

Agriculture By the Numbers

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Are Ad Hoc Farm Programs Becoming the Norm?

By Bryon Parman, NDSU Extension Agricultural Finance Specialist

Ad hoc farm programs are becoming more normalized with the passage of the Coronavirus Food Assistance Program 2 (CFAP 2). The signup period began on Sept. 21 and continues through Dec. 11, 2020.

This comes on the heels of CFAP 1, where the signup period ended for most producers on Sept. 11 and was extended for producers in select natural disaster areas to Oct. 9, 2020.

CFAP 1 had \$16 billion allocated toward payments to farmers and ranchers who experienced market losses due to the COVID-19 pandemic. CFAP 1 for crop and livestock producers focused mainly on the difference between market prices received and what the projected market prices would have been for the remaining 2019 production year inventories of livestock and crops absent the pandemic in the winter/spring of 2020.

CFAP 2 has set aside up to \$14 billion toward crop and livestock commodities suffering projected losses from mid-January 2020 through July 2020. Between the two programs, approximately \$30 billion has been set aside for agricultural producers due to challenges from the 2020 COVID-19 pandemic.

The CFAP program totals might have come as a shock were it not for the dollar figures paid out via the Market Facilitation Programs (MFP). In 2019, \$14.5 billion dollars were set aside under what was called MFP 2. MFP 2 was decoupled from the 2019 crop, relying on what was planted in 2018, the county crop mix, the county average yields, commodity payment rates and a weighted average established.

In 2018, \$12 billion was set aside for commodity prices that were reduced due to ongoing trade disputes as well; however, the payments were directly applied to 2018 production numbers and weighted heavily toward soybeans. Besides the reason for the

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establishment of the ad hoc programs, where CFAP was justified mainly because of a pandemic while MFP was justified due to market prices impacted due to trade disputes, CFAP included payments for beef cattle and lamb/wool producers. While MFP did address livestock, it mainly addressed losses to pork and dairy producers.

Farm programs and payments are not new. In fact, the first farm bill, known as the Agricultural Adjustment Act, was passed in 1933 during the Great Depression. Since then, we have had 16 different versions, which have grown to include the Supplemental Nutrition and Assistance Program (SNAP), conservation programs such as the Conservation Reserve Program or the older land set-aside programs, direct payments decoupled from production, crop insurance, energy, rural investment and agricultural research, among other things. The most recent was the 2018 farm bill, which was mostly a continuation of the 2014 farm bill with a few adjustments and amendments.

We have some major differences between the more traditional farm bills and programs versus the four recent one-time payments that have come about. First, farm bills were/are congressionally negotiated programs with payment triggers and programs designed to address challenges farmers face regarding yield, market prices, natural disasters and liquidity challenges for certain groups of farmers (new and beginning farmers).

The farm bills are designed to be revisited and revised every five years to adjust as the agro-economic environment dictates. Furthermore, while they are in place, they require no further governmental action as payment triggers and provisions are outlined in the bill. The MFP and CFAP payments, however, are more narrowly focused on market price challenges as a result of specific events, and they end permanently once the period covered is over.

One of the key benefits of the more traditional farm bill over the ad hoc programs lies in planning. Once established, producers and lenders have an idea of what kind of assistance will be available in the coming years, which commodities are most impacted and how long the program is to remain in place.

Care also has been taken with recent farm bill legislation to limit market distortions or influence

on production decisions. Also, they are somewhat impervious to political administrations as we have seen major farm bill legislation passed with both major political parties controlling the executive and legislative branches.

In contrast, what is difficult to determine is how much situations such as trade disputes and pandemics actually affected market prices because the scenario where a pandemic didn't happen or a reality where a trade war with China didn't happen isn't available as a benchmark for comparison. Thus, some of these ad hoc programs may distort how producers react to market conditions and production decisions.

This was evident in 2019 when, despite weather and planting conditions suggesting that many North Dakota producers should have elected to take prevent plant, they opted to plant a crop, ensuring they would receive an MFP 2 payment. Late planted crops plus a wetter and cooler fall in 2019 caused problems into the spring of 2020 for many producers across North Dakota and elsewhere in the U.S.

We can't deny the positive financial impact of the more recent one-time programs, and they are more tailored toward the most pressing challenge. However, we simply have no way for producers or lenders to plan on programs such as CFAP or MFP happening year over year.

We would be foolish to say that something that has happened four times in the last three years will not happen again. Yet concerns arise that producers and lenders may begin to plan on it, or production and marketing decisions are made with the expectation that ad hoc programs will continue when the likelihood is also good that they will not.

We hope the situations that necessitated MFP 1 and 2, as well as the CFAP 1 and 2 programs, will no longer be deemed necessary. However, the last two years may have opened a door where any situation that causes financial hardship in agriculture comes with the expectation that some sort of assistance will be available beyond the more traditional farm bill. This situation may be problematic if it influences the production and marketing decisions of producers going forward.

Livestock Risk Protection Insurance Available for Calves

By Tim Petry, NDSU Livestock Economist

Cattle prices have been volatile the last several years, and recent events have been particularly impactful on prices.

International trade issues and disputes with tariffs and trade agreement negotiations affected prices. Animal disease issues such as African swine fever have been important. The Tyson packing plant fire in August 2019 disrupted cattle marketing and caused price volatility.

Corn price volatility with the recent western Corn Belt derecho storm and drought, and large Chinese corn purchases have been important, especially for calf prices. A rule of thumb is a change in corn prices of 10 cents per bushel causes a \$1 per hundredweight change in the opposite direction for fall calf prices.

But at the forefront has been the COVID-19 pandemic that has impacted the entire world and caused unprecedented uncertainty and price volatility.

Some cow-calf producers may sell most of an entire yearly calf crop on one market day. So, an entire year's income may be dependent on the market that day. Recent unexpected events with price volatility highlight the need for a marketing plan that may include price risk management strategies.

Fewer price risk management tools are available for cow-calf producers because a futures market contract does not exist for calves. Producers with smaller cattle herds also are limited in tools available because they may not have truckload size lots of the same weight and grade of calves to sell.

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Livestock Risk Protection Insurance Available for Calves

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I have received many questions lately from cow-calf producers about Livestock Risk Protection (LRP) insurance and if it is a viable price risk management tool.

LRP is managed by the U.S. Department of Agriculture's Risk Management Agency (RMA). For those who have looked at LRP in the past, the RMA recently made several important changes that make it much more usable.

LRP was designed to insure against declining market prices. It functions similar to futures market put options, except that the insurance contract is purchased from an approved livestock insurance agent (your crop insurance agent in most cases) instead of a futures market broker. It is now available to cattle producers in all states. A list of livestock insurance agents is available at www.rma.usda.gov/Information-Tools/Agent-Locator-Page.

LRP contracts may be especially useful for producers with smaller numbers of cattle to be insured against price declines because the minimum number required is one head. That allows producers with smaller cattle herds to develop marketing plans that may insure only a few calves at a time. The maximum number that can be insured in a crop year (July 1-June 30) recently was increased to 12,000 head.

Feeder cattle coverage is available for under 600 pound and from 600- to 900-pound beef steers, beef heifers, predominately dairy cattle, and predominately Brahman cattle. Contracts for each market class may be available for maturity dates 13, 17, 21, 26, 30, 34, 39, 43, 47 or 52 weeks in the future. Note that on a given day, not all contract lengths may be available.

Thirteen-week contracts purchased in early October mature in early January. The first three weeks in January are usually some of the largest calf volume sales weeks of the marketing season at North Dakota livestock auction markets.

LRP insurance is market based, so coverage prices and premiums change daily. Producers select coverage levels that range between 70% and 100% of the RMA's expected price, similar to futures market options strike prices. Coverage prices and premiums are posted daily on the RMA website at <https://public.rma.usda.gov/livestockreports/main.aspx>. Policies may be purchased when prices are posted on weekdays after 3 p.m. Central time and are available until 9 a.m. Central time the next day.



Premium subsidies for cattle were 13% for many years but have been increased several times recently. On Sept. 14, the RMA again increased subsidies to from 35% to 55%, depending on coverage level. And premiums that once were due before submission now are due at maturity.

At the end of the insurance period, if the actual ending value is below the coverage price, an indemnity is paid for the difference.

LRP contracts also are available for fed cattle and swine. However, LRP for lambs has been suspended temporarily due to insufficient USDA Agricultural Marketing Service price information.

Not enough space exists in this column to explain all the details of LRP. More information is available at www.rma.usda.gov/Commodity/Cattle.

LRP informational presentations are available on my website at www.ndsu.edu/livestockeconomics/presentations.

The Last Go-around

By David Ripplinger, NDSU Extension Bioproducts/Bioenergy Economist

Continuing the discussion from last month's article, the first in a series on travel behavior during and following recessions of the last 50 years, we now move to the financial crisis of 2007-2008 and the long, slow recovery that followed.

The subprime mortgage crisis and consequent liquidity contraction had widespread negative impacts on the economy. Unemployment rose from 4.4% to 10% and took more than a decade to return to pre-crisis levels. While the traditional definition of a recession is two or more periods of decline in gross domestic product, in this article, the recession and the recovery, which I define as returning to pre-crisis levels of unemployment, are of interest.

North Dakota was to some degree insulated from the downturn with relatively limited exposure to subprime mortgages, the countercyclical nature of agriculture and a commodities boom just as development of oil in the Bakken formation was really taking off. Many investors saw commodities of all types to be a safe bet for part of their portfolio, and as they purchased, the price of everything from corn to crude rose significantly.

In tandem with increased corn demand to supply the growing ethanol industry and soybean demand to meet the world's growing interest in protein, U.S. agriculture experienced a golden period: low interest rates and relatively high returns to agriculture, and the price of land and the wealth of many North Dakotans increased rapidly.

As we experience the most recent and similar economic decline to what we're experiencing with COVID, a lot can be gleaned from the experiences in transportation.

Rising unemployment meant many Americans no longer had a commute. Lower incomes, declines in household wealth, low confidence and tightened credit led to an immediate and significant reduction of passenger vehicle sales. This was especially true as Americans typically finance car purchases. Many Americans could no longer afford their payment and walked away from vehicles.

The U.S. government intervened by "bailing out" car manufacturers and helping Americans purchase new, more fuel-efficient vehicles under the Cash for Clunkers program. With new technology, we saw a concern that many Americans never would return to the road and that teens would replace face-to-face socializing with socializing at a distance.

The economic recovery was so slow that determining how travel behavior would change was difficult. Employment and vehicle miles traveled took seven years to recover (see figure). As the economy picked up, Americans appeared to have returned to their old driving habits: buying and financing new vehicles, almost entirely powered with gasoline, though often with poor fuel economy, and the type and number of trips, and perhaps most importantly, regular growth in vehicle miles traveled returned.

In hindsight, this is and isn't surprising. Crude oil and gasoline at times during the recovery were extremely expensive, but we didn't see a shift to other power systems.

One could consider the financial crisis of 2007-2008 as the shock that wasn't in terms of its longer-term impact on American travel behavior.

U.S. Employment and Vehicle Miles Traveled, 2007-2015



Source: Bureau of Labor Statistics, Bureau of Transportation Statistics

Risk Management Agency Seeking Comments on Crop Insurance Program

By Ron Haugen, NDSU Extension Farm Management Specialist

The U.S. Department of Agriculture's (USDA) Risk Management Agency (RMA) has announced it is seeking public comments on recommended improvements to the Pasture, Rangeland, Forage (PRF) Rainfall Index Crop Insurance Program by Nov. 5, 2020.

Background

The USDA RMA offers the PRF rainfall index insurance program. Purchasing this insurance can help producers mitigate the financial impact of reduced forage production from drought.

The rainfall index model is based on weather data (precipitation) collected and maintained by the National Oceanic and Atmospheric Administration's (NOAA) Climate Prediction Center. The index reflects how much precipitation is received relative to the long-term average for a specified grid area during a given two-month time frame.

Producers can insure their land for grazing or for haying. For land that is insured for haying, forage production must come from perennial forages such as grass or alfalfa. Land insured for haying has a higher premium than grazing land because a higher level of forage production is expected.

Annual forages are not eligible under this program. They are eligible under the Rainfall Index - Annual Forage Insurance Plan.

Producers using this insurance will need to choose the level of coverage and time periods throughout the year they want to insure. Using this tool provides some insights.

Producers should evaluate how different strategies have paid historically to help determine how to use the insurance to best meet their desired goals.

Precipitation data is based on NOAA weather recording stations. What occurs at these locations

often will differ from rainfall on producer-insured acres. During the long term, these differences and any indemnities that occur due to precipitation deficits should even out.

PRF insurance is a risk management tool that producers should consider utilizing to provide income to offset loss of forage production due to drought conditions. Contact your local crop insurance agent for more information.

Sign up for new producers by Nov. 15, 2020.

New Recommendations

- Adjusting the county base value (CBV) productivity range
- Better targeting of indemnities
- Focusing PRF on viable forage production areas
- Focusing coverage on risk-reducing intervals
- Taking an alternative approach to reducing frequent shallow losses
- Modifying the CBV

All interested parties can submit comments by Nov. 5, 2020. The RMA will review all comments and determine what recommendations should be implemented for the 2022 crop year.

Details on the recommendations are published in a report available on the RMA website for public reviewing and comment. Comments can be submitted via email to rma.kcviri@usda.gov or by mail to Director, Product Administration and Standards Division, Risk Management Agency, U.S. Department of Agriculture, P.O. Box 419205, Kansas City, MO 64133-6205.

Coronavirus's Impact on U.S. Crop Exports

By Frayne Olson, NDSU Extension Crop Economist/Marketing Specialist

The coronavirus is having a dramatic impact on our daily lives, as well as U.S. and global economic growth.

However, based upon the most recent data, the global economic recession is not significantly impacting U.S grain export sales.

One of the many questions created by the COVID-19 pandemic has been how consumers might change their buying patterns and will these changes be permanent. This includes domestic and international consumers.

In economics, effective demand is defined as a consumer's want or need supported by an ability to pay. The pandemic is impacting consumers' ability to pay for products and what they consider priority items, including the types and amounts of different food products.

The coronavirus also is affecting economic growth around the world. Every country is being impacted differently, which is creating variability in currency exchange rates. These changing exchange rates are in turn shifting agricultural trade flows.

Domestic demand for grains and oilseeds is very important for prices but historically has been relatively stable and easier to predict. International exports are also extremely important but can be very difficult to forecast accurately. Approximately 50% of U.S. soybeans, 45% of all wheat and 15% of U.S. corn are exported.

Every week, the U.S. Department of Agriculture reports weekly and accumulated export sales and

export inspections for U.S. grains. Export sales are defined as confirmed sales for delivery in the future.

Futures market trades follow export sales levels very carefully because they impact the amount of unallocated grain remaining for other uses. In contrast, export inspections record the amount of grain inspected for export and that soon will leave the U.S. by train or ocean vessel. Export inspection pace can impact domestic cash market basis levels.

Table 1 summarizes the accumulated corn export sales ranked by country. Each column, except the one labeled 2020/21, represents total exports by country for a full marketing year. The marketing year for corn starts on Sept. 1 and ends on Aug. 31.

The far-right column, labeled 2020/21, is the accumulated export sales by country from Sept. 1 through Sept. 17, 2020. This last column includes all export sales that are contracted for delivery any time after Sept. 1, 2020.

Historically, Mexico and Japan have been the largest importers of U.S. corn. The current 2020/21 export sales levels for these countries are similar to previous years. Sales volumes to the other major importing countries are slightly lower than previous years but are expected to increase through time.

The major surprise has been the large U.S. corn purchases made by China. The purchases to date of just more than 9.8 million metric tons is well above the record amount of corn bought in the 2012/13 marketing year at just less than 5.2 million metric tons.

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Table 1. Accumulated Corn Export Sales as of Sept. 17, 2020 (Million Metric Tons)

Country	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21*
Mexico	12,558.6	13,539.7	14,974.7	15,461.1	14,171.9	3,904.7
Japan	10,506.6	11,983.4	11,249.8	12,631.8	9,780.7	2,542.1
Colombia	4,629.5	4,438.9	4,965.0	4,672.7	4,851.2	805.8
South Korea	3,021.6	5,588.5	5,651.0	3,691.3	2,690.8	341.3
China	184.8	717.9	357.5	259.6	2,110.0	9,806.6
Guatemala	897.1	1,008.9	903.8	1,210.8	1,159.0	448.4
Rest of World	14,885.9	18,117.5	19,371.9	11,274.8	8,510.2	4,746.2
Total	46,684.1	55,394.8	57,473.7	49,202.1	43,273.8	22,595.1

* Accumulated export sales from Sept. 1 to Sept. 17, 2020. This is a partial marketing year.

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Market analysts are suggesting four main reasons for the increased purchases: 1) China's 2020/21 total corn production will be slightly lower than last year, 2) livestock feed demand in China is increasing due to expanding meat production, 3) Ukrainian corn exports have been cut due to lower corn yields and 4) the U.S.-China Phase One agreement has removed regulatory barriers limiting Chinese corn purchases.

The prevailing view is that Chinese purchases of U.S. corn will continue until new crop supplies are available from Brazil in early February.

Table 2 shows accumulated soybean export sales by country by marketing year. The marketing year for soybeans also begins on Sept. 1 and ends on Aug. 31. The last column on the right reports total export sales from Sept. 1 through Sept. 17, 2020.

The accumulated soybean export sales of 19.2 million metric tons to China is a record level for this point in the marketing year. The previous record was 17.3 million metric tons as of Sept. 19, 2013. Current soybean export sales to other major importing countries are similar to previous years.

The major unknown is how long will the rapid soybean export pace to China continue. The present market consensus is U.S. soybean sales to China may slow but remain strong through the end of the calendar year. Continued Chinese buying in calendar year 2021 will depend upon expected Brazilian soybean production.

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Table 2. Accumulated Soybean Export Sales as of Sept. 17, 2020 (Million Metric Tons)

Country	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21*
China	29,855.0	36,148.3	27,681.8	13,369.9	16,266.2	19,241.0
EU-27	5,804.9	4,759.6	5,701.1	7,898.1	5,389.4	596.9
Mexico	3,252.6	3,665.0	4,231.1	4,918.1	4,622.4	1,731.5
Egypt	295.4	807.2	2,436.5	2,704.7	3,798.2	443.7
Japan	2,145.6	2,137.2	2,153.5	2,437.1	2,272.6	592.3
Indonesia	2,028.6	2,296.9	2,424.8	2,435.7	2,219.8	528.9
Rest of World	7,457.1	8,303.5	11,721.2	13,006.7	10,365.9	12,403.4
Total	50,839.2	58,117.7	56,350.0	46,770.3	44,934.5	35,537.7

* Accumulated export sales from Sept. 1 to Sept. 17, 2020. This is a partial marketing year.



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Table 3 shows accumulated wheat export sales, for all wheat classes, by country and marketing year. The marketing year for wheat begins on June 1 and ends May 31. The traditional big U.S. wheat buyers of Mexico, Philippines and Japan are following historical purchasing patterns.

Once again, we have seen an unexpected increase in wheat buying by China. The majority of these purchases have been hard red winter wheat. Historically, China does not import large quantities of wheat from the global market, so whether these purchase levels will continue in late calendar year 2020 and into 2021 still is unclear.



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Table 3. Accumulated All Wheat Export Sales as of Sept. 17, 2020 (Million Metric Tons)

Country	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21*
Mexico	2,318.1	3,089.7	2,935.0	3,033.6	3,670.0	1,391.9
Philippines	2,118.4	2,729.2	2,474.2	3,046.7	3,141.9	1,986.8
Japan	2,434.0	2,819.7	2,692.7	2,695.4	2,575.4	1,296.6
Nigeria	1,401.2	1,540.4	1,170.7	1,563.9	1,564.4	638.6
South Korea	1,073.7	1,275.5	1,420.4	1,355.3	1,340.8	792.1
China	763.5	1,562.7	902.4	42.0	549.5	1,473.3
Rest of World	9,364.2	13,495.6	10,823.8	12,494.7	11,970.2	5,904.6
Total	19,473.1	26,512.8	22,419.2	24,231.6	24,812.2	13,483.9

* Accumulated export sales from June 1 to Sept. 17, 2020. This is a partial marketing year.