



Santa Rosa County Ag.Sheet
 P O Box 37, 5259 Booker Lane
 Jay Florida 32565
 850-675-6654
 850-675-8590 FAX

JUNE, 2006

Dates to Remember

- Core, Ornamental & Turf Pesticide Exams.....May 31, 2006
Milton Extension Office (Call 623-3868 to register.) 8:00 a.m
- Vegetable Field Day.....June 1, 2006
North Florida Research and Education Center (NFREC) - Quincy, FL
(Registration is free before May 24, 2006 and \$5 after - online at
<http://nfrec.ifas.ufl.edu/vfd.htm> or call 875-7100.)
- Perennial Peanut Producers Field Day.....June 3, 2006
UF/Milton Campus – Bldg. 4900, Milton FL 8:00 a.m. – 1:00 p.m.
- Northwest Florida Cotton Scout School.....June 6, 2006
Jay Community Center, Jay, FL
(Flyer enclosed)
- 12th Annual Gulf Coast Turfgrass Expo & Field Day.....June 21, 2006
West Florida Research & Education Center-Jay
- Extension Row Crops & Farm Field Day.....August 3, 2006
West Florida Research & Education Center-Jay

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Beef Cattle Management Calendar

May

- Remove bulls.
- Harvest hay from cool season crops.
- Plant warm season perennial pastures.
- Fertilize warm season pastures.
- Check mineral feeder.
- Check for spittlebugs and treat if necessary.
- Apply spot-on agents for grub and louse control.
- Re-implant calves with growth stimulant at 90-120 days, when you have herd penned.
- Dispose of dead animals properly.
- Update market information and refine marketing plans.
- Remove bulls May 21 to end calving season March 1.

June

- Last date for planting sorghum.
- Check mineral feeder, use at least 8% phosphorus in mineral and not over 22 to 1 calcium to phosphorus ratio.
- Check pastures and hay field for spittlebugs, mole crickets, and army worms. Treat if necessary; best month for molecricket control.
- Check dust bags.
- Watch for evidence of pinkeye and treat.
- Utilize available veterinary services and diagnostic laboratories.
- Get heifers vaccinated for brucellosis if not already done.
- Pregnancy check cows.
- Update market information and plans.
- Make first cutting of hay.
- Put bulls out June 1 for calves starting March 11.
- Reimplant calves at 90 to 120 days with growth stimulant.

Replanting Cotton

The drought of April and early May meant that some cotton was planted in harsh conditions, including dry soils and heavy clods. Replanting may be slightly higher than normal, but growers should not jump the gun.

Replant decision can make even seasoned growers and advisors doubt themselves. Such situations involve the frustrations of an unsatisfactory first attempt, added expense, and future uncertainties. There is stress. There is urgency.

The logical starting point is to assess the existing stand in terms of plant number, skips and general health. A viable plant every 12 to 15 inches is usually sufficient for normal yields. Stand uniformity is important. Fairly consistent stands that have at least 10,000 to 15,000 plants per acre are often adequate, especially in environments with long growing seasons. As numbers of skips greater than 25 or 30 inches increase, so does incentive to replant. Where earliness is critical, perhaps more plants are required and fewer skips can be tolerated.

In addition to counting plants, evaluating seedlings for health and vigor is also important. Roots and stems should be examined for lesions and darkened areas indicative of seedling disease, and for other abnormalities such as root pruning. Check stems, foliage, and bud tissues for mechanical and chemical injury. Mechanical damage can be caused by insects, sand, wind, and hail; chemical damage by herbicides, insecticides, nematicides, and fertilizer.

Keep in mind that any mechanical injury that cuts the stem off below the cotyledon node effectively kills the plant because there are no buds beneath that point to regenerate growth. Chemical injury on the cotyledons or first true leaf may be inconsequential IF new growth displays strong, healthy color. Despite early problems, the appearance of normal, vigorous roots, stems, and foliage give cause to believe that the plants have “turned the corner” and are on the road to recovery. With healthy roots and slick, green emerging leaves comes confidence to keep a stand with a reasonable density.

Prevailing weather and the calendar must also be considered. A grower may keep a sparse, substandard stand if sustained dry weather casts doubt upon the likelihood of success the second time around. Irrigation makes these decisions easier. Tolerance for marginal population should also grow as the date gets later. Replanting a questionable stand may be a reasonable choice in mid-May, but unwise as it gets later and later in the month.

Should yield goal influence the decision? As a general rule, no. Research and experience indicate that a wide range of populations can make comparable yield. As stated earlier, even densities down to 10,000 plants per acre are often adequate for normal yield.

If counting and looking and scratching and thinking and thinking some more still leaves the issue unsettled, apply the rule of thumb: **WHEN IN DOUBT, DON'T REPLANT.** In ultra narrow row cotton (row spacing of 10 inches or less), stand density is so critical that a shortage cannot be tolerated. Stand establishment is absolutely critical to weed control, canopy height control, crop maturity and harvest-ability. If in doubt in UNR cotton, plant more seed!

And if you replant, how should you proceed? There are many ways. Each field has to be handled according to the problems present. Often, the best approach is to do as little as possible – to replant on the existing bed or tilled strip with little or no soil disturbance. This is particularly true where soil moisture is limiting. Believe it or not, you can plant new seed right on top of existing plants, but of course, that creates the challenge of a stand of varying age. Conversely, if a stand has been lost to seedling disease, aggressive tillage and an in-furrow fungicide may be needed.

If chemical injury has occurred, you must consider the persistence of the compound involved. Some products may have been sufficiently degraded, diluted or dissipated so as not to pose a threat. Sometimes, tillage is warranted. Sometimes a field must be abandoned.

Tillage is the best means to destroy an old stand. Herbicides are less effective. Even non-selective products such as glyphosate and paraquat are erratic, especially if the crop has several true leaves. But of the two, paraquat is slightly more effective in suppressing or killing young seedlings. [Ignite is superior to either product, except, of course, for Liberty Link cotton varieties.] Remember, the many glyphosate products have zero effect on Roundup Ready cotton. (*Source: Brown, Georgia Cotton, May 2006*)

Pre-emergence Herbicides Used “Non-Traditionally” For Cotton Weed Management.

Pre-emergence (before crop emergence) herbicides have been around for a long time. These products have traditionally been applied to the soil surface immediately after planting. Diuron (Karmex, etc.) has been used in cotton since the early 1950’s. Several other pre-emergence herbicides have been used in cotton for well over 30 years. These products still work and most of them are still available. Fluometuron (Cotoran, etc.) was once used on greater than 80 percent of the cotton grown in Alabama. We have reduced our reliance on these products due to the development of significant post-emergence weed control options. Obviously, the greatest of these post-emergence options is Roundup Ready technology.

Over 90+ percent of our cotton crop in Alabama and the Southeastern U.S. is grown in a RR variety. Is there a place for these older pre-emergence herbicides in our current system? I think the answer is YES. Recent developments in herbicide resistant weeds lead me to believe that these older products will become more valuable in the coming years. Part of the reason for this is the fact that many agricultural chemical companies are not investing in traditional herbicide discovery programs like they did in previous years. Since new herbicides for cotton would take several years to bring to market, the pressure from RR technology discourages companies from making large investments in new herbicide discoveries.

How will or should these older, soil-applied pre-emergence herbicides be used, keeping in mind that economic pressures are forcing farmers to cover more acres quicker than ever before? First, we should be thinking of using these products in a different time frame than the traditional, behind the planter method. Some treatments can be applied with drop nozzles between the cotton rows without risk of significant crop injury.

Fluometuron can be mixed with glyphosate, MSMA, or Staple and applied as an early post-emergence directed treatment to 3 to 4 leaf Roundup Ready cotton. Because fluometuron does not cause significant foliar injury to cotton, these treatments can be applied more liberally than other pre-emergence herbicides like prometryn (Caparol, etc.) or diuron that do have significant foliar activity and should be directed to the base of cotton that is at least 10 inches tall.

Metolachlor (Dual Magnum, etc.) has pre-emergence activity on a number of annual grasses, pigweed, and yellow nutsedge. Most soils in the Southeastern U.S. are too sandy to allow the pre-emergence use of metolachlor behind the planter. Stand loss will usually result from using metolachlor pre-emergence. However, adding Dual Magnum to glyphosate (sold as Sequence by Syngenta) and applying this mixture over-the-top of RR cotton in the 2 to 4 leaf stage will provide foliar weed control while still providing preemergence activity. Prometryn plus Envoke (sold in mix under the trade name Suprend) can be post-directed to cotton that is 8 to 10 inches tall and provides foliar as well as significant pre-emergence activity after application. Likewise, diuron or fluometuron plus Envoke can be post-directed to cotton that is 8 to 10 inches. Some other herbicides that have significant soil-residual activity include linuron (sold as Linex and as Layby Pro in combination with diuron), and Valor. These products can severely injure cotton if not applied properly. Cotton a minimum of 16 inches tall is needed for Linex or Valor applications. Glyphosate or MSMA is usually included in mixture with these materials for broad-spectrum foliar weed control.

Let me say that no pre-emergence herbicide will provide significant residual activity unless rainfall or overhead sprinkler irrigation is received within a 7 to 10 day window after application. Generally, in RR cotton, an early (1-2 leaf) application of glyphosate should be applied prior to the Layby Pro or Valor mixtures mentioned above. This will hopefully kill the small emerged grasses and broadleaf weeds before the residuals are applied.

Source: M. Patterson, AL Cotton Picksack Newsletter, May 2006

Commodity Crop Market Update, May 2006.

The cotton market has been in a slump the last few weeks, and it hasn't been because of too much production or not enough consumption. In fact, there is plenty of consumption, world demand is strong and the experts expect that China by itself will use over 46 million bales of the 05/06 crop and about 50 the next year. There isn't a surge in production expected either. World stocks are forecast to fall about 10 million bales over the next 2 years. The fundamentals of the cotton market are looking pretty bullish to me. The problem - low prices - in the cotton market has been a product of technical trading. About half the business done on the futures market is transacted between people who sell cotton they don't have to others who buy cotton they don't want. These speculators don't care which way the market goes, so long as it goes somewhere. Lately, they have been pushing it down. I expect they will push it up before long. Don't be in a hurry to price your 06 crop just yet.

Source: B. Goodman, AL Cotton Picksack Newsletter, May 2006

Nitrogen Prices and Use of Legumes

For years commercial nitrogen prices were relatively cheap and many growers stopped using legumes and manure to supplying nitrogen to subsequent crops. However, this is changing since higher energy cost has led to an increase in the cost of nitrogen fertilizers. Growers need to carefully consider legume crops that can be used during the off season or cash crops that can supply nitrogen. Crops that fix nitrogen and have been widely used in Florida as a cash or cover crop are: red clover-110 lbs N/A, white clover-100 lbs N/A, cowpeas- 90 lbs N/A, vetch- 80 lbs N/A, soybeans- 60 lbs N/A, peanuts- 40 lbs N/A, and green beans- 40 lbs N/A. The actual amount fixed will depend on environmental and soil conditions and length of growing season. Soybeans, green beans and field peas can be planted late in the season (August-September) and frost may kill them or they may be harvested for grain if planted early enough. Clovers and vetch can be planted in the fall after harvest of most crops and used for cover crops or grazing.

Source: D. Wright, IFAS Extension Agronomy Notes, May 2006

Early Season Cotton Pests

Thrips: A preventative insecticide is used in most fields at planting to control thrips. However, dry weather can reduce insecticide uptake by the plant resulting in crop damage. Scout for thrips and thrips damage until plants reach the 5-leaf stage and are growing rapidly. If plants show thrips injury and there are 2-3 or more thrips per plant, treatment with a foliar insecticide is usually justified.

Cutworms: These are sporadic pests that most often cause damage in reduced tillage fields that were not burned down in a timely manner. Cutworm larvae may cut off cotton plants from the time they emerge to about the 2 to 3 true leaf stage. A single larva may cut off several consecutive plants in a row. If damage is found, check the soil around the bases of cut plants. Usually the larvae are no more than ½ inch below the soil surface within 6 to 8 inches of the row.

Grasshoppers: These are potential early season pests that tend to be more of a problem following a dry winter and spring like this year. Grasshoppers will feed on foliage and the main stem of seedlings. Feeding on the stem resembles cutworm damage, but often grasshoppers will not completely chew through the stem. This weakens the stem and the plants will fall over and either die or be nonproductive. Like cutworms, grasshoppers are more of a problem in reduced tillage fields. The reason is because grasshoppers overwinter in egg cases deposited in the soil and there is little mechanical mortality of these egg cases in reduced tillage systems. Immature grasshoppers will emerge over an extended period. They often build up on weeds and grass on field borders. So, when the cotton comes up, they move in to feed on the tender green plants. Both adults and nymphs will feed on seedling cotton. Nymphs are relatively easy to control with insecticides, however the adults can be more difficult to control. High rates of pyrethroids have proven to be a good option when targeting adults. Treatment is suggested when damage is occurring, grasshoppers are present, and the stand is threatened.

Biomass as an Alternative Energy Source

Woody biomass is an abundant renewable energy source readily available here in Florida and southern Alabama. Georgia and

What is biomass? of vegetative from trees, other forms of be cultivated in grown naturally. wood, such as or waste material manufacturing,

biomass. The energy stored in biomass is released when the material is burned. A common form of biomass used for centuries is firewood.



Wood gasification unit in Mississippi

Biomass is any type material derived shrubs, grasses or plants. Biomass can pine plantations or By-products of construction debris left over from wood are also forms of

New and old technologies are now being used to produce electricity, liquid fuels, gases, and chemicals from wood biomass. Wood gasification is the new technology being studied at several the country. Believe it from burning wood water to air condition commercial chips for commercial pellets for residential boiler system. Hot which is then cooled chiller, with the end conditioning. Despite producing potential



Unit for heating and cooling residential homes

Universities across or not, waste heat can be used to cool homes and buildings. Wood buildings or wood homes are fed into a water is produced, through an absorption product being air the enormous energy- for biomass, it is

estimated that only 7% of the annual biomass produced worldwide is utilized for that purpose. Most of this utilization is occurring in Scandinavian countries to produce electricity and underdeveloped countries for heating and cooking.

With the steady rise in fuel prices, woody biomass is an energy source we should utilize to the fullest. Most wood biomass fuel has been used in recent years in the pulp and paper and other wood product manufacturing industry through the burning of wood residues (bark, sawdust, chips, lignin). Due to high transportation costs, biomass energy facilities can only purchase raw materials within a 50-mile radius to be cost effective in most situations. Wood biomass is an excellent energy source, especially if it is from residue left from logging operations. Removal of logging residue reduces site prep cost for replanting.

President Bush mentioned using woody biomass in his State of the Union Address and recent articles in local newspapers have commented on how much of this resource is available across the region. It will take some time for this relatively new technology to

take hold, but increasing energy costs are sure to make it a prudent next step. As active forest landowners and managers we have an opportunity to act locally to better use our resources to reduce fossil fuel use, foreign oil dependency, and improve forest health through removal of storm-damaged trees, diseased trees, and small-diameter pines. Utilizing wood biomass could improve timber markets and benefit wildlife by way of more economical thinning treatments.

Source: Spring 2006, The Florida Forest Steward Newsletter,
Mike Goodchild, Walton County Extension

Planting Late Maturing Cultivars

Late maturing peanut cultivars such as C-99R, Georgia-02C, Georgia-01R, and Tifrunner need to be planted no later than May 25 th . Typically, these cultivars require a minimum of 150 days to reach optimal maturity and, in many cases, may need 160 or more days. Planting May 25 th puts the 150 day mark on October 22 nd . In most years the minimum temperature in late October can consistently reach into the low 40's, cold enough to halt the maturation process of peanut pods. Therefore, it is imperative that late maturing cultivars be planted no later than May 25 th . To error on the side of caution, it would be advisable to plant before May 20 th .

When peanuts are not able to reach optimal maturity they yield considerably less, have lower grades, and will have an off flavor when processed. Any environmental or pest related stress can delay the reproductive process early or mid season. These conditions can also alter the normal maturation process. For example, in 1986 an extended drought from March through late July caused many peanut fields planted in May to have very few, if any, pods. Rainfall in late July, August, and September triggered plants to begin blooming and pegging again. There were a lot of fields planted in May of that year that would have, under normal conditions, been ready to harvest in about 135 days. Keep in mind we were planting over 90% of the acreage in Florunner back then. As it turned out with the delayed fruit set, many fields took 170 days to reach maturity. In fact, many fields did not reach optimal physiological maturity and suffered yield and grade reduction. There was also a much higher percentage of off-flavor peanuts that year.

We will need near normal environmental conditions for the late maturing cultivars to mature in 150 plus days. Any stress conditions could extend that regard time much longer.

Source: University of Georgia, Peanut Pointers, May 2006

Is Prowl H₂O right for you?

Prowl H₂O is an encapsulated formulation of pendimethalin that has been shown to provide equivalent weed control to traditional formulations such as Prowl 3.3 and Pendimax. Prowl H₂O also offers additional advantages over traditional formulations such as less product odor and

less staining of equipment. However, the greatest advantage of Prowl H₂O is that degradation due to exposure to sunlight is much less than with other formulations. For example, Prowl 3.3EC must be incorporated with rainfall, irrigation or tillage within 7 days of application to the soil surface. If not incorporated within this time, sunlight will degrade the herbicide and significantly reduce its effectiveness. Conversely, Prowl H₂O is less likely to degrade on the soil surface. Therefore, Prowl H₂O is a good choice in minimum or strip-till operations where irrigation or equipment is not used for herbicide incorporation. This fact allows more flexibility with Prowl H₂O and provides additional insurance during dry springs when rainfall may not occur within 7 days of application.

However, Prowl H₂O is approximately \$29/gal while Pendimax 3.3 remains at \$24/gal. Additionally, Prowl H₂O will only control weeds if it comes in contact with the root tip soon after seed germination. Since many weeds germinate within the top 1” of soil, some type of incorporation is required to move Prowl H₂O into the soil so that it will be present to control the germinating seedlings. Regardless of formulation, incorporation is required for effective weed control.

Prowl H₂O offers some advantages over the traditional pendimethalin formulations, but cost and tillage type should be considered. If producers intend to mechanically incorporate the herbicide, Pendimax will provide equivalent weed control at a lower price. If no incorporation is planned, Prowl H₂O will potentially provide “insurance” against dry weather.

Source: Agronomy Notes, UF, IFAS, April 2006
Jason Ferrell, Extension Weed Specialist

The use of trade names in this publication is solely for the purpose of providing specific information. It is not a guarantee, warranty, or endorsement of the product names and does not signify that they are approved to the exclusion of others.

Sincerely,

Mike Donahoe
County Director
Santa Rosa County

John D. Atkins
Extension Agent
Santa Rosa County

Santa Rosa County
263 Dogwood Drive
Milton, FL 32570-3500
(850) 623-3868
Fax: (850) 623-6151



NORTHWEST FLORIDA COTTON SCOUT SCHOOL

TUESDAY, JUNE 6, 2006

JAY COMMUNITY CENTER
JAY, FLORIDA

- 8:45 a.m. Sign In
- 9:00 a.m. Growth and Development of the Cotton Plant
- 9:20 a.m. Diseases and Nematodes of Cotton
- 9:40 a.m. Identification of Cotton Insect Pests
- 10:00 a.m. Break
- 10:15 a.m. Identification of Cotton Insect Pests (cont.)
- 10:40 a.m. Beneficial Insects
- 11:00 a.m. Cotton Scouting Procedures / Report Forms
- 11:30 a.m. Lunch - *Sponsored*

- 12:45 p.m. Field Practice
- 2:30 p.m. Adjourn

Program Participants: Dr. Richard Sprenkel – Extension IPM Specialist, Mike Donahoe – County Extension Director, John Atkins – Agriculture/Livestock Extension Agent

Contact the Santa Rosa County Extension Service (675-3107 or 623-3868) by June 2 to pre-register. CEUs for CCA and Restricted Pesticide Applicator license categories Private Applicator, Ag Row Crop, and Demonstration-Research will be available.

For persons with disabilities requiring special accommodations, please contact the Santa Rosa County Extension Office at least 5 days prior to the program so that proper consideration may be given to the request.