

Drought

Overview

Summer drought limits corn silage production by reducing ear size and stalk growth. As few as four consecutive days of visible wilting during vegetative growth can reduce yield by 5-10%. Yield losses of 40-50% are possible if high temperatures and limited rainfall occur during silking and reproductive stages.

What you should know

- It's difficult to predict forage yield potential of drought-stressed corn. With 70-80% barren ear condition, expect to harvest about 1 ton of 70% moisture silage for each foot of crop height per acre. So 5-foot corn yields 4-6 tons of 70% moisture forage per acre.
- Timely harvest is important for getting the most value from your crop. Harvest corn at the optimum moisture content to limit dry matter losses from defoliation and harvest losses due to lodging.
- Start monitoring moisture content early in the drought. Harvest when corn reaches approximately 70% moisture. Waiting too long can allow moisture to fall below 60-65% and cause silage heating and dry matter loss.
- Nitrates harmful to livestock accumulate in corn plants under drought stress when plant metabolism slows and soil nitrates are not converted to proteins. Unconverted nitrates accumulate in lower stalks. Rain makes it worse because nitrates in the root zone are rapidly absorbed.

Action steps

1. **Avoid accumulated nitrates:** Delay chopping for 3-5 days following significant rainfall during a drought season to allow time for plants to convert the nitrates to protein.
2. **Reduce nitrates in harvested silage:** Raise the cutter bar to 12 inches to avoid harvesting the lower portions of the corn stalk where nitrate levels are highest.
3. **Test silage before feeding:** Allow silage to ferment for nitrates to convert to safer compounds. Test silage before feeding to livestock to ensure nitrate concentrations aren't at toxic levels.

For more information, contact:



www.nutechseed.com
1-888-647-3478



Monitor moisture throughout a drought season.



30-Second Summary

- Proper harvest management under drought conditions can salvage silage quality and yield.
- Monitor moisture early in a drought and harvest at 70% moisture to avoid dry matter loss.
- Avoid and reduce nitrates, and test before feeding silage to livestock.
- Consult a nutritionist with any nitrate concerns.

NOTES:
