Plant corn at a low seeding rate, plant hybrids early, plant at a 1.5 to 2.25 inch depth, and harvest at moisture of 68% to avoid lodging.

When we think of corn lodging, we usually think of grain corn going down sometime in November (Photo 1), after a major wind event such as the remnants of Super-Storm Sandy in 2012. Nevertheless, corn silage lodging has become increasingly prevalent over the last 10 years or so, especially with hybrids with low lignin content and high fiber digestibility (Photo 2). Lodging of such hybrids as well as other corn silage hybrids is also associated with major wind and rain events, usually in August or September. What management practices can corn silage producers do to reduce the lodging potential?

First and foremost is not to plant at too high a seeding rate. Based on data from a 2008 to 2009 study (What’s Cropping Up?, Vol. 20, No. 2, p.12-13), we recommend seeding rates of about 35,000 kernels/acre on moderately well-drained silt loam soils in New York for all corn silage hybrids, including brown midrib hybrids with low lignin content and high fiber digestibility, (2014 Cornell Guide for Integrated Field Crop Management). Assuming a 95% emergence rate, final stands should approximate 33,000 plants/acre. Do not plant higher than this recommendation if the hybrid is more susceptible to root lodging.

Second, another management practice that can help reduce lodging is to plant these hybrids early. An earlier planting date (late April or early May) results in a somewhat shorter and sturdier plant compared to a later planting date (late May). On the other hand, an earlier planting date can make the hybrid more susceptible to rootworm damage, so some type of control, either in-plant, seed treatment, soil applied insecticide, or a combination of two or three inputs, is recommended at an early planting date for a hybrid that is more susceptible to root lodging.

Third, corn silage producers should plant corn at a 1.5 to 2.25 inch depth, depending upon soil conditions. A shallower seeding depth, about 1 inch, could result in “rootless corn,” which is more susceptible to lodging because the nodal root system develops closer to the soil surface.

Finally, growers should harvest more susceptible hybrids to lodging as soon as moistures approximate 68% (32% dry matter), if storing in a bunker silo. Severe crop lodging can reduce yield and quality of corn silage, especially if it occurs two to four weeks before the crop is ready to harvest. Crop lodging can make for a difficult and time-consuming harvest (usually in one direction). These management suggestions will help avoid such an arduous task.

FYI

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