

AGRONOMY

UNIVERSITY OF
FLORIDA
IFAS EXTENSION

NOTES

July, 2003

DATES TO REMEMBER

July 7	Perennial Peanut Field Day - Moultrie, GA
July 8	Agronomy Weed Science Field Day (Deep South Weed Tour) - Jay Research Farm
Sept. 3-4	17 th Annual Georgia Peanut Tour - Macon, GA
Sept. 5	Row Crop Field Day - Jay Research Farm
Aug. 28	Peanut Field Day - Marianna

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Late Nitrogen (N) Applications On Corn

There are always questions about applying additional N to corn late in the season after high rainfall periods. Our research has shown that there is little value in applying N after tasseling. If corn is N deficient until the tassel period, yield will be reduced no matter what rate is applied after this time. Late N has been shown to increase protein content of the grain but is not an economical way to increase protein. If corn is dark green at the tassel stage, no yield increase is expected from additional applications even though the corn crop can take up an additional 100-150 lbs/A during this time until maturity. Timing of N during the vegetative period is the key to high silage or grain yields.

DLW

The Changing Cotton Industry

The cotton industry has had several major events that have changed the way cotton is grown in the last several years. The boll weevil eradication program began about 20 years ago. The program has been completed for several years in the SE Coastal Plain including Florida, Georgia, Alabama, North and South Carolina and Virginia and in some other regions covering about 5.5 million acres. No insecticide applications are made for boll weevils in this area now where 10 to 15 applications were made at one time. Active programs cover most of the other 10 million acres of U.S. cotton at the current time. Texas, the largest cotton growing state, estimates that the eradication program has increased their yield by 20%. The benefits of being weevil free through the boll weevil eradication program makes good use of another major technology, the development of Bt and other genetically transformed traits of cotton. Non-weevil free areas cannot take advantage of the Bt technology since those areas have to be sprayed with insecticides to control the weevil. In weevil free areas cotton may not have to be sprayed with insecticides if Bt genetic technology protects the crop from the boll worm and bud worm. The genetic technology revolution has become the

fastest technology adoption in farming in the past decade with about 80% of the cotton grown in the U.S. being transgenic. This has brought about an estimated \$20 per acre increase in profits across the U.S. cotton belt. Another major impact to the U.S. cotton industry has been the closing of mills as they move to other countries to take advantage of cheaper labor. About 100 mills closed in the U.S. in 2002 resulting in much less U.S. cotton being used at home. Exports have been increasing in recent years and will have to continue to do so to offset the decline in domestic use.

DLW

Production and Prices in U.S. Cotton

Cotton was grown in the colonies every year after 1621. By the early 1700's, 20% of the clothes worn by the colonist were made from domestic cotton. Cotton production increased 24 fold within 7 years after the invention of the cotton gin by Whitney and 59 fold by 1810. Production continued to increase until 1861 with nearly 4 million bales of cotton being produced with an average price of about 11 cents /lb to less than 1/2 million bales by 1863 with an average price of 53cents /lb. This price was not matched again until 1976. Production of cotton continued to rise until about 1940. However, the depression and record production of about 17 million bales in 1931 pushed the average price /lb to less than 6 cents/lb. Record supplies kept prices to less than 10 cents/lb during the 30's. WWII brought less production and increased prices to about 40 cents/lb. Competition from man made fibers during the 60's and 70's depressed prices and therefore production. In recent years, the U.S. has produced about 17-19 million bales /year on about 14-15 million acres. The price has varied from 30 cents/lb to over a dollar /lb. With mill closings, more of the cotton has to be exported to maintain price. Florida has produced from 100,000 to 120,000 acres of cotton since the mid 90's.

DLW

Hairy Indigo an Oldy But Goodie

Hairy indigo (*Indigofera hirsuta* L.) is a summer annual legume that has been used by Florida ranchers for many years. It is a true annual that makes seed in the fall and is killed by the first hard frost. If not grazed, plants may reach a height of 4 to 7 feet. Widely spaced plants may branch to fill in spaces up to 5 feet in diameter. The stems become very woody as the plant matures. Stems and leaves are covered with short, bristle-like hairs. There have been reports that these hairs have caused irritation of the grazing animal's skin when the animals were grazing for extended periods of time and when heavy dews were present. Hairy indigo produces 30 to 70 percent hard seed. These seed may drop to the ground, but do not germinate during the year they are produced. They will germinate in future years when dormancy is broken, thus insuring a good volunteer stand. For this reason some vegetable field crop growers consider hairy indigo a weed! Hairy indigo is adapted to high dry upland sands, but will also grow on well drained flatwoods.

The leaves of hairy indigo are very high in protein and are highly digestible. Animals may take one or two days to learn to eat hairy indigo. In a creep grazing study calves learned to eat hairy indigo and gained 1.80 pounds per day where as on the control treatment (bahiagrass alone) they gained 1.50 pounds per day. Some producers stockpile hairy indigo for use in the fall. Cows will lick the leaves off the plants leaving the course woody stems.

"PRODUCTION RECOMMENDATIONS FOR FLORIDA"

1. Plant on well-drained soils between March 15 and June 15.
2. Graze grass as close as possible (less than 3 inches) if planting in perennial grass sod.
3. Drill in 5 to 10 pounds of seed per acre or broadcast 10 to 15 pounds per acre with a prepared seedbed and 15 pounds per acre,

broadcast in established pasture. Plant seed no more than ½ inch deep.

4. Fertilizer application should be based on soil tests, the producer's knowledge of his field and pasture fertility, and his production objectives. No nitrogen should be applied.
5. Lime to a target pH of 6.0.
6. Graze when the crop reaches 12 to 18 inches in height.
7. Cut for hay when the crop is 2 feet to 3 feet in height, leaving a 3-inch stubble.
8. Practice rotational grazing.
9. If you wish to obtain a harvestable seed crop, remove the cattle two weeks prior to flower initiation."

(Source Circular S-318, "Hairy Indigo a Summer Legume for Florida" by D. D. Baltensperger and others)

CGC

Hay and Pasture Insects

Be on the look out for fall armyworms and grass loopers. Fertilized pastures and hay fields seem to attract the fall armyworm moth. They especially like bermudagrass. Populations reach a peak in late July, August and September. A large congregation of cattle egrets in a field fertilized for fall hay production may indicate an infestation of fall armyworms.

Spittlebugs build up in fields where grass has been allowed to accumulate throughout the summer. Circular spots where the grass is dying back indicates spittlebug damage. Fields with a severe spittlebug infestation should be grazed or harvested for hay or silage. This will open the field up and allow sunlight to desiccate the young nymphs. If the adults are emerging or have emerged at the time when the field is harvested, then they can be killed with an application of

insecticide. Burning of fields in the winter helps in spittlebug control. Susceptible plants include digitgrass (Pangola), limpograsses, and bermudagrasses. Chinch bugs have been a problem on Callide Rhodesgrass. Chinch bug damage usually occurs on the higher, dryer ground. Populations should diminish in September.

CGC

Mowing Pastures

Late July - early August may be a good time to mow pastures. Usually by this time, dogfennels are large but have not made seed. Mowing them at this time may reduce their regrowth. Also, pastures will have been spot grazed and mowing the tops off of accumulated bahiagrass will allow new growth to develop that will be more palatable and nutritious. For the commercial cattle operation, mowing should be avoided if possible for economic reasons. In some situations, use of a herbicide for weed control may be called for.

CGC.

Summer Annual Grasses/Grazing Management

Pearlmillet and the sorghum x sudangrass hybrids can add quantity and quality to a summer forage program. These crops, when planted on well drained, fertile soils and with proper fertilization and management, can furnish grazing for 2 or more cows per acre from June into September. Forage quality declines rapidly as plants mature so grazing management should be designed to keep the plants in a young vegetative state. Rotational grazing can be used with either grass. Allow the plants to grow to a height of 25 to 30 inches and then graze down to 6 to 8 inches. Continuous grazing can be used on pearl millet, if the stocking rate can be adjusted to keep the forage at 10 to 12 inches. Close continuous grazing reduces the stand and lowers subsequent production. The sorghum x sudangrass hybrids should not be grazed continuously because of the

danger of prussic acid poisoning when young forage is consumed. This crop should not be grazed before plants reach 30 inches.

CGC

Vegetative Propagation of Forage Grasses

In order to obtain good stands, Coastal bermudagrass, Tifton 85, stargrasses, and other vegetatively propagated grasses require special attention. When preparing a seedbed, two factors are important: 1) dug sprigs or tops should be planted in moist soil and 2) the seedbed should be free of weeds.

There are four common reasons for stand failures: 1) planting in fields that have stands of other grasses (common bermudagrass), 2) using dried out sprigs or tops, 3) prolonged drought after planting, and 4) grazing before the grass is established. The planting material should be planted on a clean, moist seedbed that is free of other growing grasses. When planting tops, use mature grass 8 to 10 weeks old. Use fresh planting material with at least three nodes or joints, Plant sprigs or tops the same day they are harvested. Cover the planting material immediately or within 15 minutes after dropping on the soil surface. Experience has shown that bermudagrass tops will dry out quicker than bermudagrass sprigs and quicker than tops of Pangola digitgrass. Packing or firming the soil around the planting material after it has been distributed and covered is very critical in maintaining adequate soil moisture in the soil surface and thus preventing the planting material from drying out and dying. Grass planted in the summer usually requires 90 days or more before it is established well enough for any type of harvest to be taken. If less than 100% stand establishment has occurred, caution should be exercised during the first year after planting to allow for complete stand development. In north Florida, try to complete summer plantings by August 15.

CGC

Barn Rot of Tobacco

Despite a recent break in the rain, forecasts indicate that above normal rain may continue over the next few weeks. If so, it can be expected that barn rot problems will not go away. The upper leaves are generally not as susceptible to barn rot as the lower leaves because the water content of the leaves is less and the removal of the lower leaves allows more air circulation under the remaining leaves. However frequent rain and leaf damage due to wind, disease, insects, and harvesting can promote the disease. Barn rot is caused by bacteria that enter wounds to the leaf, especially under wet conditions and the temperatures and humidity used for leaf yellowing. To reduce the chances for barn rot, harvest tobacco only when it is dry and avoid areas in the field where hollow stalk, soft rot, jelly rot (the field form of the disease) is present. Harvest only mature tobacco so that the yellowing period can be kept as short as possible. Make sure that the racks or boxes are uniformly packed and that all air goes through the tobacco and not between the boxes or racks. It may help to run the fans with little or no heat for a few hours to help dry the leaf surface before the yellowing stage is started. Inspect the tobacco when unloading the barns and discard any tobacco that may have rotted.

EBW

Pesticide Potpourri

Based on a letter dated February 13, 2003, the Federal Aviation Administration, in conjunction with the Department of Homeland Security, has approved the suggestion of the National Agricultural Aviation Association that “cut-off” switches be installed and hidden on agricultural aircraft. Additionally, the FAA has determined that these installations are minor, and need be noted only in maintenance records which are filed in accordance with 14 CFR 43.9(a). Questions can be directed to Wayne Fry, at (202) 493-5228. (*Agricultural Aviation*, May/June 2003).

MAM

Pesticide Registrations and Actions

Based on work by IR-4, a tolerance has been established for residues of the insecticide clothianidin in or on field/sweet/pop corn grain/stover/forage (0.01/0.10/0.10 ppm). The regulation became effective May 30, 2003. (*Federal Register*, 5/30/03).

GB34 Biological Fungicide (*Bacillus pumilis* GB34) has been approved for seed treatment of soybean for root diseases caused by *Rhizoctonia* spp. and *Fusarium* spp. The EPA registration number is 7501-192. (*Federal Register*, 5/30/03).

MAM

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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