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### Economics of Soybean Fertility

KSU Nutrient Management Specialist Dr. Dorivar Ruiz-Diaz was a presenter at the KSU Soybean Schools held two weeks ago. In his presentation, he noted the effect of crop prices on purchasing power of crop nutrients. In 2012, a bushel of soybeans purchased 19 pounds of phosphate. In 2013, it purchased 20 pounds, before dropping back to 19 pounds again in 2014. For 2015, the number dropped all the way down to 16 pounds – a 20 percent drop from just two years earlier. How can we make up for the lost purchasing power? Know what you need!

For example, most soybean crops don't require any nitrogen unless you are in very high yield environments. If you are applying nitrogen to boost yield, make sure you are focusing their use in the highest yield environments.

Phosphorous removal in soybeans is eight tenths of a pound per bushel. Potassium removal is one and four tenths of a pound per bushel. When soil test levels are above 15-20 ppm P and 130 ppm K, you may get by a year without applying nutrients, but only with careful attention to the future. First, understand that skipping an application will reduce soil test levels and is only a short term economic solution. At low soil test levels, you must apply fertilizer. Second, if you don't have a good soil testing program in place, now is the time to start one! The economic returns to soil test information is actually higher when commodity prices are low than they are when commodity prices are high.

Don't overlook lime. If pH drops below 6.0, you may see reductions in nutrient availability and use efficiency that can hinder fertilizer effectiveness.

What about micronutrient fertility applications? KSU work has shown variable responses to micronutrient fertility (work continues...) based on soils. If you are growing soybeans in low organic matter or high sand content soils, your likelihood of response to micronutrients is much greater than if you have higher organic matters and more clay/loam soil types.

With any luck, a bushel of soybeans will regain some purchasing power in 2016. If not, our understanding of optimum soil fertility levels will be integral to helping make good economic decisions for our soybean production acres.

### Peach Leaf Curl Control

By the time you notice emerging peach leaves that are puckered, swollen, distorted and reddish-green color, you are already too late to control peach leaf curl. Uncontrolled, this disease can severely weaken trees due to untimely leaf drop as leaves unfurl in the spring.

Fortunately, peach leaf curl is not difficult to control, but fungicides must be applied before bud swell. There are several fungicides available, including numerous chlorothalonil containing products that will work. Always read and follow label directions.

Coverage is essential, so make sure to thoroughly cover the entire tree during application. Coverage will be enhanced if you prune prior to spray applications. Don't spray when temperatures are below 40 degrees or will fall below freezing before the spray dries. Usually we can wait until March to spray but an extended warm period in February that encourages early bud swell may require spraying in late February.