

# Corn revenue falls short of cost for third year in a row

As a new year begins, we are going to take the time to look at the profitability of the major crops produced by US farmers, in part because their financial situation will affect both the type and the cost of the legislation that will replace Title I - Commodities of the 2014 Farm Bill.

The Economic Research Service (ERS) of the United States Department of Agriculture (USDA) provides “Commodity Costs and Returns” numbers twice a year: October and May (<https://tinyurl.com/j2pxesv>). The tables we will be using are those released in October 2017 and are the first estimates available after the end of the 2016 crop marketing year for the dominant crops grown in the US.

We begin this series of columns by looking at corn, which is the US crop with the most land in production (94.0 million acres in 2016), though soybeans are gaining on corn (83.7 million acres in 2016).

The US corn yield for 2016 was 175 bushels per acre, a gain of 8 bushels over 2015. This increase in yield is a double-edged sword for farmers. On the one hand, they have more bushels to sell. On the other, increased production without a commensurate increase in demand results in larger carry-over stocks, triggering a decline in price.

The season average corn price received by farmers in the 2016 crop marketing year was \$3.36 per bushel, down from \$3.61 a year earlier. The revenue per planted corn acre, including the value of corn silage, was \$589.28 compared to 2015’s \$604.25. The increase in yield was not large enough to compensate for the decline in price. The revenue reported by USDA does not include crop insurance payments or government payments.

On the operating cost side, farmers were able to reduce the cost of seeds by 2.9 percent to \$98.64 per planted acre; fertilizer by 15.9 percent to \$115.50 per planted acre; and fuel, lube, and electricity by 10.4 percent to \$19.06. Other operating costs increased: Chemicals by 3.1 percent to \$28.82 per planted acre, custom operations by 2.0 percent to \$19.42 per planted acre, repairs by 1.0 percent to \$26.44 per planted acre, and purchased irrigation water by 16.7 percent to \$0.14 per planted acre.

The largest percentage increase, though not the largest dollar increase, was interest on operating capital 156.3 percent to \$0.71 per planted acre. Given the current low interest rates, it would not take much of an increase in interest rates for the cost of this item to become a serious problem.

Overall, farmers were able to reduce their operating costs by 7.5 percent from \$333.80 per planted acre of corn to \$308.73.

In terms of allocated overhead, the largest decrease was 10.4 percent for the opportunity cost of land (rental rate) to \$160.51 per planted acre. Taxes and insurance declined by \$0.02 per acre to \$19.85 per planted acre. Hired labor increased by 4.0 percent to \$3.41 per planted acre, the opportunity cost of unpaid labor (the farmer) by 4.0 percent to \$26.66 per planted acre, capital recovery of machinery and equipment 1.2 percent to \$103.85 per planted acre, and general farm overhead by 0.1 percent to \$19.85 per planted acre.

Total allocated overhead decreased by 7.5 percent to \$328.28 per planted acre. Total costs (operating costs plus allocated overhead) decreased by 6.1 percent to \$634.01 per planted acre. As a result, US corn farmers lost \$44.73 per planted acre in the 2016 crop marketing year.

This is the third year in a row that farmers have seen financial losses on corn production. The national average total for the 3 years is \$175.23.

The numbers we have been examining are the average for all corn farms in the US. There certainly are some farmers who are making a profit. At the same time, that means that the losses experienced by other farmers are greater than shown in this analysis.

The December forecast for the 2017 US corn crop by the USDA Economic Research Service is for total costs to decline slightly to \$632.65 per acre. Turning to revenue, the 2017 corn yield is estimated at 161 bushels per planted acre and the December 2017 issue of the World Agricultural Supply and Demand Estimates by USDA shows a midpoint price of corn at \$3.20 per bushel. If those numbers are close, farmers can expect \$517.32 per acre (including silage) in revenue per planted acre of corn, or a loss of \$115.33 per planted acre.

In the absence of any change in this scenario, farmers will continue to face difficulty in financing the 2018 crop and the Congress will be staring at significant costs if their farm program is based on tweaking the policies contained in the 2014 Farm Bill.

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