Feed Implications
August 21, 2012 Webinar

Question: What kind of feed value can we expect from corn below 45 pound test weights (swine)?
What are the guidelines for feeding low test weight corn to hogs?
We have NO published research on this topic at this time. The best information we have so far, and this is more guess than science, is that

1) Performance of pigs fed corn down to 50-52 lb will probably be similar or possibly slightly reduced compared to 56+ lb corn. Based on current information, the drop in performance should not be more than 2-4 percent.

2) Below 50 lb is more uncertain and if producers are forced to use corn that is 45 to 50 lb, they should be encouraged to keep very, very close records on the pigs to monitor performance (growth and feed efficiency). At some point, the pig cannot adjust well to the lower quality corn and performance will then drop off more dramatically - maybe in the 4 to 7 percent range.

3) I would only feed corn below 45 lb to pigs if absolutely necessary. If it is fed, then significant performance loss is a real possibility and slower growth and/or poorer feed efficiency could well be observed.

I emphasize that there is not a lot of good data out there upon which to base more definitive recommendations. One variable will be the ability of the pigs to increase feed intake if diet energy goes down. If they can, then producers may only see a drop in feed conversion and no drop in growth rate. Therefore, when feeding low bushel weight corn, I would recommend paying a lot of attention to feed delivery – properly adjusted feeders, plenty of feeder access, no out-of-feed events and keep the barns cool to stimulate appetite, eg 60 F for pigs over 150 lb.

Aflatoxin is the other wild card here and needs to be monitored very closely. Even 200 ppb is likely to cause significant growth problems in growing pigs – much worse than low bushel weight. (John Patience)

Question: What is the feed value for cattle with corn at 38 # test weight?
The most recent research on feeding light test weight corn to beef cattle was conducted in the early 90’s in the Dakotas and Nebraska where an early frost caused corn to be harvested immature and with low test weights. In three studies, corn that had test weights had similar to slightly reduced feeding value. In the one study comparing test weights less than 40, the feed conversions were 8% poorer than cattle fed normal corn. This would calculate to a 10-15% reduction in energy value—similar to high quality oat grain. (Dan Loy)
Question: What material are cattle producers applying to corn stalks?
Treatment of crop residues such as corn stalks or wheat straw with a strong alkali has been documented to improve digestibility by 5-15 percent in research dating back to the 1970s. Compounds that have been used in research are many, but anhydrous ammonia, calcium oxide and calcium hydroxide are the ones that have been used to some extent on the farm. CaO or CaOH treatment requires the residue to be ground and mixed with water and CaOH so the final product is 5 percent CaO on a dry matter basis and is 50 percent water. The process produces considerable heat so the water must be added first to absorb the heat. Safety precautions need to be followed in handling the material. A few commercial companies are now offering this treatment as a service, but demand is high. Be sure and weigh the cost of treatment vs. the benefit. For some, supplementation of the untreated corn stover may be more cost effective alternative. (Dan Loy)

Question: How do you accurately sample for nitrate in standing corn stalks used for grazing?