

## **SOUTH DAKOTA - Corn Silage Hybrid Evaluation**

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Corn silage has traditionally been considered a forage and energy source for livestock. Recently, corn hybrids have been receiving considerable attention for protein, dry matter digestibility, and NDF digestibility. Thirty-one (31) various hybrids from 7 seed corn companies were evaluated at the SDSU Volga Farm in Eastern South Dakota for corn silage yield, nutrient concentrations, and, most importantly, digestibility of dry matter (DMD) and neutral detergent fiber (NDFD). These hybrids were grown in 2014 and harvested for silage. Corn plants were hand-harvested, weighed, chopped, and ensiled in 5-gallon buckets. After 6 weeks, buckets were weighed, opened, and samples of fermented corn silage were submitted to a commercial laboratory for nutrient measurements.

The data summary of the “2014 South Dakota Corn Silage Variety Trial” can be found on the SDSU Extension I-Grow web site at <http://igrow.org/up/resources/03-3000-2015.pdf>. A quick synopsis of the data demonstrates that certain corn hybrids produce silage with higher protein content than others, which can reduce the amount of supplemental protein that must be provided to meet the animal’s requirements. Certain corn silage hybrids that contain higher starch contents have a similar effect in reducing the amount of corn or other energy sources that must be supplemented in the ration. However, the greatest predictors of the amount of energy supplied by various corn silage hybrids is the concentration of digestible dry matter (DMD) and digestible fiber (NDFD). Seed corn hybrids with higher digestible fiber and DM digestibility are especially beneficial for dairy producers. Increasing energy intake through digestible fiber and the increased utilization of the dry matter in feed helps alleviate the issues that can come with feeding cattle too much corn. The equations from Milk 2006 (University of Wisconsin-Madison) were used to calculate the pounds of milk produced per acre and rank hybrids for the most milk produced per acre. These rankings can be found on the website. Further research is required to fully understand which hybrids make the best corn silage, but there are experimental data to show that the variety of corn used for silage can impact a producer’s bottom line.