

Extension Ag News

Late Summer 2017

Volume 6, Issue 1

Editor's Note

This is the *Late Summer* issue of a four-county agriculture newsletter. Agriculture Extension Agents serving Albemarle, Fluvanna, Greene and Louisa Counties are collaborating to offer in-depth information on a wide variety of topics. **Extension Ag News** is published quarterly.

Albemarle: Carrie Swanson cswanson@vt.edu 434-872-4580
Greene: Sarah Weaver Sharpe seweaver@vt.edu 434-985-5236
Louisa: Charles Rosson crosson1@vt.edu 540-967-3422

Inside this issue

• • •

Using Stockpile to Extend Your Grazing Season	1
Drought Management	2-4
Upcoming Events	4-5

Using Stockpile to Extend Your Grazing Season

by Carrie Swanson, Extension Agent, Albemarle County

Did you know that 50-75% of cow/calf production costs are related to winter-feeding expenses? Regardless of species, the more you can graze your animals, the lower your cost of production. Stockpiling cool season grasses is a great way to extend your grazing season and lower your hay/feed bill. Extending the grazing season also benefits water quality through improved water infiltration, improved nutrient efficiency, fewer bare areas in fields (winter feeding sites) and improved soil organic matter.

Stockpiled fescue will produce an average of 1-1 ½ tons of dry matter per acre and August is the perfect time to start. Begin by grazing and/or clipping where you plan to stockpile to remove any mature growth. This will promote new leaf growth, which in turn will provide greater digestibility and more nutrition (especially important for growing and lactating animals). Next, remove animals from the land you are going to stockpile and add 40-60 pounds of Nitrogen per acre (best to have this done by the end of August). Cool season grasses will continue to grow throughout the fall, and that standing forage will retain most of its digestibility and nutrition through the winter (generally ranking as good as or better than high quality hay). Start feeding the stockpiled grass when you run out of grazing pasture.

You will have less waste and better utilization of forage if you strip graze stockpiled areas. During the winter, there is no need to back fence strips, since the grass is no longer growing.

If you are interested in learning more about extending the grazing season for your animals, plan to attend the Graze 300 program in Albemarle this fall (contact Carrie Swanson at cswanson@vt.edu for more info). Graze 300 is an Extension initiative to encourage producers to strive for a goal of at least 300 grazing days a year. Most cattle, sheep, goat and horse producers in Virginia feed hay for 4 months or more each year. Our goal is to educate and inspire more producers to rely on grazing rather than feeding hay.



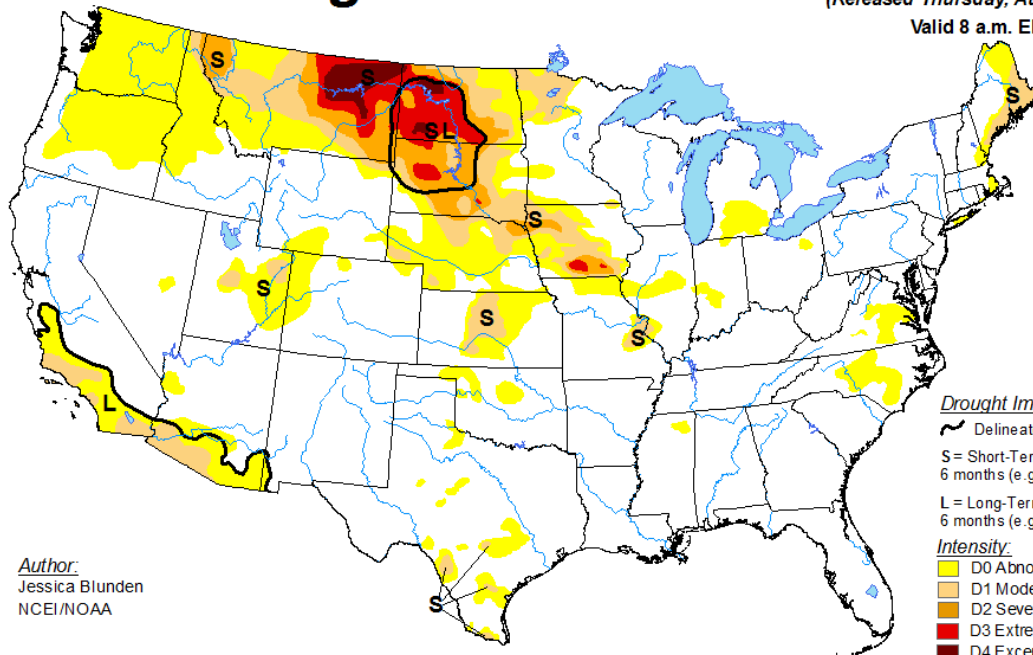
For more information, check out the Graze 300 Facebook page and website:

<https://www.facebook.com/Graze300Virginia/>

<https://ext.vt.edu/agriculture/graze-300.html>

U.S. Drought Monitor

August 15, 2017
(Released Thursday, Aug. 17, 2017)
Valid 8 a.m. EDT

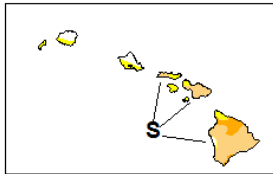
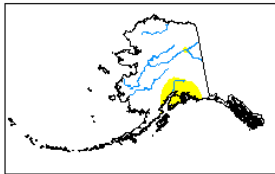


Author:
Jessica Blunden
NCEI/NOAA

Drought Impact Types:
~ Delineates dominant impacts
S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:
D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.



<http://droughtmonitor.unl.edu/>

Drought Management

by Charles A. Rosson, Extension Agent, Louisa County

Most of Central Virginia is still Abnormally Dry according to the latest USDA Drought Monitor. Many sections of Albemarle, Louisa, Fluvanna, Greene and Nelson County are still very dry. Widely scattered rainstorms have brought some relief to certain areas but they have been rare. The area was nearly 12 inches behind on rainfall coming into this spring and while we had excess moisture in late May and June, we are still significantly behind normal levels. If you have planted summer annuals to help stretch your feed resources make sure you consider Nitrates as the dry weather has persisted.

Managing Nitrates in Annual Forages

Dry conditions can create high nitrates in annual forages and weeds. Understanding management practices that can mitigate the negative impact on beef cattle can help producers avoid a wreck. Feeds that contain nitrates can be successfully fed to cattle. When feeds containing nitrates are consumed by ruminants, nitrates are changed in the rumen to ammonia and are rendered non-toxic to the animal. Also, the rumen bacteria can use ammonia.

Nitrite and nitrate poisoning

Nitrite is one of the intermediate products in the breakdown of nitrate in the rumen and is the cause of nitrate poisoning. Nitrite can be absorbed into the bloodstream. Nitrite in the bloodstream changes hemoglobin to methemoglobin. Hemoglobin carries oxygen from the lungs to other tissues in the body, but methemoglobin is incapable of carrying oxygen. Thus, nitrates become a problem when enough methemoglobin is produced that the oxygen carrying capacity of blood is reduced to a critical level.

Nitrite in the blood causes a brownish discoloration of the blood, due to the presence of methemoglobin, and is a sign of nitrate poisoning. Besides the chocolate-colored blood, other physical signs of nitrate poisoning include:

- difficult and rapid breathing
- muscle tremors
- low tolerance to exercise
- incoordination
- diarrhea
- frequent urination
- collapse
- death

Nitrates in blood may also cause blood vessels to dilate and are responsible for peripheral circulatory failure.

Lack of oxygen to the fetus probably causes abortions that sometimes occur following nitrate poisoning. Abortion due to nitrate is accompanied or preceded by some evidence of nitrate problems in the adult animal, including chocolate-colored blood and bluish discoloration of unpigmented (around the eyes) areas of the skin or mucous membranes.

Safely feed forages with high nitrate levels

Forages that contain high nitrate levels can be diluted in the diet with grains or with other forages low in nitrates and then can be fed safely. This can be accomplished easily in feedlot rations where grain is fed and forages are chopped and mixed as a complete ration.

Feeding grain in combination with high nitrate feeds helps reduce the effect of the nitrate content. Energy from the grain apparently helps complete the conversion of nitrate to bacterial protein in the rumen.

Frequent intake of small amounts of a high nitrate feed increases the total amount of nitrate that can be consumed daily by livestock without adverse effects, and helps livestock adjust to high nitrate feeds.

Cattle losses to nitrate toxicity usually occur in hungry cattle that have not had time for some adjustment to feeds with potentially toxic levels of nitrates. For example, cattle that go without feed for a day or longer during snowstorms often rapidly eat a large amount when they finally gain access to feed. If the feed they receive is high in nitrates, cattle losses can, and usually do, occur. If cattle are allowed to adjust to feeds that have boarder-line toxic levels of nitrates, they will develop microbes in the rumen that convert nitrates to a non-toxic form.

Feed long stem forages such as wheat, oat, and cane hay that contain high amounts of nitrate in limited amounts several times daily rather than feeding large amounts once or twice daily. In addition, long stem hays suspected of nitrates can be fed in combination with hay low in nitrate to dilute the nitrate intake with little risk of nitrate problems. Grinding and mixing high nitrate forage with a forage low in nitrates is the most common and effective management practice to avoid nitrate toxicity.

Livestock should have access to clean water at all times.

Grazing pastures with high nitrate levels

Allowing livestock to graze pastures suspected of having high nitrate levels is not without risk. Implementing one or more of the following management practices will reduce the risk of livestock losses to nitrate toxicity.

- Do not overstock suspected pastures.
- Do not strip-graze suspected pastures.
- Provide other feeds that contain little or no nitrate during grazing.
- Graze suspected pasture during the day and remove at night the first week to reduce the amount of pasture consumed and to acclimate cattle.
- If possible, do not graze suspected pasture until one week after a killing frost

Feeding drought-damaged corn

Corn plants grown in drought conditions can potentially contain nitrates. The majority of the nitrates will be in the lower eight inches of the stalk. Raising the chopper height to 6 to 8 inches will reduce the amount of nitrates in the silage. Yield will be reduced, but so will nitrate level.

Ensiling drought-damaged corn can reduce nitrates in the silage 40 to 60 percent. Before feeding drought-damaged corn silage, allow it to go through at least a 21 to 28 day fermentation period before feeding. Shorter fermentation times may cause some of the nitrates to still be in the dangerous nitrite form, just like heated green chop.

Summary

Do not let cattle losses due to nitrates be a problem for your operation. Sample feeds, especially summer annuals grown under drought conditions, and tests them for nitrates. Use management strategies to dilute nitrates in high nitrate feeds and manage grazing situation that may expose cows to forages high in nitrates. Remember that total nitrate intake is the sum of the nitrates that come from the feed, but also the nitrates that may be in the water.

Upcoming Events

August 26

The 42nd Annual Virginia Performance Tested Ram Sale, Ewe Lamb Sale, and Sheep Field Day

Shenandoah Valley AREC near Raphine, VA

The educational program starts at 10:30 am, with the ram and ewe lamb sale starting at 1 pm

For info visit: www.vasheeproducers.com

September 2

18th Annual Virginia Tech Sheep Center Production Sale

10:00 a.m.

Virginia Tech Alphin-Stuart Livestock Arena; 500 Plantation Road; Blacksburg, Virginia

Additional details available on Virginia Tech web site: <http://ext.vt.edu/agriculture/sheep.html>

September 22

Sheep Field Day and Katahdin Ram Sale

Southwest AREC at Glade Spring, VA

For details visit: <https://www.arec.vaes.vt.edu/arec/southwest-virginia.html>

Household Pesticide Disposal and Pesticide Container Recycling

Unfortunately, due to lack of funding, VDACS is not offering its Household Pesticide Disposal or Pesticide Container Recycling programs anywhere in the state for 2017. We are hoping that this program will start up again in 2018.

Albemarle County farmers can participate in the County's Commercial Hazardous Waste Collection, which will happen ONLY IF THERE IS ENOUGH DEMAND (so don't wait until the last minute).

YOU NEED TO PRE-REGISTER! Details below:

September 22

Pre-registration DEADLINE for Commercial Hazardous Waste Collection.

Required to obtain an appointment according to EPA regulations.

September 28 OR
September 29

Special commercial hazardous waste collection day at the [Ivy Materials Utilization Center](#) Date will depend on demand. See below for preregistration info:

This special collection is only open to qualifying businesses and commercial establishments and not households (**Farms qualify**). Qualifications are defined by federal law to include businesses that (1) generate no more than 100 kilograms (220 pounds) hazardous waste in a month, (2) generate no more than 1 kilogram (2.2 pounds) acutely hazardous waste in a month, and (3) store not more than 1,000 kilograms (2,200 pounds) hazardous waste. **To participate in this event, businesses must pre-register with CARE Environmental Corp. via email with John Doffinger John@careenv.com or Jim McKenna Jim@careenv.com or call 1-800-494-2273.** There is a fee associated with disposal.

If you have empty pesticide containers, you can triple rinse these and dispose of them in your local landfill.

October 14

Opportunities for Wool Sheep

Verona, VA (Augusta County)

Are you a sheep enthusiast? Are you interested in learning more about raising sheep or producing high quality wool? If so, please join us for this important program on sheep and wool management and marketing.

<https://drive.google.com/file/d/0B9rVWAJr59-fY01KQ0duNmRWY00/view?usp=sharing>

Questions? Contact John Benner at 540-245-5750 or benner89@vt.edu



Virginia Cooperative Extension

Virginia Tech • Virginia State University

Virginia Cooperative Extension programs and employment are open to all, regardless of age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, veteran status, or any other basis protected by law. An equal opportunity/affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. Edwin J. Jones, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; M. Ray McKinnie, Administrator, 1890 Extension Program, Virginia State University, Petersburg. Extension is a joint program of Virginia Tech, Virginia State University, the U.S. Department of Agriculture, and state and local governments.