

Cornhusker Economics

Market Facilitation Program: Impact on Nebraska Corn and Soybean Producers

Market Report	Year Ago	4 Wks Ago	9-28-18
Livestock and Products,			
Weekly Average			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight.	108.50	*	111.00
Nebraska Feeder Steers, Med. & Large Frame, 550-600 lb.	184.62	176.47	181.38
Nebraska Feeder Steers, Med. & Large Frame 750-800 lb.	165.54	163.87	165.10
Choice Boxed Beef, 600-750 lb. Carcass.	195.81	212.03	205.07
Western Corn Belt Base Hog Price Carcass, Negotiated	49.70	36.84	62.50
Pork Carcass Cutout, 185 lb. Carcass 51-52% Lean.	72.23	64.72	79.40
Slaughter Lambs, woolled and shorn, 135-165 lb. National.	167.17	145.99	139.19
National Carcass Lamb Cutout FOB.	409.72	382.78	375.15
Crops,			
Daily Spot Prices			
Wheat, No. 1, H.W. Imperial, bu.	3.17	4.80	NA
Corn, No. 2, Yellow Columbus, bu.	3.07	3.28	3.27
Soybeans, No. 1, Yellow Columbus, bu.	8.67	7.28	7.31
Grain Sorghum, No.2, Yellow Dorchester, cwt.	5.38	5.09	5.20
Oats, No. 2, Heavy Minneapolis, Mn, bu.	2.97	2.90	3.12
Feed			
Alfalfa, Large Square Bales, Good to Premium, RFV 160-185 Northeast Nebraska, ton.	*	185.00	*
Alfalfa, Large Rounds, Good Platte Valley, ton.	85.00	100.00	102.50
Grass Hay, Large Rounds, Good Nebraska, ton.	85.00	102.50	95.00
Dried Distillers Grains, 10% Moisture Nebraska Average.	115.50	139.00	135.00
Wet Distillers Grains, 65-70% Moisture Nebraska Average.	42.00	41.50	48.50
* No Market			

In July 2018, President Trump imposed a first round of 25-percent tariffs on Chinese electronics and high-tech equipment including automobiles, computer hard drives, and LEDs. The tariffs were imposed on roughly \$34 billion worth of imported goods. In August 2018 additional 25-percent tariffs were imposed on \$16 billion worth of Chinese exports to the United States and in September tariffs on \$200 billion worth of Chinese exports to the United States were added. (Bradsher, 2018). The Trump Administration has also imposed automobile, steel and aluminum tariffs on imports from Canada, the European Union and other countries.

In response to the first two sets of tariffs, China placed retaliatory tariffs on \$60 billion dollars of imports from the United States matching the value of the goods subjected to U.S. tariffs. According to Bradsher (2018), Chinese imports from the United States are so much smaller than U.S. imports from China that the Chinese government was unable to match the magnitude (\$200 billion) of the latest round of U.S. tariffs, applying tariffs only to an additional \$60 billion worth of U.S. goods. The Chinese tariffs target sensitive U.S. sectors including several agricultural industries. In the initial round of retaliation, for example, U.S. soybean exports to China—which account for more than 50 percent of total U.S. soybean exports—were hit with 25 percent tariffs. Swanson et al. (2018) reported predictions that the tariff would cause the average annual 2018 soybean price to fall from an expected \$9.70 per bushel if no tariff were imposed to \$8.85 per bushel.

In July, the Trump administration announced that \$12 billion dollars had been set aside to assist farm-

ers affected by the retaliatory Chinese tariffs placed on U.S. exports. Three programs have been set up to carry out an initial distribution of about \$6.3 billion. The most important of these is the Market Facilitation Program (MFP) for which about \$4.7 billion have been set aside. After September 4, 2018 producers who have completed their harvests become eligible for initial payments based on the published payment rates applied to half their reported production (USDA, 2018). The initial payment rate for soybeans, for example, is \$1.65 per bushel compared with only \$0.01 per bushel for corn. These payment rates reflect the importance of the Chinese market for the two commodities and the likelihood that the impact of the tariffs would be greater for soybeans than for corn. In 2017, U.S. corn exports to China accounted for only 1.6 percent of total U.S. corn exports while China purchased 57.1 percent of total U.S. soybean exports (FAS, 2018). According to USDA (2018) estimates, over 77 percent of the anticipated MFP payments will be paid to soybean producers.

In addition to the MFP program, about \$1.4 billion will be used to purchase a wide range of consumer products for use in various nutrition assistance programs and \$200,000 is to be made available for promotional programs operated by the Foreign Agriculture Service (FAS) on a cost-share basis with eligible advertising and promotional organizations. To receive MFP payments, farmers must be in compliance with conservation requirements and the average annual adjusted gross income of the farm enterprise from 2014 to 2016 must be less than \$900,000. In addition, the MFP payments cannot exceed \$125,000 per producer or legal entity. A second round of MFP payments may be undertaken at a later date (USDA, 2018). Further information about the MFP is available at <https://www.farmers.gov/manage/mfp>

Potential Impact of the Market Facilitation Program in Nebraska

Since the payments are only made on 50 percent of total production, the effective rates are equal to half of the announced payment rates (\$0.005 per bushel for corn and \$0.825 per bushel for soybeans). This means that, if the 2018 average yield for corn were equal to the USDA August forecast of 196 bushels per acre, farmers would receive \$.98 per acre ($196 \times 0.5 \times 0.01$) on average. Similarly, if the 2018 yield for soybeans were 61 bushels per acre, an average payment would be \$50.33 per acre ($61 \times 0.5 \times 1.65$).

Total potential MFP payments for different yield scenarios are shown in Table 1 along with total expected reve-

nue using the opening September 3 futures prices (\$3.65 and \$8.46 per bushel for corn and soybeans respectively) from the Chicago Mercantile Exchange and total revenue including the MFP payments on a per acre basis. Based on the USDA August yield forecast, farmers growing corn would receive payments of \$0.98 per acre which when added to the expected revenue would yield total revenue of \$716.38 per acre. Similarly for soybeans, the payment of \$50.33 added to expected revenue would result in total per-acre revenue of \$566.39 based on the August forecast.

MFP payments for different amounts of acreage harvested of corn and soybeans based on the August yield forecast are shown in Table 2. With these yields, a producer who harvests more than 2,484 acres of soybeans would receive only \$125,000, the maximum payment allowed. If 5,000 acres of soybeans are harvested with a yield of 61 bushels per acre, the per-acre revenue would be only \$541.06 compared to \$566.39 for lower harvested acres as a result of the cap.

Conclusion

The results reported in the preceding section show how the MFP program would affect farm revenue for corn and soybean producers in Nebraska assuming average yields and prices equal to the September 3 futures price. The situation for individual farmers will vary depending on their actual yields and the pricing strategies pursued. If a farmer has locked in a forward-contract price of \$9.00 per bushel of soybeans and managed a yield of 63 bushels per acre, the MFP payment of \$51.98 would be added to revenue of \$567 per acre for a total with the payment of \$618.98 per acre, substantially more than the amounts shown in Table 1. Variation in farmers' circumstances with respect to actual yields and prices makes it difficult to determine whether the MFP payments will fully compensate, over-compensate, or under-compensate particular producers for any losses brought about by the Chinese tariffs. Of course, compensation could be avoided altogether if instead of the self-inflicted damage of the U.S.-China trade war, workable trade agreements and resolution of disputes through the World Trade Organization were pursued so that farmers could market their products at prices determined by market conditions rather than at the tariff-distorted prices.

Table 1: Per acre MFP payment and gross revenue estimates for Nebraska

Crop	2018 Estimated Yield	Yield per acre (bushels)	Estimated MFP Payment (per acre)	Sept. 3, 2018 Futures Price (per bushel)	Total Revenue (Price times quantity) (per acre)	Total Revenue plus MFP Payment
						(per acre)
Corn	Same as 2017	181	\$0.91	\$3.65	\$660.65	\$661.56
	10% higher than 2017	199	\$1.00	\$3.65	\$726.35	\$727.35
	Aug. Forecast by USDA	196	\$0.98	\$3.65	\$715.40	\$716.38
Soybeans	Same as 2017	58	\$47.85	\$8.46	\$490.68	\$538.53
	10% higher than 2017	63	\$51.98	\$8.46	\$532.98	\$584.96
	Aug. Forecast by USDA	61	\$50.33	\$8.46	\$516.06	\$566.39

Data source: USDA and CME

Table 2: Total revenue estimates for Nebraska

Farm size (in acres)	Estimated MFP Payment using Aug. Forecast, USDA		Total Revenue (Sept. 3, 2018 Price times Quantity)		Total Revenue plus MFP Payment		Effective Total Revenue plus MFP per acre	
	Corn	Soybeans	Corn	Soybeans	Corn	Soybeans	Corn	Soybeans
500	\$490	\$25,165	\$357,700	\$258,030	\$358,190	\$283,195	\$716.38	\$566.39
1,000	\$980	\$50,330	\$715,400	\$516,060	\$716,380	\$566,390	\$716.38	\$566.39
2,000	\$1,960	\$100,660	\$1,430,800	\$1,032,120	\$1,432,760	\$1,132,780	\$716.38	\$566.39
5,000	\$4,900	\$125,000	\$3,577,000	\$2,580,300	\$3,581,900	\$2,705,300	\$716.38	\$541.06

Data source: USDA and CME

Sources

Bradsher, Keith (2018). "China Runs Short of Ammunition in Trade War," *New York Times*, September 19, page 1.

FAS (2018). Global Agricultural Trade Statistics (GATS) Database, Foreign Agriculture Service, USDA, available at: <https://apps.fas.usda.gov/gats/ExpressQuery1.aspx>

Swanson, K., G. Schnitkey, T. Hubbs, J. Coppess, N. Paulson and C. Zulauf (2018) "Impacts of Chinese Soybean Tariffs on Financial Position of Central Illinois Grain Farms," *farmdoc daily* (8): 68, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, April 17.

USDA (2018). "USDA Announces Details of Assistance for Farmers Impacted by Unjustified Retaliation," Press Release No. 0167.18, Washington, DC, available at <https://www.usda.gov/media/press-releases/2018/08/27/usda-announces-details-assistance-farmers-impacted-unjustified>

Anil Giri
Agriculture Program
School of Natural Sciences
University of Central Missouri
giri@ucmo.edu

Wes Peterson
Department of Agricultural Economics
University of Nebraska-Lincoln
epeterson1@unl.edu

Sankalp Sharma
Kent State University at Tuscarawas