

AGRONOMY

UNIVERSITY OF
FLORIDA
IFAS EXTENSION

NOTES

January, 2004

DATES TO REMEMBER

Jan. 27	Agronomic Crops In-Service Training - Quincy AREC
Feb. 24-25	FL Weed Science Society Annual Meeting, Ft. Pierce
May 22	4 th Annual Perennial Peanut Field Day, Moultrie, GA
May 27	Corn Silage Field Day, Citra

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Bermudagrass Establishment

Most improved hybrid bermudagrasses can be established by planting dug sprigs from mid January through March. This is especially true for those that produce lots of rhizomes. The stargrasses which do not produce rhizomes and Coastcross-1 bermudagrass which produces very few rhizomes can be planted in the summer from tops. All of the bermudagrasses can be established by planting tops in the summer, but there may be some advantages for planting dug sprigs at the beginning of the growing season. Earlier planting may result in more complete coverage and more forage production during the establishment year. Since this is a cooler time of the year, heat damage (“scalding”) is avoided. There is usually less weed competition in the spring as compared to summer plantings. On the other hand, failure may result from a spring drought (April-May). This is especially true for peninsular Florida.

CGC

Cool Season Forages

Ryegrass, small grains, tall fescue, cool-season legumes, and mixtures of these forages may need extra attention in February.

Nitrogen - The cool season grasses will need additional nitrogen for sustained vigorous growth. Apply an additional 50 to 65 lb./A of N. Two hundred lb. of ammonium nitrate contains approximately 67 lb. of N. Ammonium sulphate is 21% nitrogen and 24% sulphur. Three hundred pounds per acre would apply 63 lb. of N. If possible, apply the N after a grazing cycle when the grass has been grazed down and apply later in the day when the dew has dried.

On flatwoods soil where ryegrass is commonly grown, nitrogen can be lost through the process of denitrification. This is the process, where under flooded conditions, certain bacteria convert nitrate to nitrogen gas and the nitrogen goes out of the soil into the air. Plants will turn a light yellow in color which is an indicator of nitrogen deficiency. This usually occurs as yellow spots in the pasture that have poor

growth. These spots will occur in depressions or swells where water accumulates and stands or where the soil stays completely saturated for several days.

Grazing Management - Cross fencing and rotational grazing (stocking) provide the opportunity to prevent overgrazing. Allow pastures to grow 6 to 10" tall and then graze. When the cool season forages have been grazed down to a 2 to 3" stubble height, the animals should be moved to a new pasture. Overgrazing slows the rate of recovery and reduces future growth. Cross fencing of a large pasture with an electric fence can provide the subdivisions needed for rotational grazing. Rotational grazing (stocking) promotes uniform grazing and maximum use of the forage. If acreage is limited or growth reduced, use the practice of “Limit Grazing”. Limit grazing is the practice of moving the cattle in and out of the cool season pasture each day. Allowing them to graze for two hours or less will conserve forage, yet permit the animals to obtain some protein and energy to supplement their diet.

CGC

Grass Tetany in Cattle

Grass tetany, sometimes called grass staggers or hypomagnesemia, can be a serious problem in Florida with cattle grazing small grain or ryegrass pastures. The problem is usually confined to lactating cows. The exact cause of the disease is unknown, although it is always associated with an imbalance in the mineral components of blood serum, especially reduced magnesium levels. In Florida, the disease is more severe when cattle are grazing young forage, particularly the first flush of growth during December and January. Once the forage becomes more mature, the likelihood of problems occurring is reduced. The disease is apt to appear under conditions of nutritional stress. Placing cattle on winter pasture directly after being on frosted or other low quality pasture may cause such a nutritional stress.

Feed mineral supplements that contain magnesium. Commercial mineral mixtures

containing 10-15% magnesium are available for feeding during periods of increased grass tetany probability. Cattle need to consume 6-12 ounces/head/day of this mineral.

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Liming Pastures

January and February may be an opportune time to lime pastures, if soil testing indicates that lime is needed. This is especially true for those areas that are to be renovated and replanted in the spring or summer since it provides an opportunity for the lime to be incorporated. Lime should be incorporated into the soil whenever possible since lime reacts with the soil with which it contacts. Surface applied lime neutralizes the soil acidity of the surface soil, but has little immediate effect on the soil pH below the top inch or so. Most pastures probably do not need to be limed. Tropical grasses in general do not require a high pH. Bahiagrass grows well at a pH of 5.0 to 5.5. The cool season legumes and grasses do require a higher pH and where these are grown, liming may be needed more frequently than is required on our permanent grass pastures. Also, bermudagrass hay fields where high rates of nitrogen fertilizer are applied may require more frequent liming. Do not apply lime to pastures unless it is needed as indicated by soil testing. To do so, will be a waste of lime and money.

Be aware that applying lime to a pasture sod, forms a thin layer of soil at the surface that has a high pH. The high pH at the soil surface may bring about volatilization of ammonia when ammonium fertilizers, such as urea-ammonium nitrate solutions, come in contact with it. Therefore, do not put out lime and nitrogen at the same time. For late winter- spring applications, apply the nitrogen first and allow enough time for a rain to move it into the soil before applying the lime.

CGC

Sources of Hay

The Florida Department of Agriculture and

Consumer Services maintains a Florida Hay Directory. Hay producers who have hay for sale are listed by county. You may obtain this information by going to DACS' Internet web site at <http://www.fl-ag.com/> or go directly to the hay directory at <http://www.florida-agriculture.com/hay/flahay.htm>

CGC

Use of Anhydrous Ammonia

Some hay producers and others like to use anhydrous ammonia as a source of nitrogen fertilizer. It is usually the least expensive form of nitrogen. Since it is a gas, special equipment is needed for application. Also, the gas may be lost to the atmosphere if not properly applied. For a complete discussion of the use of anhydrous ammonia, see the fact sheet SL178 "Anhydrous Ammonia as a Nitrogen Source for Florida Agricultural Crops" by G. Kidder. This fact sheet can be found at the internet site <http://edis.ifas.ufl.edu/SS314>.

CGC

New Peanut Growers

There may be interest in expanding peanuts production in 2004 to new farms and new growers since the quota program has ended and anyone can now grow the crop. Although prices are less than they were before the quota program ended, profits from growing the crop are possible if good yields are produced and production costs are reasonable. Before deciding whether or not to grow peanuts, marketing opportunities and plans should be determined, and budgets developed showing expected costs and returns. Land suitability and location must be considered. Equipment needs and sources should be determined. Consider other crops that will be grown, and be sure that needed crop rotations can be followed. Review the production practices that will likely be needed and become familiar with potential pest and other problems that may be encountered.

EBW

Soil Sampling for Peanut Fields

Soil samples should be taken during the winter to determine lime and fertilizer needs for peanuts. This is especially true for new or rented land where the liming or soil sampling history may not be known. Also fields that have grown crops fertilized with high rates of acid-forming nitrogen fertilizers should be sampled more frequently than more moderately fertilized fields. The target soil pH for peanuts is 6.0, with lime recommendations generally being made when the soil pH drops below 5.8. While peanuts can grow at lower soil pH levels, nodules formed by nitrogen-fixing bacteria are much more active at the proper pH and results in healthier plants. Calcium supplied by the lime enhances pod and kernel development and reduces pod rot. Also the chance for zinc toxicity is reduced by needed liming. Over liming is rarely a problem in Florida, but manganese deficiency symptoms may develop on some soils when the pH is above about 6.2 or 6.3.

EBW

Applying Fumigants for Nematode Control in Tobacco

Most Florida tobacco farmers apply Telone II for nematode control, and this is the last and perhaps the most important procedure to protect the crop from nematodes until the final harvest which will perhaps be in August. Proper crop rotation and resistant varieties are also important components of the nematode control program and will complement the chemical control program. Telone II may be applied in the row or broadcast, and more growers are selecting the broadcast method as they use mechanical harvesters and high-boy sprayers, thus eliminating the need for spray or harvest middles. Broadcasting the fumigant helps insure against the mixing of untreated soil with that in the treated row, which can occur with row fumigation when there is a subsequent movement of soil by cultivation or other operations. There are reports of herbicides being broadcast incorporated after row fumigation, and is a practice that should be

discouraged because of the mixing of untreated soil with the treated soil. Only about a foot wide area will be treated with row fumigation and since rows are usually about four feet apart, the remaining three feet between rows is not treated and soil will be mixed with the treated portion during the broadcast incorporation of the herbicide. If row fumigation is used, let that operation be the last one before transplanting. The herbicide should be broadcast incorporated prior to row fumigation. It is important to properly apply the fumigant, whether in the row or broadcast. The soil should be firm and moist, but not wet, in order for the fumigant to move freely from the injection point. The fumigant should be injected to a depth of about 12-14 inches. However be sure to firm the soil above the injection point to eliminate the “chimney effect” when fumigating or else there will be little lateral movement of the chemical as much of it will escape up the “chimney” caused by the shank of the injector. Some broadcast applicators compact the soil just above the injector, but if not be sure to firm or pack the soil surface during or after fumigation. A light irrigation immediately after fumigation will help seal the chemical in the soil.

EBW

Contamination of Tobacco Plant Beds

Fumigants used to treat tobacco plant beds are generally very effective in control of weeds, diseases, and nematodes that are present in the soil at the time of fumigation. However the fumigants do not provide any residual control of pests that may enter the beds after treatment. While weed seed may blow onto the treated beds when the covers are removed, the most common means of infesting the treated soil is through introducing soil from untreated areas. Water washing across the beds during heavy rains can bring in weed seed as well as diseases such as black shank to the beds. To prevent such contamination, ditches around the beds would be helpful in keeping the water and untreated soil away from the beds. Untreated soil can also get onto the beds from workers’ shoes or other means when covers are being removed from the beds for spraying, clipping, or fertilizing. Care

should be taken to prevent this method of contamination. A likely method of contamination is from soil that comes off tractor tires or equipment during clipping. For example if a tractor that had been used to prepare for transplanting in a field that is contaminated with black shank is then used during clipping, soil could then drop onto the plant bed. If the plants are to be transplanted in the same black shank infested field, then there would be no problem. But if the plants are of a black shank susceptible variety and are to be transplanted in a black shank free field, then the small amount of soil that dropped off the tires onto the bed could be the source of a disease outbreak and considerable losses. To reduce the chance of such contamination, tractors and other equipment should have any soil adhering to them removed before clipping the beds. Plant producers that expect to sell plants to other growers, should routinely take precautions to prevent the spread of black shank to unsuspecting customers. Black

shank spread by the soil from plant beds might not be evident until several weeks after transplanting and might not affect many plants, but the introduction of the disease to a new farm increases future problems for the farmer.

EBW

Tobacco Quota for 2004

The basic flue-cured tobacco quota for 2004 was reduced by about 11 percent from the 2003 level. The effective quota, which takes into account any under or over marketing in 2003 for individual farms, may be more or less than the basic quota. The reduction was expected to be greater, but last minute sales of loan stocks provided relief. The average support price for 2004 will be \$1.69 per pound (up 2.7 cents from 2003), and the no-net-cost payment will be doubled to 10 cents per pound, with the grower paying half and the buyer the other half. The no-net-cost payment is deducted at the time of the sale and the funds are used to insure that loan losses are not paid by the government. Farmers vote every three years on the continuation of the program, and such a vote is now underway.

EBW

The use of trade names does not constitute a guarantee or warrant of products named and does not signify approval to the exclusion of similar products.

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