



Santa Rosa County Ag. Sheet
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March 2007

Dates to Remember

- Household Hazardous Waste Amnesty Day Set.....March 24, 2007
- General Standards/Core Training.....April 3, 2007
(See flyer for more information)
- Goat Field Day.....April 13, 2007
(For more information call Dr. Ray Mobley at 850-599-3546)
- Beef Cattle Shortcourse Gainesville.....May 2-4, 2007
(For more information call Matt Hersom, 352-392-2390)
- 29th Annual Southern Conservation Tillage Conference.....June 25-27, 2007
NFREC in Quincy

In This Issue

- Beef Cattle Management Calendar.....2
- Management Soil Fertility in Beef Cattle Pastures.....2
- Herbicide Update.....3
- Nitrogen Requiring Crops and Soil pH.....4
- Consideration in Cotton/Corn Culture.....4
- Cotton Nematicide Management Opportunities for 2007.....5
- Cotton – The Perfect Seeding Rate.....6
- Cotton Variety Demonstration – 2006.....7
- Peanut Cultivars.....9
- Calcium Need for Peanuts.....10
- Household Hazardous Waste Amnesty Day Set.....10
- Flint Meat Processing, Inc.....11

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BEEF CATTLE MANAGEMENT CALENDAR

March

- Prepare land for summer crops.
- Begin grazing warm season permanent pastures.
- Check and fill mineral feeder.
- Observe bulls for condition and success. Rotate and rest if needed.
- Deworm cows as needed.
- Make sure calves are healthy and making good weight gains.
- Hang forced-use dust bags by April 1st for external parasite control or use insecticide impregnated ear tags.
- Identify, vaccinate, implant and work late calves.
- Put bulls out March 1st for calving season to start December 9th.
- Remove bulls March 22nd to end calving season January 1st.

April

- Plant Warm season annual pastures.
- Plant corn for silage.
- Check and fill mineral feeders
- Check dust bags or apply treated ear tags.
- Check for external parasites and treat if necessary.
- Observe cows for repeat breeders
- Deworm cows as needed if not done in March
- Vaccinate against blackleg and brucellosis after 3 months of age and before 12 months of age.
- Market cull cows and bulls.
- Update market information and refine market strategy for calves.

MANAGING SOIL FERTILITY IN BEEF CATTLE PASTURES

Source: Georgia Forages, University of Georgia

When hay is removed from a hayfield, it makes sense to think that a substantial amount of nutrients are being carted off in each bale. However, when cattle graze in a pasture, it is reasonable to expect that most of these nutrients are recycled back to the pasture. After all, a 500 lb calf only contains about 12 lbs of nitrogen, 3.5 lbs of phosphorus, and 0.75 lbs of potassium. But, like most things in life, it's more complicated than that.

Grazing animals do, in fact, return most of the nutrients that they consume back to the pasture. Unfortunately, these nutrients are taken from large areas (grazed area) and deposited in concentrated patches on small areas of the pasture. Often times, we see this problem because of disproportionate growth around urine and dung patches.

Several years ago, some New Zealand researchers found that pastures grazed under continuous stocking at one cow/acre resulted in the nutrients from the total grazed area being concentrated on about 17% of the pasture. So, just how concentrated can these nutrients be? Well, studies have shown that nutrients can become so concentrated in the urine that a single urination by a typical cow is equivalent to fertilizing that area at a per acre rate of 3000 lbs of ammonium

nitrate and 2000 lbs of murate of potash! When that much nitrogen is applied in one place, about 60-80% of it will volatilize (turn into nitrogen gas) and be lost to the atmosphere. In addition, nitrogen and potassium can be lost when water carries these nutrients down through the soil (i.e., leaching) or in runoff.

Manure patties also contain concentrated nutrients. For example, the great majority of the phosphorus that is consumed becomes concentrated in the dung. About 80% of the phosphorus in the dung is in an inorganic form, which is readily available to plants. However, the plants can not possible take up that much phosphorus at one time. Fortunately, phosphorus does not volatilize or leach. It can, however, become fixed on iron and aluminum oxides in some of our clayey soils, especially when soil pH is low. This fixation renders that amount of phosphorus lost. The phosphorus that remains available, however, is stored on the soil particles and typically stays with that soil. However, if that soil is prone to erosion, having phosphorus concentrated in a small area can lead to a major environmental problem. That's because phosphorus is otherwise the limiting nutrient to algae and aquatic plants that grow in freshwater lakes, streams, and rivers. When enough phosphorus is present, the water becomes eutrophic (lacking oxygen) and can lead to fish kills and loss of aquatic habitat.

These problems with concentrated nutrients are major reason to implement rotational grazing. Properly planned grazing paddocks contain strategically placed shade, water sources, hay rings, and mineral feeders (i.e., the areas that cattle frequent most). By rotating cattle between several of these pastures, a cattleman can exercise a lot of control over where the cattle deposit those concentrated nutrients. Studies in Missouri have shown that if grazing is managed with frequent rotations between properly planned paddocks, urine and dung will be applied to every square yard of the pasture within 2-3 years. By comparison, pastures that are poorly planned and continuously grazed can result in over 40% of the area not receiving any redistributed nutrients, even after 5 years.

However, frequent rotations among properly planned paddocks WILL NOT make for a sufficient nutrient management plan. No matter how well planned the grazing system may be, the concentration of nutrients within pastures still occurs and will lead to nutrient loss via volatilization, leaching, and runoff. Therefore, it is critical to periodically (once every 2-3 years) pull a soil sample from permanent pastures. Of course, it is important to avoid pulling soil samples from within 100 ft. of those areas where cattle tend to congregate and deposit these nutrients.

HERBICIDE UPDATE

A Note from Jay Ferrell, University of Florida, Extension Weed Specialist

Journey

I wanted to make you aware of a recent addition we have had to an existing label. Three years ago we lost Plateau herbicide which was used for annual grass control in bermudagrass pastures.

However, a year later, Journey herbicide was marketed as a prepack mixture of Plateau + a splash of glyphosate. Journey would have been an excellent addition to our weed control tool box, but the label restricted all bermudagrass cultivars, except "Coastal".

Recently, an additional label was released that allows Journey to be applied to all pasture grasses. We recommend that the use rate be around 11 fl oz/A applied no earlier than after the first cutting. Journey can, and will, stunt bermudagrass. If applied early in the season during spring transition, injury will be severe. If applied after the 1st cutting when full winter recovery has occurred and rainfall is more common, 2 to 4 weeks of stunting will be observed. However, after the stunt period bermudagrass will resume very rapid growth (since the crabgrass has been removed) and subsequent yield reductions will not be observed. Journey is very effective on crabgrass, johnsongrass, vaseygrass, and nutsedges. But, it will be important that producers know that injury will occur with this product and if this can not be tolerated, then they should NOT use Journey.

HIGH NITROGEN REQUIRING CROPS AND SOIL pH

Source: Agronomy Notes, February, 2007

High nitrogen applications tend to reduce the soil pH. All commonly used sources of nitrogen are acid forming and will require monitoring of the soil pH to keep it at levels suitable for row crops. Ammonium sulfate or nitrogen solutions with sulfur have a higher calcium carbonate equivalent per ton and are more acid forming than ammonium nitrate and urea of solutions. Soils can be limed at this time of year and still get benefit. If soils are very acid, it is best to apply it several months in advance of planting but reactions begin to occur immediately. For those growers who use minimum tillage and strip tillage, surface applications are acceptable. Long term no-till plots are still producing good yields of various crops after 30 years. A high calcium and phosphorus layer can develop in the top 2-3 inches after many years of surface applications of fertilizer and lime.

CONSIDERATIONS IN COTTON/CORN CULTURE

Source: Steve Brown, Extension Agronomist, UGA Extension, Georgia Cotton 3/4/07

Expansion of corn acreage compels thoughts about potential impact in cotton. (1) Both cotton and corn are hosts of Southern root knot nematode; therefore, growers should realize that rotation to corn could exacerbate (increase) problems with root knot in cotton. Conversely, corn is an excellent management option for reniform nematodes, and rotation to corn will provide positive results for future cotton. (2) Where cotton and corn are planted in close proximity, both should be Roundup Ready (RR or RF) if possible. More than 95 percent of the cotton planted will likely be RR, while seed availability indicates that RR corn may be limited to 50 to 65 percent of the expected acreage. Non RR corn is very sensitive to glyphosate, so it makes sense that adjacent fields be RR if at all possible. (3) Corn (as well as soybeans and peanuts) serve as a reservoir for stink bugs. Bug numbers and damage can be significantly greater in cotton rows that border corn, so there is value in taking a much more aggressive approach (scouting and spraying) in a sprayer swath width or two of cotton adjacent to corn. (4) Weed control in corn should include atrazine, a broad spectrum herbicide that has both residual and postemergence activity. It represents an alternative way (in terms of herbicide mode of action) of dealing with weeds, especially such problem species as Palmer amaranth (pigweed). Growers should also be careful to NOT lose the battle following corn harvest. Tillage and/or herbicides should be used post harvest in corn to prevent weed buildup.

COTTON NEMATOCIDE MANAGEMENT OPPORTUNITIES FOR 2007

Source: Bob Kemerait, Extension Plant Pathologist, UGA Extension, Georgia Cotton 3/4/07

Many growers continue to seek advice when selecting a nematicide for management of parasitic nematodes of cotton. Below is a summary of the research presented at the 2007 Beltwide Cotton Conference in New Orleans. The majority of this research was conducted with county agents in commercial cotton fields across Georgia.

1. Results from 26 cotton studies conducted in 2004, 2005, and 2006 are included in this summary.
2. Field sites were naturally infested with either southern root-knot nematodes (*Meloidogyne incognita*), reniform nematodes (*Rotylenchulus reniformis*), or Columbia lance nematodes (*Hoplolaimus columbus*).
3. Efficacy of new seed treatments AVICTA Complete Pak and AERIS Seed-Applied System was compared to that of aldicarb (Temik 15G) and to commercial seed treated with insecticides thiomethoxam (Cruiser) or Imidacloprid (Gaucho Grande).
4. Fumigant 1,3-dichloropropene (Telone II) was evaluated in 10 of the 26 trials.
5. Where assessed, root gall ratings assessed approximately 30 days after planting (a measure of early season nematode control) were typically statistically lower on plants treated with aldicarb than on plants from seed treated with AVICTA Complete Pak, AERIS Seed-Applied System, Cruiser, or Gaucho Grande. A lower rating indicates less damage from the southern root-knot nematodes at the time of sampling.
6. It was difficult to statistically differentiate the efficacy of AVICTA Complete Pak from aldicarb (Temik 15G, 5.0 lb/A), Cruiser, or Gaucho Grande based upon final lint yields.
 - a. In 14 of 25 studies, plots treated with aldicarb, 5.0 lb/A, numerically out-yielded plots where seeds treated with AVICTA Complete Pak were planted.
 - b. The average yield advantage to aldicarb in these 14 trials was 119.5 lb lint/A; however in only one of the 14 trials was the yield difference between aldicarb and AVICTA Complete Pak statistically different.
 - c. In 11 of 25 trials, plots that were planted to seeds treated with AVICTA Complete Pak out yielded plots treated with aldicarb (5.0 lb/A) with a yield advantage of 48.1 lb/A lint. Yields were statistically different in one of the 11 trials.
 - d. Yield advantage to AVICTA Complete Pak over Cruiser or Gaucho Grande was 54.5 lb/A, though yield differences were statistically significant in only 1 of 25 trials.
7. Where fumigation with 1,3-dichloropropene (Telone II) produced a significant increase in yield over use of seed treatment AVICTA Complete Pak (four of 10 trials), the increase in lint per acre varied from 224 lb to 615 lb. Telone II, when applied properly, provides optimum control of nematodes in fields with higher populations, e.g. 3X threshold and above.

Conclusions from these research studies

1. AVICTA Complete Pak does have a fit in cotton production in Georgia for management of nematodes in fields where populations are at threshold level or slightly above. The yield advantage of AVICTA Complete Pak over Cruiser-treated seed or seed treated with Gaucho Grande demonstrates this.
2. Interpretation of these results is that AVICTA Complete Pak is not as good as Temik 15G at reducing early season galling from the southern root-knot nematodes.

3. In these trials, AVICTA Complete Pak was just as likely to out-yield Temik 15G (5 lb/A) as Temik was to out-yield AVICTA Complete Pak. However, the magnitude of the yield increase for Temik over AVICTA Complete Pak was numerically greater than for yields of AVICTA Complete Pak over Temik.
4. When choosing between AVICTA Complete Pak and Temik, growers should consider such factors as difference in efficacy and yield potential, cost differences, and the “convenience” factor when making their decision.
5. Comparisons between AVICTA Complete Pak and AERIS Seed-Applied System were limited in Georgia in 2006. Growers who wish to use AERIS Seed-Applied System in 2007 are encouraged to:
 - a. Use it on limited acreage to determine its fit on their farm.
 - b. Avoid using the product in fields with heavy nematode pressure.
 - c. Determine the risk to seedling disease in each field in order to decide if the cost of the optional Trilex fungicide portion of the package is a good investment.
6. Growers planting cotton in fields with high levels of nematodes or a history of significant yield losses to nematodes should use of more powerful nematicide, like Telone II, to insure greatest yields.

COTTON - THE PERFECT SEEDING RATE

Source: Richard Petcher, Regional Extension Agronomist for SWAL, Row Crop News Letter March 2007)

Cotton growers know there is a tremendous amount of money to be saved by cutting back on seeding rates. There is also some money to be made on a good crop of cotton. Having a good plant stand is essential in cotton production. Seed with associated technology and treatments have become extremely expensive. So take some time and thought to your seeding rate seriously. Seeding rate also depends on weather, soil temperature and soil moisture, seedling vigor, seed germ and the possibility of seedling disease. A final plant population of 35,000 plants per acre is about perfect here. The range can vary as cotton is fairly forgiving. But going very far either way can hurt you. There are 43,560 square feet in one acre. On a 36 inch row spacing you divide the square feet in an acre by 3. That gives you 14,520 linear or row feet you are planting. Two seed every foot gives you only 29,040 seed per acre. That is low and probably would lower your yield. Two seed every 10 inches gives you 34,848 seed per acre. That is 2.4 seed per row foot. With an 86% germination and plant stand you would have about 30,000 plants per acre. This is basically the industry standard for the low end of the planting rate. Three seeds every 15 inches also delivers 2.4 seed per row foot. Most varieties are now sold by the count of 230,000 to 250,000 seeds per bag instead of a 50 lb. bag. If you are planting on a 2.4 seed per row foot, one bag would plant 7.17 acres. In one University of Georgia test conducted in South Georgia three years in a row the 3.1 seed per row foot was the highest end of the seeding scale and gave very little profit over the 2.8 seed per row foot. The most profitable range is from 2.4 to 2.8 seeds per row foot. At the 2.8 seeding rate one 250,000 count bag plants about 6.15 acres. A grower planting 500 acres would use 70 bags on the 2.4 seeding rate and 81 bags on the 2.8 seeding rate. Getting a good stand is critical to cotton production. You might want to use a higher seeding rate planting early or during adverse conditions and then lower your seeding rate a little later. When in doubt it is usually best to plant under circumstances conducive to good stand establishment (if possible) or use a slightly higher seeding rate.

PEANUT CULTIVARS

Source: Peanut Pointers, February, 2007, University of Georgia

Even though there is a lot of discussion concerning reduced peanut acreage in Georgia in 2007, there is tremendous interest in some of the more recently released cultivars. Below is a brief review of some of the cultivars that will account for most of the acreage in 2007.

AP-3 – this cultivar will account for a significant portion of the acreage not planted to Georgia Green. The key points about AP-3 are:

1. The maturity range is about the same as Georgia Green. In some cases it may be up to one week later.
2. It will typically average 2-3 percent less in total sound mature kernels (TSMK) than Georgia Green. This is due to a larger and thicker hull than Georgia Green.
3. It is more susceptible to leaf spot than Georgia Green but is considerably more resistant to TSWV and white mold.
4. It has lighter green foliage than other cultivars but that is not an issue in regards to performance.

Georgia-02C – this is the one late maturing cultivar that will be planted on a significant amount of the acreage in 2007. Some of the key points to remember about Georgia-02C include:

1. This cultivar is definitely late, about 3 weeks later than Georgia Green, AP-3, and Georgia-03L. Despite what you might read in some farm press publications, it is a late maturing cultivar. We have run numerous Hull-Scrape Maturity Profiles the past several years and it has always been about three weeks later than Georgia Green. Every county agent that has run a maturity profile on Georgia-02C has indicated to us it runs about three weeks later than Georgia Green in their county.

Georgia-03L – this cultivar will also account for a significant portion of the acreage not planted in Georgia Green. The key points about Georgia-03L are:

1. The maturity range is the same as Georgia Green, about 135-140 days after planting under normal conditions.
2. It will also average 2-3 percent less in TSMK compared to Georgia Green for the very same reasons as AP-3.
3. It is more resistant to TSWV, leaf spot and white mold compared to Georgia Green.
4. It has some of the best germination and early season vigor compared to other cultivars.

AT 3085A – This is a new release from Golden Peanut Co. It is a cultivar developed under the AgraTech program before it was terminated. Some of the key points about AT 3085A include:

1. There will be limited seed in 2007 since it is a new release.
2. It seems to have a maturity range similar to Georgia Green based on our observations and the data we collected in our trials the past two years.
3. It has a prominent main stem like GK-7 used to have.

4. Our initial data indicate it has TSWV resistant better than Georgia Green, but not as good as AP-3.
5. It has very quick seeding emergence and early season vigor similar to Georgia-03L.
6. It is similar in all growth characteristics to AT 3081R but seems to have a higher level of resistance to TSWV.
7. Seed size seems to be similar to GK-7 and Florunner, which is what I refer to as “medium” seed size.

There will obviously be other cultivars planted in the Southeast in 2007. However, the percentage of acreage in these cultivars will be minimal compared to these listed above. The list of those cultivars include: Carver, C-99R, AT 3081R, Georgia-01R, ViruGard, and Andru II. For a more thorough comparison of all these cultivars in regards to resistance to TSWV, leaf spot, white mold, and limb rot please refer to the 2007 UGS Disease Risk Index.

CALCIUM NEEDS FOR PEANUTS

Source: Agronomy Notes, March 2006

Peanut responds very little to direct fertilization of most nutrients. However, calcium (Ca) is needed in high levels by peanut for developing a viable seed, but not necessary to grow a healthy plant. The amount of Ca taken up by the plant is dependent on the concentration in soil solution and on the amount of water moving into the plant. The critical period for Ca absorption begins about 20 days after pegs start entering into the soil and may extend for an additional 60 days. However, some researchers have reported that 69% of total Ca uptake occurred between 20 and 30 days after pegging. It is then necessary that proper amounts of Ca are supplied for the first 30 days after pegging begins.

The problem occurs when limited soil moisture coincides with the high Ca need period and there is no moisture for Ca uptake. Sandy soils in the peanut region have low moisture retention capacity which leads to moisture-induced Ca deficiency. Much of the irrigation installed in the SE was due to peanut in rotation. High levels of potassium (K) and magnesium (Mg) in the soil can result in reduced Ca uptake. Peanuts are often not fertilized and “high cal” lime is used instead of dolomite which is higher in Mg to avoid these problems. Soil test levels of about 450 lbs/A of Ca result in maximum yields of runner type peanuts while levels almost double this are necessary for maximum yield of Virginia type peanut. The larger peanuts have a smaller surface to weight ratio and require a higher concentration of soil solution Ca in order to provide adequate Ca to the pod.

HOUSEHOLD HAZARDOUS WASTE AMNESTY DAY SET

Citizens of Santa Rosa County are encouraged to participate in Household Hazardous Waste Amnesty Day on Saturday, March 24th from 8 a.m. – 2 p.m.

Two locations have been identified:

Santa Rosa County Auditorium (off Old Bagdad Hwy. behind the Public Services Bldg.) South Santa Rosa Service Center. (5819 Gulf Breeze Pkwy, next to the Zoo)

Items will be accepted free of charge. Old paint, pesticides, gasoline, and other hazardous chemicals citizens may have around the home. (**NO** tires will be accepted.)

For more information call 981-7135.

FLINT MEAT PROCESSING INC.

Steve Flint and his wife Rachael have recently purchased Blair's, a local business that has been serving Santa Rosa and the surrounding area for close to thirty years. We passed our U.S.D.A. inspection recently and the doors have again swung open.

We plan to continue the tradition that the Blair's established by providing each customer with a quality meat packing service. The phone number has remained the same (675-6537) as well as the prices.

Just look for the pink pigs on Hwy 87 and Hwy 4 to find us. We look forward to serving your custom meat packing needs.

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