Too early to harvest dry corn for early silage, but do consider nitrate accumulation risks

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Abstract
When the weather turns dry and the corn leaves begin to roll from heat and moisture stress, producers sometimes begin to think about "salvaging" the crop as an early silage harvest. Conditions probably don't merit that drastic decision yet. It is not, however, too early to consider elevated levels of nitrate in harvested grass forages. Plants (usually grasses and some broadleaf weeds) will continue to take up soil nitrate during drought and stress periods but not metabolize it into protein and normal plant constituents.

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Too early to harvest dry corn for early silage, but do consider nitrate accumulation risks

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When the weather turns dry and the corn leaves begin to roll from heat and moisture stress, producers sometimes begin to think about "salvaging" the crop as an early silage harvest. Conditions probably don't merit that drastic decision yet.

It is not, however, too early to consider elevated levels of nitrate in harvested grass forages. Plants (usually grasses and some broadleaf weeds) will continue to take up soil nitrate during drought and stress periods but not metabolize it into protein and normal plant constituents. The accumulation of nitrate is not damaging to the plant but can be a physiological risk to livestock that eat it. Nitrates are often of concern in drought-stressed corn being harvested early as silage but also can be a risk in small grains and emergency warm-season annual forage grasses being grazed or harvested during moisture deficit periods. The standing crop can be sampled and tested for nitrate concentration. Nitrate levels do not diminish when cut and stored as dry hay but can be significantly lower following ensiling. If there are concerns about high nitrate levels in forage crops, contact your forage-testing lab for sampling instructions and have the forage tested before feeding.

Stephen K. Barnhart is a professor of agronomy with extension, teaching, and research responsibilities in forage production and management.

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