

AGRONOMY

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NOTES

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DATES TO REMEMBER

October 4-5	- Deer & Turkey Short Course, NREC, Quincy, FL.
October 19th	- Quail and Dove Management Short Course, Arcadia, FL.
November 14th	- Agricultural Enterprise Workshops for North Florida, North Florida REC, Live Oak, FL

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Deciding on Defoliating Cotton

Cotton requires about 55-60 days from bloom to open boll depending on heat units. July and August temperatures were above normal this year resulting in faster maturity. Cotton usually requires from 135-155 days from planting harvesting in Florida. Many unirrigated fields had very slow emergence this year due to dry seedbeds with cotton emerging over a 6-8 week period. When this happens, it extends the period that cotton has to be protected from pests resulting in a more expensive crop. Decisions about defoliation and boll opening can affect quality and storage time if the crop is put into modules. Stain from poorly defoliated plants or regrowth and moisture from the green tissue cause the biggest loss in quality. Most growers use the criteria of 60% open bolls as the time that defoliant should be put out on cotton to open the remainder of the bolls and knock off leaves in preparation for harvest. Another method to determine defoliation timing is nodes above cracked bolls (NACB). Research has shown that cotton with four nodes above the highest cracked boll can be defoliated without significant weight or quality loss. If NACB counts average five or more, defoliant applications should be delayed. Bolls set in mid-summer are usually larger and mature in 40 to 50 days, while the bolls set in August can take 60 days or longer to mature and often contribute little to final yield if the crop had a normal fruiting season. If there is a good crop set on the plant, do not wait on late flowering bolls since the loss to the larger bolls set earlier will be more than is gained by late fruit set. It has been shown, many times, that the fruit set during the first 3-4 weeks of bloom normally contributes 90 to 95% of the total yield of the cotton crop. Cotton should be harvested about 2 weeks after defoliation. For more information on materials to use in defoliating cotton go to <http://edis.ifas.ufl.edu/AG188>.

David Wright

Use of Winter Annuals for Overseeding on Grass Sods

Winter annuals like annual ryegrass, small grains, and legumes can be used in North-

Central-, and parts of South Florida to extend the grazing season and increase the quality of the diet for the grazing livestock when bahiagrass and bermudagrass are dormant and unproductive. These annuals will add to the nutritive value of your animal's diet, thus, reducing the amount of expensive energy and protein winter supplement as well as the need for stored forages. Spring weed control and addition of nitrogen (if overseeding clovers or legumes) are additional benefits of winter annual overseeding. Fall is a time when the tail end of production of bahia- and bermudagrass overlap with the initial growth of winter annuals. Certain management practices need to be used to guarantee the successful establishment of cool-season annuals overseeded on grass sods. Some of these practices include: allowing your bahiagrass or bermudagrass to grow for 4 to 5 weeks before overseeding but making sure that the top growth is removed as hay or by flash heavy grazing before planting the winter annuals. The open sod created by late harvesting and removal of top growth will be less competitive to the up-and-coming winter annual seedlings. Another practice to reduce bahia- and bermudagrass competition is to do a very light disking or passing the disc with the blades straight—doing so will only loosen the grass sod and allow more seed and soil contact; light disking is critical to achieve success when early planting. Some herbicides like Gramoxone (paraquat) or Round-up (glyphosate) used at low rates have been used to suppress growth on the grass sods but they are an additional cost, do not guarantee the early production of the winter annuals, and may cause stand loss of the grass sod (this last method is not a preferred or a recommended one). Once you have removed the top growth of the grass sod and light disked the field, proceed with the planting of the seed (ideal conditions are after a 'soaking' rain). You can overseed your winter annuals 4 to 6 weeks before the average freeze that will burn down the top growth of your grass sod; night temperatures should be in the mid 60's and day temperatures in the low 80's. After planting, do not forget to roll the field to seal in the moisture.

Yoana Newman

Small Nitrogen Fertilizer for Seedlings of Overseeded Legumes

Effective nodulation takes place within 4 weeks or one month after planting. The implication is that during those first 3 to 4 weeks the plant relies mainly on the soil nutrients, included nitrogen, because the nodules are not fully functional. This is the reason why it is recommended to fertilize small amounts of N to help out the legume seedlings only during the first weeks. What is considered a small N fertilization? Anything under 20 to 25 lb N/acre. All other nutrients should be applied according to soil test recommendations. Because legumes fix nitrogen we do not want to apply nitrogen to established legumes because the nodules shut down and become ineffective at fixing nitrogen. It is only during establishment that small additions of Nitrogen fertilizer will increase nodulation. In general, do not apply N fertilizer to legume stands, except low amounts during establishment, and follow with the recommended fertilization of other elements, specially Phosphorus and micronutrients

Yoana Newman

Fall Soil Sampling for Forage Production

Soil samples collected in late October and November can be analyzed and results returned in time to plan for February and March applications of lime and fertilizer. In October and November, pastures are usually dry enough so that samples can be collected without interference from excessive moisture.

Yoana Newman

Spread of Asian Soybean Rust

During the last few weeks of September Asian soybean rust has been identified in the major soybean producing counties in Florida with most of the sentinel plots or monitored kudzu sites coming up positive. The extreme temperatures and dry weather in July and August made the disease to progress slowly until temperatures cooled off in September. There are several late planted fields of soybeans that were planted after irrigated corn that will have to be monitored closely to make sure that the disease is

controlled through R6 stage of growth. This is when the green bean has completely filled the pod. Rust has been found in only a few commercial fields and has not spread rapidly to this point. Some fields have been sprayed by producers at early bloom and pod fill; these fields will have to be watched for onset of the disease up until about R6. With soybean prices at highs of the past two decades, growers are sure to plant more soybeans next year. If you are not sure if you have soybean rust in your fields or even in your county, check with your county agent to see where it has been found. Models are being developed to help growers determine if conditions are conducive for spread of the rust. For more in-depth information on Asian soybean rust go to the website at <http://sbrusa.net/>.

David Wright and Jim Marois

Is Volunteer Corn a Weedy Concern?

The recent interest in biofuels has dramatically increased commodity prices; corn in particular. Currently, corn is trading at over \$3.50/bu with futures over \$4/bu. At this price many growers are considering planting corn after corn for several cycles. However, volunteer corn is likely to become a weed using this strategy.

Volunteer corn can be a problem because these non-hybrid, inbred lines often have extremely low productivity. But, this does keep the plant from aggressively using water, nutrients and light that is needed by the adjacent crop. Additionally, removing a weedy corn from a corn crop is extremely difficult with herbicides and often required an expensive tillage operation. So the question arises, how much volunteer corn is necessary before it becomes economically feasible to perform a control operation?

Extensive surveys have been conducted across the mid-west for the last two years to determine common volunteer infestation levels and their yield impact. It was found that the majority of fields had volunteer corn infestation too low to cause yield impact (1,000 to 4,000 plants per acre) while only 12% had yield threatening levels. So, by and large volunteer corn can be ignored since yield reduction will likely not take

place. However, if populations are high, there are only 2 options: in-season cultivation, and planting a resistant corn variety.

When planning a resistant variety, selection can be difficult. If the previous crop was Roundup Ready, the volunteer corn will contain the resistance gene. In this case, a Liberty-Link variety is the only solution. However, if the previous variety was Roundup Ready with Herculex (for insect protection), the volunteer will contain both Roundup and Liberty resistance. Regardless, these options should not be considered unless the volunteers reach a population exceeding 10,000 plants per acre.

Jason Ferrell

Operation Cleansweep for Pesticides

Operation Cleansweep is a mobile collection program that provides agricultural producers a safe and economical method of disposing of cancelled, suspended and unusable pesticides. Proper disposal can be expensive and place a regulatory burden on small agricultural producers and dealers. Operation Cleansweep offers an opportunity to avoid these barriers and to promote safe and environmentally sound pesticide use, handling and disposal. Operation Cleansweep was initiated in 1995 with the major objective of collecting lead arsenate, a widely used pesticide in Florida citrus production, but banned for use by the EPA in 1978. During 1995, Operation Cleansweep collected more than 70,000 pounds of lead arsenate. Statewide surveys have identified substantial quantities of cancelled, suspended and unusable pesticides stored throughout Florida. Some of these materials have been in confinement for many years and are in containers unsuitable for proper storage. Some, such as chlordane and DDT, are no longer allowed to be used.

Operation Cleansweep provides for a contractor to come directly to a farm or pesticide application business for pickup and disposal of pesticides when there is a sufficient quantity in a defined area. There is no cost charged to those who participate in the program. For more information, call the Florida Department of Agriculture and Consumer Services by calling toll-free 877-851-5285 or email

Cleansweep@doacs.state.fl.us. This year's deadline for being added to the pickup list is December 15.

Cleansweep Website:

www.dep.state.fl.us/waste/categories/cleansweep-pesticides/.

IFAS facilities should contact UF Environmental Health and Safety to schedule a pickup date for old materials. Go online at <http://www.ehs.ufl.edu/hmm/pickups/chempick.asp> or call 352-392-8400 to submit a chemical pickup request.

Fred Fishel

Problem areas in crop fields

As harvest season progresses make a note of the areas of the fields that appear to have lower yields or plants that look unhealthy. Many of these problem areas can be minimized with future crops if you know the cause. Soil samples for nematodes as well as nutrient analysis can help determine the cause of the problem and then certain management practices or rotations can be followed to minimize the impact. Good soil sampling is key to understanding problems. Always get samples from different soil types in the field as well as those areas that yielded differently and compare them. In many cases soil type, which determines water and nutrient holding capacity, may make the most difference in yield variability. However, some crops do better on sandy soils than others and crops can be chosen for those fields that do well. Keep a record of what is happening in each field as far as fertility and nematode levels.

David Wright

Crops for Biodiesel

The climate and soils of Florida are conducive to grow many crops. Biofuels are a hot topic in all of the farm magazines as well as with consumers who are having to pay more for energy than ever. The table below shows crops that can be used for biodiesel and the approximate amount of biodiesel that can be expected from average yields of those crops.

Farmers in Florida have had many acres of corn, oats, cotton, soybean, sunflower, peanut, and Canola. The other crops can be grown if it is economical and if there is an infrastructure for

handling them. Yields of the crops shown below are average yields but with good management about 25-40% better yields can be obtained.

David Wright

Oil Producing Crops					
Plant	Yield (seed) lbs/acre	Biodiesel gal/acre	Plant	Yield (seed) lbs/acre	Biodiesel gal/acre
Corn	7800	18	Safflower	1500	83
Oats	3600	23	Rice	6600	88
Cotton	1000	35	Sunflower	1200	100
Soybean	2000	48	Peanut	2800	113
Mustard	1400	61	Canola/Rape	2000	127
Camelina	1500	62	Coconut**	3600	287
Crambe	1000	65	Oil palm**	6251	635
** Yield given in lbs of oil/acre					
Source: <u>Biofuel Variety Trails Factsheet, USDA-ARS and WSU, Prosser, WA</u>					

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.
 Prepared by: J.M. Bennett, Chairman; J.A. Ferrell, Extension Agronomist (jaferrell@ifas.ufl.edu); F.M. Fishel, Pesticide Coordinator (weeddr@ifas.ufl.edu); Jim Marois, Plant Pathologist (jmarois@ufl.edu); Yoana Newman, Extension Forage Specialist (ycnew@ufl.edu); D.L. Wright, Extension Agronomist (dlw@ifas.ufl.edu).