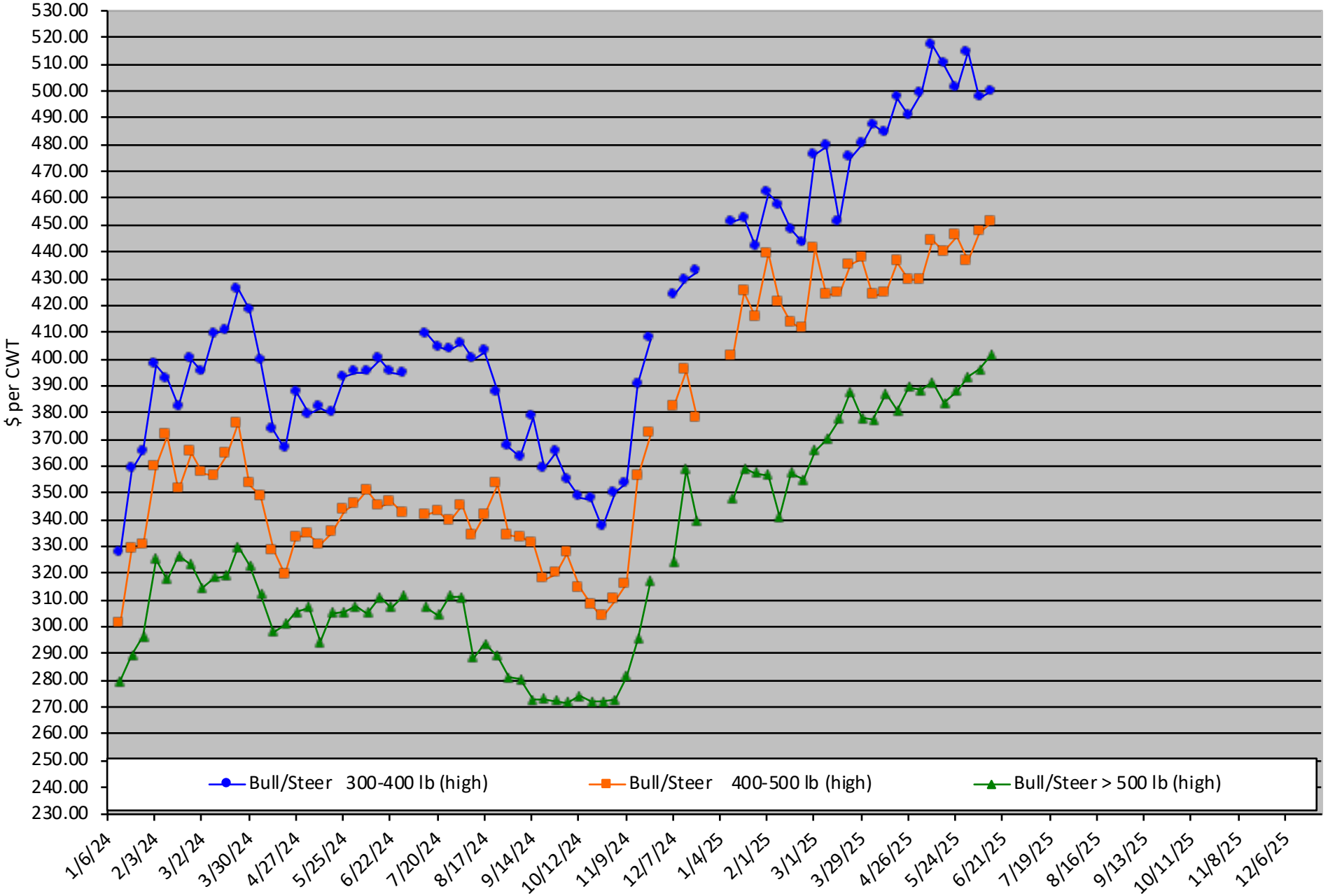
# Calf Price Trends

**Trend of the Highest Price Reported for Various Weight Calves,** Average of 6 East & Central Texas Livestock Auctions

Chart created by Dr. Jason Banta, Extension Beef Cattle Specialist

For a weekly email copy of this chart please email amsensing@ag.tamu.edu or contact a Texas A&M AgriLife County Extension Agent

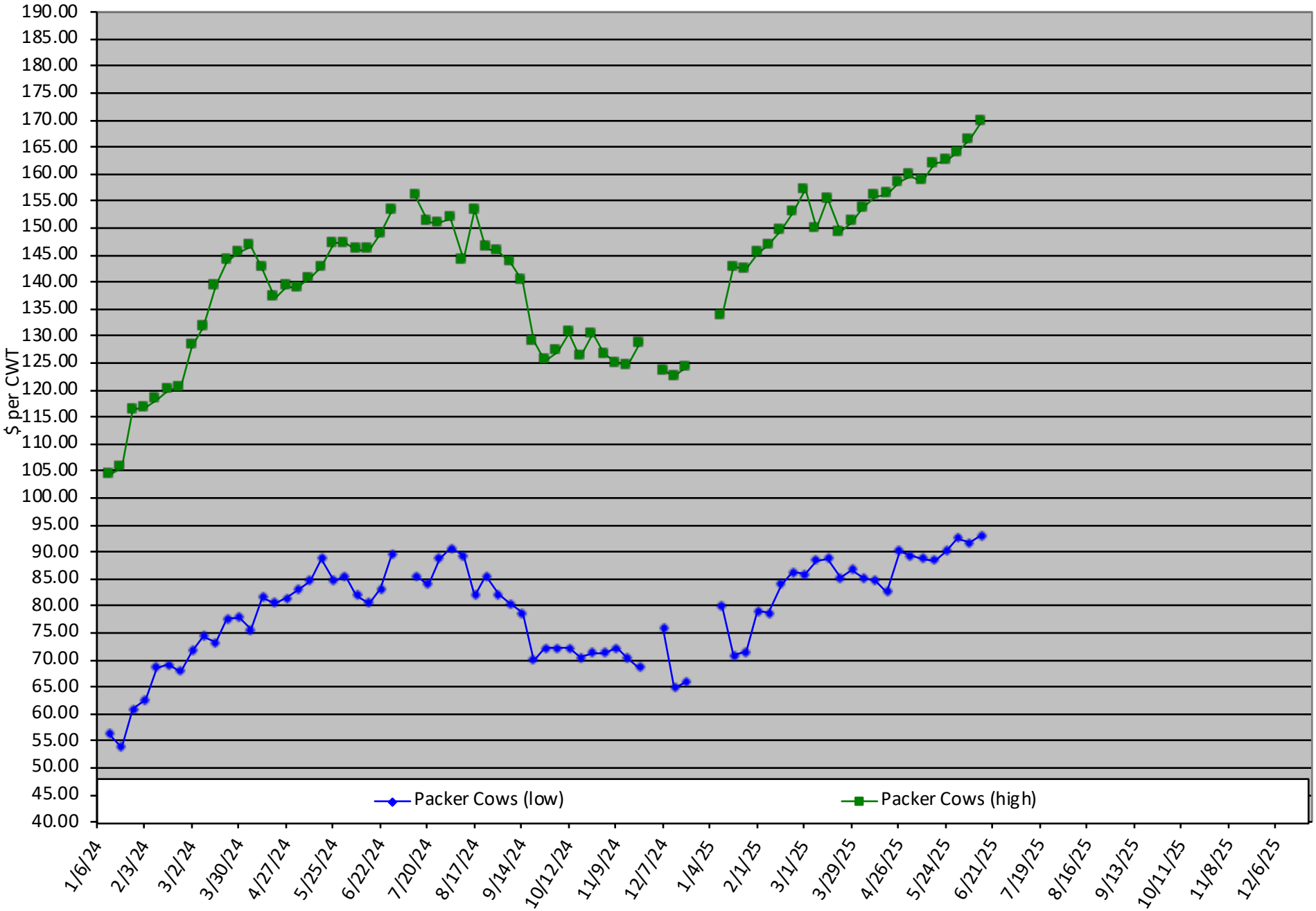


# Packer Cow PriceTrends

**Trend of High and Low Prices Reported for Packer Cows**, Average of 6 East & Central Texas Livestock Auctions

Chart created by Dr. Jason Banta, Extension Beef Cattle Specialist

For a weekly email copy of this chart please email amsensing@ag.tamu.edu or contact a Texas A&M AgriLife County Extension Agent



# How much phosphorus: Part 1

**Jason Banta**
Associate Professor and Extension Beef Cattle Specialist
Texas A&M University
*jpbanta@ag.tamu.edu*

I often hear people say they want a higher phosphorus (P) level in their mineral to help with reproduction. Before feeding a higher phosphorus mineral, it is important to take a look back at research on phosphorus supplementation and what exactly was observed in those studies.

The first P supplementation work in the U.S. was done on the King Ranch in south Texas from January 1938 to March 1941. Supplementation of 6.4 grams of phosphorus six days a week resulted in increased cow weight, calf weaning weight and reproduction. Increased rates of phosphorus supplementation were not beneficial. A second experiment was conducted from July 1941 to November 1946. In this study, phosphorus treatments provided in self feeders, in the drinking water or as phosphorus fertilizer also resulted in increased cow weight, calf weaning weight and reproduction. It is important to note the phosphorus fertilizer was the most cost-effective treatment and also allowed for a 50% increase in stocking rates. In both studies, cattle grazed native range with no protein or energy supplementation.

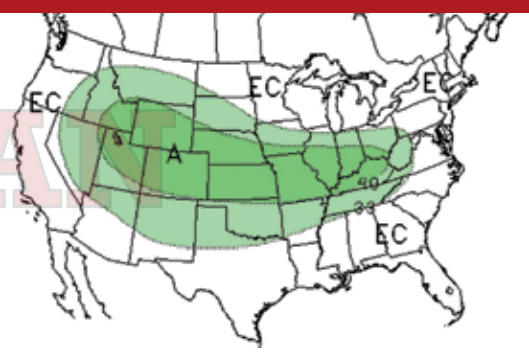
Researchers in New Mexico reported no response to free-choice phosphorus supplementation on percent calf crop during a five-year study. During one drought year, delayed estrus was observed in cows that didn't receive any phosphorus supplementation. Cows grazed native range, and no protein or energy supplements were fed.

Additionally, phosphorus supplementation was evaluated in heifers and cows grazing native range in North Dakota. Phosphorus supplementation had no effect on reproduction in these studies, but calf weaning weight and heifer weight gain were increased in some of the studies.

Research at Utah State was done with Hereford females maintained in a drylot. No differences in phosphorus treatments were observed until a group of cows were fed a very low-phosphorus diet. After six months, lower bodyweight, reduced feed consumption and reluctance to move were reported for this group. Impaired reproduction was not observed until after the cows had been on this diet for over a year.

These studies indicate phosphorus supplementation only impacts reproduction when a severe phosphorus deficiency results in reduced bodyweight and body condition. Feeding extra phosphorus above requirements is not going to improve reproduction or weaning weights and will only lead to increased cost. Next month's article will discuss desired mineral phosphorus levels and how they are impacted by geographic location, protein and energy supplementation, and plant phosphorus content.

**0-to-3-month precipitation outlook as of May 16, 2019**




**Chance of precipitation:**

EC = Equal chance
A = Above normal
B = Below normal

Source: National Weather Service – Climate Prediction Center, www.cpc.ncep.noaa.gov

Last month's article provided a brief review of phosphorus supplementation and its impacts on cow weight and body condition, calf weaning weight and pregnancy rates.

To summarize, feeding extra phosphorus above animal requirements does not improve reproduction or weaning weights and will only lead to increased cost.

The targeted intake rate of a mineral supplement has an impact on the most appropriate level of phosphorus in that supplement. For example, the grams of phosphorus consumed is the same for a 12% phosphorus mineral consumed at 2 ounces per day and a 6% phosphorus mineral consumed at 4 ounces per day (both provide 6.81 grams of phosphorus per day).

At one time in the beef industry, loose mineral supplements with a 2-ounce target intake were very common and often formulated at the 12% phosphorus level. However, most mineral supplements today are based on a 4-ounce target intake, and levels of phosphorus and other minerals can be reduced. Additionally, as phosphorus levels rise in loose mineral supplements, mineral intake will almost always decrease.

Protein and energy supplementation can supply significant amounts of phosphorus. When fed at 2 pounds per head per day, cottonseed meal will provide about 10 grams of phosphorus and dry distillers grains plus solubles (DDGS) will provide about 6.4 grams of phosphorus per day.

These or similar supplementation strategies are often used when supplementing cattle grazing dormant native range. This is important because plant phosphorus content is often adequate in growing native forages but decreases in native forages as they go dormant.

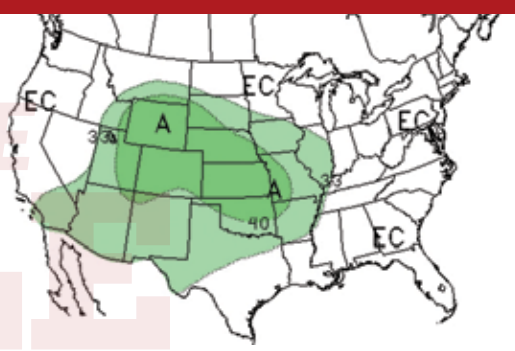
Phosphorus provided by these two supplements and supplements with similar phosphorus levels can easily supply similar amounts or more phosphorus than what is provided by the difference between a 10%-12% phosphorus mineral and a 5%-8% phosphorus mineral with a 4-ounce intake.

The following are general recommendations based on typical production conditions in the South Central region and may need to be adjusted in certain situations; they are meant for loose minerals with a 4-ounce target intake. These recommendations also take into account that cows can store excess phosphorus and mobilize it when the diet is lacking. For most situations, a mineral with 4%-6% phosphorus should be more than adequate.

In situations where soil phosphorus levels are extremely low, or cows are grazing dormant native forages, then phosphorus levels of 7%-12% may be considered.

**Jason Banta**
Associate Professor and Extension Beef Cattle Specialist
Texas A&M University
*jpbanta@ag.tamu.edu*

**0-to-3-month precipitation outlook as of June 20, 2019**

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Source: National Weather Service – Climate Prediction Center, www.cpc.ncep.noaa.gov

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