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# Weekly Farm Economics: Expected Revenues and the Farm Safety Net for 2019

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With the end of February nearing, projected prices for determining crop insurance guarantees are close to final. For corn, the projected price in 2019 will be near that of 2018, and current price levels suggest that same expected revenue in 2019 as in 2018. Crop insurance and commodity title guarantees for corn will be roughly the same in 2019 as in 2018. For soybeans, expected revenue in 2019 is lower than in 2018. For soybeans, crop insurance and Agricultural Risk Coverage (ARC) guarantees will be lower in 2019 as compared to 2018.

## Corn

For corn and soybeans in Midwest states, projected prices used to set crop insurance guarantees are based on average settlement prices of Chicago Mercantile Exchange (CME) contracts during February. The 2019 December contract is used to set the 2019 projected price for corn. The November 2019 contract is used for soybeans.

Through February 5th, the projected price for corn is at \$4.01 per bushel. Settlement prices for the last three days could change the projected price, but likely not by much. The \$4.01 is \$.05 per higher than the \$3.96 per bushel in 2017 and 2018 (see Table 1). A \$4.01 per bushel price will be slighter higher than the projected prices in 2016 through 2018, but \$.14 lower than \$4.15 projected price for 2015.

Farmers could contracting to deliver grain in the fall at \$3.72 per bushel. The fall delivery price is \$.29 below the projected price. A -.29 basis is close to those of recent years, which range from -\$.25 in 2018 to -\$.30 in 2019.

The 2019 volatility for corn is projected at .15, slightly above the .14 volatility for 2018, but below that for 2015 and 2018, all of which were above .19 (see Table 1). Volatilities for setting crop insurance guarantees are based on the volatility estimate for the last five days of the month. Due to the smaller window — five days versus the month — the 2019 volatility could differ from the .15 estimate given here.

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	Corn				Soybeans				
		Projected	Fall Delivery			Projected	Fall Delivery		
Year	Volatility	Price	Price <sup>1</sup>	Basis <sup>2</sup>	Volatility	Price	Price <sup>1</sup>	Basis <sup>2</sup>	
		\$ per bushel				\$ per bushel			
2015	0.21	4.15	3.85	-0.30	0.16	9.73	9.43	-0.30	
2016	0.19	3.86	3.58	-0.28	0.12	8.85	8.55	-0.30	
2017	0.19	3.96	3.67	-0.29	0.16	10.19	9.89	-0.30	
2018	0.14	3.96	3.71	-0.25	0.14	10.16	9.83	-0.33	
2019P	0.15	4.01	3.72	-0.29	0.13	9.55	9.12	-0.43	

Price for delivery of grain in the fall. These are the average during the month of February.

<sup>2</sup> Fall delivery price minus projected price.

Source: Volatilities and projected prices are from Risk Management Agency

A \$4.01 projected price and .15 volatility result in per acre crop insurance premiums that are higher in 2019 than in 2018, given the same yields used to calculate premiums. In McLean County, for example, an 85% RP policy using a 100-acre enterprise unit will have a \$13.27 per acre premium in 2019, \$.31 per acre higher than the \$12.96 premium in 2018 (186 APH yield and 198 Trend Adjusted APH yield).

Given the same coverage level, crop insurance guarantees will be about the same as in 2018. This occurs because the \$3.96 projected price in 2018 is very near the \$4.01 projected price for 2019.

The \$3.72 fall delivery price in 2019 provides a gauge the of 2019 market year average (MYA) price for determining commodity title payments. For both corn and soybeans, the market year begins in September and ends in August. MYA prices represent average cash prices for the U.S.

This year, choices made under the 2014 Farm Bill will not apply and farmers will be given a choice between Price Loss Coverage (PLC) and Agricultural Risk Coverage (ARC). Under PLC, payments are made when the MYA price is below the reference price. For corn, the reference price is \$3.70. A \$3.72 MYA price would not trigger payments, but even small movements downward would trigger payments.

Guarantees for ARC at the county level (ARC-CO) are not known yet. Both benchmark prices and benchmark yields for 2019 respectively depend on 2018 MYA price and county yields, which are not known as of yet. Given current 2018 price forecasts, it is highly likely that the 2019 benchmark price will be very near \$3.70, the 2018 benchmark price. ARC-CO pays when county revenue (county yield times MYA price) is below the revenue guarantee. The revenue guarantee equals .86 times the benchmark price times the benchmark yield. Given that actual yield equals benchmark yield, MYA prices would have to be below \$3.18 (\$3.70 benchmark price x .86).

Whether the selection is PLC or ARC, 2019 commodity title payments will not be made until October 2020. Any payments received during the 2019 calendar year are related to 2018 production. It is highly likely that most producers will not receive commodity title payments for corn on the 2018 crop.

Overall, current prices suggest roughly the same expected revenue in 2019 as in 2018. Crop insurance will trigger payments at roughly the same guarantees. Price declines will need to occur before PLC makes payments. Revenue would have to decline before ARC-CO makes payments.

## Soybeans

For soybeans, the 2019 projected price will be near \$9.55 per bushel. A \$9.55 projected price is \$.61 per bushel lower than the 2018 projected price of \$10.16 per bushel (see Table 1).

Current fall delivery prices in central Illinois are near \$9.12 per bushel, giving a basis of -\$0.43 per bushel. The -\$.43 basis is larger than those of recent years. The basis was -\$.30 per bushel in 2015 through 2017 and -\$.33 in 2018. The trade dispute with China contributes to more negative basis. If the trade dispute continues, basis likely will remain in the -\$.40 range.

The current projection is for a .13 volatility, slightly lower than the .14 volatility in 2018. In many counties, crop insurance premiums will be lower in 2019 than in 2018. In McLean County, for example, an 85% RP policy using a 100-acre enterprise unit will have a \$6.66 per acre premium in 2019, \$1.53 lower than the \$8.19 premium in 2017 (59 APH yield, 72 TA-APH yield). Both the lower projected price and lower volatility contribute to lower premiums. A higher volatility could cause 2019 premiums to increase.

Given the same coverage level, crop insurance guarantees will be lower in 2019 as compared to 2018. Given a 55 TA-APH yield, the minimum guarantee in 2018 for an 85% RP policy will be \$446 per acre (85% coverage level x 55 TA-APH yield x \$9.55 projected price). This compares to \$474 in 2018 (85% coverage leave 55 TA-APH yield x \$10.16 projected price).

Similar to corn, the \$9.12 fall delivery price will serve as an estimate of 2019 MYA soybean price. PLC has an \$8.40 reference price. Therefore, MYA price would have to fall \$.72 before PLC will make payments.

For ARC, the 2019 benchmark price will be below the \$9.63 benchmark price for 2018. Given a 2018 MYA price of \$8.60, the 2019 benchmark price will be \$9.25 per bushel, \$.38 lower than the 2018 price. As a result, ARC-CO guarantees will be lower in 2019. Given that 2019 actual yield equals 2019 benchmark yield, the MYA would have to be below \$7.96 per bushel to trigger payments.

The 2019 projected price will be about \$.61 less than the 2018 projected price. In central Illinois, fall delivery prices are about \$.71 per bushel less than in 2018. Expected revenue for 2019 is lower than expected revenues last year. Given the same coverage level choice, crop insurance guarantees will be lower in 2019 than in 2018. ARC-CO guarantees will be lower as well. PLC will have the same reference price in 2019 as in 2018, but prices still must fall before PLC makes payments.

## Summary

Corn has the same expected revenue and guarantees while soybeans have lower expected revenues and guarantees. Compared to last year, the overall safety net will be lower than last year.

Note that fall delivery prices in this article are given for central Illinois. Delivery price can be much lower than those presented here, particularly for the western corn-belt (see, for example, <u>basis maps</u>).

## Reference

"Local Grain Bids," *Progressive Farmer*, accessed February 26, 2019. https://www.dtnpf.com/agriculture/web/ag/markets/local-grain-bids