

- July 21st, 2024 -

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### Nitrates - Check Before Cutting

We've had several calls about testing forages & silage for nitrates. Nitrate poisoning is a serious issue to livestock as often the first sign of a problem is a dead animal. Nitrate is converted to nitrite which then oxidizes iron in the blood and prevents oxygen transport. If you're quick enough, you'll notice labored breathing, muscle tremors, and a staggering gait. Membranes of the eyes and mouth are blueish and the blood will be chocolate brown.

Of note, this is more likely to occur after nitrogen fertilization especially those after first cuttings. Per, Dr. Bruno Pedreira, this buildup is a result of the plants continually absorbing nitrates and insufficient water limits growth. As a result, nitrates stay stored in the plants, waiting to be used for protein synthesis when water becomes more available.

We've an in-field test to determine the presence of excess nitrates and will come to your farm for free to run the test. More info:

<https://utbeef.tennessee.edu/cattle-nutrition-nitrates-do-they-dissipate/>



### Watering Tips for the Garden & Landscape

We've been blessed with rain lately, but we'll likely see another dry spell. Here are a few tips and the why behind them:

**Water in the morning, if possible** - This allows leaves and stems time to dry off during the day, cutting down on disease pressure. It's also more efficient and better for your plants as there is less evaporation and is there at the right time to aid in metabolism.

**Water at the base of the plant** - This reduces not only soilborne disease via splashback on the plant, but also foliar diseases.

**Provide enough water** - General estimated water needs for garden crops are 1 to 1.5 inches/week. Don't be afraid to dig in the dirt a little to determine if there's enough moisture present.



Squash Bug



European Corn Borer



Squash Vine Borer

### Late-season Vegetable Pests

Late season pests can be an incredible aggravation given the time invested in our crops. Pictured are just a few of these pests. Control options and more info can be found in this linked publication:

<https://tiny.utk.edu/ControlGardenInsects>

### - Timely Extension Publications -

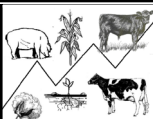
<https://tiny.utk.edu/pubs>

- [Chopping Stressed Field Corn for Silage Considerations - D240](#)
- [Canning Foods: Fruits/Vegetables/Pickles/Jams/Jellies... - PB724](#)

## Tennessee Market Highlights

Click below & select **July 19th**

<https://tiny.utk.edu/MarketHighlights>



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