COLORADO
DRY BEANS
CDBAC
Sponsored
Colorado
BeanNews
COLORADO BEAN SUMMIT ....Page 15
FERTILIZING DRY BEANS ....Page 9
FARMERS NEED SKILLS ....Page 12
Cook with Beans!
Volume 35, Issue 1
www.csuag.com/cbn
Spring 2022
PHOTOGRAPH - CHELSEA DIDINGER

COLORADO
Department of Agriculture
Markets Division

2022 Resolution to "Eat Well" Nurtures Fresh Choice to "Buy Local"

January 27, 2022

Every January, a resolution-driven population commits to improving their eating habits, thinking harder about food choices that are nutritiously and economically sustainable. Thanks to Colorado farmers, ranchers and producers, local-food options make it easier than ever to stick to this resolution, adding extra value to our lives well beyond the New Year timeframe.

"After the holidays, we resolve to eat 'right,' choose foods that are good for us, and grocery shop with purpose and intention. Buying local helps us combine and embrace these choices, nurturing ourselves as much as the Colorado farmers and ranchers who produce the dry beans, spinach, squash, cucumber, beef and everything else we are craving this this time of year," said Danielle Trotta, Colorado Proud program manager. "Every time we choose local food, produce and products, we are simultaneously boosting Colorado's economy and heritage – with agriculture as one of the biggest economic drivers in the state. That's good news for everyone."

"So while we aim to 'eat better' and show our appreciation for health and local food, let's take an active role in feeding Colorado's agriculture industry, too. It's all part of a greater awareness for healthy eating and for an economically-healthy state," added Trotta.

AG ADVANCES COLORADO

Agriculture is an important economic driver in the state, consistently ranking as one of Colorado's leading industries and is in the top-10 nationally for production of a variety of agricultural products. With more than 38,900 farms encompassing nearly 32 million acres, agriculture is a vital part of Colorado, supporting more than 195,000 jobs, contributing more than $47 billion to the state's economy annually.

ABOUT COLORADO PROUD

The Colorado Proud Program was created by the Colorado Department of Agriculture in 1999, to promote food and agricultural products that are grown, raised or made in Colorado. One of the goals of Colorado Proud is to make it easier for consumers to identify and purchase Colorado products by labeling them with the Colorado Proud logo. In 1999, Colorado Proud started with 65 companies; and today, the program has more than 3,300 members, including farmers, ranchers, food manufacturers, restaurants, retailers, schools and associations statewide. Additional media materials can be found in the Colorado Proud newsroom, including photos.

Contents in this Issue:

EAT WELL - BUY LOCAL 2
AG ADVANCES COLORADO 2
ABOUT COLORADO PROUD 2
CDBAC REPORT. 3
INTRODUCING CHELSEA 3
LARRY LANDE RETIRES 4
GLOBAL FOOD PRICES 4
USDBC BOARD MEETING 5
COLORADO BEAN DEALERS 5
PALMER AMERANTH MANAGEMENT. 6
QUICK FACTS. 6
FERTILIZERS DURING 2022. 7
PROFESSOR OF PULSE AGRONOMY 8
MEXICO BEAN REPORT 8
RMBDA ANNUAL MEETING. 8
BEAN'S BAD RAP 8
FERTILIZING BEANS 9
US INCREASES BEAN EXPORTS. 10
COLORADO BEAN PRODUCTION SUMMARY 10
USDA MARKET REPORTS 11
FARMERS NEED SKILLS. 12
CANADA GUIDES AUSTRALIA. 13
CDBAC BUDGET 14
COLORADO BEAN SUMMIT 2022 15

On the cover: Photograph by Chelsea Didinger

Colorado Dry Bean Administrative Committee

30114 Eagles Ridge
Buena Vista, CO 81211
PH: 303-903-2004
www.coloradodrybeans.org
Robert Schork - Manager

Chelsea Didinger - Outreach Manager

Dealer Directors:
Jerry Haynes - Jacks Beans, Secretary
Darin Aagard - Denver
Grower Directors:
Brent Adler - Wray
Gary Cozzens - Eaton
Harvey Colglazier - Holyoke (President)
Troy Seaworth - Wellington

Jennifer Benson CO Dept. of Ag. Advisor
(303)869-9173

The ***Colorado Bean News*** is supported in part by your voluntary check-off dollars administered by the Colorado Dry Bean Administrative Committee.

Websites of interest to bean growers

www.csuag.com
www.coagmet.com
www.csuag.com/cbn (back issues)
www.coloradodrybeans.org

Colorado Bean Network Executive Board

Harley Ross - Kelley Bean - Chairman
(970)463-5468
Mark McMillan - CSU - Secretary
(970)214-5538

Colorado Bean News is published biannually by the Colorado Bean Network, a non-profit organization which supports the dry bean industry in Colorado.

Although the content of articles and information published in Colorado Bean News is true to the best of our knowledge, the Colorado Bean Network and its personnel accept no responsibility for its accuracy. No endorsement of products mentioned is intended nor is criticism implied of products not mentioned. Check pest management and agronomic advice with local sources, and always read and follow product labels.

Colorado Dry Bean Committee
ColoradoBeans@gmail.com
www.ColoradoDryBeans.com

CDBAC REPORT - JANUARY, 2022

The Colorado Dry Bean Administrative Committee held its annual meeting on November 30th in Lucerne. Larry Lande, our past president and dealer director for over 20 years, announced his retirement effective 12/31/21. The dealers at the meeting Farmer Bean & Seed, Jack's Bean Company, Northern Feed & Bean, Trinidad Benham and 719 Produce elected Darin Aagard of Trinidad Benham to replace Larry as a dealer director. They also elected Jay Ewald of Northern Feed & Bean to serve as an alternate director for Jerry Haynes and Sam Peck of Jack's Bean Company to serve as an alternate director for Darin Aagard.

GROWER DIRECTORS

Brent Adler . . . . . Wray
Gary Cozzens . . . . . Eaton
Harvey Colglazier . . . . . Holyoke
President
Troy Seaworth . . . . . Wellington

DEALER DIRECTORS

Darin Aagard . . . . . Denver
Trinidad Benham
Jerry Haynes . . . . . Holyoke
Jack's Bean Company

ALTERNATE DEALER DIRECTORS

Jay Ewald . . . . . Lucerne
Northern Feed & Bean
Sam Peck . . . . . Holyoke
Jack's Bean Company

INTRODUCING CHELSEA DIDINGER

Hello, My name is Chelsea Didinger, and this year I have the honor and privilege of being the Outreach Director for the Colorado Dry Bean Committee. Here are a few things I would like to share with you:

1. I am incredibly passionate about beans! I am a current PhD student at Colorado State University, and my research is literally all about outreach to get people eating more beans.
2. I just completed a redesign of our website: https://coloradodrybeans.org/. I want this to be a helpful resource for growers, dealers, and consumers. Our growers and dealers do amazing work, and we want to highlight that!
3. This year, I am excited to take on several roles, including updating our website on a weekly basis, posting on our social media platforms, starting an online Colorado Dry Beans newsletter, and conducting in-person and online outreach to promote beans.
4. Please reach out to me at chelsea.didinger@coloradodrybeans.org. I would like to have a conversation, hear how we can partner to support the Colorado dry bean industry, and do a spotlight on your farm, facility, and/or how you are using Colorado beans. I look forward to hearing from you soon.

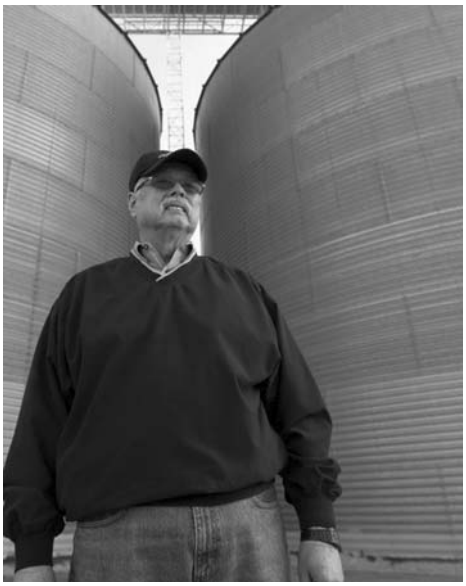
Cheers to Colorado beans,
Chelsea Didinger
Chelsea.Didinger@coloradodrybeans.org

CONGRATULATIONS LARRY LANDE

By Howard F. Schwartz

Larry Lande announced recently that he is retiring after a distinguished career as a bean dealer and industry promoter with Northern Feed and Bean headquartered at Lucerne, Colorado. Larry and his staff have served the bean industry and growers throughout eastern Colorado, western Nebraska and southern Wyoming for many years. He has provided high quality pinto beans to consumers nationally and internationally, and expanded their market outlets by successfully producing yellow beans locally which continue to be in great demand by consumers in Mexico and others parts of Latin America.

Larry and Northern Feed and Bean were always eager to investigate the potential of new varieties of beans, innovations in production and pest management practices, and educational programs that benefited growers, the industry and consumers. Their ongoing support and sponsorship have been deeply appreciated by colleagues and friends at Colorado State University and other institutions throughout the region.



Larry's service to the bean industry and growers was always respected by his colleagues throughout the industry, agribusiness community and universities. He has served on numerous committees and executive boards including the Colorado Dry Bean Administrative Committee, Colorado Bean Network, Rocky Mountain Bean Dealers Association, and the U.S. Dry Bean Council.

Thank you Larry for your leadership and energy in producing, promoting and marketing dry edible beans to consumer throughout the world. We all wish you a happy and well-deserved retirement.

Global food prices rose 'sharply' during 2021

6 January 2022

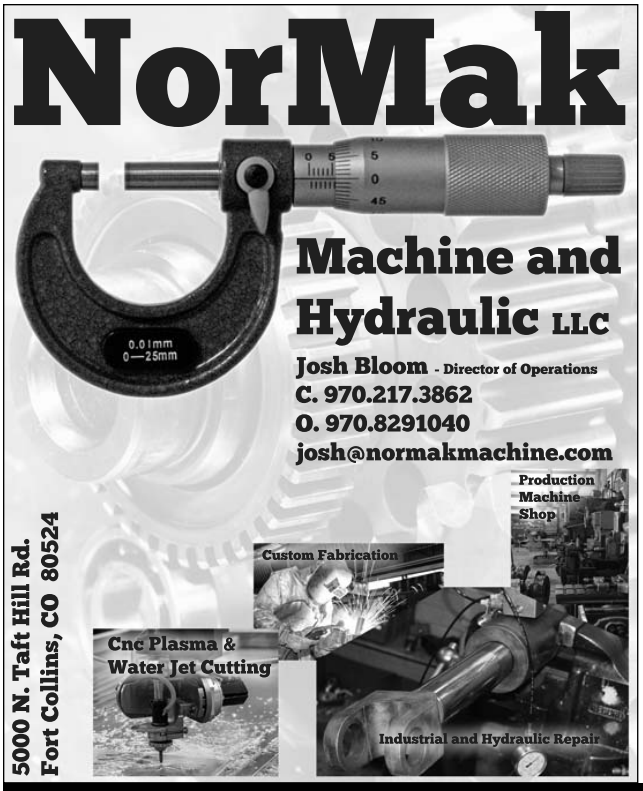
The UN's benchmark food and commodity prices index rose sharply on average through 2021, compared with the previous year, the Food and Agriculture Organization (FAO(https://www.fao.org/home/en)) informed (https://www.fao.org/newsroom/detail/FAO-Food-Price-Index-december-2022/en) on Thursday.

The agency's Food Price Index (http://www.fao.org/worldfoodsituation/foodpricesindex/en/), which tracks monthly changes in international prices, averaged 125.7 points - a 28.1 per cent increase over 2020.

FAO Senior Economist Abdolreza Abbassian explained that, normally, high prices are expected to ease as production increases to match demand.

This time, however, the consistently high cost of inputs, the ongoing global pandemic and ever more volatile climatic conditions "leave little room for optimism about a return to more stable market conditions in 2022."

- At the end of the year, world food prices fell slightly, as international prices for vegetable oils and sugar fell signifi cantly, the data shows.
- The Food Price Index averaged 133.7 points, a 0.9 per centdecline from November, but was still up 23.1 per cent from the same month the year before. Only dairy posted a rise that month.
- The Cereal Price Index also decreased 0.6 per cent; for the full year, however, it reached its highest annual level since 2012, rising27.2 per cent.
- Biggest gainers were maize, up 44.1 per cent, and wheat, gaining31.3 per cent. One of the world's other key staple foods, rice, lost 4 per cent.



USDBC BOARD MEETING

February 15, 2022

USDBC convened its annual winter board meeting in San Diego, CA on January 27 & 28. During the day and a half meeting, all standing committees met to conduct business and review 2022 priorities before moving to a plenary session to conduct association business and hold officer elections. Meeting highlights included a review of strategies to re-engage in food assistance programs, a discussion of USDBC's new global public relations plan to launch in February 2022, a review of upcoming opportunities to conduct business in Cuba, and a discussion of industry priorities in light of upcoming Farm Bill deliberations. During the plenary session, board members discussed new funding from three Global Broad-Based Initiatives (GBI) programs funded by USDA/FAS that cover the challenge of Global MRLs, a Pulses for Health Initiative in Mexico/ Latin America, and a newly funded program focused on the carbon neutrality of pulses to take place in Europe. Board members heard from Chef Brad Barnes about the ongoing promotion of bean ingredients and other bean innovation initiatives in partnership with the Culinary Institute of America. The Board also heard about plans for the upcoming Hybrid Global Buyers' event, BeanCon22.

The meeting ended with the election of a new slate of officers naming Clint Stoutenburg – Michigan Bean Commission as President, Courtney Schuler of

See **Meeting** on Page 8

COLORADO BEAN DEALERS

Jack's Bean Company
402 North Interocean Avenue
Holyoke, CO 80734
970-854-3702
www.JacksBean.com

Northern Feed & Bean
33278 US Highway 85
Lucerne, CO 80646
970-352-7875
mail@nfbean.com
www.northernfeedandbean.com

Farmer Bean & Seed
200 West 1st Ave.t
Yuma, CO 80759
970-848-3818

Kelley Bean Company, Inc.
101 Main Street
Ovid, CO 80744
970-463-5468
www.kelleybean.com

Midland Bean Company
P.O. Box 484
489 US Highway 491
Dove Creek, CO 81324
970-677-2216

Producers Co-Op
P.O. Box 525
Olathe, CO 81425
970-323-5764
www.ProducersCo-Op.com

Progressive Ag Management
518 Main Street
Wray, CO 80758
970-332-0604

Red Beard Bean LLC
2611 Highway 348
Delta, CO 81416
970-874-7488

Rusler Produce, Inc.
47762 Colorado Highway 96
Avondale, CO 81022
719-947-3361
www.ruslerproduce.com

Teasdale Foods
14574 County Road 64
Greeley, CO 80632
970-351-6000
www.teasdalefoods.com

Trinidad Benham Corporation
3650 South Yosemite, Suite 300
Denver, CO 80237
303-220-1400
www.trinidadbenham.com

Yellow River, LLC
PO Box 149
Lucerne, CO 80646
970-352-7875
www.northernfeedandbean.com

Wray Feed & Bean
P.O. Box 461
Wray, CO 80758
970-332-4369

Palmer Amaranth in Dry Beans

By Josh Miranda Teo, Amit Jhala, Jeff Bradshaw, and Nevin Lawrence

posted on January 11, 2022 | Posted in Crop Protection

Source: University of Nebraska CropWatch

Palmer amaranth arrived around five years ago Western Nebraska , and it has become more common in the region. Palmer amaranth interference has shown to severely reduce yield of major row crops. [https://cropwatch.unl.edu/2017/management-als-resistant-palmer-amaranth-and-waterhemp-panhandle]

For instance, season-long interference of Palmer amaranth reduced soybean yield by 68% at a density of 10 plants per yard of row, corn yield by91% at a density of eight plants per yard of row, and peanut yield by 68% at a density of five plants per yard of row (Burke et al. 2007, Klingamanand Oliver 1994, Massinga et al. 2001).

However, Palmer amaranth interference hasn't previously been studied in dry beans. To provide more information to dry bean growers about thepotential impact of uncontrolled Palmer amaranth, studies were conducted in 2020 and 2021 at the Panhandle Research and Extension Center,Scottsbluff, Nebraska, to quantify yield loss and potential seed production of Palmer amaranth when competing with dry beans season-long.

Palmer amaranth densities evaluated were: 0, 0.2, 0.3, 0.5, one and two plants per yard of row (Table 1). These studies were conducted in uprightpinto beans at a population of 85,000 plants per acre and a row spacing of 22 inches. Emerging Palmer amaranth plants were tagged with zip tiesto identify which plants should be kept to maintain the correct density and all other weeds were removed several times a week by hand-weeding.At the end of the season, dry bean yield, yield components and seed production were measured.

RESULTS

Palmer amaranth was able to reduce dry bean yield by 77% at the highest density evaluated (two plants per yard of row) (Figure 1). A 5% yieldloss, a level where a dry bean grower will start to notice decreasing yields, was estimated to occur at only one Palmer amaranth plant per

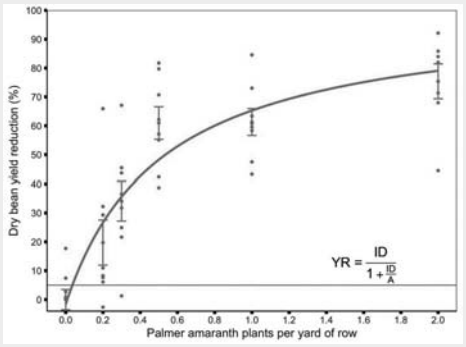


Figure 1. Dry bean yield reduction (YR) as influenced by season-longPalmer amaranth interference. Parameter estimates: A = 94.6; I = 208.9; D= Palmer amaranth density (plants per yard of row).

50yards or four Palmer amaranth plants per 1,000 ft2. Dry bean plants are more sensitive to Palmer amaranth interference than corn, soybean orpeanut as higher Palmer amaranth densities were necessary to severely reduce corn, soybean and peanut yield compared to dry bean.

Dry bean yield components werenegatively impacted by season-longPalmer amaranth interference(Figure 2). The number of pods perplant were reduced 69% when drybean plants competed with Palmeramaranth at a density of two plantsper yard of row. The number ofseeds

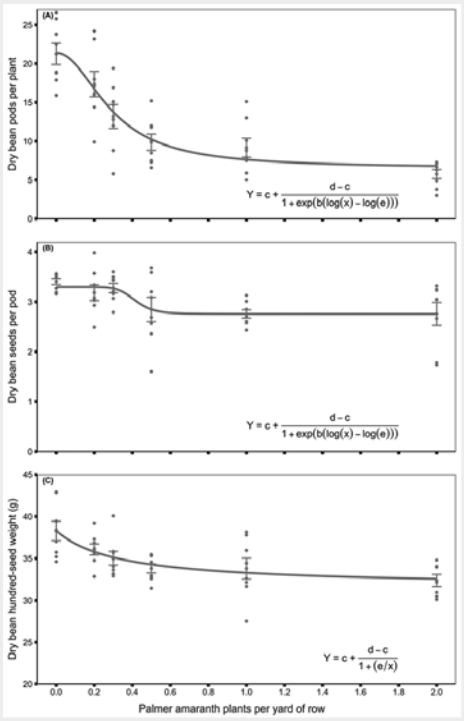


Figure 2. Dry bean yield components expressed aspods per plant (A), seeds per pod (B), and hundred-seed weight (C) as influenced by season-long Palmeramaranth interference. Parameter estimates for podsper plant: b=2.06: c=6.54: d=21.4: e=0.29: x= Palmeramaranth density (plants per yard of row). Parameterestimates for seeds per pod: b=8.57: c=2.76: d=3.3:e=0.41: x= Palmer amaranth density (plants per yard ofrow). Parameter estimates for hundred-seed weight:c=38.3: d=31.6: e=0.33: x= Palmer amaranth density(plants per yard of row).

See **Amaranth** on Page 7

JACK'S BEAN CO LLC

Tom Harmon
970-580-1823
tom.harmon@jacksbean.com

Jerry Haynes
970-520-4788
jerry@jacksbean.com

Light Red Kidneys
Pintos - Yellow Popcorn
Exclusive Dealers
for
Panhandle Red Kidney Seed

BEANS FOR HEALTH

Quality Edible Beans & Popcorn

Receiving - Storing - Processing - Marketing

Quick Facts

- Legumes, such as dry beans, fix a portion of their nitrogenneeds from the atmosphere, thus nitrogen fertilizers may not be needed if soil tests indicate adequate residual nitrate-nitrogen.
- Apply nitrogen fertilizers at rates based on a valid soil test result.
- Phosphorus is often a limiting nutrient for dry beans in Colorado.
- Apply phosphate fertilizers at rates based on soil test results. Band applications at planting are more efficient than broadcast applications.

The 'Crazy Times' for Fertilizer during 2022

By Eric Sfiligoj |January 26, 2022

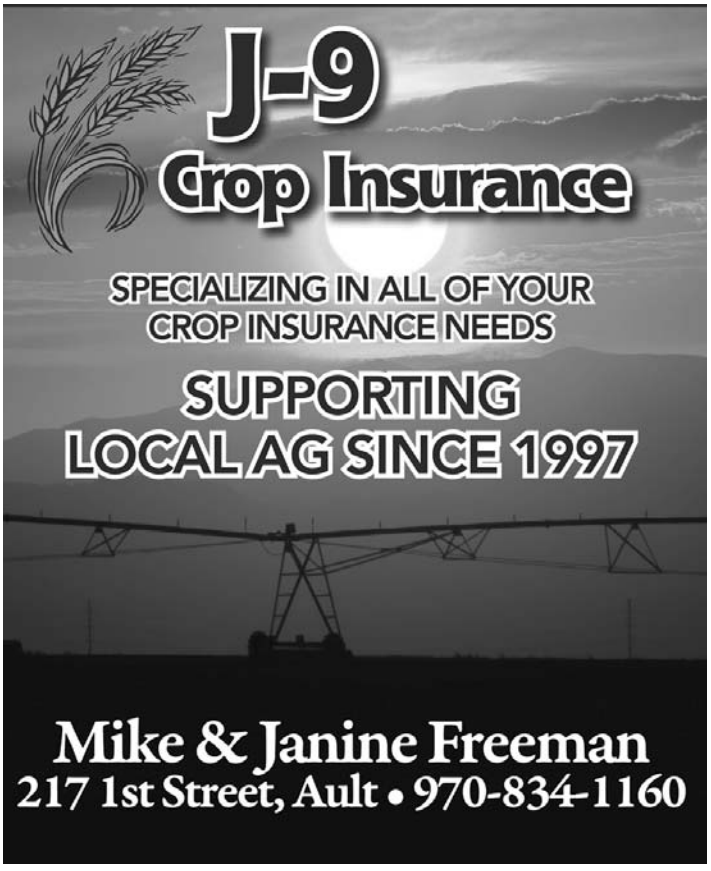
(https://www.croplife.com/author/eric-sfiligoj/)

During past several months, supply chain shortages and price increases have dominated the general news. In agriculture, much of this discussion has focused on fertilizer. At the recent Wisconsin Agribusiness Classic , Joe Dillier, Managing Director for Ameropa North America, aptly described today's fertilizer market in stark terms.(https://www.croplife.com/crop-inputs/will-fertilizer-fortunes-and-prices-remain-high-in 2022/) (https://www.croplife.com/industry-news/wisconsin-agribusiness-classic-returns-to-madison/) (https://www.ameropa.com/home)

"It's an unprecedented year; a crazy year," said Dillier. "I've been in this business since 1989 and I've seen years where demand was pulling prices, like in the early 2000s, when natural gas prices connected to fertilizer prices, and I've seen years when costs were driving prices. But I've never seen a year like 2021, where EVERYTHING was mixed up, both on the demand and supply side!"

In actuality, the rollercoaster for fertilizer began as the calendar turned to the New Year, he said. "Urea was selling for $250 per ton at the start of 2021, but it went up almost immediately thereafter," said Dillier. "By spring, the prices really jumped, to $625 per ton. In a normal year, these would have dropped as the spring season ended. But that didn't happen during 2021. By fall, urea was selling for more than $750 per ton."

Of course, many in the ag retail marketplace are pointing to parallels between 2021 and 2008to figure out what the fertilizer market might do during 2022. However, Dillier doesn't think the two years are that similar for market watchers to see accurate predictions.



Amaranth from Page 6

per pod were reduced 16% asPalmer amaranth density increasedto two plants per yard of row.Hundred-seed weight was reducedas 18% as Palmer amaranth densityincreased to two plants per yard ofrow.

Dry bean yield reduction wasattributed to a reduction in thenumber of pods per plant as densityof Palmer amaranth increased.

The highest Palmer amaranth seedproduction per plant was found atthe lowest density evaluated — 0.2plants per yard of row — and thisseed production started to decreaseas Palmer amaranth densityincreased (Figure 3). Regardless ofthe density level of Palmer amaranth,seed production was excessivelyhigh — a single female Palmeramaranth plant was able to producefrom 91,000 to 376,000 seeds.

If only 1% of Palmer amaranth seedgerminates, the next growing seasonaround 910 to 3,760 plants will emerge for every Palmer amaranth plant left uncontrolled.

MANAGEMENT IMPLICATIONS

Given that there are limited POST herbicides options in dry bean in Nebraska, effective weed management approaches must be applied to manage Palmer amaranth and avoid yield losses and seed set in the soil. Sequential PRE fb POST applications of Outlook® have shown to effectively control Palmer amaranth , which also allow growers to rotate to corn the next year. Rotation to corn is key to effective weed management as large in stature crops are more competitive against Palmer amaranth and the herbicide options are more diverse to control herbicide-resistant biotypes of Palmer amaranth (Mahoney et al. 2021). A "zero-tolerance" approach to weed management is encouraged as a single Palmer amaranth plant can dramatically increase seed in the soil seedbank. [https://cropwatch.unl.edu/2020/how-control-palmer-amaranth-dry-beans-nebraska#:~:text=If%20dry%20bean%20growers%20are,Palmer%20amaranth%20as%20it%20germinates.][https://cropwatch.unl.edu/2020/herbicide-resistance-risk-calculator-new-resistance-management-tool]

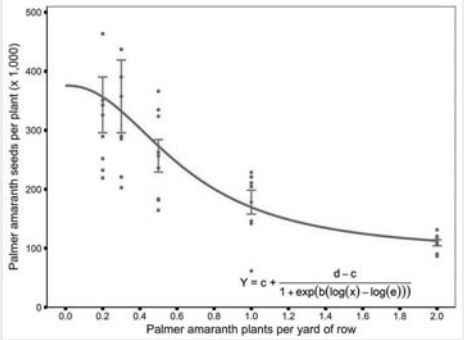


Figure 3. Palmer amaranth seed production per plant when competing season-long with dry beans. Parameter estimates: b=2.23: c=91.4: d=375.6: e=0.64: x= Palmer amaranth density (plants per yard of row).

Meeting from Page 5
Rocky Mountain Bean Dealers as Vice President, and Kevin Regan of Northarvest Bean Growers as Treasurer. Congratulations to the new officers who face another busy and exciting year ahead for the U.S. dry bean industry.

PROFESSOR OF PULSE AGRONOMY

Jessica Davis has a new role at CSU. She is now Professor of Pulse Agronomy and plans to work with the research centers and pulse growers throughout the state. You might remember her because she was previously Extension Soil Scientist at CSU with a focus on manure and fertilizer management, and most recently, she was the Department Head for Horticulture & Landscape Architecture.

In the past, Jessica has worked with cowpeas in the Texas Panhandle and in West Africa. Then she worked for the University of Georgia and worked on soil fertility concerns related to peanuts, which are not officially pulses but have some commonalities. Since coming to CSU, she worked on dry bean sensitivity to high pH and salinity.

At this time, Jessica is determining what her priorities should be to increase production and consumption of pulses in Colorado and beyond. If you have ideas and would like to setup a phone conversation, please email her at jessica.davis@colostate.edu or call (970)988-1850. She would like to know more about why bean acres have been declining and what is needed to turn this around. Pulses have so many excellent properties, being good for soil health, crop rotations, and human health, but we can't achieve those aims if we don't increase acreage. Please reach out and help Jessica better understand the situation on the ground.

MEXICO BEAN REPORT

JANUARY 2022.

It is estimated that nearly 40% of the crop from Chihuahua, Zacatecas, Durango is still with the producers and not in the elevators or government warehouses.

Government reports a total 105 thousand mt, 50% of those black beans. This represents a 20% increase in comparison with past year.

Regarding Sinaloa production, 56 thousand hectares were planted, of those 79% are for the new variety azufrado reyna. The final planting area was less than originally expected at 60 thousand hectares. Production is estimated to reach 128 thousand metric tons, in addition to the 20 thousand metric tons of inventories.

In early January producers were spreading the rumor of a dramatic reduction in estimated production, to only 75 thousand MT to push prices, in addition some growers have expressed that the quality of "reynas" is not good, and that nearly 40% will have bad quality, this as a result of the lack of knowledge of how to grow this variety.

Due to the current low prices in the state, Sinaloa's government offer to sponsor storage for up to 60 days, in order to push prices.

In Nayarit due to late planting, the harvest has not started.

Producers and industry representatives mentioned that in the recent months over 50 thousand MT have been imported, during the harvesting season. According to government statistics, the imports in 2021 (jan-nov) increased 58% in comparison to previous year, reaching $168.2 million USD.

There has been some recent protest in Zacatecas versus government officials from the Ministry of Agriculture due to bad practices at the reception of beans in the warehouses, as they retain grans due to "poor quality" conditions, but they are reselling this product in the market.

- PRICES

Prices paid to producers have gone up due to a reduction in the availability of grains in the production areas.

Sinaloa beans' starting price is between $20-21 pesos/kg.

RMBDA

2022 ANNUAL MEETING

March 4 – 5, 2022

Location: The Hilton Denver Inverness Hotel, 200 Inverness Drive West, Englewood, CO.

The General Membership Meeting will be held at approximately 10:30 a.m. Saturday, March 5 for the purpose of electing directors and other RMBDA business.

TENTATIVE SCHEDULE

FRIDAY, March 4

3:00 p.m.-Registration
5:30-7:30 p.m.-Reception

SATURDAY, March 5

8:00 a.m.- Industry Reports, Membership Meeting, Lunch
6:00 p.m.- Reception, Dinner & Entertainment

Beans' bad rap: Why consumption has fallen drastically in Mexico

Besides being viewed as "poor people's food," the bean's "magical" quality has also contributed to the decline in consumption.

CODY COPELAND / February 10, 2022

A bowl of delicious and nutritious pinto beans, one third of the "trilogy" core of the Mexican diet, along with corn and chile peppers. (Pixabay image via Courthouse News)

MEXICO CITY (CN) — Beans have been a dietary staple in Mexico for millennia, but their per capita consumption in the country has dropped by nearly 50% in recent decades, according to one food scientist.

"It's real sad because the average Mexican now consumes less than 20 pounds of beans per year," said Amanda Gálvez Mariscal, a food and biotechnology researcher at the National Autonomous University of Mexico (UNAM).

That figure is almost half of what it was in 1980, when the per-person consumption of the humble frijol was as much

See **Consumption** on Page 9

Consumption from Page 8

as 35 pounds a year, according to the federal government's agricultural trusteeship FIRA.

"It's a shame, not only because beans are an important source of vegetal proteins, but also because Mexico is a center of origin and diversification of beans," said Gálvez.

One reason for the decline in the bean's popularity on Mexican dinner plates is the reputation it has for being cheap and therefore a "poor man's food."

But the bean's undeserved infamy doesn't fully explain the drop.

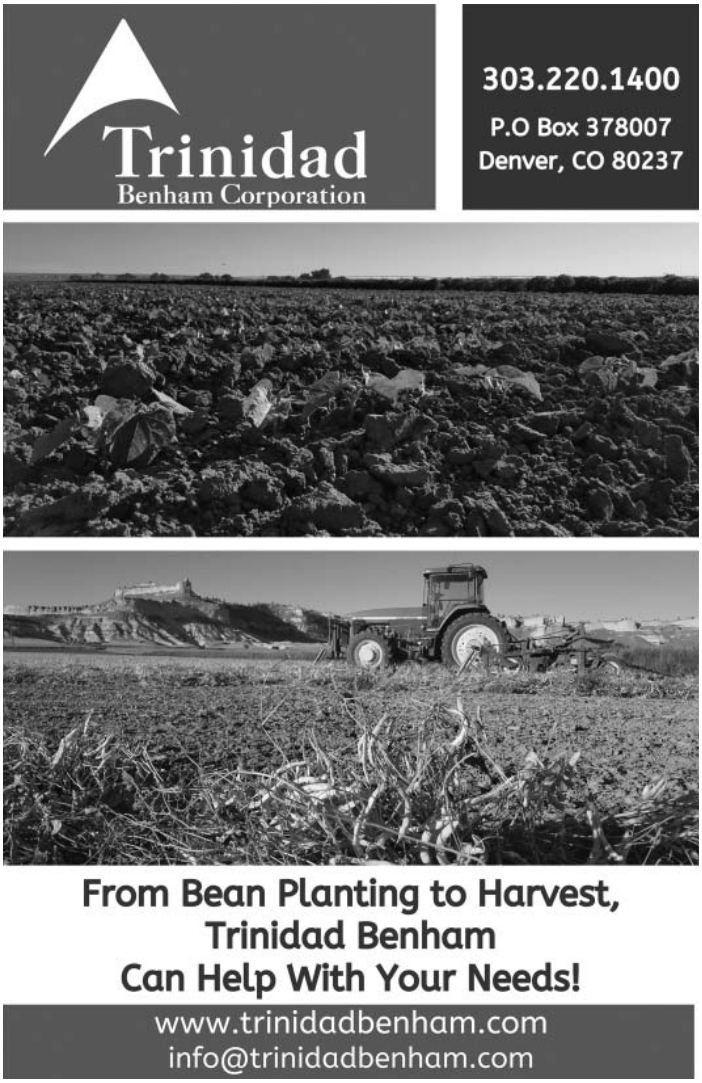
Gálvez also attributed the trend to the fact that, like elsewhere in the world, processed foods have become much more popular in Mexico over the last four decades — and there aren't very many bean-based processed food items on the market.

Also to blame is the bean's well-documented "magical" quality.

The best way to avoid a gassy evening is to take the time to cook beans properly, which means cooking them slowly. It is best to soak them overnight and change this water out before boiling them.

Gálvez, a food scientist, said herbs and spices like cumin, fennel, cilantro and epazote (which might be called Mexican tea in supermarkets north of the border) can also be added to a pot of beans to reduce unwanted post-dinner emissions.

Courthouse News correspondent Cody Copeland is based in Mexico City



Fertilizing Dry Beans

Excerpted from Fact Sheet No. 0.539 By J.G. Davis and M.A. Brick

Adequate soil fertility is a requirement for profitable dry bean production. Prevention of nutrient stress during the growing season ensures optimum crop production and decreases the impacts of adverse environmental conditions. Prior to planting, test soils to measure the soil fertility status to determine the appropriate kind and level of fertilizer application.

Dry beans are sensitive to soil salinity, and yield losses can occur on soils with salinity greater than 2 decisiemens per meter (dS/m) (2 millimhos/cm). Yield losses may be severe on soils with salinity values greater than 3.5 dS/m. It is a good idea to have your soil tested for soluble salts to determine if salinity is a problem in your field. Salinity causes leaf scorching along the margins of the bean leaves.

Because dry beans fix a portion of their total nitrogen (N) needs from the atmosphere through a symbiotic relationship with Rhizobium bacteria in root nodules, N fertilizers are only needed on soils with low levels of residual NO3 -N. Phosphorus (P) is often limiting on soils in the High Plains. Soil pH is also important, and soils with a pH higher than 7.8 may be subject to zinc (Zn) and iron (Fe) deficiencies. For more information on fertility requirements and cultural practices for dry beans, refer to Dry Bean Production and IPM, Bulletin 562A. To obtain a copy, contact the University Resource Center, 115 General Services Building, Colorado State University, Fort Collins, CO 80523; (877) 692-9358; or www. ext.colostate.edu.

Soil Sampling A valid soil analysis can be used to evaluate nutrient application needs to maintain a healthy dry bean crop. The validity of a soil test is directly related to how well the sample was collected. The soil sample must represent the area sampled; consequently, a good sample is a composite of 15 to 20 soil cores taken from an area uniform in soil type. If the soil is not uniform in the field, separate samples should be taken from each area with major differences in soil properties or management practices. Take samples down to a minimum of 1-foot deep.

Air-dry all soil samples thoroughly within 12 hours after sampling by spreading the soil on any clean surface where the soil will not be contaminated. Do not oven-dry the soil because soil test results can be changed. Place the air-dried soil in a clean sample container for shipment to the soil test laboratory.

Submit a carefully completed information form with the soil sample. This form provides information so fertilizer application suggestions can be tailored to your specific situation. Take soil samples for NO3 -N analyses every year for optimum fertilization of crops. Analyze soil for availability of the other nutrients, pH, and organic matter content every three to four years.

More detailed explanations of the importance of taking proper soil samples are found at The Colorado State University Soil, Water, and Plant Testing Laboratory is

See **Fertilizing** on Page 10

Fertilizing from Page 9

located in Room A319 Natural and Environmental Sciences Building, Colorado State University, Fort Collins, CO 80523 (970) 491-5061 and at www.extsoilcrop.colostate.edu/SoilLab//soillab.html.

Nitrogen Suggestions Nitrogen fertilizer may not be needed if dry beans follow crops that have been fertilized with high amounts of N. For crops that leave large amounts of residue in the soil, higher levels of fertilizer N may be required to aid in straw decomposition. The general rule is to apply about 15 pounds N per ton of residue up to 3 tons or 50 pounds of additional N.

Dry beans are legumes that biologically fix N through a symbiotic N fixation process. Inoculate bean seed with the specific host bacteria if dry beans have not been grown recently in a field and in fields where the presence of N-fixing bacteria in the soil is questioned due to historically poor nodulation.

Because legumes can fix N if nodules function properly, some of the N requirements of the plants are met. However, N fixation is limited in heavy clay soils or compacted soils due to poor soil aeration. If residual NO3 -N levels in the soil are low, apply N fertilizer (Table 1). Avoid excessive N levels because they inhibit nodule formation, stimulate heavy vine growth, delay maturity, provide conditions favorable to insect activity, and enhance white mold and bacterial diseases. When residual soil NO3 -N levels are high (greater than 30 ppm), consider planting varieties that mature early to compensate for potentially delayed maturity.

Nitrogen fertilizers may be surface broadcast then incorporated, or band applied. Band application can be accomplished with the use of planter attachments that place the fertilizer band 2 inches below and 2 inches beside the seed row. If band application is utilized, the N rate should be less than 20 pounds of nitrogen per acre to avoid burning the seedlings.

25-Jan-22	Colorado Dry Bean Production Summary by Crop Year					
	2020		∑ 2019, 2020		∑ 2018, 2019, 2020	
Pinto	623,752	70.20%	1,140,435	74.60%	1,666,809	74.50%
Light Red Kidney	139,299	15.70%	187,581	12.30%	262,951	11.80%
Mayocoba/yellow	87,522	9.90%	142,835	9.30%	198,212	8.90%
Great Northern	21,400	2.40%	35,110	2.30%	35,110	1.60%
Black	10,350	1.20%	16,194	1.10%	35,436	1.60%
Red	4,456	0.50%	4,456	0.30%	18,318	0.80%
Black-eyed/cowpea	1,060	0.10%	1,060	0.10%	5,130	0.20%
Garbanzo/chickpea	298	0.00%	298	0.00%	14,838	0.70%
Total	888,137	100.00%	1,527,969	100.00%	2,236,804	100.00%

U.S. INCREASES DRY BEAN EXPORTS

By Sean Pratt - Published: January 24, 2022 - Crops, Markets, News

Demand for American dry beans is exceptionally strong despite the small crop, says an industry official.

Growers in the United States harvested 1.03 million tonnes of beans last year, down 30 percent from the previous year.

Mexico is the biggest market for U.S. beans and they were very active buyers in 2020-21 due to a small domestic crop. That same situation appears to be playing out again in 2021-22.

"It looks like a pretty bad year for Mexico," Rebecca Bratter, executive director of the U.S. Dry Bean Council, said during the Northarvest Bean Day webinar.

The council is forecasting 650,000 tonnes of Mexican bean production, which would be similar to last year's 682,000 tonnes but well below the historic average of 838,000 tonnes.

"When Mexico's production is down our exports are up," she said.

There is also hopeful news out of the European Union where a 25 percent import tariff has been suspended for at least one year as the EU makes progress on its aluminum and steel spat with the U.S.

The tariff is still in place in the United Kingdom but there are signs that it too is willing to kickstart negotiations with the U.S.

"We really need that so we can capture that lost market share," said Bratter.

In the meantime, several smaller markets like Costa Rica, Guatemala, Peru and

See **Exports** on Page 12

OLATHE SPRAY SERVICE INC.

Leonard Felix
Owner / Operator

970-323-5580
970-323-6238 FAX
970-209-1589 CELL

60377 Hwy. 50
P.O. Box 40
Olathe, CO 81425

Professional Applicators of Fungicides, Insecticides and Herbicides

Weekly Bean, Pea, and Lentil Market Review

AMS Livestock, Poultry and Grain Market News
CO Dept. of Ag Market News

February 15, 2022

Email us with accessibility issues with this report.

Grain Report for 2/15/2022 - Final
Compared to last week: Trade remains mostly light, with moderate demand. According to the U.S. Bureau of Labor Statistics2/15/2022, the Producer Price Index for final demand increased 1.0 percent in January, as prices for final demand services rose 0.7 percent, and the index for final demand goods moved up 1.3 percent. Final demand prices advanced 9.7 percent for the 12 months ended January 2022. 2021 Annual Bean, Pea and Lentil report can be found at https://www.ams.usda.gov/market-news/dry-edible-beans-peas-and-lentils.

Pulse

US #1 Black Beans Food Grade (Bag / 100lb)

Del Warehouse (Grower) - Conventional

Region/Location	Sale Type	Basis ($/Cwt)	Basis Change	Price($/Cwt)	Price Change	Average	Year Ago	Freight	Delivery
Min-Dak	Bid			45.00-46.00	UNCH	45.50	29.50	DLVD-T	Current
Michigan	Bid			45.00-51.50	UNCH	48.25	34.00	DLVD-T	Current

US #1 Dark Red Kidney Beans Food Grade (Bag / 100lb)

Del Warehouse (Grower) - Conventional

Region/Location	Sale Type	Basis ($/Cwt)	Basis Change	Price($/Cwt)	Price Change	Average	Year Ago	Freight	Delivery
Min-Dak	Bid			45.00	UNCH	45.00	35.50	DLVD-T	Current

US #1 Great Northern Beans Food Grade (Bag / 100lb)

Del Warehouse (Grower) - Conventional

Region/Location	Sale Type	Basis ($/Cwt)	Basis Change	Price($/Cwt)	Price Change	Average	Year Ago	Freight	Delivery
Den-Rate	Bid			30.00	UNCH	30.00	30.00	DLVD-T	Current

US #1 Light Red Kidney Beans Food Grade (Bag / 100lb)

Del Warehouse (Grower) - Conventional

Region/Location	Sale Type	Basis ($/Cwt)	Basis Change	Price($/Cwt)	Price Change	Average	Year Ago	Freight	Delivery
Den-Rate	Bid			50.00	UNCH	50.00		DLVD-T	Current
Min-Dak	Bid			50.00	UNCH	50.00	42.00	DLVD-T	Current

US #1 Pea (Navy) Beans Food Grade (Bag / 100lb)

Del Warehouse (Grower) - Conventional

Region/Location	Sale Type	Basis ($/Cwt)	Basis Change	Price($/Cwt)	Price Change	Average	Year Ago	Freight	Delivery
Min-Dak	Bid			42.00	UNCH	42.00	30.50	DLVD-T	Current
Michigan	Bid			43.00-45.00	UNCH	44.00	32.50	DLVD-T	Current

US #1 Pink Beans Food Grade (Bag / 100lb)

Del Warehouse (Grower) - Conventional

Region/Location	Sale Type	Basis ($/Cwt)	Basis Change	Price($/Cwt)	Price Change	Average	Year Ago	Freight	Delivery
PNW	Bid			40.00	UNCH	40.00		DLVD-T	Current

US #1 Pinto Beans Food Grade (Bag / 100lb)

Del Warehouse (Grower) - Conventional

Region/Location	Sale Type	Basis ($/Cwt)	Basis Change	Price($/Cwt)	Price Change	Average	Year Ago	Freight	Delivery
Den-Rate	Bid			44.00	UNCH	44.00	26.00	DLVD-T	Current
Min-Dak	Bid			42.00-45.00	UNCH	43.50	31.00	DLVD-T	Current
PNW	Bid			45.00	UNCH	45.00		DLVD-T	Current

US #1 Small Red Beans Food Grade (Bag / 100lb)

Del Warehouse (Grower) - Conventional

Region/Location	Sale Type	Basis ($/Cwt)	Basis Change	Price($/Cwt)	Price Change	Average	Year Ago	Freight	Delivery
Michigan	Bid			48.00-49.00	UNCH	48.50	32.00	DLVD-T	Current
PNW	Bid			42.00	UNCH	42.00		DLVD-T	Current

Explanatory Notes:
Price & Basis Values quoted are for Current Delivery, unless otherwise noted.

CBOT/KCBT/MGETrade month symbols F January; G February; H March; J April; K May; M June; N July; Q August; U September; V October; X November; Z December.

Freight Codes:
FOB: Freight On Board
DLVD: Delivered
CIF: Cost, Insurance, and Freight
T: Truck, **R**: Rail, **B**: Barge, **T/R**: Truck/Rail, **R/B**: Rail/Barge, **T/R/B**: Truck/Rail/Barge, **OV**: Ocean Vessel

Source: USDA AMS Livestock, Poultry & Grain Market News
CO Dept of Ag Market News-Jonathan Gittlein, Market Reporter
Greeley, CO | (970) 353-9750
http://www.ams.usda.gov/lpgmn
https://mymarketnews.ams.usda.gov/ | https://mymarketnews.ams.usda.gov/viewReport/2917

Exports from Page 10

Japan have been greatly increasing their purchases of U.S. beans.

"That really adds up," she said.

The U.S. exported 437,745 tonnes of beans to all markets between January and October of 2021, compared to 382,624 tonnes the same period a year ago.

The COVID pandemic was responsible for some of that increase as people around the world scrambled to stock their pantries.

But Bratter attributes it more to the renewed interest in healthy eating, the rise in the vegan movement and a global focus on sustainability.

"Beans have a wide-open lane. I'm very excited about that," she said.

The Dominican Republic is another big buyer of U.S. beans and it is now a tariff and quota-free market.

Bratter is also quite excited about the Chinese market. China used to be a big exporter of the crop but production is falling in that country and it has become a net importer of beans.

"They are very interested in U.S. dry beans," she said.

China's absence in other export markets is creating another opportunity for the U.S. to step in and gobble up that market share.

But it's not all sunshine and lollipops in the bean market. There are new obstacles arising, such as the growing anti-globalization trend sparked by COVID.

"We've really seen a lot of countries around the world start to turn a lot more inward and talk a lot more about self-sufficiency," said Bratter.

And more countries around the world are also talking about shifting to zero tolerance maximum residue limits (MRLs) for various pesticides.

The council has received a government grant to work on the MRL issue and is lobbying the EU and Mexico to ensure

those markets remain open to U.S. beans instead of being shut out due to technical barriers.

"That would be a massive disruption to trade," said Bratter.

Contact sean.pratt@producer.com

FARMERS NEED SKILLS TO NAVIGATE NEW ON-FARM TECHNOLOGY.

Western Farm Press Staff - 2021

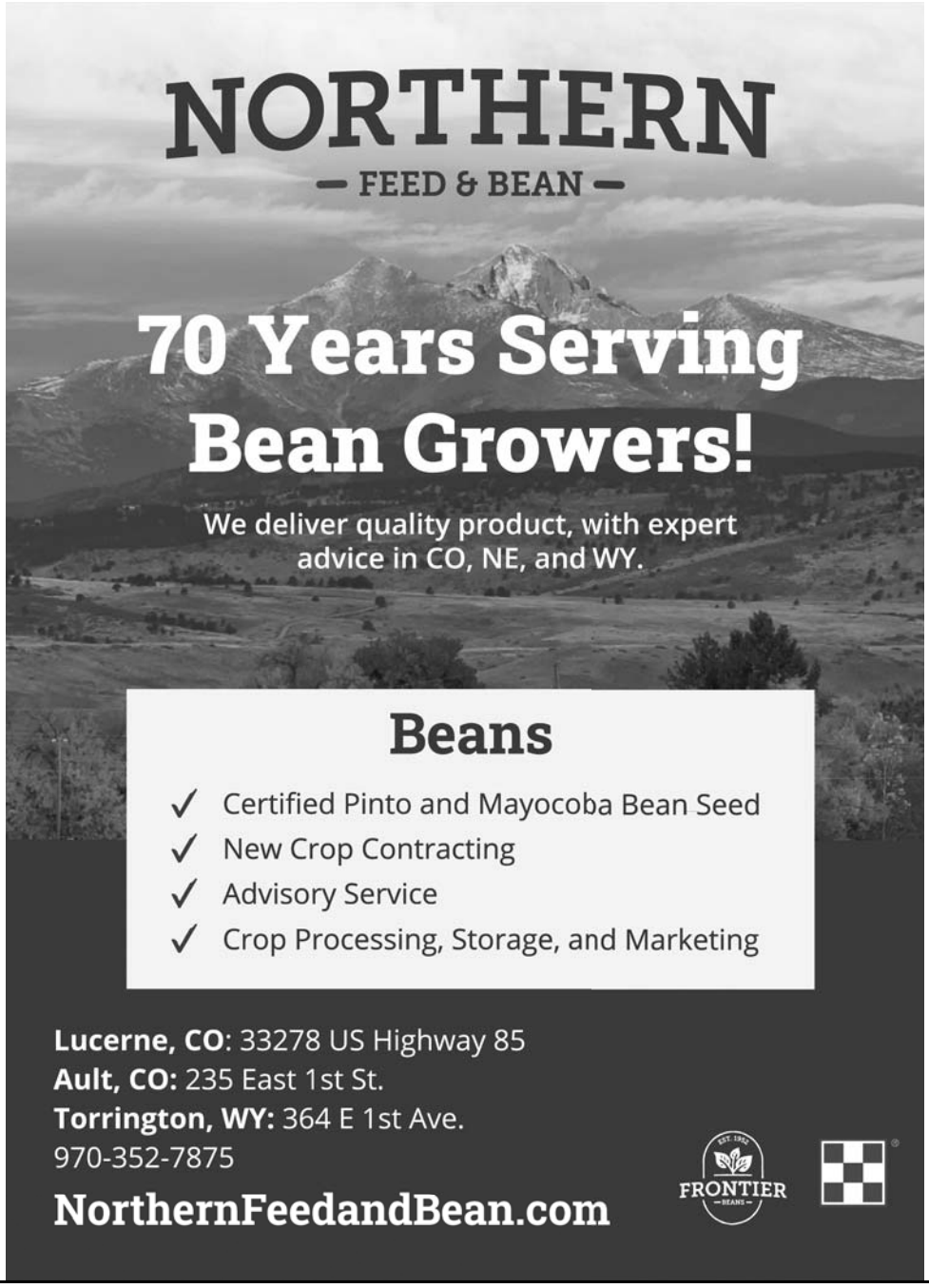
California Food and Agriculture Secretary Karen Ross is teaming with a growers' group to offer a series of in-person workshops aimed at training labor crews to navigate new on-farm technology.

Ross and Western Growers introduced the AgTechX Ed initiative, which they say will bring together universities and colleges, farming and agricultural partners, and technology companies across California to transition the agriculture workforce to master rapidly developing agricultural technology.

The initiative will kick off with the first AgTechX Ed event on Aug. 25–26, 2021, at Reedley College, with future events to be held in Imperial Valley, Monterey County and the greater Sacramento area.

In addition to the events, AgTechX Ed will facilitate internship/apprenticeship

See **Technology** on Page 13



Technology from Page 12

opportunities, job shadow programs and regional career mixers, Western Growers stated in a release.

The initiative will also build on existing WG workforce development programs that encourage youth to pursue careers in agriculture, including Careers in Ag and Junior AgSharks, according to the organization.

"To rise to the occasion of feeding a global population of 10 billion people in the next 30 years with fewer resources and labor, we need to start investing in preparing tomorrow's agricultural workforce today," Ross said. "Education starts in the classroom, and that's where agriculture prominently needs to be. As the development of technology rapidly accelerates, initiatives such as AgTechX Ed lays the foundation for new tech-based education training platforms that will build an adequately trained workforce."

The initiative comes after company CEOs said during the Salinas Valley Ag-Tech Summit in March that efforts to recruit and train workers for ag-tech fields will be crucial to keep the agriculture industry viable in an age of heightened government and consumer demands for sustainability and food safety.

"As we face chronic and worsening labor shortages, escalating labor costs and legislative mandates, and dwindling access to water, crop protection tools and other inputs, the rapid development and deployment of technology is our best hope to preserve California's farmland and regional agricultural economies," said Dave Puglia, Western Growers president and CEO. "AgTechX Ed is an exciting and critical initiative that can help advance the tech-expert workforce we must have to continue producing healthy California-grown foods."

HOW THE CANADIAN PULSE MARKET GUIDES DECISIONS IN AUSTRALIA

February 14, 2022 Delhi Bureau - Krishak Jagat

Australia: Being a transplanted Canadian, I have been living and working in Australia for the past 16 years, mostly in the agriculture field. I am originally from a small farm in central northern Saskatchewan. Pulse crops played a large part in rotations, mainly field peas starting in the mid-80's. With 1980's technology this was a struggle due to lodging, disease and the short growing season.

An Australian Canadian perspective on pulse crops

My area had approximately 93 frost free days. This makes for a very compact growing season. So harvesting pulse crops was very challenging and they soon lost favour amongst growers and Canola started to become the main crop other than wheat and barley. Canada has gone on to become the world's largest exporter of Canola.

Field peas made a resurgence in the mid-90's as better varieties became available that resisted lodging and disease.

Most of the field peas were/are grown in the northern and Eastern Saskatchewan grain belt that has poorer soils than central Saskatchewan but has better rainfall. Central Saskatchewan was always the hotbed of pulse growing, especially lentils, chickpeas and dry beans.

Most of this lentil production is exported to India and Turkey. Chickpeas and dry beans' main market is the USA. Central and southern Saskatchewan were ideal to grow lentils and chickpeas and durum wheat as they have quite hot summers with lower rainfall in most of central Saskatchewan which has an average rainfall of 200mm per year.

Southern Saskatchewan this total is even lower at 120 to 150mm per year. Snow does help this somewhat but with 300mm snow equalling 25mm rain it is not the answer to their moisture needs (dry beans include black, navy, faba, pinto).

Lupins are a very new crop in western Canada with trials just starting in 2019/2020 to see the agronomic benefit of this crop into the western Canadian feed market. They have a ways to go to prove any benefits over the traditional barley or corn rations.

Eastern Canada, mainly Ontario, grows lots of corn and soybeans as their climate is better adapted to these crops than western Canada.

Wheat is also a large crop in Ontario along with dry bean pulse production. Ontario has not been as affected by the extreme dry conditions experienced in western Canada in 2021. We'll focus on western Canada as that is the area that has the most relevance to what we grow in Australia.

How we can leverage this knowledge in Australia

The 2021 crop in western Canada was one of the worst on record with many of my mates recording the lowest yields they have ever seen since the 1930's. Yields were in the 100 to 200kg per ha over large areas.

Fortunately, they have a well established crop insurance program that has helped them remain viable. Normally, these kinds of drought conditions come in two or three year lengths, the last one being in 2001, 2002 and 2003.

Their outlook for the 2022 growing season looks to be dry as many paddocks were harvested extremely low to the ground which has made any capture of moisture extremely limited.

The confidence of a good season in 2022 among all the people I talk to in Sask. and Alberta is not optimistic of a good year. Below average year is their expectations.

They have the lowest carryover of crop in near history. This bodes very well for us here in Australia as we are all aware that the grain markets price the Australian crop after the North American harvest is underway.

Even with the expected increase in pulse crop seeding hectares in Australia due to high fertiliser prices, the pricing should stay very firm in 2022. As always many factors play into this scenario.

In pulse crops, plant stand is very important as most pulse crops do not compete well with weeds. Seeding rate plays a huge part in this; a typical seeding rate for lentils in Saskatchewan Is 85 kg/ha. Farmers that I have worked with in Australia have upped their lentil seeding rate to 65/70 kg/ha with very good plant

See **Australia** on Page 14

Australia from Page 13

stand numbers and increased yields over the lower seeding rates they were using previously.

Most pulses we grow in Australia fit into a similar scenario. It can be very advantageous to try different seeding rates on your farm to see if a different seeding rate can pay benefits in your farming system.

In pulse crops, inoculant plays a huge part in the growing of these crops as pulse crops once established can provide not only their own nitrogen but can also provide extra nitrogen to the following crops.

Inoculation is the process whereby bacteria are coated onto the seed; this bacteria then infects the roots to create the symbiotic relationship with roots to allow nitrogen from the air to be absorbed by the plant to not only be used for growth but also to supply an excess that is left in the soil for the following crop.

All pulse crops should be inoculated with the correct strain of bacteria to help the plant produce this excess nitrogen and maximise the benefits of the pulse crop.

Most soil contains small amounts of the correct strain of bacteria for nitrogen production but inoculation ensures that there will be enough to infect the roots. This is why these crops have become instrumental in our modern farming system rotations.

Colorado Dry Bean Administrative Committee

January 2022 Budget

Assessments (approved for 2022)	$70,000.00
Administrative	$8,500.00
Audit and legal	$1,500.00
Promotion-CDA trade missions	$2,500.00
Promotion-Chelsea Didinger outreach & website redesign	$10,000.00
Promotion-Colorado Bean Newsletter	$8,000.00
Promotion-Colleen Ferriera social media	$5,000.00
Promotion-Memberships	$1,000.00
Promotion-Paula Thomas ProStart program	$1,500.00
Promotion-RMBDA speakers program	$500.00
Promotion-Website maintenance	$250.00
Refund of assessments	$500.00
Promotion-CSU Dr. Henry Thompson	$15,000.00
Research-CSU Barry Ogg pinto evaluation with PREC	$7,500.00
Research-Dr. Carlos Urrea pinto evaluation with CSU	$7,500.00
Research-CSU Sally Diamond-Jones pinto bean variety trial	$10,200.00
Research-PREC cutworms	$3,000.00
Telephone/Postage/Printing	$250.00
Travel and meetings	$2,500.00
USDBC dues	$10,260.00
Opportunity fund for promotion	$7,500.00
Total expenses	$102,960.00
Excess (shortage) of income vs expenses	-$32,960.00
Estimated cash on hand as 12/31/2021	$22,093.00

Advertise in Colorado Bean News

Use the Colorado Bean News to Reach Colorado Bean Dealers and Growers

The COLORADO BEAN NEWS is published biannually by the Colorado Bean Network, a non-profit organization which supports the dry bean industry and Colorado Dry Bean Administrative Committee in Colorado. We are pleased to offer advertisement access to our subscribers.

Circulation:
- 2000 Bean Growers and Dealers in Colorado and Adjacent Area

Publisher:
- Colorado Bean News

Editor&Layout:
- Mark S. McMillan

Advertising Rates - b/w Ads:

¼ Page - $150
½ Page - $300
½ Back Page - $400
Full Page-Interior - $500

Ad Submission Deadlines:
- Spring Issue 2023 - Feb. 1, 2023
- Fall Issue of 2022 – July 14, 2022

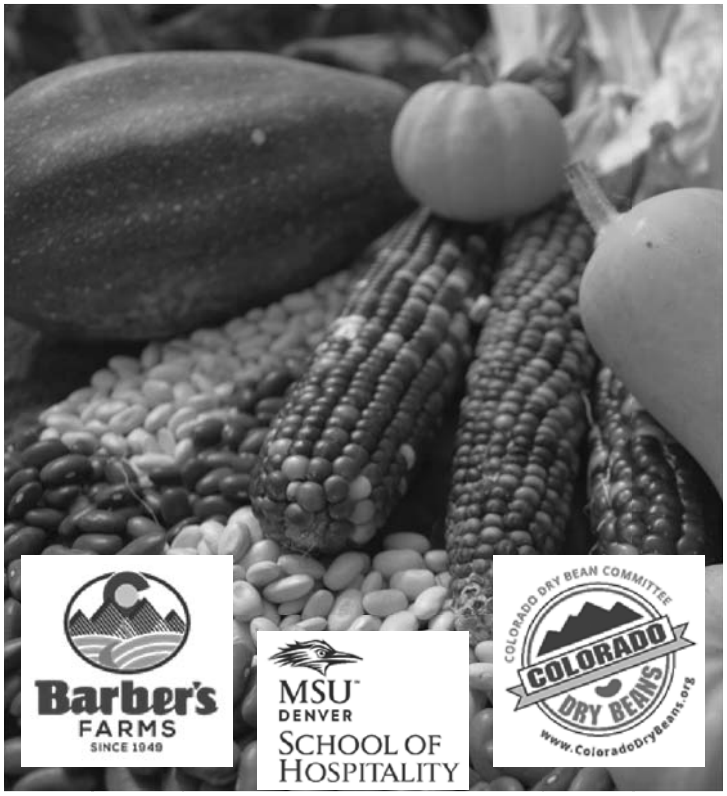
Contact:
- Mark McMillan (970-214-5538)
- Mark.mcmillan@ColoState.EDU

CBN Archives & Web Site:
- www.csuag.com/cbn

COLORADO DRY BEANS
Colorado Dry Bean Administrative Committee

Colorado Bean Summit | Friday, March 4, 2022 | Metropolitan State University of Denver

A multi-faceted event featuring cultural, culinary, and nutritional aspects of beans, examined through several ethnic cuisines. This day-long event will share ideas and concepts of the nutritional benefits of beans and rice, found round the world.



Colorado Bean Summit | Friday, March 4, 2022
Metropolitan State University of Denver

Presenting Sponsor	Colorado Dry Bean Committee
Opening Sponsor	Barber's Farms
Competition Sponsor	Hispanic Restaurant Association
Reception Sponsor	School of Hospitality, Brewery Operations
	Lindita's Salsa
	Raquelita's Tortillas

8:15 AM- 9:15 AM Reception with Meet and Greet
Coffee, Tea, Pastries, Fruit, Fresh Municipal Tap Water
Alumni Lounge

9:15-9:30 AM Opening Remarks Culinary Demonstration Theater
Professor Jackson Lamb, MBA, CHE, MSU Denver
Bob Schork, Colorado Dry Bean Committee
John Jaramillo, Hispanic Restaurant Association
Greg Bloom, Barber's Foods

9:30-10:15 AM Presentation session #1 Culinary Demonstration Theater
"Increasing Bean Consumption: Mitigating Barriers and Emphasizing Motivators"
Chelsea Didinger, Ph.D. candidate, Colorado State University

10:15-11:00 AM Presentation Session #2 Culinary Demonstration Theater
"Building a Foundation for Closing the Dietary Fiber Gap: Improving Gut Health through a Diverse Diet"
Dr. Henry Thompson, Ph.D. Professor and Director
Cancer Prevention Laboratory
Nutrien Distinguished Scholar of Agricultural Sciences
Colorado State University

11:00-11:45 AM Presentation session #3 Culinary Demonstration Theater
"Frijoles and other Sacred Foods of the Southwest: Preserving Food Culture Through Story"
Dr. Elizabeth Fajardo
Department of Chicana/o Studies
Metropolitan State University of Denver

11:45-1:15 PM Presentation session #4 Culinary Demonstration Theater
Professional Category; Pinto Bean Competition
Join the fun while chefs from the Hispanic Restaurant Association compete to find the most innovative use of pinto beans in a restaurant environment. Judged as a "People's Choice Award"

1st place	$1000
2nd place	$500
3rd place	$250

Beverage Bar Refresh

Lunch Buffet; Enjoy the delicious food prepared by the chefs competing during the lunch hour.
Optional Box Lunch options:
Ham, turkey, vegetarian or vegan
Dining available in rooms 200 and 202/ View Poster Sessions
View Bean Research Poster Competition in rooms 200 and 202

1:15-1:45 PM Presentation session #5 Culinary Demonstration Theater
"A Food Insecurity Overview: Programs and Food Items of Access"
Food Bank of the Rockies
Government Programs Director, Gloria Vasquez
Shaina Knight, Food Sourcing Manager

1:45-2:15 PM Presentation session #6 Culinary Demonstration Theater
Colorado bean production facts and Q & A session with a farmer
Panel Discussion with Colorado Bean Farmer and Barber's Farms
Hosted by Bob Schork

2:15-3:00 PM **Beans and Rice Poster Session Competition Judging and Review**
MSU and CSU student research poster competition on the properties of Beans in several applications, such as:

- International Beans and Rice; It's in Every Cuisine
- Nutritional Benefits of a Beans and Rice in your Diet
- Feeding a Starving Population; Are Beans the Answer?
- Sustainability and Economics; Dry Beans vs. Canned Beans
- $250 awarded to the top 4 posters
- Total of $1,000 in prize money

4:00-4:15 PM **Recognition of Bean Recipe Contest winners**

This contest was announced in early February to MSU and CSU students: For this contest we are looking for original non-traditional uses of these beans as an ingredient in a recipe. For example, for black beans we are not wanting to see black beans served up as a burger. Rather we ask students to find ways of incorporating beans into recipes that a restaurant might use.

Develop a non-traditional use of:

- Black Beans
- Yellow Beans
- Black-eyed Peas

1st Place in each category:	$300
2nd Place	$200
3rd Place	$100

Total of $1,800 in prize money

4:15-5:30 PM **Happy Hour Reception** Alumni Lounge and Culinary Demo

Join us as Lindita Torres-Winters sets the stage for the grand finale with her combination of salsa, dips and dippers!

This reception will feature bean-inspired passed hors d'oeurves and Tivoli RoadRunner Red Ale!

Colorado Bean Network
8524 S. Timberline Rd.
Fort Collins, CO 80525

Producers CO-OP
Olathe, Colorado 81425

Certified Premium
Western Colorado
Pinto Bean Seed

Colorado Seed Grower's Association Class #1 Seed Conditioner

Available Varieties

Bill Z

DR Wood

Windbreaker

Medicine Hat

Othello

SVR 6139

Call Bob Beyer
970-323-5764

COLORADO PROUD
Better for you. Better for Colorado.