

# Feeding Corn Screenings to Cattle



*Dr. Steven Rust, MSU Dept. Animal Science*

**BEEF BRIEF**

Reprinted from A.S. Staff Paper #55, File #19.21, October 29, 2009

---

The late maturing corn crop coupled with a wet Fall has led to challenging harvest conditions. It is likely corn will contain higher moisture levels at harvest than normal. This will require more expense to dry the crop and create more corn screenings (grain dust). The corn screenings can be fed to livestock if the mycotoxin levels are not too high.

Harvesting of a soft, wet crop leads to more foreign material in the corn and greater breakage of corn kernels. The corn may also have higher levels of mycotoxins, primarily deoxynivalenol (also called DON or vomitoxin) and zearalenone. These factors lessen the value in conventional marketing channels. The frequency and the harshness of movement will also increase the amount of fines or corn screenings. The more moisture removed by drying also is associated with a greater collection of fines. Early reports from states south of Michigan indicate great amounts of corn screenings are beginning to accumulate at the elevators. For cattlemen, this may be an opportunity to obtain an economically priced replacement for corn.

Corn screening can have variable nutrient content as it contains small kernels, cracked kernels, dust, corn hulls ( "bee wings"), and foreign material ( dirt, floor sweepings, cob, corn plant parts, etc.). Generally, higher test weight screenings with low ash content have a higher feed value. Corn screenings with excessive amount of "bee wings" may have a lower feed value relative to U.S. No. 2 corn. A generalized rule of thumb suggests corn screening with a test weight greater than 38 lb/bu, will feed like corn in high grain diets. The nutrient content of corn screenings as listed by Dr. Rod Preston in Beef Magazine (2007) is 86% DM, 69 Mcal/cwt of NEg, 10% crude protein, 9% NDF, 4.3% ether extract, .04% calcium and .27% phosphorus. In the early 1990's Michigan had a similar challenge and the analysis of the corn screening was 94 % DM, 9.2% crude protein and 33% NDF. It appears the sample analyzed in Michigan contained more foreign material that contributed to the higher NDF value.

Without knowledge of the mycotoxin levels in the corn screenings, the suggested maximum inclusion level in high grain diets would be 20% or less. The potential fine particles could also contribute to ruminal acidosis because they are rapidly fermented in the rumen. At higher levels of inclusion, increased roughage levels may be beneficial. As with feeding other alternative feedstuffs, extra caution should be observed in addition or deletion of specific dietary ingredients. For example, addition of 15% corn screenings into a high concentrate diet should be implemented in stages over several days.

In summary, addition of corn screenings into feedlot diets may be a consideration this Fall depending on availability.