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Dry summer corn forage harvest options and management strategies

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Abstract

Many areas of Iowa have had below normal rainfall throughout much of June, and most of July and August. Cornfields across the state have begun to mature too early and the heavy infestations of soybean aphids might have detrimental effects on bean yields. The management strategies adopted by each producer will vary with local conditions and objectives, such as: recent rainfall and soil moisture conditions; nutritional requirements of the various types of livestock; quantity and quality of 'new crop' forage available; condition and availability of drought-stressed corn and other grain crops; and herbicide and insecticide residues in drought forage. Below are some overall options and factors for consideration.

Keywords

Agronomy

Disciplines

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INTEGRATED CROP MANAGEMENT



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Harvest of drought-damaged corn for forage

By late September, livestock producers still have a few options for using drought-damaged corn for forage. The corn will have accumulated about all of the dry matter that it will accumulate. Therefore, evaluate the condition of the crop and the feasibility of grain harvest before deciding on forage use options.

If planning to use the corn crop for forage, what yields and nutritive values can you expect?

For comparison sake, normal, full-grain corn will yield about 5.5 to 7.5 tons/acre of dry matter (DM) in the standing crop; after grain harvest, the stover yield is about half that of the unharvested crop. Nearly normal sized stalks with little or no grain will yield about 3.5 to 4.2 tons DM/acre. Stunted corn (4 to 6 feet tall) with little or no grain would yield about 2 to 3.5 tons DM/acre.

In addition to dry matter, other factors also should be assessed. Stage of development or condition of growth also has an influence on the feed value of the harvested crop. Compared with normal corn, corn that would yield about 20 to 40 bu/acre has about the same pound-for-pound feed value. Stalks with very poorly pollinated ears that have 0 to 20 bu/acre yield potential have about 80 to 90 percent the feeding value of normal corn. Short, barren stalks have only about 70 to 80 percent the feed value of normal corn.

How will the corn be harvested or used?

Most fields are too dry for harvest as silage, but they can be used for daily direct chopping

and feeding, grazing of standing corn, baling harvested or unharvested dry corn residue, and grazing of harvested crop residues. Producers should consider the herbicides or insecticides used in their corn production and carefully check their labels for restrictions that may affect harvest or grazing timing. Timeliness is not as critical when stacking or baling as dry corn stover as when making silage. Corn should be dried to 20 percent moisture or less to avoid spoilage in storage and harvested before excessive leaf loss occurs. Stover should be stored at a dry location near the site of feeding, and livestock should have limited access to stover during feeding in order to stretch feed supplies and minimize feeding waste.

If you are planning to allow livestock to graze unharvested corn fields or harvested corn crop residues, consider limiting animal access to small strips to encourage safe and more uniform use of the forage resource. You also should consider fencing and water availability before you decide on in-field grazing.

Elevated nitrate concentration can be a concern in the crop destined for grazing and in harvested stover. If this is your case, have a nitrate test done on a representative sample of the forage being grazed or baled.

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