

Ross Mosteller
District Extension Agent, Livestock & Natural Resources

“Cow-pie-ology” - A Management Tool

Extension Agents periodically meet with our Program Development Committee (PDC) to discuss programming and needs assessment. In our last meeting, one astute PDC member questioned my familiarity with cow-pie-ology. I had to admit that I wasn't familiar with that exact term and the work of Dr. Tom Troxel, but any good cowman can tell you the best management of cow nutrition often relies experience and the “art” of watching what goes in and OUT of the cow. Since I've researched this term, it seems like a good topic for a news column, so let's talk a bit about cow pies today.

Cow-pie-ology is the study of cow pies, but it's not necessarily a science discipline you'll find in textbooks. It's an art that beef cattle producers have practiced for years. By observing cow pies, managers can determine when to start supplemental feeding or when to rotate the cattle to a different pasture. The shape, size, color and texture can tell a story about the cow's diet quality. Just like many other measures, it isn't individual pies that need to be considered, but rather the average of the pen, pasture or paddock.

Years of research documents that, as manure piles stack up, more protein is needed in the diet. As rate of passage slows down through the digestive system, due to lower protein levels and hence digestibility, the cow pies stack with a higher fiber content. Conversely, excess protein results in thin manure that spreads out. By observing cow pies, a change in diet quality can be observed before a decrease in body condition occurs. So, what do you look for and how do you adjust?

This time of year, for pre-calving spring cow herds, a good goal is to have average manure piles between 2 to 4 inches high, flat and without layers. Prior to this time, following weaning on dormant forage or crop residue, cow-pie-ology would suggest 3 to 5 inches. The toughest time to stay on top of cows nutritionally is the first few weeks of green-up in early spring. This is the only time of the year when cow-pie-ology doesn't work as well. Mainly because the protein percentages are high and manure will be thin, but often the cattle are not getting enough total protein and TDN, due to the “washiness” of higher moisture content grass and passage rate through the digestive system.

Research shows that manure piles should be read where cattle are resting. If the manure is stacking up and there are layers in it, those cows need protein supplementation. Timing of supplemental feed is key to effective utilization of that input. By applying cow-pie-ology to daily observation, the cows tell you when to start feeding, how much to feed and when to stop. By matching your supplemental feeding to the herd's nutritional needs, feeding becomes more cost-effective and there will be performance efficiencies in cow reproductive status and calf growth measures down the road.

The “art” of cow-pie-ology may indicate a supplement is needed, but it is the “science” of feed/forage testing, along with ration balancing, that indicates which and how much supplement is needed. To be successful in the cow-calf business, producers must mix this art and science of beef cattle production. Forage testing and least-cost rations are important “science” that when combined with the “art” of cow-pie-ology will keep cattle healthy and efficient. If one (science or art) is neglected, then the information required to make management decisions is incomplete.

The popular statement of “you can't manage what you don't measure” can truly come into play with cow pies too! If this is something that you've not paid attention to in your operation, hopefully this cow-pie-ology term discussion will make you look down on the ground, in addition to looking at cow, looking at the ration mix sheet and help to gauge the nutritional status of the cow herd.