The Crop Dude's take on corn silage quality

Facts, fiction, fantasies and opinions

Fact: 30% DM is NOT the "gold standard" for corn silage.

The corn plant increases by about 30% in starch content as it matures from 30% to 35% DM (Approximately 1/4 to 3/4 milk line.) This typically takes about a week. If you routinely run out of season before your corn reaches 32-33% DM then starting next year plant earlier hybrids. (If "size matters" and you care what the Boys in the Coffee Shop say about your corn, plant 4 rows of 115-RM corn around any fields that are near the road.) Just because you see 30% DM stated as within the recommended range for corn silage stored in bunker silos and drive-over piles doesn't mean that it's the ideal DM.

Fiction: Chop corn before 35% DM to avoid declines in stalk and kernel digestibility.

Stover (stalk) digestibility declines very little (if at all) until the corn plant is well over 35% DM. Dry matter yield and predicted Milk/acre is higher at 40% DM, and kernel digestibility doesn't decline until it approaches black layer. The increase in kernel starch as the plant matures to 35% DM overwhelms any small changes in the rest of the plant. However, don't wait until 40% DM to start because of increased frost danger and potential packing problems.

Opinion: BMR corn hybrid yields are increasing, but some "yield drag" persists.

There's very little university trial data on BMR performance, but I think there's about a 10% yield drag. More during drought stress, less with ample midsummer soil moisture. Some BMR hybrids have been more susceptible than conventional hybrids to Northern Leaf Corn Blight, so scout BMR fields and apply fungicides at VT or R1 if over 10% of the leaves from the ear leaf and above are affected. And in spite of what some seed dealers selling against BMR hybrids may claim, I don't think that increased BMR yields are impacting these hybrids' high digestibility.

Fiction: When processing corn, "start with a nickel, end with a dime".

In most cases *lose the nickel* since often this roller clearance (2 mm) results in too many whole and partly broken kernels. Better to start with a dime (1.5 mm) and reduce to 1 mm as necessary. Monitor results by checking loads as they're delivered to the silo, and remember that fields and hybrids may differ.

Fantasy? Higher Kernel Processing Scores with shredlage will permit delaying corn silage harvest to 38+% DM, which will maximize starch content.

This may or may not be a fantasy....zero data so far. But what happens if you wait until 38-40% DM, then bad weather prevents harvest for a week or more, by which time the plant is over 45% DM due to frost and advancing maturity? Time (and research results) will tell, but at this point I'd continue to aim for 33-35% DM for both shredlage and kernel processed corn silage.

Fiction: It doesn't pay to inoculate immature corn chopped for silage.

It's important to inoculate corn chopped at less than 30% DM because naturally-occurring acetic acid-forming bacteria (already on the growing crop) could produce very high acetic acid levels, resulting in slower fermentation, increased dry matter losses and potential intake problems. **Opinion:** Use a standard silage inoculant on immature corn, not a *L. buchneri* inoculant. When LB inoculants are used in 30%+ DM corn silage the higher acetic acid levels improve aerobic stability without the negative effects of the acetic acid produced by naturally-occurring bacteria in immature corn silage. Why? We don't know—they just do! Immature corn silage needs all the help it can get to ferment properly: Standard inoculants are cheaper, and *in this case* I think they're the better choice.

Ev Thomas
Oak Point Agronomics, Ltd.
82 Dake Circle, Hammond, NY 13646
ethomas@oakpointny.com

Cell: 518-570-7408