Virginia Cooperative Extension
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Extension Ag News

Late Summer 2018 Volume 7, 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.

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Inside this issue

Managing Crop, Garden, and Yard Areas after Rain

by Sarah Sharpe, Extension Agent, Greene County

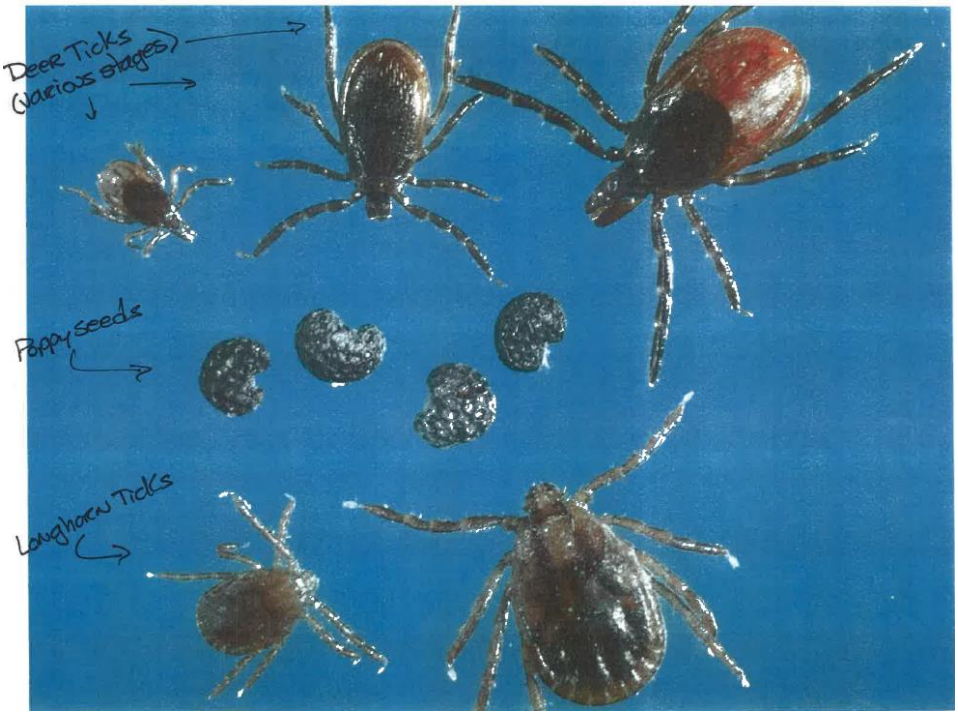
In the past few weeks, we have had quite the deluge of rain! Even more, Greene County had not one, but two, 8+ inch rain events earlier this summer. With all this rain, how do a garden, yard, and other crops survive? How can you make it better? Here are some tips that may help.

- After the rain, survey any plant damage that you may have. This can include plants that were washed out of the ground, plants that have wind damage and are bent over, or any blooms that may have fallen off. If the plants are beyond repair, it is important to remove them from the area (if possible.) Decaying plant tissue can attract insects and disease.
- If you have a small area of damaged plants, try to keep from walking directly next to the plants. This can cause the soil to become compacted and keep roots from being able to take up water and other nutrients as the soil eventually dries out.
- If you see any roots that you can rescue, try to cover them with soil as soon as possible- the plant may still have a chance at life! If the plant dries out, the odds that it will recover are not great.
- Think about nutrients after a rain. If you recently applied any sort of fertilizer, there is a good probability that the nutrients have either washed away from the surface or perhaps leached away from the root zone.
- How are your drainage areas? Do you have large areas of pooling water, or do you have water that is running quickly causing erosion? If so, you may want to think about some ways that you can mitigate water pooling or slow down the water in your yard. There are programs available through the local soil and water conservation districts that can help address these concerns.
- Weeds like moisture too! Keep an eye on new and emerging weeds after any amount of rain. Think about whether you can go pull weeds or if you need to use an herbicide. It's much better to take care of weeds while they are small than after they get a well-established root system!
- If there is a long period of warm, damp, rainy, humid weather, keep an eye on plant health as well. Many plant fungi, root viruses, bacteria, and more diseases that can greatly impact plants thrive in wet weather. You may want to think about a protectant fungicide if you see a long stretch of weather in the forecast that is favorable for diseases!

Plant health is an incredible important component of harvesting any crop. If you have any questions, please feel free to contact me (Sarah Sharpe seweaver@vt.edu or 434-985-5236.)

There's a new tick in town...

by Carrie Swanson, Extension Agent, Albemarle



You may have already heard that the Longhorn Tick, haemaphysalis longicornis, has been found in Albemarle County. One key piece of information that has been missing from the media attention is that there is ***no need to panic***! Although the first confirmation of this tick outside quarantine facilities in the United States was in New Jersey last year, scientists now believe that there has likely been a resident population in the mid-Atlantic states for several years. Populations have now been confirmed in NJ, VA and WV. Longhorn ticks are associated with a number of animal and human diseases in Asia and Australia, but have not yet been implicated in disease transmission in the United States.

One interesting (but also creepy) fact is that Longhorn ticks are parthenogenic; the females do not need a mate in order to reproduce. So far, all the ticks found in the U.S. have been female.

These ticks are likely to have a larger impact on livestock and wildlife than on humans and pets. Infested animals may carry such a high number of ticks that they lose weight and become anemic. Lowered milk production and reduced wool quality are also concerns for dairy and fiber animals.

Longhorn ticks are closest in size to Deer ticks (approximately 4-10 mm), and are a reddish-brown color without any distinctive markings. The best way to identify them is to examine their mouthparts under a microscope (*or bring them to your local Extension office and have us do it*).

Like other species of ticks, Longhorn ticks prefer areas with tall grass and high humidity levels at the soil surface (think pastures, hayfields and other unmowed areas).

Since we are still learning about this species, and the risks they may present in this country, entomologists are eager to examine any specimens found. If you find ticks on your livestock, especially in large quantities, your local Extension office can help to identify them. It's best to remove ticks slowly, in order to preserve mouthparts, and to preserve/kill ticks in a jar of rubbing alcohol.
For more information, check out this new Extension publication:
https://pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/ENTO/ento-282/ENTO-282.pdf

Cattle Anaplasmosis

by Charles A. Rosson, Extension Agent, Louisa

Anaplasmosis is an infectious disease of cattle caused by several species of the blood parasite *Anaplasma*. *A. marginale* is the most common pathogen of cattle. (Smith, B.P.) Anaplasmosis is also called "yellow bag" or "yellow fever" as affected animals can develop a jaundiced appearance. Anaplasmosis is seen worldwide and has been reported in at least 40 states in the U.S. (Smith, B.P.) It is a common disease in the southern U.S. The highest incidence of anaplasmosis in Virginia seems to occur throughout the Piedmont area of Central Virginia. It is an important disease in Virginia as it tends to cause outbreaks in a herd, which can lead to the death of adult cattle. Other economic losses include abortions, decreased weight gain, bull infertility, and treatment costs. (Stokka and Faulkner)

Transmission

A. marginale can be transmitted two different ways. First, it can be transmitted mechanically when red blood cells infected with A. marginale are inoculated into susceptible cattle. This can occur through needles, dehorners, ear taggers, castrating knives or other surgical instruments, and tattoo instruments. Mechanical transmission can also occur through the mouthparts of biting insects, such as biting flies. Face flies, houseflies, and other non-biting insects do not transmit the disease. Horn flies, although they bite, typically do not go from animal to animal so they are not thought to spread Anaplasma. Mechanical transmission of infected red blood cells must occur within a few minutes of the blood leaving the infected animal, as the blood parasite does not survive more than a few minutes outside the animal.

Second, Anaplasma can be transmitted through its biological vector. The parasite receives nourishment from, and may even multiply in, the biological vector. The biological vector for anaplasmosis is the dermacentor, or wood, ticks. Once in the tick, the parasite can remain active throughout the lifecycle of the tick and can be transmitted several months later.

Once susceptible cattle are infected with Anaplasma, the organism multiplies in the bloodstream and attaches to the animal's red blood cells. The animal's immune system destroys the infected red blood cells in an attempt to fight off the infection. Unfortunately, uninfected blood cells are also destroyed. When the number of blood cells being destroyed exceeds the number of blood cells that the body can produce, the animal becomes anemic. It takes 3 to 6 weeks for clinical signs to appear after the animal is infected. (Smith, B.P., SR6011)

How to Help Protect Your Cow Herd in a Moderately Infected Area

One strategy is to keep your herd negative for anaplasmosis but protect them from disease by feeding chlortetracycline in the mineral mix year-round, mixing it in the feed, or oxytetracycline injections during the vector season. Generally in Virginia, the goal of anaplasmosis control programs is to eliminate it from the herd. One method of prevention is to control insect vectors. While not all insects can be prevented, reducing the number will help reduce the chance of a herd outbreak. Periodic spraying, dust bags, and back rubbers are all feasible methods of decreasing the number of insects. Pasture management can be helpful. Have animals graze areas where insect numbers are the lowest (hillside pastures) in the spring and summer, and then in the fall and winter move them to areas where the spring and summer insect numbers were the highest (pastures next to creeks or ponds) when the insects are no longer present.

When processing cattle, take care to disinfect equipment after each animal. A quick rinse in a bucket of disinfectant is all that is needed. Bleach or Nolvasan diluted to 3 ounces per gallon of water can be used. In a moderately infected area, it is best to change needles between cattle. You cannot disinfect needles as that will inactivate the vaccines you are giving. If carrier animals are identified, they should be cleared of infection with an antibiotic regime by consulting your veterinarian. The policy of testing bulls for anaplasmosis for BCIA sales is in effect in Virginia. This has been adopted to prevent infected bulls from carrying the disease to non-infected herds. Bulls coming from Central Virginia, where the disease is prevalent, should be tested before introduction to herds in clear areas.

Summary

Anaplasmosis is an infectious disease of cattle that causes anemia, abortions, and death. Adult cattle have the most severe symptoms of the disease. Virginia farmers should be concerned about anaplasmosis, as it can present significant economic loss. If you have anaplasmosis on your farm, work closely with your veterinarian to develop the best management program based on the number of animals affected and the prevalence of anaplasmosis in your area. If anaplasmosis has not been a problem on your farm, management programs and monitoring will help your herd continue to be anaplasmosis free.

Revised from VCE Publication 400-465 written by Dee Whittier, D.V.M., M.S., Extension Veterinary Specialist, Virginia Tech; Nancy Currin, D.V.M., Veterinary Extension Publication Specialist, Virginia Tech; John F. Currin, D.V.M., Extension Veterinary Specialist, Virginia Tech

Upcoming Events

August 31, 4:30-7:00 pm

2nd Annual Pumpkin Management Field Day

- Davis Produce, 9194 Hill Farm Road, Lanexa, VA
- Hear from specialists Dr. David Langston and Dr. Tom Kuhar on timely plant disease management tips and insect management guidance.
- Free to attend, but **RSVP** is **required**
- RSVP to Sarah Sharpe seweaver@vt.edu, Laura Maxey Nay lmaxey-nay@vt.edu, Charley Maxwell mcharley@vt.edu, or Roy Flanagan royf@vt.edu

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October 2, 5:30-8:30 pm

Greene County Beef Producers Meeting

Contact Sarah Sharpe for more information seweaver@vt.edu or 434-985-5236

October 11

Healthy Land for Healthy Horses

A day-long workshop in Free Union to address the needs of small horse farms. Includes lectures and hands-on field demonstrations by professionals. Learn about conservation practices that benefit land, water and animals.

- Pasture and grazing management
- Plant identification and selection
- Maintaining healthy soils
- Farm management for healthy water
- Manure management and composting
- Nutrient management planning

Healthy Land for Healthy Horses
A Short Course on Pasture and Manure Management

https://drive.google.com/open?id=100DFmSAM__TNjdLBRv8Z77OyobYgDlx6

November TDA

Beef Cattle Meeting

Whitehall/Crozet. Details coming. Contact Carrie Swanson for more information cswanson@vt.edu.

November 14th, 9:30 am - 11:30 am, Albemarle County Office Building

November 15th, 7 pm - 9 pm, Zoom Webinar

Introduction to the Produce Safety Rule- Where do you fit in?

Contact Sarah Sharpe for more information seweaver@vt.edu or 434-985-5236

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