AGRONOMY NOTES

UNIVERSITY OF FLORIDA
IFAS EXTENSION

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DATES TO REMEMBER		
April 12	-	Winter annual forage/wildlife food plot field day– N. FL REC, Live Oak, FL
May 1	-	Twilight field day – N. FL REC, Live Oak, FL
May 2-4	-	Florida beef cattle short course, Gainesville, FL
May 25	-	75th Anniversary and field day, Brooksville REC, Brooksville, FL
May 30-June 1	-	Southern pasture & forage crop improvement conference, Tallahassee, FL
June 5	-	Beef forage field day – N. FL REC, Marianna, FL
June 25-27	-	Southern conservation tillage conference – N. FL REC, Quincy, FL

IN THIS ISSUE

Projected Dry Spring and Corn Planting Date

The projected cool, wet winter did not occur as predicted this winter. This may mean a dry spring as occurred in 2006. Dryland corn producers were hit hard in 2006 by the drought with early planted corn starting to silk and tassel in mid May. The ear fill period is a critical stage that needs good moisture for grain yield. The grain also contributes about 50% to silage yield. Therefore, it may be better to plant dryland corn later if the spring is dry and to catch afternoon summer showers during the ear fill period in late June and July. Higher fall armyworm and corn earworm damage occurs with late planting (May-July). Less insect damage occurs on the *Bt* than the non *Bt* hybrids, and it is very apparent in both silage and grain yield. Therefore, if one is to plant dryland corn late (mid-April to mid-May) consider using a *Bt* hybrid. If adequate water is available, little difference is noted in corn planted in February through early April . There are differences in hybrid's responses to southern corn rust. Tropical corn hybrids recommended for Florida have less rust than temperate hybrids in variety trials. This becomes more apparent with late planting. However, there are differences in the rust tolerance of temperate hybrids and some temperate hybrids do much better against southern rust than others with late planting (late April-June). Check variety trial information from as many nearby locations as possible to compare hybrids.

David Wright

Consider April Planted Cotton

April is the key month for cotton growers in the Deep South. Will adequate moisture be available for planting or will it be too cold and wet? In the past few years, growers have had dry weather conditions to contend with at planting. A target of killing cover crops 5 weeks in advance of planting is a good idea for moisture conservation as well as reduction of insect pests that could damage young cotton seedlings. Many growers strip rows off several weeks ahead of planting to spread the workload and to allow a smaller tractor with planters to come in for the planting operation. All of these practices can work for growers, but extra care will be needed to insure that new weed growth does not occur between the time of killing cover crops and planting, or strip tilling and planting. Generally, 2,4-D type herbicides can be applied in January or February followed by glyphosate five weeks ahead of planting which will control many of the broad leaf weeds on which glyphosate is weak . Many growers are using some residual herbicides in the burn down herbicide application to keep weed growth from coming on before planting. If moisture is conserved from a late March killing of the cover crop, cotton can be planted at almost any time in mid to late April with good results. Starter fertilizer is not used as often with cotton as with corn but has been proven to be more efficient than broadcast applications and should be considered if high amounts of P or K are required. Care should be taken with N to keep it 1 inch away from the row for each 10 lbs/A of N applied as a starter. Phosphorus has been shown to be more effective (use 2/3rds the rate or less) when applied as a starter in a band near the row, or 2"X2"as compared to broadcast applications. Therefore, consider starter applications if high amounts of P are required for the cotton crop.

David Wright and Jason Ferrell

Spring Grazing Management or Balancing the Energy Reserve

Grazing management is about managing the energy reserves of a plant that is continuously 'drawing' energy through grazing or haying. What happens when you overgraze a pasture? When you graze or stock beyond the critical stubble height, the plant is left without enough leaves and stems from which to re-grow. Because it can not take or 'draw' energy from the leaves, it starts using the energy from the roots. Gradually the root systems shrinks, and you start seeing the common thinning of pastures. During drought years, like this one, keeping the energy reserve is critical because you want the root system to be as large and deep as possible to explore and take as much of the limited soil moisture. Stubble height is the most important grazing management tool and allowing the pastures to rest will aid in the recuperation of the pasture and allow the resumption of grazing in the spring.

Pastures grasses like bahiagrass have a prostrate growth habit and are adapted to close grazing. These pastures are able to tolerate close grazing better than those grasses with more upright growth (such as limpograss) because of the large rhizomes or underground stems. These rhizomes store and provide the energy for regrowth after grazing. Bahiagrass pastures, while needing a rest period as well, will recuperate faster. Indeed, grazing of bahiagrass pastures is recommended in early spring to allow limpograss pastures to recover from winter stress. However, caution is advised: too closely grazed bahiagrass will eventually run out of reserves in the rhizomes and thin out as well, opening 'spaces' and opportunities for smutgrass or other troublesome weed to encroach. It is recommended to rest limpograss pastures from grazing and allow them to accumulate at least 10 to 12 inches of growth before grazing is resumed. Stock or graze rotationally taking no more than ½ of the top growth. During the warm season, it is important to always leave sufficient leaf area on the plants after grazing. This will help to maintain a healthy productive stand.

Yoana Newman

Soybean Sentinel Plots

Florida is a key state in the detection and spread of Asian soybean rust for the rest of the soybean states. Sentinel plots have been planted all across the state in about 20 locations in MG III, V, and VII soybeans. Locations include several south Florida counties, the research center at Citra in central Florida and counties across the panhandle of Florida. These plots are checked weekly for the occurrence of soybean rust and results are posted on the national website, http://sbrusa.net. Each of the soybean producing states has these plots and spread of rust can be checked weekly. Several kudzu sites are monitored year round in Florida and throughout the winter months. Soybean rust has been found each month at kudzu sites in north Florida. The website and commentary is updated weekly and can be helpful information for growers to determine whether to spray their crop for soybean rust.

David Wright and James Marois

Drought and Weed Control

Weed control under dry conditions can be problematic, and the reason is two-fold. Weed competition with crops and forages is more detrimental to yield than under normal or wet conditions. Additionally, weeds are less affected by herbicide applications under dry conditions.

Preemergence herbicides. Preemergence herbicides require rainfall for incorporation into the soil. Without rain, the herbicide will be less active and will result in more

weed escapes. Additionally, many of our soil applied herbicides are degraded by sunlight. So, without incorporation by rainfall, less herbicide will be available for uptake by weedy species and will be lost through degradation from sunlight.

Postemergence herbicides. Postemergence herbicides are also affected by drought. This is due to decreased growth of the weeds we are trying to kill. Under dry conditions, weeds have more wax on their leaf surfaces, which restricts movement of the herbicides into leaf tissue. Also, drought-stressed plants often grow slower due to decreased metabolism and less air exchange as plant close their stomates to conserve water.

For postemergence applications, the addition of the correct adjuvant system can help weed control operations under dry conditions. Some herbicide labels specifically list which adjuvant should be used under such conditions. In any case, it is best to be familiar with the label to optimize herbicide activity under any environmental condition.

Some believe that plant growth regulators (2,4-D, etc.) are not affected by drought conditions. Unfortunately, this is not the case. Under normal conditions 3 pt/acre of Pasturegard provides >95% control of dogfennel. In research plots last year, this same rate of Pasturegard provided <80% control under drought conditions. Once rainfall occurred and plants resumed normal growth, control returned to >95%.

The shortage of rainfall this year is similar to that of last year. However, we are already short of rainfall for the year, further complicating the drought condition compared to last year. Therefore, I expect that any herbicide applications in pastures will result in less than satisfactory results, especially compared to "normal" years.

If weeds are actively growing, herbicide applications will continue to work adequately. However, if weeds are wilting during the day and recovering overnight, an herbicide application should be delayed until rainfall has been received and weeds are actively growing.

Brent Sellers

Spring Blackberry Control

Blackberry often remains green throughout the winter and begins its new growth very early in the spring. In order to maximize early-season grazing, control of blackberry in the spring can be desirable. However, spring applications can be tricky and can fail if not done properly.

Blackberry is most sensitive to herbicides when blooming or late in the fall. This is because the plant is actively loading carbohydrate into the root system at these times. Therefore, the herbicide will enter the leaf and immediately be transported with the carbohydrate into the roots, where the herbicide control is most effective. However, blooming is a relatively short process that soon leads to fruiting. During fruit development, energy transport is shifted away from the root and is targeted at the fruit. Applying a herbicide at this stage will result in the product staying in the leaves and buds with very little of it ever finding its way to the root. An herbicide applied at fruiting will generally cause rapid leaf brown-out, but respouting from the root-stock will begin to occur within 2 or 3 months.

Another factor to be aware of is the overall weather condition during blooming. Dry weather causes the plant to grow more slowly. Therefore, drought will reduce the amount of carbohydrate flow into the root. If herbicides are applied during drought, they will not be quickly transported and the

leaf will die before the herbicide has time to move to the root system.

As stated previously, blackberry control in the spring can be tricky. It is important that you spray at bloom when there is adequate soil moisture. If conditions are dry, or plants are fruiting when you are prepared to spray, it is best to delay the application until the fall or poor control will result.

Jason Ferrell

Row Applied or Starter Fertilizer

Fertilizer applications were historically made in row for many years. Larger acreage and bigger equipment with many operations occurring at planting led farmers to do more broadcast applications of fertilizer which speeded up the planting operation. However, root systems of many of the crops that have been planted in wide rows never reach to the middles of rows and may never encounter the applied fertilizer. In many cases, if applied in row, as much as 1/3 less fertilizer than in broadcast application can be applied with better results than broadcasting the full rate. Growers need to consider the acreage and the cost difference of banding vs. broadcasting fertilizers and may be surprised at how much could be saved by row application of fertilizers. There are other studies that indicate that band applications may be even more effective than mentioned above. Equipment has gotten better for growers to band fertilizers and buggies are available to bring fertilizer to the field to auger it into banding units to keep labor to a minimum. Growers who want to try reducing rates should split fields where they broadcast normal rates of fertilizer and compare it to 1/2 to 2/3 rates applied in a band near the row. This would be the most cost effective on wide row crops that have a high fertilizer requirement (corn, cotton).

David Wright

Prepared by: J.M. Bennett, Chairman (jmbt@ufl.edu); ; J.A. Ferrell, Extension Agronomist (jaferrell@ifas.ufl.edu); J. Marois, Plant Pathology (jmarois@ufl.edu); Y.C. Newman, Extension Forage Specialist (ycnew@ufl.edu); B.A. Sellers, Extension Agronomist (sellersb@ifas.ufl.edu); D.L. Wright, Extension Agronomist (dlw@ifas.ufl.edu)
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