

The University of Georgia

## Cooperative Extension Service

College of Agricultural and Environmental Sciences

# UGA Georgia Cotton Newsletter

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<http://www.griffin.peachnet.edu/caes/cotton>

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**Aim as a Harvest Aid Treatment for Quick Entry.** (*Brown*) Intense regrowth pressure has made this crop nightmarish to defoliate. Excessive rains following the long summer drought have created tremendous problems with second growth and regrowth. Now, with open weather and an open crop, we need to proceed with haste. How can this late season juvenile foliage be effectively and rapidly removed to expedite harvest?

Option		Comments
1	Aim + crop oil alone or in combinations	works extremely fast; will not stop future regrowth; while leaves may be “toughened” up within 2 to 4 days after treatment, label states the preharvest interval should be 7 days; desiccation may occur with some combinations; beware of off-target movement
2	Dropp/Free Fall in combinations	requires at least 5 days to work; may require at least 1 lb/6 acres to achieve sustained regrowth suppression
3	Ginstar	has provided excellent results throughout the season but supplies are short and the product is expensive
4	Leafless	somewhat expensive and limited supply
5	Boa/Gramoxone	somewhat unpredictable in performance on immature foliage; rate selection is a challenge; concerns about off-target injury limit its utility

**More on Defoliation:** (*Jost*) In east Georgia we are facing the task of having to defoliate a crop with two distinct types of leaves on the plant. Most fields, dryland in particular, consist of a lower canopy of older leaves and an upper canopy of new juvenile leaves. What makes this a real challenge is that the older more mature leaves have been drought stressed through most of the season and thus have a thicker cuticle making absorption of the harvest-aids more difficult. As discussed above, there are several options available to defoliate this crop. The most consistent result observed on dryland trials in East Georgia is that the active ingredient thidiazuron is a must.

Thidiazuron is available in the materials, Dropp, Ginstar, Leafless, and Freefall. With the projection of somewhat cooler temperatures in the coming weeks Dropp and Freefall should be used at rates of at least 0.125 lbs/A. The addition of 1 pint/A of Folex or Def will help in getting the material into the plant and seems to work a little better than Dropp or Freefall alone. If Ginstar is used alone, at least 8 oz/A is needed to effectively remove the juvenile and older leaves. The rate of Ginstar may be dropped to 5 to 6 oz/A if an organophosphate material or ethephon-containing material is used. Leafless will have to be applied at the 12 oz/A rate with 1 pt/A COC. Another observation made in these trials is that ethephon-containing materials seem to enhance the speed of activity of most treatments.

**Nematodes and Areolate Mildew Finish Out the Season:** (*Kemerait*) As the 2002 cotton season draws to a close, a couple of disease/nematode related issues have become important. First, a number of agents and growers, particularly in the southern part of the state, have been reporting “powdery mildew” on the cotton leaves. Symptoms normally include a white, powdery fungal growth, especially on the underside of the affected leaves. In some cases, the fungal growth is severe enough to cause limited defoliation of affected leaves. Based upon the samples that have been submitted to the disease diagnostic lab in Tifton, and examples that I have seen in the field, the true cause of these symptoms is areolate mildew, or “false mildew”, caused by the fungus *Ramularia gossypii*. This disease typically occurs late in the growing season and is favored (and spread) by rainy conditions that we had earlier in August. Areolate mildew is rarely known to be of economic importance and may actually help with defoliation at the end of the season. Currently, only field sanitation (incorporating crop residue in the soil) is a practical control measure.

Nematodes, primarily southern root knot nematodes and reniform nematodes, continue to plague cotton growers in the state. In many cases, growers are observing stunting, dramatic foliar symptoms, poor boll loads, and early cutout, **but are slow to attribute the cause to nematodes**. Areas affected by nematodes are often clustered in specific areas of a field, especially in the cases of southern root knot and Columbia lance, which favor sandier soils. The roots of plants infested with root knot nematodes often show gall formation. However, since the galls are most abundant and obvious on the finer secondary roots, they may be difficult to detect if the plants are pulled, rather than carefully dug from the soil. Obviously, secondary roots are lost if the plant is pulled up. Identification of damage from reniform, Columbia lance, and sting nematodes is very difficult without submitting a soil sample for analysis.

Harvest, and the period after it prior to frost, is the best time to sample a field for nematodes in order for the grower to make management decisions for 2003. It is during this time that populations of nematodes are the greatest and a problem can best be identified. Samples should be pulled and combined from a number of areas in a field; multiple samples may be required for large fields. Samples should be treated carefully (avoid excessive heat) and sent as quickly as possible to the nematode diagnostic lab. With the results from the lab, growers have a much better idea of the type(s) of nematodes in their field and the size of the populations. With such information, they can consider options for future crops and the need for nematicides.

**Nematode Round-Up 2002!!!!** (*Kemerait and Brewer*) The time has arrived to begin collecting samples for the 2002 “Nematode Round-Up”. As mentioned in an earlier Cotton Newsletter, it has been several years since a survey was conducted across the state, and losses to nematodes continue to climb. One of the very best ways to educate cotton growers in the state about the importance of managing nematodes is by providing information of the distribution and importance of southern root knot, Columbia lance, reniform, and sting nematodes in the counties and across the state.

The University of Georgia Cooperative Extension Service has received tremendous support from colleagues with the Boll Weevil Eradication Program (BWEP) and from Dow AgroSciences. Through the BWEP, fields in every county in the state where cotton is produced have been randomly selected and identified by grower. (This insures that the survey includes a complete look at the nematode situation in the state and not only in fields with a history of problems.) Agents in these counties will receive a list of these fields in the next week and are asked to make arrangements to sample as many as they can and submit the samples to the UGA nematode diagnostic lab in Athens, where they will be processed free of charge. (The samples from the survey must be identified as “Nematode Round-Up Samples.”) The results of the survey will be included in a publication describing nematode distribution in each county and across the state. Contributing agents will be included as co-authors on the publication.

In order to make sampling easier, Dow AgroSciences (the makers of Telone II) have agreed to cover the cost of producing 75 nematode sampling probes that will be distributed with this survey and will remain in the individual counties. These probes will help us now, and will hopefully make it easier for agents to continue sampling for nematodes in the future. Please look for more information in the next few days!

**DCP Payments and Base/Yield Options.** (*Shurley*) Under provisions of the new farm bill, landowners and/or tenant-producers with Power of Attorney (POW) may elect to update the farm’s crop base acres and receive a partial update of the farm’s crop program payment yields. The new farm bill authorizes Direct Payments (DP) and Counter-Cyclical Payments (CP) on 85% of base acres. DP will be made at the farm’s current PFC yield level (the yield that PFC or AMTA payments have been made at under the 1996 farm bill). If the farm did not participate in the 1996 farm bill PFC contract program or otherwise has no such yield, one will be established by FSA. CP will be made at one of three yield options elected by the

landowner-- the current PFC yield, the PFC yield plus 70% of the difference between the PFC yield and the 1998-2001 average yield for the farm, or 93.5% of the 1998-2001 average yield.

Sign-up for the DCP program began October 1 and will extend to April 1, 2003. USDA has recently announced projected 2002 crop CP rates for program crops. The table below summarizes DP and projected CP rates for each crop for 2002.

**DP and 2002 Projected CP For Various Crops**

<b>Crop</b>	<b>2002-2007 Direct Payment</b>	<b>2002 Target Price</b>	<b>2002 Loan Rate</b>	<b>Target Price - Direct Payment</b>	<b>Projected 2002 Counter-Cyclical Payment *</b>
Barley	.24	2.21	1.88	1.97	.00
Canola	.008	.098	.0949	.09	.00
Corn	.28	2.60	1.98	2.32	.00
Cotton	.0667	.724	.52	.6573	.1371
Gr. Sorghum	.35	2.54	1.98	2.19	.00
Oats	.024	1.40	1.35	1.376	.00
Peanuts	36.00	495.00	355.00	459.00	104.00
Soybeans	.44	5.80	5.00	5.36	.00
Sunflowers	.008	.098	.0915	.09	.00
Wheat	.52	3.86	2.80	3.34	.00

\* The Counter Cyclical Payment (CP) is calculated as the “Target Price minus the Effective Price”. The Effective Price is the Direct Payment plus the **higher** of the Loan Rate or the marketing year average price. More simply put, a Counter-Cyclical Payment will be available if the US average marketing year cash price for the crop is below the Target Price minus the Direct Payment shown in the table. These are the **projected** payments for 2002 crops based on USDA’s current projection for market prices. ***This may change for 2002 and may not be an accurate reflection of 2003-2007.*** No CP is received if the average market price or the Loan Rate, whichever is greater, is above the Target Price minus the DP.

DCP payments are based on the farm’s historical acres and yield. It is important that producers and landowners recognize that these payments are “decoupled” from what is actually grown on the farm. With exception of some restrictions on fruits and vegetables, producers have complete flexibility to plant or not plant what they wish and this does not effect eligibility for or amount of DCP payments.

The Direct Payment (DP) is also “decoupled”. It is not tied to the market. This payment is received regardless of market price. The Counter-Cyclical Payment (CP) does have a market price mechanism so this payment can vary from year to year and could be large in low-price years or could be zero in high price years.

The base/yield option selected will vary from farm to farm situation. The objective is to choose the base/yield option that will most likely result in the largest amount of DP and CP payments over the 6-year life of the farm bill. The most profitable selection will depend on current PFC yields, 1998-2001 average yields, current PFC base acres, 1998-2001 average planted acres, and the outlook for market prices over the next 6 years.

**Quality of the Georgia Cotton Crop Early Harvest.** (*Shurley and Brown*) For the week ending October 3, 2002 the USDA Cotton Classing Office in Macon had classed (graded) 99,888 bales from 48 gins. The cotton being ginned thus far is likely the earlier planted, non-irrigated crop. The table below is a summary of quality factors for the crop harvested and graded through October 3.

**Quality of 2002 Georgia Cotton and Compared to Same Time Last Year**

	<b>2002 Crop (As of 10-03-02)</b>	<b>Last Year (As of 10-04-01)</b>
Bales Classed (number)	99,888	67,828
Estimated Portion of Total Crop (%)	4.9	3.0
Color Grade 41 and Better (%)	74	91
Color Grade Less Than 41 (%)	26	9
Average Leaf Grade	3.3	3.3
Staple Less Than 34 (%)	60	34
Average Staple Length (32 <sup>nds</sup> of an inch)	33.2	33.9
Fiber Strength 26 and Better (%)	92	95
Average Strength (g/tex)	27.9	28.6
Micronaire discounted (< 3.5 or > 4.9) (%)	23	6
Average Micronaire	4.58	4.45
Average Uniformity Index	80.3	80.5

Cotton harvest is further along than at this same time last year. Color and Leaf grades have been satisfactory on most of the crop graded thus far although Color Grade is behind last year. Strength and Uniformity are also good and comparable to last season. The biggest quality concerns thus far are Staple Length and Micronaire. Thus far, 60 percent of bales classed have graded below the base standard of 34/32<sup>nds</sup> in fiber length and 23 percent of bales have been high (greater than 4.9) or low (less than 3.5) in micronaire. Hopefully, if the weather cooperates, quality should improve substantially as harvest progresses and better cotton is picked.

**Variety Trial Info Becoming Available.** (*Brown*) Results from 2002 cotton variety trials are becoming available. As data from UGA tests are finalized, they will be posted on the UGA Cotton Web page. The following are things to remember as you examine data from such trials.

1. Both yield and quality data must be considered in determining the overall value of a variety. In terms of per acre value, high yields do not often override discounts associated with short fiber or high micronaire.
2. Because of the limitation of ginning small samples, small plot experiments may overestimate turnout (lint percent) and uniformity index.
3. Stellar performance at a single site or in a single year from multiple sites should not be the sole reason for variety selection. Consistent yields and fiber quality across sites and years add confidence in the process of variety selection.

Over 90 percent of the cotton acreage in Georgia is planted with transgenic varieties, most of that being Roundup Ready or Bollgard/Roundup Ready. Several relatively new stacked gene varieties-- among them DP 555 BG/RR, FM 989 BR, ST 5599 BR--are vying for the leadership in the transgenic market. They are included in many tests across the state, and despite how they “look,” the proof is in the picking. Do they yield? Is fiber quality a positive or negative? Data from this season will be extremely valuable in sorting out this next wave of transgenic offerings.

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