## **Kansas State University – Department of Agricultural Economics**

### Fertilizer Prices, A Worst Case Scenario?

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#### **Situation**

About 10 days ago, Ibendahl reported on an update to his fertilizer prediction model (What's Up With Fertilizer Prices - https://www.agmanager.info/production-economics/prices-and-price-forecasts/whats-fertilizer-prices). At the time inflation expectations were in the 5% to 6% range and the Energy Information Administration was forecasting oil prices to average in the mid \$70's per barrel for 2022. With these levels of inputs plugged into the forecasting model, Ibendahl predicted anhydrous prices near \$1,000. With actual anhydrous prices near \$1,500, Ibendahl was hopeful fertilizer prices might moderate by summer. The amount of uncertainty currently in the supply chain and in the economy meant that fertilizer prices would likely come down at a slower pace than they went up. The supply chain uncertainly also meant that fertilizer prices might not come all the way down to the predicted price.

Since the original forecast was published, the economic situation looks less favorable. Talk of a Russia-Ukraine war seems to have intensified. The oil markets took this as bad news and oil prices have approached \$100/barrel. At the same time, some inflation news has been reported and it appears inflation is headed even higher rather than leveling off. This update looks at where fertilizer prices might go with oil at \$100/barrel and inflation at 10%.

#### **Discussion**

Oil at \$100 and inflation at 10% might be a worst case scenario. However, if those two things did occur, the projected anhydrous price is shown in Figure 2. It's possible anhydrous could be \$1,800 by year's end. The thinking here is that Figure 1 (as reported in the original fertilizer analysis) probably represents the best case scenario for fertilizer while Figure 2 represents the worst case scenario.

The other remaining question is whether \$100 oil and 10% inflation is actually a worst case scenario. It's possible an actual shooting war with Russia and Ukraine could move oil above \$100. Traders may have baked some of that possibility already into their models when talk of conflict intensified last week. 10% inflation seemed unthinkable a month ago so 10% seems high. Still history shows that double digit inflation is not impossible.

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# Anhydrous Price - Actual vs Predicted

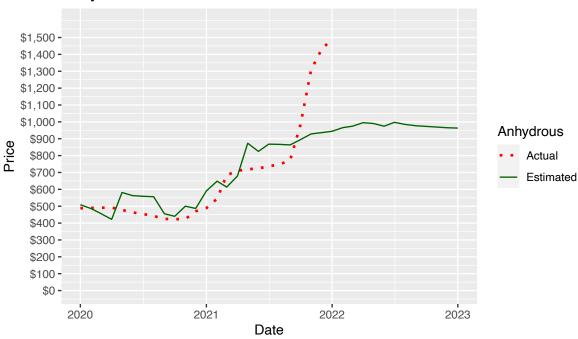


Figure 1. Original Fertilizer Price Prediction

### Anhydrous Price - Actual vs Predicted

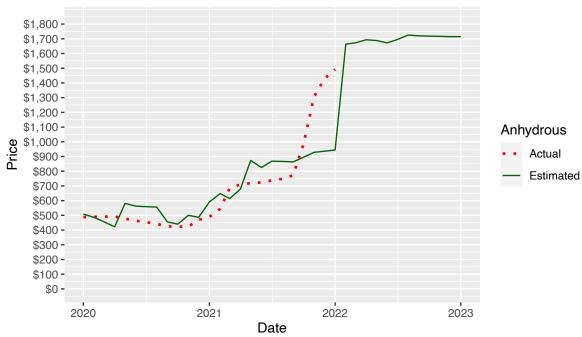


Figure 2. Revised (Worst Case) Price Prediction

