# Costs and returns for rice

In this series, thus far we have looked at the costs and returns for corn, soybeans, wheat and cotton. Before we look at rice in this week's column we thought it would be important to step back and explain a bit of jargon we have been using—the term "crop marketing year." The crop marketing year varies among the crops.

For instance, corn for grain, grain sorghum, sweet potatoes and hops have a crop marketing year that begins on September 1 of a given year, say 2016. That means the corn crop that is planted in the spring of 2016 and is harvested in the fall of the same year is assumed to be marketed between September 1, 2016 and July 31, 2017. The profitability of the 2016 crop cannot be finally calculated until after the end of the crop marketing year in 2017. That is why even though we are writing this column early in 2018, the last crop marketing year for which we have final costs and returns is the 2016 crop.

The crop marketing year for cattle, sheep, lambs, wool, mohair, milk, cauliflower, lettuce, onions, strawberries, sweet corn, and tomatoes begins on January 1. For hay, the crop marketing year begins May 1. Barley, oats, and wheat have a June 1 date for the beginning of the marketing year. For cotton, peanuts, and rice, the crop marketing year begins August 1. December 1 is the beginning date for the marketing year for broilers, eggs, and hogs.

In 2016, US farmers planted 3.105 million acres of rice, 480 thousand acres more than they planted a year earlier, an increase of 18.3 percent. They harvested 3.097 million acres, 512 thousand acres more than in 2015. There were 8 thousand abandoned acres, well below the prior 5-year average of 33 thousand acres.

Rice farmers were able to reduce their operating costs by $27.47 per planted acre. The largest cost reduction in operating costs was $19.10 in fertilizer purchases followed by $8.97 in fuel, lube, and electricity; $3.29 in commercial drying; and $2.74 in seed. Three of the four reductions in operating costs were in the double digits on a percentage basis. The exception was the cost of seed.

Increases in operating costs were chemicals ($3.72 per planted acre), custom operations ($1.73), interest on operating capital ($0.70), purchased irrigation water ($0.47), and repairs ($0.01). The largest increase in operating costs was seen by interest on operating capital 159.1 percent.

Allocated overhead was reduced by rice farmers a total of $8.63 per planted acre. Contributing to that decline were opportunity cost of land (rental rate) at $12.95 per planted acre and taxes and insurance at $0.08 per planted acre. Increases in allocated overhead were seen in opportunity cost of unpaid labor (farmer) at $2.37 per planted acre, hired labor ($1.16), capital recovery of machinery and equipment ($0.61), and general farm overhead ($0.28). The largest percentage decline in allocated overhead was seen in the opportunity cost of land.

As a result of declines in operating costs and allocated overhead, the total reduction in costs for rice, compared to the prior year, was $36.10 per planted acre or 3.7 percent.

The rice yield was 78 cwt. (hundred-weight) per planted acre, 3 cwt. below a year earlier, a 3.7 percent decline. The season average price received by farmers was $10.40 per cwt., $1.80 below the price for the prior marketing year's crop (14.8 percent). As a result of a decline in both yield and price, rice farmers saw their revenue per planted acre fall by $177.00 per planted acre. In the 2016 crop marketing year compared to the prior year.

The decline in rice revenue per planted acre for the 2016 crop marketing year was partially offset by the $36.10 decline in costs resulting in a total loss of $140.90 per planted acre. This is compared to the 2015 crop marketing year which showed a $16.60 profit.

For the 2017 crop year the midpoint of the price projection for rice is $12.80 per cwt. and the projected yield is 71.6 cwt. per planted acre. That would result in revenue of $916 per planted acre. If rice farmers are able to maintain costs at the 2016 crop marketing year level of $935.50 per planted acre, they would see a loss of $19.02 per acre.

This is relatively comparable to the projected losses of $13.00 per planted acre for cotton so there is little economic incentive for farmers to shift production between the two crops.

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