



Agronomy Notes

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First Bermudagrass Hay Cutting – It can be weed free

It is generally accepted that the first hay cutting of the year will be of lower quality due to winter weeds. But since most of these weeds will not regrow, we allow that first cutting to be “cow hay” and wait for the second and third cutting to be our premium “horse hay”. Although this production strategy is almost universally accepted, it doesn’t have to be this way. A single, well-timed herbicide application in early spring can eliminate many of these weeds, resulting in premium quality hay from the first cutting.

The winter weed complex can be difficult to control, depending on which species are present and their size when spraying. The most common are Carolina geranium, henbit, fireweed (stinging nettle), little barley, cutleaf primrose, wild radish, Virginia pepperweed, and thistles. Although these weeds are common and somewhat difficult, there are many herbicides that can be used for effective management.

Glyphosate or Paraquat. Glyphosate or paraquat (Gramoxone Inteon, Firestorm, others) can be applied when bermudagrass is dormant. These herbicides can be used to effectively control chickweed, little barley (or other grass weeds), and henbit. But they will both fail to control cutleaf primrose, wild radish and thistle. Glyphosate can now be purchased for \$15/gal or less, making it a cost effective choice. It is essential that the bermudagrass be totally dormant when the application is made. If the bermudagrass is beginning to transition from dormancy, an application of glyphosate can greatly delay early season growth. So, depending on weed spectrum and bermudagrass dormancy, these two herbicides can be an effective and inexpensive choice. Paraquat is a restricted use herbicide and a pesticide license is required for purchase.

2,4-D and/or Dicamba (Banvel, others). These herbicides, used separately or together (Weedmaster, Outlaw, others), will provide good to excellent control cutleaf primrose, Carolina geranium, as well as wild radish and thistle if no blooms are present. These herbicides can be safely applied to bermudagrass at any stage from dormancy to full greenup. While generally cost-effective, these herbicides may struggle to control large wild radish, henbit, or fireweed. 2,4-D and/or dicamba can be mixed with glyphosate and many other herbicides to increase the weed control spectrum. If used alone, a careful inventory of the weeds present should be taken to ensure that these herbicides are the appropriate choice.

Metsulfuron. Metsulfuron is sold alone (MSM 60, Valuron, and many others) as well as in combination with many other herbicides. The reason for including metsulfuron in many herbicide combinations is for its broad-spectrum control of many winter weeds. Metsulfuron is highly effective on wild radish, henbit, red sorrel, Carolina geranium and others. Applied alone, it will not control little barley and will likely struggle to control thistle. If grassy weeds are problematic, mix with glyphosate. If thistles are present, mix with GrazonNext, or 2,4-D. Metsulfuron is now available from numerous manufactures and can often be purchased for under \$20 per ounce. Considering that the application rate for most of these winter weeds is 0.1 to 0.3 oz/A, metsulfuron is an economical and effective herbicide choice.

Aminopyralid. Aminopyralid is sold alone (Milestone) and in combination with 2,4-D (GrazonNext) or metsulfuron (Chaparral). Aminopyralid has been shown to control fireweed, thistle of any size, and Carolina geranium. Applied alone, it will not control wild radish or grassy weeds, and is only marginally effective on henbit. But when mixed with metsulfuron, it becomes a very broad-spectrum combination. Chaparral will be a more costly than metsulfuron alone, but may be well worth the price if large thistles are present.

Weeds in the first hay cutting should no longer be seen as a fact of life. There are highly effective herbicides available, many of which can be purchased for \$8/A or less. It can be difficult to determine the exact herbicide, or herbicide combination, for maximum control of all the weeds present. For more information, consult Weed Management in Pastures and Rangeland (edis.ifas.ufl.edu/wg006) or contact your local County Extension Office.

Forage Weed Control and Fertilization Timing—

Timely cultural practices are important in promoting vigorous growth for warm-season grasses. Use the weed control program that best fits your weed problem and budget but control weeds first. Walk your pastures to adequately identify your weeds, and the magnitude of your weed problem. Keep in mind the popular wisdom “smaller weeds, smaller problems...bigger weeds, bigger problems”. In most situations it is easier and more economical to control weeds at a younger stage than when they are big and ‘out of control’. Use the dry conditions present during the early spring to till the soil in preparation for forage planting—Hold on the pasture fertilization until after the weeds have been controlled and the right soil temperatures are present. The root system of warm-season perennial forages (like bahia– or bermudagrass) will effectively utilize the nutrients when the right temperatures in the soil are present. Fertilize when consistent warm soil temperature are present (soil temperature greater than 65 °F).

Ryegrass Removal and Bermudagrass Growth

Overseeding with ryegrass extends the season of forage production during late winter and spring. However, field observations, particularly during warm winter years, have shown stand reduction and slow spring regrowth of hybrid bermudagrass pastures and fields that had been overseeded to ryegrass. Ryegrass produces the bulk of production during spring, a time when bermudagrass is initiating growth. During this time, the solid shading from actively growing ryegrass intercepts the light needed for photosynthesis of the warm-season grass. The shade also prevents solar radiation to reach the soil slowing down the warm up of the soil surface. When bermudagrass starts breaking dormancy, the ryegrass shade cover needs to be removed to avoid a negative impact on the spring growth. Removal of shading can be accomplished by grazing and keeping the stubble short or by harvesting ryegrass frequently to allow sunlight to reach the soil. Late removal of ryegrass will compromise the regrowth of the bermudagrass in the spring.



Calendar

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Mar. 30 **47th Florida Dairy Production Conference**, Gainesville, FL
<http://dairy.ifas.ufl.edu/index.shtml>

May 4-6 **60th Annual Florida Beef Cattle Short Course**, Gainesville, FL
<http://www.animal.ufl.edu/extension/beef/short.shtml>

Jul. 3-9 **Caribbean Food Crops Society meeting**, Two Mile Hill, St. Michael, Barbados,
<http://www.cfcs2011barbados.org/>

Farm Chemical Theft in Florida

During the past year, there have been multiple farm chemical theft occurrences in the state. Sheriffs' Offices in Lee, Palm Beach, Martin, Hendry, and Manatee counties have reported theft of various pesticides, fuel, and equipment from these establishments. Apparently, all incidents involved breaking and entering into secure facilities by individuals who are knowledgeable about the involved pesticides because of the types that were stolen. All of the thefts occurred after the facilities were closed; therefore, extended surveillance during the evening hours around farming communities is highly recommended.

The following examples are considerations relating to chemical facility security, though not fully inclusive, particularly to agrichemical dealers:

- ◆ Securing buildings, manufacturing facilities, storage areas and surrounding property: its fundamental, but prevention of intrusion can include elements such as fencing or other barriers, lighting, locks, detection systems, signage, alarms, cameras and trained guards.
- ◆ Securing pesticide application equipment and vehicles: consider using an authorization process for persons who have access to such equipment before their use.
- ◆ Aerial application equipment: the FBI has requested that aerial applicators be vigilant to any suspicious activity relevant to the use, training in, or acquisition of dangerous chemicals and their application. Such activity includes, but is not limited to, threats, unusual purchases, suspicious behavior and unusual contacts with the public.
- ◆ Protection confidential information: as businesses have grown more reliant on computers and communication technology, the need to secure these systems has grown. Efforts to include contingency planning for power losses, monitoring access ports, adherence to password and backup procedures, and maintaining access for authorized personnel only should be taken into account.
- ◆ Developing procedures and policies that support security needs: even the best hardware and staffing budgets are only as effective as the procedures and policies that control their use.
- ◆ Effective hiring and labor relations are important to obtain and retain good employees who will support and follow safety precautions. For example, the hiring process should ensure that pesticide handlers have all requisite training necessary to handle pesticides safely. Background checks of staff who have access to secure areas, particularly those areas where pesticides may be stored, are also necessary.
- ◆ Inventory management policies can help limit the amount of potentially hazardous pesticides stored on site, reducing the risks of accidental or intentional release or theft.
- ◆ Effective advance emergency response procedures can be critical. Business officials and employees need to have an understanding of how to respond and who to contact in the case of an emergency.
- ◆ Establish a procedure for locking up the facility at the close of the business day.



Suspicious incidents should be reported immediately to your local law enforcement agency, Crime Stoppers, or your regional FDLE office. If you have information regarding similar burglaries or have questions or comments, please contact the Central Florida Intelligence Exchange at 407-858-3950 or at cfix@ocfl.net.

Corn Planting Date

Florida has generally recommended a planting date of March 1 to April 15 for corn hybrids. The planting date is set due to pest pressure especially insects and diseases. Before Bt corn hybrids were available, corn planted in May was subject to high levels of worm pressure (fall armyworm and corn earworm) and stinkbugs and would tassel in about 45 days. Corn planted in March will usually silk and tassel in mid-May. May is normally hot and dry resulting in stress for non-irrigated corn. Irrigation is required on a yearly basis to produce corn yields of 150 bu/A or more. With irrigation and Bt corn, good corn



yields can be made as late as early June and has been successfully double cropped if the first crop is taken off for silage. If the first crop is taken off for grain, high levels of inoculum from leaf rust and other diseases can result in high disease pressure on the second crop if it is planted into the first crop residue.

Starter Fertilizer Use on Corn

Many corn hybrids respond to starter fertilizer (N, P, K and S applied near the row or 2"X2" to the side and below the seed or N, P, and S only). Our research shows that fast, early root growth of some hybrids results in little or no response while some hybrids have slow early root growth resulting in higher responses to starter fertilizer in final grain yield. The grain yield response of some hybrids may be as much as 30 bu/A. With corn at historic highs of \$6.50-7.00/bu, starter fertilizer can play an important role in the total fertility program. If fertilizer is banded at planting for the total fertilizer program besides sidedressed N, application rates of P and K can be reduced by 30% or more without yield loss. This serves as starter fertilizer since it is placed near the row.

Using Conservation Tillage with Weed Resistance

There are ways that conservation tillage can be used with severe weed problems such as palmer amaranth. Deep tillage can be done immediately after harvest of a crop in the fall and a cover crop planted. Not only will turning the ground help bury weed seed but planting into the cover crop in the spring using no-tillage will help shade any weeds that may emerge that were not buried deeply enough in the fall. Another method is to use residual herbicides in the cover crop or crop residue preplant followed by early post followed by late post applications. Most growers do not use any tillage after planting anymore and hoods can be used to shield plants from residual herbicides that would damage the crop. Conservation tillage can continue to be a part of the farming program with adequate planning to conserve soil, fuel, and labor.