

### Soybeans May Be Viable Cattle Feed Option

#### By NDSU Agriculture Communication

Soybeans can be used as a protein supplement for beef cattle, as long as the beans are a small part of the cattle's diet.

North Dakota producers having trouble selling soybeans for the export market this year should consider feeding the soybeans to beef cattle, North Dakota State University Extension livestock experts say.

Soybeans can be used as a protein supplement for beef cattle, as long as the beans are a small part of the cattle's diet, according to Karl Hoppe, Extension livestock systems specialist at NDSU's Carrington Research Extension Center.

"Whole soybeans typically contain about 40 percent protein and 20 percent fat," he says. "Nutrient analysis is recommended on soybeans prior to feeding to correctly balance rations."

Researchers have found that when the oil content of the ration exceeds 7 percent, it can be toxic to the microbes in the cattle's rumen and decrease digestibility. Too much oil in cattle rations will lead to scours (diarrhea), cessation of rumen fermentation and, eventually, death.

"Because of these limitations, the recommended upper limit of feeding would be about 20 percent of the ration," Hoppe says. "Practical feeding levels are probably more like 2 to 3 pounds per head per day. At this low rate of supplementation, soybeans provide an excellent source of protein and energy."

For example, he recommends feeding 2.5 pounds of soybeans if the ration requires an extra pound of crude protein to meet protein requirements. For a 1,400-pound cow eating 40 pounds of feed, whole soybeans are about 6 percent of the ration.

Cattle are better able to tolerate whole soybeans than swine. Whole beans contain anti-nutrition factors, or substances that reduce the use of nutrients or food intake, which affects livestock's growth. The beans need to be heat-treated, which inactivates these substances.

Heat treatment can be done by extruding (processing) or roasting. Soybean meal is heat-treated during the oil extraction process.

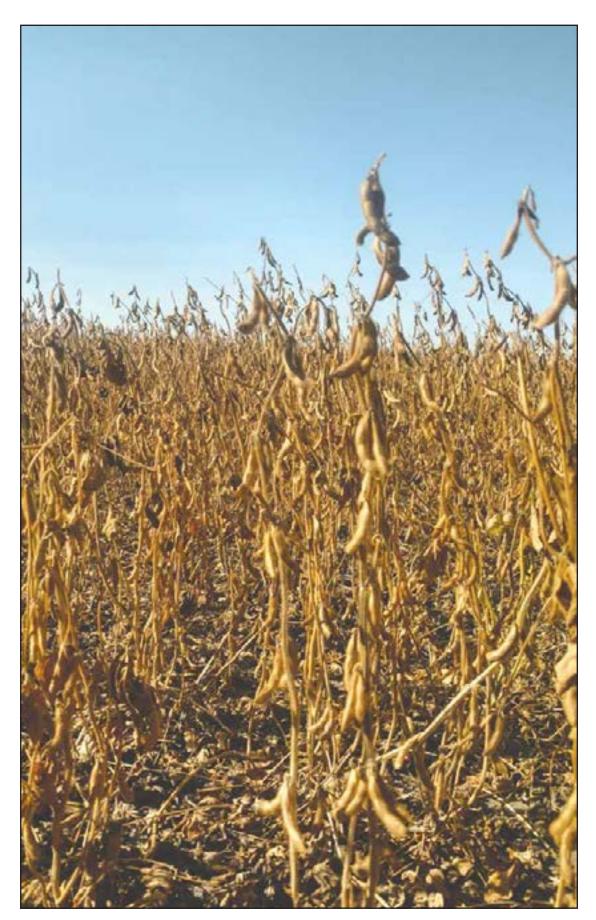
"Mature cattle appear to not be affected by the same anti-nutrition factors as swine," says John Dhuyvetter, Extension livestock systems specialist at NDSU's North Central Research Extension Center. "However, unprocessed soybeans should not be fed to young calves under 300 pounds."

Also, producers should not use raw soybeans in conjunction with protein tubs, blocks or other supplements containing urea. Soybeans contain urease, which breaks down rapidly into ammonia. The combination of urea-containing products and soybeans can lead to ammonia toxicity and death.

Green soybeans, which are beans that are harvested early or frost damaged before they can become mature, also can be fed to cattle at low rates in the ration, says Janna Kincheloe, Extension livestock systems specialist at NDSU's Hettinger Research Extension Center. However, mycotoxins can be a problem in damaged soybeans.

"So, in addition to testing for oil content, producers should consider testing soybeans for mycotoxins that can impact animal health," she notes. "Mold does not have to be visible for mycotoxins to be present, although proper drying and storage of beans reduces this potential."

Hoppe says soybeans haven't been used much in cattle rations because they have been more expensive than other feeds such as distillers grains, alfalfa hay and wheat midds, but the recent trade disputes that have limited U.S. soybean exports may make beans a more affordable option to provide cattle with protein.



Soybeans can be fed to cattle if the beans are a small part of the cattle's diet. (NDSU photo)

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#### By Jaymi Loobey

Beautiful, creepy and interesting hay bale sculptures are all over Sidney, Savage, and Lambert in Montana, once again. They are the creations of groups from 4-H and from the general public as well and are awaiting the critical eyes of residents and visitors alike to judge and vote for them. The regular judging was Friday, September 28 but the hale bales do not need to be cleaned up until October 10. There will be a Grand Champion award, 1st, 2nd, 3rd, and a Reserve award. The winners will be decided by a committee. There will also be a People's Choice award that the community can come into Reynolds Market in Sidney, Montana to vote for after viewing the bales. Voting for People's Choice will continue until October 8. Maps of the bales and their locations are available at Reynolds Market, High Plains Veterinary Clinic and the Sidney Area Chamber of Commerce and Agricultue in Sidney, Montana. All the hay bales will be out to view until October 10. I asked organizer, Marci Lynn Sondeno, why they decided to open the Hay Bale Art competition to the public this year and she told me that it was because it had turned out so well last year and the community had enjoyed it so much. I asked her if the response this year was looking as good as it was last year and she replied, "Oh yeah! We doubled in hay bales from last year."

The Boys & Girls Club of Richland County is one of the new contestants this year The program director of the Boys & Girls Club, Janelle Buxbaum, explained how getting the kids involved with community activities is very common for the kids at the club. "We love to have our kids involved in as many community activities as we can. We take pride in our community and the members love to show their families and friends their work around town when they have the opportunity to." The bale was acquired from Norby Inc. The kids got to decorate it the 26th and 27th with plastic, paint, and string. By the end of the week, it was a giant spider. The kids enjoyed it and Janelle says they will enter again next year if they are able to.

All awards will be given October 8 so stop into Reynolds and vote on your decision today.

Staff Becky Zoneski and Rowan O'Brian show off the Boys & Girls Club hay bale sculpture with club members Colton Johns, Madison Kapp, Malory Davidson, Aspyn Sorteberg, Toby Roberts, Caysen Beiswanger, Hope Fine, Rhyann Michele, Zoey Winsky, Kaden Kummer, Jaecee Pelvit, Brody Eustice and Chandler Padgett.



Just an ordinary round hay bale sitting on the Boys & Girls Club office lawn was the starting point for the hay bale art.

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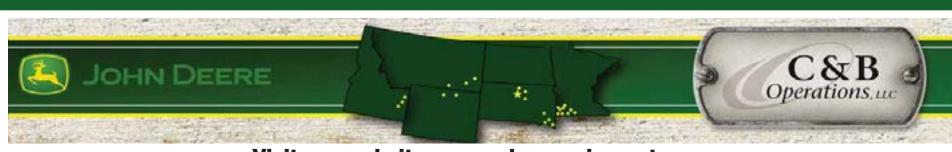






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- Pie Eating Contest......2:30pm
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### New FFA Adviser at Watford City High School

#### By Anna Dragseth

This year the Watford City Future Farmers of America (FFA) Chapter gained a new adviser, Bailey Hawbaker.

Hawbaker grew up on a small grains farm outside of Portal, North Dakota and attended school in Stanley, ND. Throughout her life, she has had a passion for agriculture. She started showing livestock at the age of eight and continued to do so throughout her schooling. She was an active member of her local 4-H and FFA chapters.

Hawbaker was Stanley High School's FFA President for three years. Throughout her FFA career, she has participated in Livestock Judging, Meats Judging, Agriculture Communications and Dairy Handling contests.



**Bailey Hawbaker** 

In 2013, Hawbaker placed 8th place in the National Livestock Judging Team, and 11th place in the National FFA Livestock Team and she was also a part of the North Dakota State Champion Livestock Judging Team for both 4-H and FFA.

"I was very active in FFA throughout my high school career, and I always enjoyed my Ag Classes. I really enjoyed getting to know Ag Teachers from all over the state when I was in High School and I also really enjoyed my time within the organization, which helped me decide on my career," explained Hawbaker.

Not only was Hawbaker involved with 4-H and FFA, but she also held a position on The North Dakota Farm Bureau Young Farmers and Ranchers Board and was the 91st Little International Manager within the NDSU Saddle and Sirloin Club. She currently serves as one of the North Dakota Junior Beef Expo Committee Chairs for the ND Stockmen's Association.

Hawbaker attended college at North Dakota State University (NDSU) where she double majored in Agriculture Education and Agriculture Economics with a minor in Animal Science. She was inspired to pursue a degree in agriculture because of her strong agricultural background and her love for organizations such as FFA. "I like that FFA offers something for everyone. In high school I was not very good at the actual shop part of class; however I thrived when we learned about Animal and Plant Sciences as well as Agricultural Business. You will likely not be the best at everything within the agriculture curriculum, but there is usually something that you can excel at with what the classes have to offer," said Hawbaker.

This year, Hawbaker teaches Ag 1 and Ag 2 classes at Watford City High School and 6th-grade agricultural classes at Watford City Elementary School. She has many goals for the local FFA Chapter. "I would like the Watford City FFA Chapter to be active within the community. This may be through building projects needed, or simply just volunteering at local events. I also hope to get all of our students involved within our chapter through both Supervised Agricultural Experiences and FFA Career Development Events. I want our students to be involved in Agriculture Education not only within the school day, but taking what they learn in the classroom and using it in their everyday life," said Hawbaker.

Hawbaker noted that this year the FFA Chapter created three goals. The goals are: taking pride in the FFA organization, communicating in an appropriate, purposeful, and positive manner, and making a positive difference in the lives of others.

Hawbaker explained, "This year I feel students have been very eager to learn about the Agriculture Industry. We have several students volunteering to help with concessions at the football games along with competing in contests at the upcoming District Leadership Competition on October 3rd."

Hawbaker is looking forward to working with the students this upcoming school year. She said, "I feel it will be a great year! This being my first year of teaching I know I have a lot of learning to do, but I'm excited to see what the year brings."

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3 1 9 . 6 6 + / - TOTAL ACRES W/242.32+/- ACRES OF CROPLAND, 77.34+/- ACRES OF GRASSLAND Section 05, T21 N, R53 E, L 1,2, S2NE4, SE4 FRL CONT 319.66

\*PARCEL II

3 1 7 . 8 0 + /- TOTAL ACRES W/288.65+/- ACRES OF CROPLAND, 29.15+/- ACRES OF GRASSLAND 518, T21 N, R54 E, N2 FRL CONT

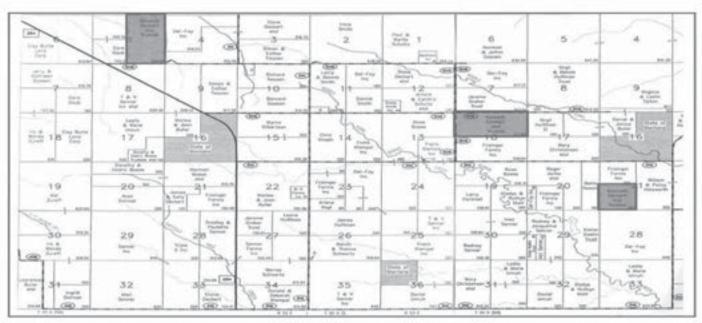
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TERMS: Cash. 10% down sale day, the balance due at closing approximately 30 days from sale date at the office of First American Title Holding Company, 204 N Kendrick Ave, Suite 205, Glendive, MT (406)365-5482

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### Politics And Agricultural Resiliency Topic Of Nov. 9 Annual MSU Economics Conference

#### By MSU News Service

BOZEMAN - The Montana State University Department of Agricultural Economics and Economics and MSU Extension will host the 12th annual agricultural economics conference, "Agriculture and Political Uncertainty" on Friday, Nov. 9, beginning at 8:45 a.m. in MSU's Procrastinator Theater.

The conference, part of the annual Celebrate Agriculture event in the College of Agriculture, will host several MSU agricultural economics and Extension faculty speakers on topics of interest to Montana's agricultural industry, including grain markets, farm labor, farm bill, pollinator health and weather insurance for farmers and ranchers.

The annual conference is an opportunity for university economists to share and discuss current topics with Montana's agricultural community, according to Joel Schumacher, MSU Extension associate specialist.

"Part of what makes a land-grant university so unique is the connection between faculty and off-campus audiences, and this event is an example of that valuable connection," Schumacher said. "I think our faculty members look forward to this event as much as the attendees."

The conference's guest M.L. Wilson Speaker this year is Randy Fortenbery, professor at Washington State University in the School of Economics Sciences and co-director of the Impact Center. Fortenbery, who also holds the WSU Thomas B. Mick Endowed Chair, will present a guest lecture, "Trade in an Uncertain Political Environment," at 11:15 a.m. Fortenbery's research relates to agricultural price performance, impact of futures on cash prices, market development and trade.

Additional conference speakers include Kate Fuller, MSU assistant professor of agricultural economics, who will address a report compiled by the department, "Montana Agriculture Year in Review." Eric Belasco, MSU associate professor of agricultural economics, will address agricultural weather insurance. Anton Bekkerman, MSU associate professor of agricultural economics and associate director of the Montana Agricultural Experiment Station, will discuss grain markets. Diane Charlton, MSU assistant professor of agricultural economics, will discuss farm labor issues. Professor of Economics Randy Rucker will discuss the economic impacts of colony collapse disorder, and George Haynes, professor and agricultural policy Extension specialist, will discuss the new farm bill.

The cost of conference registration is \$25 and includes a hosted a lunch.

The conference will run from 9:15 a.m. to 3:15 p.m. in the Procrastinator Theater in MSU's Strand Union Building. Participants are welcome to call 994-3511 to register or register online at www.ampc.montana.edu/fallconference where a full conference agenda can be found.



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# Watford City FFA Continues Tradition of Leadership Development & Community Service



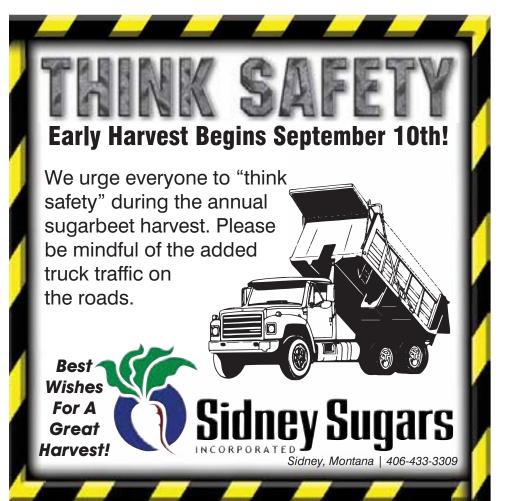
Watford City FFA Chapter takes part in tornado relief for the people affected by the July 10 tornado. Pictured are Cauy Hartel, Connor Cross, Kell Helmuth, Savanna Olson, Shayla Rolla & Laney Hartel.

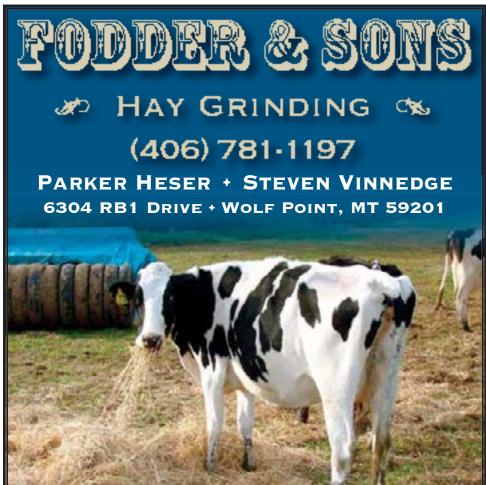
#### By Isabell Boekelman, Chapter Reporter

The Watford City FFA Chapter has a strong tradition of developing leaders and serving the community. Members have been busy this summer and school year. In July, we welcomed Miss Hawbaker, our new advisors, and members helped serve at the Bakken Expo at the Roughrider Center. We also partnered with Tractor Supply and celebrated National Hot Dog Day by selling hot dogs in their parking lot to raise money for families affected by the recent tornado. With help from Hawbaker Farms, who donated the food, we raised \$812 that was deposited to the relief account. Members were well-represented in Minot as Connor Cross and Kell Helmuth competed in tractor driving, while Savanna Olson showed sheep.

Our Chapter Officers this year are Gracie Dahl (President), Cauy Hartel (Vice President), Kell Helmuth (Secretary), Connor Cross (Assistant Secretary), Shayla Rolla (Treasurer), Isabell Boekelman (Reporter), Jake Leppell (Sentinel), Gabby Kaufman (Student Advisor), Laney Hartel (Historian), and Miranda Voegele (Parliamentarian). We had a retreat in Medora, in which officers planned for the year ahead and had some fun attending the musical, pitchfork fondue and mini golf.

The first few weeks of school have been very busy as members have been working at football concessions and preparing for District Leadership. We appreciate all the support from our amazing community! Our FFA Chapter has a tradition of community service and leadership development, and we are excited to continue that tradition.







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# MSU Plant Sciences Faculty Part Of International Discovery In Wheat Genome Sequence

#### By MSU News Service

A Montana State University faculty member dedicated to researching cereal genetics and genomics for Montana farmers is part of an international research team that published an article detailing the entire sequence of the wheat genome of bread wheat. The International Wheat Genome Sequencing Consortium published the article in the prestigious journal Science this week. It is the result of 13 years of collaborative international research.

The article will pave the way for the production of wheat varieties better adapted to climate challenges, with higher yields, enhanced nutritional quality and improved sustainability, according to the consortium.

Hikmet Budak, Winifred Asbjornson Plant Sciences Chair in the MSU College of Agriculture and a member of the IWGSC board of directors, was one of more than 200 scientists from 73 research institutions in 20 countries who authored the research article.

"The publication has so many implications not only in science, but in countries facing food insecurity all over the world," Budak said. "This could lead to higher incomes for farmers, better nutrition for world populations and new wheat varieties. The research also offers immense potential for the scientific world to create new discoveries when it comes to agricultural food production and security."

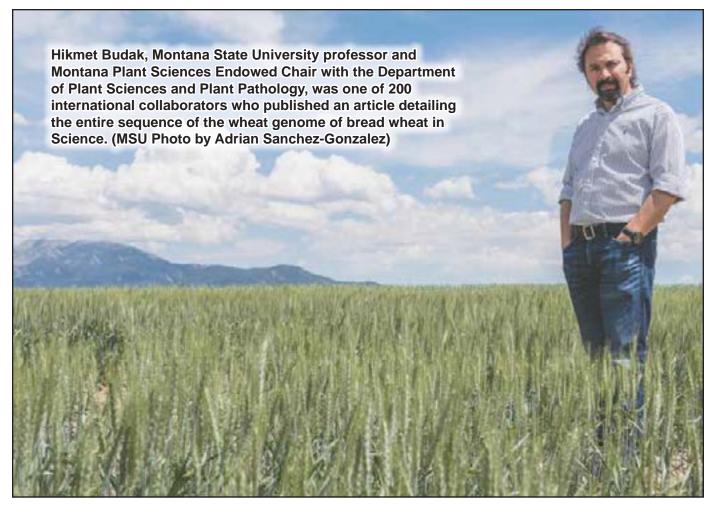
At MSU, Budak and colleagues in the Department of Plant Sciences and Plant Pathology recently sequenced a Montana barley cultivar, Hackett, and they're currently working on sequencing a Montana winter wheat cultivar, Yellowstone.

Sequencing the bread wheat genome was long considered an impossible task, due to its enormous size - five times larger than the human genome - and complexity - bread wheat has three sub-genomes, and more than 85 percent of the genome is composed of similar elements. The article presents the reference genome of the bread wheat variety Chinese Spring. The DNA sequence ordered along the 21 wheat chromosomes is the highest quality genome sequence produced to date for wheat.

According to the Food and Agriculture Organization, in order to meet future demands of a projected world population of 9.6 billion by 2050, wheat productivity must increase by 1.6 percent each year. In order to preserve biodiversity, water and nutrient resources, the majority of this increase must be achieved through crop and trait improvement on currently cultivated land.

A key crop for food security, wheat is the staple food of more than a third of the global human population and accounts for almost 20 percent of the total calories and protein consumed by humans worldwide, more than any other single food source, according to the FAO.

With the reference genome sequence now completed, crop breeders have at



their disposal new tools to address these challenges as they will be able to identify more rapidly genes and regulatory elements underlying complex agronomic traits such as yield, grain quality, resistance to fungal diseases and tolerance to abiotic stress. In turn, they can produce hardier wheat varieties.

It's expected that the availability of a high-quality reference genome sequence will boost wheat improvement over the next decades, with benefits similar to those observed with maize and rice after their reference sequences were produced, according to the IWGSC.

"The publication of the wheat reference genome is the culmination of the work of many individuals who came together under the banner of the IWGSC to do what was considered impossible," said Kellye Eversole, executive director of the IWGSC. "The method of producing the reference sequence and the principles and policies of the consortium provides a model for sequencing large, complex plant genomes and reaffirms the importance of international collaborations for advancing food security."

The IWGSC, which includes 2,400 members in 68 countries, is an international, collaborative consortium established in 2005 by a group of wheat growers, plant scientists, and public and private breeders. The goal of the IWGSC is to make a high-quality genome sequence of bread wheat publicly available in order to lay a foundation for basic research that will enable breeders to develop improved varieties.

### **USDA Launches Trade Mitigation Programs**

U.S. Secretary of Agriculture Sonny Perdue launched the trade mitigation package aimed at assisting farmers suffering from damage due to unjustified trade retaliation by foreign nations. Producers of certain commodities can now sign up for the Market Facilitation Program (MFP), while USDA will also begin to purchase identified commodities under a food purchase and distribution program. Additionally, USDA has begun accepting proposals for the Agricultural Trade Promotion Program (ATP), which will help American farmers find and access new markets for their products. In total, USDA will authorize up to \$12 billion in programs, consistent with World Trade Organization obligations.

Perdue announced in July that USDA would act to aid farmers in response to trade damage from unjustified retaliation. President Trump directed Secretary Perdue to craft a short-term relief strategy to protect agricultural producers while the Administration works on free, fair, and reciprocal trade deals to open more markets in the long run to help American farmers compete globally. These programs will assist agricultural producers to meet some of the costs of disrupted markets.

"These programs will allow President Trump time to strike long-term trade deals to benefit our entire economy, including the agricultural sector, in the long run," Perdue said. "Farmers will tell you that they would always prefer to sell a good crop at a fair price, rather than receive government aid, and that's what long-term trade deals will accomplish. But in the meantime, President Trump has promised that he will not allow American agriculture to bear the brunt of the unjustified retaliation from foreign nations. Today we are putting the President's promise into action."

USDA provided details in August of the programs to be employed:

USDA's Farm Service Agency (FSA) will administer the Market Facilitation Program (MFP) to provide payments to corn, cotton, dairy, hog, sorghum, soybean, and wheat producers. An announcement about further payments will be made in the coming months, if warranted.

USDA's Agricultural Marketing Service (AMS) will administer a food purchase and distribution program to purchase up to \$1.2 billion in commodities unfairly targeted by unjustified retaliation. USDA's Food and Nutrition Service (FNS) will distribute these commodities through nutrition assistance programs, such as The Emergency Food Assistance Program and child nutrition programs.

Through the Foreign Agricultural Service's (FAS) Agricultural Trade Promotion Program (ATP), \$200 million will be made available to develop foreign markets for U.S. agricultural products. The program will help U.S. agricultural exporters identify and access new markets and help mitigate the adverse effects of other countries' restrictions.

Note: USDA is currently working to determine how to address market disruptions for producers of almonds and sweet cherries.

#### **Market Facilitation Program**

The sign-up period for MFP is now open and runs through January 15, 2019, with information and instructions provided at www.farmers.gov/mfp. The MFP provides payments to cotton, corn, dairy, hog, sorghum, soybean, and wheat producers who have been significantly impacted by actions of foreign governments resulting in the loss of traditional exports. The MFP is established under the statutory authority of the Commodity Credit Corporation CCC Charter Act and is under the administration of USDA's FSA. Eligible producers should apply after harvest is complete, as payments will only be issued once production is reported.

A payment will be issued on 50 percent of the producer's total production, multiplied by the MFP rate for a specific commodity. A second payment period, if warranted, will be determined by the USDA.

MFP payments are limited to a combined \$125,000 for corn, cotton, sorghum, soybeans, and wheat capped per person or legal entity. MFP payments are also limited to a combined \$125,000 for dairy and hog producers. Applicants must also have an average adjusted gross income for tax years 2014, 2015, and 2016 of less than \$900,000. Applicants must also comply with the provisions of the Highly Erodible Land and Wetland Conservation regulations.

For more further information or to locate and contact local FSA offices, interested producers can visit www.farmers.gov.

#### **Food Purchase and Distribution Program**

Beginning this week, USDA's AMS will issue pre-solicitation notices through GovDelivery for targeted commodities. These notices will outline products USDA intends to purchase and will continue over the next several weeks. AMS will purchase products over four quarters in the new Federal fiscal year, which starts on October 1, 2018. The materials purchased may

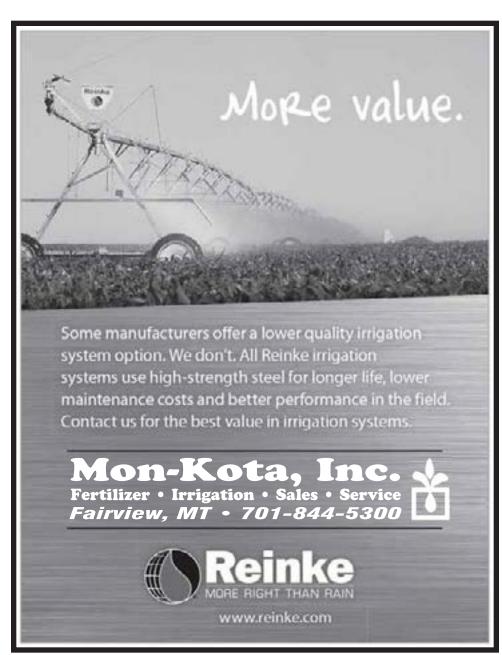
be adjusted between quarters to accommodate changes due to growing conditions, product availability, market conditions, trade negotiation status, and program capacity, among other factors.

To expedite first quarter purchases, AMS will focus on products currently purchased for nutrition assistance programs given the existence of qualified USDA suppliers and specifications for these products. Examples include various forms and varieties of apples, pork, beef, dairy, blueberries, grapefruit, oranges, pears, cranberries, plums/prunes, walnuts, potatoes, rice, kidney and navy beans. By purchasing known commodities first, AMS can procure commodities that have been sourced in the past with maximum speed and impact.

#### **Agricultural Trade Promotion Program**

Applicants may now submit proposals for the FAS \$200 million ATP Program. FAS will accept applications on a rolling basis until November 2, 2018. Details regarding ATP and how to apply are available at https://www.fas.usda.gov/programs/agricultural-trade-promotion-program.

The aim of the program is to assist American agricultural exporters in identifying and accessing new markets and to help mitigate the adverse effects of other countries' restrictions. ATP is meant to help all sectors of U.S. agriculture, including fish and forest product producers, mainly through partnerships with non-profit national and regional organizations.



## THE EQUIPMENT YOU NEED TO RUN YOUR FARM!





**MAXXUM 125** 

CASE SV280

#### **Used Combines**

2000 2388 combine with 30' 1010 header.
3469 engine hours/2636 seperator. Hopper extensions,
chopper. Consigned\$55,000
2005 Case IH 2042, 36', finger reel,
good condition\$26,000
2015 Case IH 7240 539E/4080 hours. Comes with 40ft.
Case IH 3152 rigid draper, very nice combine, owner is
retiring. ConsignedConsigned
2013 Case IH 8230 Combine, 550/670 Hrs, very good
condition \$230,000
2013 Case IH 3152, 40', uppercross auger kit,
transport \$40,000

#### New Tractors In Stock

Case IH 130A Farmall • Case IH 120A Farmall Lease Returns Available

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Maxxum 125 • Magnum 310CVT

• Farmall 130A & 120A • Puma 165 & 185

#### Used Tractors In Stock

2009 Case IH Puma 155 MFD, loader \$99,000
1979 John Deere 4840 3-point, PTO \$19,500
New Holland 9682, 4600 Hrs, Trelleborg duals, weigh
kit, EZ-steer guidance\$69,000
1997 Case IH 9370, 7600 Hrs, 12 speed\$49,000
2002 MX270\$39,000
2009 Case IH Maxxum 140, 1900 hours, new rea
tires, MFD, loader mounts\$59,000
2002 Case IH MX270, 6900 Hrs, MFD, 3PT
Duals\$39,000

#### **Used Haying Equipment In Stock**

#### New Seeding, Tillage, Sprayers

Case IH Precision Air 100 Pull-Type Sprayer

#### **New Mowers**

Grasshopper 729 Big Block

#### **New Skidsteer Loaders**

Case SV280 Cab, air, heat

#### **New Skid Steer Attachments In Stock**

Danuser Palet Forks - 48", 4000lb
Danuser Hydraulic Post Hole Digger & Augers
Danuser T3 Hydraulic Post Drivers
Snowblowers, Snow Buckets

### **Used Seeding, Tillage, Sprayers**

#### Miscellaneous Used Equipment

New Grabtech Skidsteer Grapple Buckets In Stock!



CASE IH MX270



**CASE IH PUMA 155** 



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