Corn Silage Quality



by Laura Keith, CCA

Good soil-to-seed contact and an even seed depth can affect corn silage quality. Planting corn into a friable seedbed helps to ensure an early, uniform stand which encourages consistent maturity closer to harvest. If the soil surface is rough at planting, the vegetative stages can become staggered throughout the field. Your crop could have plants ranging from the 2 to 7 leaf-over stages. If this happens, will delayed plants catch-up in time for harvest? The answer to this can vary based on hybrid maturity.

From my 2012 scout notes, an early and a late leafy hybrid were planted to rough soil surfaces. It was clear that the early hybrid was able to have delayed plants catch-up. By mid-August, this patch was uniform and at the milk stage. However, the later hybrid now had plants at the milk and silking stages. Silage quality for the later hybrid becomes a concern at this point since differences in whole plant moisture content are likely at harvest. To avoid harvesting a "too dry" or a "too wet" silage, it's a good idea to determine your field's whole plant moisture percentage.

The zero milk line is also the dent stage

Just after this stage, check for the milkline by splitting the tip of the cob. Depending on what your storage system is, the progression of the milkline at 1/5, 2/5 or 3/5 will tell you when to sample 10 whole plants for moisture.

Horizontal bunker: At 1/5 milk line sample 10 plants then store at 65 – 70 % moisture

Silage bag: At 1/5 milk line, sample 10 plants then store at 60 - 70 % moisture

Upright concrete silo: At 2/5 milk line sample 10 plants then store at 60 – 65 % moisture

Upright oxygen limiting silo: At 3/5 milk line sample 10 plants then store at 50 - 60 % moisture

Once you know that the milk line in the field matches your storage, cut 10 representative, whole corn plants. Avoid headlands but add 1 plant for each 10% of plants in the field that are less mature. Chop these 10 plants and determine the moisture percentage. Now look at the forecast. Hot dry days ahead mean you can subtract 1% per day off that sample moisture. So get ready to harvest soon.

If your seedbed was rough this year, try for a friable one for next year

It is important to have a well prepared seedbed which helps the corn silage field at harvest have uniform maturity. If plants are unable to reach similar stages at harvest time, check for whole plant moisture % soon after the dent stage and harvest based on your storage system. If high quality corn silage is your goal, remember that digestibility relies on whole plant moisture content.



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