

Hardee Rancher Beef and Forage Newsletter



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July 2007

Calendar Of Events

August

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| 11 | Basic Pasture Management School - 8:30AM-4:30 PM, Hardee County Extension Service - Wauchula |
| 16 | Beef Quality Assurance Certification - 10:00 AM-4:00 PM, Highlands County Extension - Sebring |

September

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| 5 | Advanced Pasture Management School, Turner Center Exhibit Hall - Arcadia |
| 6 | Advanced Pasture Management School, Ona Research Center - Ona |

News and Notes:**- Drought Raises Toxicity Fears for Cattle -**

Under extreme drought conditions, cattle may consume weeds and ornamentals that can be toxic. If eaten in large enough quantities, such plants can cause illnesses or can even be fatal, warns Ohio State University Extension beef specialist Steve Boyles. Because of on-going hot, dry conditions, cool-season pastureland grasses are becoming dormant and may no longer be viable forage for livestock. As a result, livestock may turn to weeds or potentially toxic plants for their salt, mineral and nutrient needs. For more information, go to www.drovers.com.

- Global Hunger on the Rise -

Estimates indicate that the number of hungry people in 70 lower-income countries increased between 2005 and 2006, from 804 million people to 849 million, according to a new Food Security Assessment report from USDA's Economic Research Service. The two main causes were higher food prices and poor economic performance in several countries. The report projects, however, that by 2016 the number of hungry people will decline in all regions except Sub-Saharan Africa. The most significant improvement is expected in Asia, followed by Latin America and the Caribbean.

- Restaurant Chain calls for Support of U.S. Beef -

This July 4, A&W Restaurants, Inc. encouraged Americans to show support for U.S. beef with a campaign called 'Moove to American'. The campaign was launched with 35 cows traveling by barge across the New York Harbor to visit the Statue of Liberty. Tim Matis, director of marketing for A&W Restaurants, says, "We're giving Americans a chance to celebrate, speak up and support products of the U.S.A. and the great tasting, 100 percent U.S. beef Papa Burger we serve in our restaurants everyday". You can read more at www.drovers.com.

- Information from the 56th Annual Beef Cattle Short Course -

Weed Control - Establishment and Maintenance: Dr. Brent Sellers of the Ona Range Cattle Research Center provided this information on the program. Weeds in pastures and rangeland cost ranchers in excess of \$180 million annually in Florida by reducing forage yield, lowering forage quality, and causing animal injury through toxicity or specialized plant organs (thorns and spines). Effective weed management begins with a healthy pasture. No pre-emergence herbicides are currently available for bahiagrass establishment. Therefore, post-emergence herbicides are the only option. However, no herbicides for pastures should be applied to bahiagrass until at least three tillers are present or plants are at least five inches tall. At that point in time, it can be assumed that all post-emergence herbicides labeled for bahiagrass are safe to apply. The following herbicides can be safely applied to established bahiagrass: 2,4-D (2.0 to 4.0 pt/acre of 4 lb formulation) Annual broadleaf weeds should be treated soon after emergence for best control with lower rates. Perennial weeds should be allowed to obtain a leaf surface large enough to allow sufficient spray coverage (12-18 inches tall). Use amine formulations during warm weather and ester formulations during cool weather.

Banvel (0.5 to 2.0 qt/acre). Rate depends on weed species and size. More expensive than 2,4-D.

WeedMaster (2.0 to 4.0 pt/acre). WeedMaster is a mixture of 2,4-D and dicamba and often provides better control as a premix than either product alone.

Remedy Ultra (2.0 to 4.0 pt/acre). Provides good control of many broadleaf weeds, but is used primarily for

brush control in pastures and rangeland. For best results, apply with at least 30 gal/acre of water. The addition of a non-ionic surfactant will increase weed control.

Milestone (5 to 7 fl oz/acre). Excellent control of TSA, horsenettle, and other members of the nightshade family. Controls pigweeds and other broadleaf weeds, but not blackberry or dogfennel. Can be safely applied under trees. Desirable forage legumes may be severely injured. A 0.11% v/v solution is recommended for spot-spray applications.

Forefront (2.0 to 2.6 pt/acre). Forefront is a premix of aminopyralid (Milestone) and 2,4-D. See comments for Milestone. Forefront provides better control of dogfennel than Milestone as long as plants are <18 inches tall at application. For dogfennel plants <18 inches tall, a tank-mix partner will be necessary.

Pasturegard (2.0 to 4.0 pt/acre). Provides excellent control of dogfennel, blackberry (4.0 pt/acre), teaweed, and other broadleaf weeds. Less effective on TSA than with Remedy alone.

- Hot Topic: Fire Ants -

During May, the News Media and Associated Press have reported that a virus has caught the attention of the United States Department of Agriculture researchers in Florida and that the agency is now seeking commercial partners to develop the virus into a pesticide to control fire ants.

The Overall Problem: Two species of imported fire ants were accidentally introduced into the southern US from South America in the early 1900's. Without the natural predators to keep them in check (as they had had in South America) these fire ants have spread across the country and their numbers exceed populations in their native South America. They are now a major pest problem throughout the southeastern United States, including livestock operations where crops are destroyed, farm and electrical equipment are damaged, soil erosion is increased, and humans and livestock are subject to stinging attacks. In 2003, the USDA estimated that the annual cost of problems caused by imported fire ants in agriculture was \$750 million, with \$38 million in losses to livestock (extension.org).

Direct Implications for Livestock Producers: Newborn livestock and wildlife, birds just hatching from eggs or animals in confinement are particularly vulnerable to attack by imported fire ants. During the hot summer months, ants are starved for food and moisture causing the frequency of livestock injury and deaths due to fire ants to dramatically increase. This is yet another reason why we do NOT recommend summer calving or foaling. When it cannot be avoided, however, placing cows or mares in designated calving/foaling pastures that have been treated to reduce fire ant populations may be justifiable and cost effective. These fire ants are not known to harm mature animals (other than inflicting the uncomfortable stinging sensation) other than ostriches and emus that, reportedly, can go into shock when stung (extension.org). A number of agricultural products are available to treat your pasture. The broadcast application of a bait has been found by the Southern Region Integrated Pest Management Center to be one of the least toxic, most cost effective, and environmentally sound approach to reducing fire ants in large areas of land. The following treatment information has been derived from www.extension.org/faq/834:

Treatments: These treatments are particularly suitable where fire ant mounds are numerous (20 or more per acre). A number of baits can be broadcast for about \$10-\$15 per acre. Baits containing hydramethylnon (Amdro Pro), pyriproxyfen (Esteem), or s-methoprene (Extinguish) are currently labeled for use in cattle pastures or pastures for companion animals. Award fire ant bait (containing fenoxycarb) and Extinguish Plus (hydramethylnon premixed with s-methoprene) can be applied to pastures grazed by companion animals such as horses.

Timing: Baits are considered food by the ants. The fire ants only forage for food when conditions are favorable and this occurs when air temperatures range from 65 to 90 degrees F. In the heat of the summer, foraging occurs mostly in the evening so baits should be applied in the late afternoon or early evening. When deciding whether or not your ants are foraging, place a potato chip or small pile of bait near a fire ant mound. If the ants carry off the food within 30 minutes of placement, it would be a good time to apply bait to the pasture.

Other Cases: If you are treating more than 100 acres, you might want to consider aerial application of fire ant bait. A mound drench containing carbaryl (such as Sevin 4F, Sevin XLR, and Sevin 80S, that are labeled for use in pastures) can be applied to individual mounds. Fire ant baits can also be used as individual mound treatments but do not work as quickly as carbaryl. It would not be economical to treat very many mounds individually because of the cost of the materials and labor involved. Use pesticides only according to the directions on the label and follow all directions, precautions, and restrictions that are listed. Trade names listed in this article are used only to provide examples and specific information but not to endorse or guarantee any product and one product is not recommended over a similar one.

Other Options: In March 2007, a project developed by the USDA's Agricultural Research Service (ARS) in cooperation with the Florida Department of Agriculture and Consumer Services and the University of Florida's Institute of Food and Agricultural Sciences (IFAS) received a top USDA national award for the progress it has made in finding biological control methods to manage the red imported fire ant. From the decapitating fly to a pathogenic protozoan from Argentina, to the recent discovery of the first virus (Solenopsis invicatus virus-1) that infects the red imported fire ant, state and federal partners are working together to combat this nuisance. The ARS funded about 6 years and will end in 2008. The goal is to maintain greater than 80% reduction of fire ants using an integrated management approach that combine both toxic baits and biological control methods.

- What is driving the cost of fertilizer to be so high? -

Usually, a combination of factors. One of the major contributors is the price of petroleum. With fossil fuel prices remaining high, we are expecting to see a direct rise in nitrogen prices this year. Another factor is the price of corn and the record number of acres being planted to corn this year to supply grain for the ethanol plants. To put things in perspective, Walt Prevatt, Extension Economist from Auburn University states, "we are gambling on making the largest corn crop in U.S. history to supply food, feed, energy, and export uses of corn". Other economists predict that we will be paying the highest prices we have ever paid for nitrogen on a national basis this year.

What strategies can Florida cow-calf producers utilize to off-set these high nitrogen costs and stay out of the red?

To make sure that the fertilizer you apply to your pastures is getting utilized properly, make sure your soil pH is within the target range for that forage. If the soil is too acidic, for example, the nutrients you apply will not be soluble and taken up by the plant and therefore wasted. A basic soil test can be done to tell you your soil pH and let you know if your soil is efficient in any nutrients. If you are also checking your P, K, Ca, and Mg levels including the pH levels, you will need to send samples to the University of Florida Soil Testing Laboratory. Another very helpful thing producers can do is add forage legumes into the pasture systems. One recommended legume for this area of Florida that has shown promise is the warm-season annual, *Aeschynomene*, often referred to as 'deer vetch'. Dr. Joao Vendramini, University of Florida Range Cattle Forage Specialist, recommends common *Aeschynomene*, or *Aeschynomene Americana*, as one of his top choices due to its successful establishment, high nutritive value and palatability to cattle. This forage has long been used in the cattle industry but is regaining importance because it is a crop that does not require nitrogen.

Before planting the aescynomene seeds, make sure they are inoculated with the proper bacteria (cowpea group). This is important because after the plant begins to grow, this special N-fixing bacteria will invade the tiny root hairs and multiply in large numbers. The legume roots, in reaction to this infection, form tumor-like swellings called nodules on the root surface. Bacteria inside the nodules absorb air from the soil and convert (fix) gaseous N into ammonia (NH₃), replacing the need for us to fertilize the plant. The plant furnishes the necessary energy that enables the bacteria to fix gaseous N from the atmosphere and pass it on to the plant for use in producing protein. This partnership is known as symbiotic N fixation.

For questions or comments regarding this publication contact



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