



## Alternatives for Using Failed Corn in the Texas High Plains

Ted McCollum III and Brent Bean

*Extension Beef Cattle Specialist and Extension Agronomist*

*Texas Agricultural Extension Service — Amarillo*

Some corn producers are deciding to quit watering a portion of their corn fields in order to reallocate the water. What can be done to salvage some value from the corn that will fail?

### Nitrates

Due to high fertilization and the current stage of growth, the nitrate levels in the corn are potentially high. Corn does not have to be drought stressed to be high in nitrates.

- ✓ Test the corn plants for nitrates. Use the diphenylamine drop test as an initial screen and then follow with a quantitative lab test if necessary.
- ✓ Design a plan to either harvest the corn as greenchop or silage as soon as possible.
- ✓ If the corn is to be grazed, there will be fewer problems with nitrates because the leaf material has a low nitrate concentration. Do not let the cattle graze down to the stalks since nitrates concentrations are higher in the lower portion of the stalk.
- ✓ Greenchop and silage may be safe because the entire plant will be harvested and the nitrate in the stalk will be diluted out by the low nitrate in the leaves.
- ✓ Some nitrate problems can be reduced by raising the cutter bar and leaving more residue in the field.

SEE TAEX publication L-5149 for more discussion of nitrate management and alternatives for drought stressed grain crops.

### Nutritional Value of the Corn Forage

The immature corn forage will contain around 8-9% protein and 58-64% TDN. This compares well with forage sorghum hay.

### Haying the Corn

It may be possible to hay the corn but there will probably be some difficulty drying the forage enough to bale and avoid spoilage.

### Green Chop

Green chop is another alternative. Given the nutritive value, green chop would be a good feed for dry cows and growing cattle that are not expected to gain rapidly. For lactating cows, young calves, and other growing cattle that are expected to gain more rapidly, a small quantity of protein supplement may be required.

Green chop is a good option if the producer has equipment available day in and day out to chop feed. This may not be a good alternative if the forage cannot be harvested on a daily basis.

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## **Silage** \_\_\_\_\_

This may be a good alternative for putting up the forage rapidly, storing for future use, reducing nitrate problems. The two main concerns are the lack of grain (carbohydrates) to produce a good fermentation and hence a good silage and the moisture content of the forage.

Ensiling will reduce the nitrate levels by about 50%. So a relatively toxic forage can become useful after ensiling.

If a producer is interested in putting up silage, then they might consider adding some cracked corn to the forage as it is ensiled. This will provide carbohydrates

for the fermentation process. In a mature corn plant, about 45% of the dry matter is grain. So adding about 30% corn on a dry basis to silage would produce a good product.

Silage with less than 30% dry matter can lead to a poor fermentation and bleeding of the silage. It may be necessary to wilt the corn forage prior to ensiling to bring the moisture content down to 65-70%.

## **Yields** \_\_\_\_\_

At the current stage of growth (tasseling) for most corn in the Panhandle, the forage yield will probably be about 30-35% of the expected yield for full-season silage.

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