment or wouldn't you want to be without? My favorite piece of equipment would be two-fold as we have rocks, so we need a land roller and the MacDon flex draper head. It not only changed how we combine the edibles, but also allowed us to have the benefits of minimum tillage and try to reduce wind and water erosion of the soil.

If you could add any new equipment, what would it be? I would say the new John Deere sprayer with ExactApply system. I know other brands also have them, but I think the dual pulsating nozzle sets them apart from the rest of the field.

What organizations are you involved with? Most recently, I was president of the North Dakota Grain Growers Association for two years and now serve as the current past president. During my time as president, we worked on the 2018 Farm Bill, the first and second Market Facilitation Program, water management issues with the Natural Resources Conversation Service and the U.S. Fish and Wildlife Service. I've also held position with our church and school, but unfortunately both have been closed.

Do you have any hobbies? What do you do in your spare time? I am still trying to develop a hobby, but I do really enjoy spending time with my three girls, their husbands and grandchildren. We all enjoy spending time out in the machinery or at the shop.

If you could win a vacation anywhere, where would you want to go? I would say Brazil or Argentina as a working trip and Australia for leisure.

What's the best part about being a farmer? The best part of being a farmer is the ability to work beside your family members and see them grow and take interest into your profession. The profession of a farmer is very diverse from most professions. You wear so many different hats: marketing, bookkeeping, procurement of inputs, agronomy, logistics, planting, spraying, harvesting and more. There is no greater accomplishment as a farmer than to see your daughters or family members take interest into what you have accomplished, take that vision forward and mold it into something of their own.


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