UNIVERSITY OF FLORIDA

AGRONOMY NOTES

January 2003

EXTENSION

Institute of Food and Agricultural Sciences

DATES TO REMEMBER

January 22	Agronomic Crops In-Service Training, Quincy
January 27-30	Southern Weed Sci. Society Annual Meeting, Houstin, TX
January 30	Corn Silage Production Meeting, Branford
January 31	Corn Silage Production Meeting, Okeechobee
February 2-4	ASA Southern Branch Meetings, Mobile, AL
February 3	Flue-Cured Tobacco Stabilization District Meeting, Live Oak
February 9-12	Weed Science Society of America Meetings, Jacksonville

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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

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

Nitrogen-Fixing Bacteria for Peanuts

When assigning the peanut base to a farm, growers should consider if inoculation with nitrogen-fixing bacteria might be needed. There have been few recent instances of inoculation failures on Florida peanuts because the bacteria apparently survive in the soil in a normal three to four year peanut rotation, and also on certain other legumes, such as beggarweeds, alyceclover, hairy indigo, and cowpeas. Partridge pea, a common legume in some wooded areas, also utilize the same strain of bacteria in the nitrogen-fixing process. If the peanut base is to be moved to a new farm, be sure to check if there were some of the above legumes growing on the land. If none had grown for several years, an inoculant could be applied at planting to insure good nodulation.

EBW

Planting Dates for Green Peanuts

Over the past few years, peanuts for the fresh market have been planted south of the normal production areas in Florida. These peanuts are being planted at times that allow harvest during a market window when supplies of green peanuts are limited or non-existent, which is primarily during the late

fall through the spring. Prices are naturally higher during these periods, but the risk of cold weather or frost during the growing period is also greater. Even if frost is not a problem, cold weather may greatly slow the growth of peanuts enough that targeted market windows are missed. There is little information available on planting dates in such areas because the appropriate studies have not been conducted. In the absence of such data, it is suggested that peanuts be planted so that they would be expected to mature before the date of the average first freeze of the winter, and planted after the last freeze of the winter. The grower should also study weather records in the area of planned production to learn the average temperature patterns. If the daily low temperatures are frequently in the 30's to the low 50's, growth and development may be slow even if the daily highs are in the 70's and 80's. Naturally the prospects for price will dictate the amount of risk that a grower will accept.

EBW

Valencia Peanut Varieties

Many producers of green peanuts plant part or all of their acreage to the valencia varieties because of early maturity, consumer demand, and the relative ease of hand picking because the nuts are clustered around the tap root. Several varieties, such as New Mexico Valencia A, New Mexico Valencia C, McRan, and Georgia Red, have been the valencia varieties of choice and have been satisfactory. A new variety, Georgia Valencia, is now available and has performed well in Florida tests. Pod yields of Georgia Valencia in the 2001 test were above, though not always statistically, those of the other valencia varieties. Further information will be available as more experience is obtained with the variety. If supplies of Georgia Valencia are not adequate to meet demand, the other varieties should be satisfactory.

EBW

Actigard for Tobacco Plant Beds and Greenhouses

A request is being made to the Florida Department of Agriculture for a Special Local Need (SLN or state) label for Actigard use on plant beds and greenhouses to reduce the probability of tomato spotted wilt virus in the field. The other flue-cured tobacco producing states will also make similar requests. If approved, Actigard will have a third-party registration, which in this case will be by the Flue-Cured Tobacco Cooperative Stabilization Corporation, a farmer-owned cooperative. This would probably be the first use of a third party registration for an agronomic crop in Florida, although they are used in vegetable crops. If a farmer wishes to use Actigard for control of tomato spotted wilt virus, he would have to obtain a label from the cooperative before using the material. More details will be available if the SLN request is approved.

EBW

Tobacco Quota for 2003

The USDA has announced that the 2003 national flue-cured tobacco basic quota will be 526.3 million pounds, a 9.5 percent decrease from 2002. The effective quota, which includes under- and over-marketings and will vary by farm, will be about 540 million pounds, a 6 percent decrease from 2002. The price support level will be $1.663 in 2003, up 0.7 cents per pound from 2002. The no-net-cost assessment will be 5 cents

per pound with half paid by the grower and the other half paid by the purchaser. The quota determination was based on a formula that included a purchase intentions by domestic manufacturers of 283.3 million pounds, a 3-year average export of 254.7 million pounds, and negative 11.7 million pounds for the reserve adjustment. The Secretary of Agriculture did not make a discretionary adjustment.

EBW

Managing Wild Radish in Wheat and Other Small Grains

Wild radish *Raphanus raphanistrum* (often called wild mustard or wild turnip) is a weed found throughout the state of Florida, but is especially prevalent in the north-central region and the panhandle. It is one of the worst weedy problems in small grain production. Wild radish is considered a winter annual species, germinating from seed in the fall and setting seed in the spring.

Wild radish is a heavy competitor for nitrogen, reducing production through yield and test weight. This occurs during stem elongation or bolting, when both the small grain plant and the wild radish begins to form the flower/seed head. Another serious problem that is incurred is contamination of the harvested grain. The seed pod of wild radish does not fracture or rupture like a true mustard, rather the seed pod breaks into small segments. These segments are very close to the size of wheat and are very difficult to separate in a normal cleaning process. Therefore, losses due to dockage are commonly observed with wild radish contaminated grain.

Wild radish control begins with proper identification and early detection. The cotyledon or 'seed leaves' of wild radish are heart-shaped while the true leaves are lanceolate with deep indentations or segments. The leaves are often hairy and have a bristly feel to the touch. Wild radish will form a rosette of leaves in the fall and winter months and elongate a flower stalk in the late winter/spring, about the same time as wheat. The flowers are pale yellow with four petals/flower and on occasion maybe white in color.

In wheat there are several herbicides that will provide control of wild radish. The most commonly used are the phenoxy materials, primarily 2,4-D. This is often put out with liquid nitrogen before jointing. 2,4-D does a good job on radish but may cause injury to the small grain if applied too close to or during jointing. MCPA is another phenoxy herbicide that provides good control of smaller wild radish plants but does not have the control on larger plants as compared to 2,4-D. MCPA can be used earlier than 2,4-D (3 tiller vs. 4 tiller for 2,4-D) and is considered to be less injurious to the small grain plant. Express (tribenuron) and Harmony Extra (tribenuron + thifensulfuron) can also be used in wheat and will provide good control of wild radish. Be sure to use a surfactant (non-ionic at 0.25%) with these products. Express is not as active as Harmony Extra and should be mixed with MCPA for control of larger plants. The tank-mix of 1/6 oz. Express + ½ pt. MCPA has provided excellent control of wild radish with minimal crop damage. These materials can be applied from 2 tiller through the 2nd node of jointing and maybe mixed with liquid nitrogen. In rye and oats, wild radish control is limited to the phenoxy (2,4-D, MCPA) materials. Dicamba or dicamba + 2,4-D (WeedMaster) may be used for wild radish control in small grains for temporary winter grazing, but are generally not recommended for use in small grains

grown for grain yield due to problems with seed fill. Do not use Express or Harmony Extra on small grains for forage/grazing. Be sure to follow grazing restrictions as listed on the products containing 2,4-D or dicamba.

GEM

Impact of Farm Bill on Row Crops

The language and final interpretation of the farm bill is not complete and has left many farmers with too little information to make good decisions about which crops to plant for the coming year. Cotton and peanuts look like a toss up for profit potential. Wheat and soybeans look very competitive at current market price and cost of production is much lower than for either cotton or peanut. However, grain production infrastructure has deteriorated over the past 10 years with fewer grain elevators, combines, and custom operators. Some shift in acreage is expected for the coming year due to the adverse harvest season this fall.

DLW

Soil Test Depth For Long Term Strip Till and No-till Fields

We normally recommend using two depths of soil tests for fields that have not had deep tillage for a number of years. A soil sample that is from the top 2 inches to make sure pH and calcium levels are not too high or low and a normal 6 inch deep sample to determine total amount so of nutrients available in the root zone. We saw several fields of strip tilled peanuts this year that had severe bronzing due to manganese deficiency because the pH in the top 2 inches was 7 or higher while the normal 6 inch soil sample showed everything to be in the normal range. Some of these high pH fields had a lower yield by as much as 1500 lbs./A. This condition could have been over come by use of sulfur materials to lower the surface pH or by use of manganese sulfate as a foliar spray on peanuts. Other crops need to be monitored as well since manganese deficiencies are very common on row crops in Florida.

DLW

Pesticide Update

Syngenta received tolerances for combined residues of the insecticide thiamethoxam in or on field corn grain/forage/stover (0.02/0.10/0.05 ppm), sweet corn kernal plus cob with husk removed/forage/stover (0.02/0.10/0.05 ppm), and pop corn grain/forage/stover (0.02/0.10/0.05 ppm). (*Federal Register*, 11/1/02).

MAM

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