

EARLY FROST AND YOUR CORN CROP

What happens and What you can do about it



Early frost interrupts corn crop development and affects harvested grain and silage:

Grain harvest:

If grain has developed enough to harvest, kernels will be smaller and more fragile than normal and will shatter more easily in handling and drying. High moisture content at frost and the fragility of the seed hull can lead to mold development. Protein content of the grain will be higher due to interruption of starch deposition in kernel formation. Therefore, affected grain will have less need for protein supplementation, and more need for energy, mold suppression, fines separation control, and palatability.

Westway products can help counter some of the drawbacks of affected corn by providing energy (sugars, added fat), a mold control package, and the general benefits of liquids on sorting and palatability.

Silage harvest:

Silage will probably be higher in protein and lower in energy than normal, making it somewhat like small grain crop silage. Frost usually doesn't affect a whole field uniformly. Therefore, silage made from the crop probably won't be uniform in dry matter content or plant development. This may result in variable packing, and pockets of unstable silage.

Treatment at ensiling:

Because of higher protein and lower energy in the crop, it may be best to use a conventional Westway liquid supplement that will deliver a mixture of protein and fermentable sugars instead of the 100% protein products that deliver lots of protein and relatively little fermentable energy. Example: A 32% protein Westway liquid with 30% sugar used on a crop averaging 35% dry matter at an application rate of 50 lb/ton will elevate protein about 2% on a dry matter basis and will add 15 lb of fermentable sugar/ton to help with ensiling and palatability.

Supplementation at feeding:

When feeding affected silage, a palatable Westway liquid supplement will help cover variation in the ensilage. Including the Westway TMR mold inhibition package will help suppress spoilage in the feed bunk.

Attached are some links to sites discussing frosted corn:

<http://ag.udel.edu/extension/information/af/af-10.htm>

http://www.gov.on.ca/OMAFRA/english/crops/facts/info_frostimmaturecornsilage.htm

http://www.extension.umn.edu/administrative/disasterresponse/wi_frost.htm