



THE UNIVERSITY OF GEORGIA
COOPERATIVE EXTENSION

Colleges of Agricultural and Environmental Sciences & Family and Consumer Sciences

Randolph County Extension Office
uge4243@uga.edu
103 East Church St., P.O. Box 282
Cuthbert, GA 39840

Phone Number: (229) 732-2311
Fax: (229) 732-3393
E-mail: bhaddock@uga.edu
Website: <http://www.ugaextension.com/randolph/>
Buster Haddock Cell Phone: (229) 310-1441

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Randolph County Agricultural Newsletter



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Upcoming Dates

- June 13 - UGA Cotton Scout School – UGA Tifton Campus Conference Center 9:00 A.M. – 12:30 P.M.
- July 7 - Sunbelt Expo Field Day - Moultrie
- July 19 - Stripling Irrigation Research Park Field Day – Camilla
- July 21-23 - Southern Peanut Growers Conference - Panama City Beach, FL

Current Climate Situation: As sub-soil moisture is quickly diminishing crops and vegetation are beginning to suffer. Last month we had received about half of the normal precipitation for the month, but we have had no improvements. The 30 day (from publication date) rainfall recorded at the USDA Multi-Crop Irrigation Research Farm in Shellman recorded .21" (30 year average is 3.85") inches with a daily average temperature of 71.40°F and an average daily maximum temperature of 86.26°F. Average daily temperatures are about 6 degrees higher than the 30 year average. This is a considerable deviation from the norm. Rainfall is needed to bolster some reservoirs for the summer. The average minimum temperature was 56.54°F. The average 4" soil temperature over the last thirty days is 80.51°F. The evapo-transpiration 30 day average is (.196) inches per day, which is above average. To monitor soil temperatures and weather information at various weather stations including the USDA Multi-Crop Irrigation Research Farm visit www.georgiaweather.net.

Drought Conditions Expected to Continue

By David Emory Stooksbury

The drought conditions now gripping the southern two-thirds of Georgia are expected to last through the summer, with a chance conditions could worsen through at least the middle of August.

The dry La Niña winter and spring for southern Georgia means that the typical moisture recharge for the region did not occur this year. As the heart of the agricultural growing season begins this month, there is minimal moisture reserve at this time. But water resources are expected to remain adequate for most locations.

May is typically one of the driest months in Georgia. There is little hope for near-term drought relief. The only hope for widespread drought relief will be from tropical weather systems. Typically Georgia does not experience tropical weather until late summer and fall.

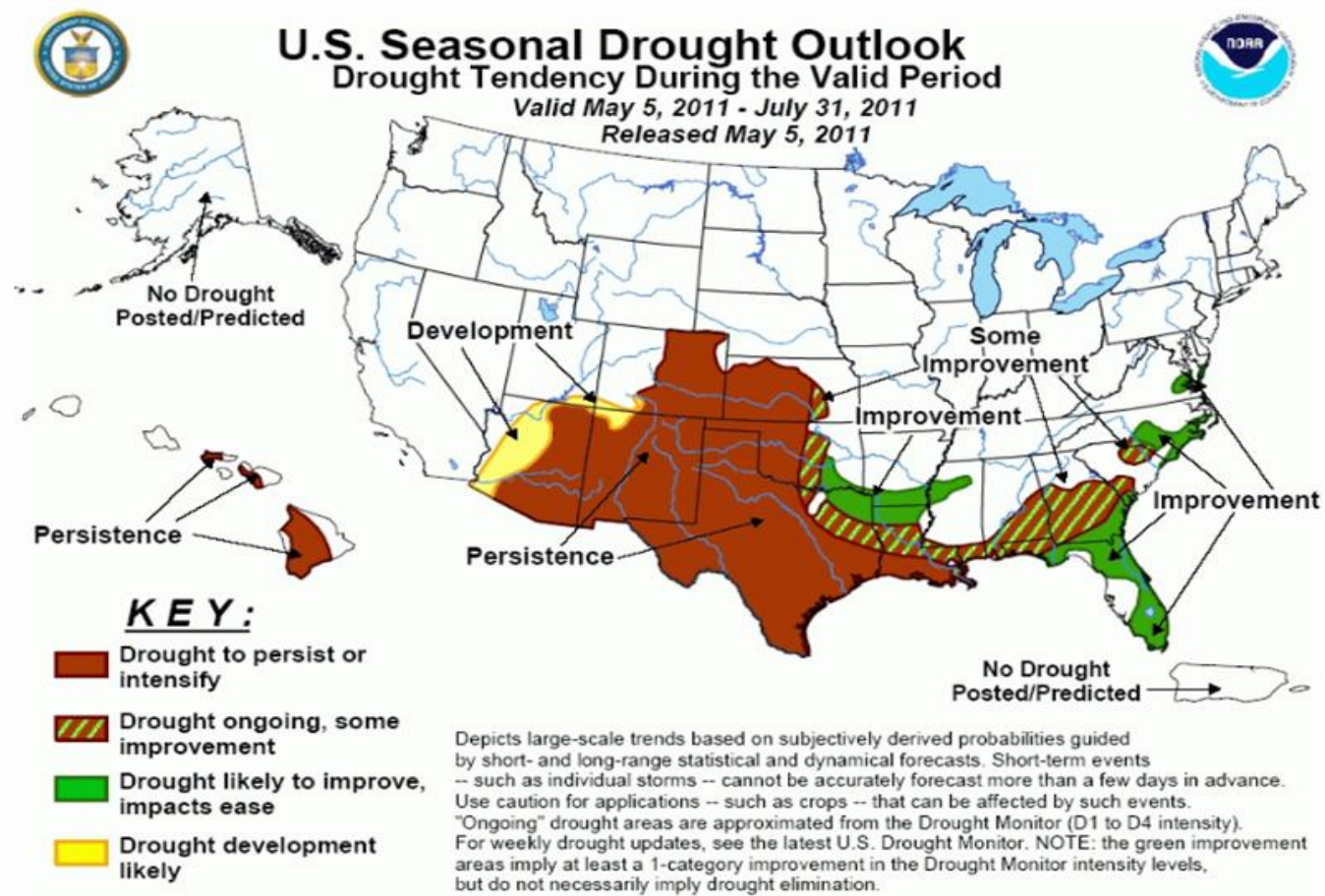
Current soil-moisture levels in the coastal plain are at or below the tenth percentile. At the tenth percentile, the soils would have more moisture 90 out of 100 years. Soil-moisture levels in the lower Chattahoochee River and lower Flint River valleys are between the first and fifth percentiles. At the first percentile, the soils would have more moisture 99 out of 100 years.

Across the southern half of the piedmont, soil moisture levels are around the twentieth percentile. Stream flows across the southern two-thirds of the state are well below normal for early May. Across the northern third of the state stream flows are well above normal. Major reservoirs across the state are near or above normal levels for early May. The exception is Clark Hills, which has been lowered by the U.S. Army Corp of Engineers for maintenance.

Wildfires are occurring across the state. Active wildfires are currently burning in the Okefenokee Swamp in southeast Georgia. With the dry conditions, caution is needed when engaged in activities that might lead to wildfires.

Georgia AEMN prospects

Georgia's unique and widely-used Automated Environmental Monitoring Network (www.georgiaweather.net), slated for dismantling this spring due to lack of funding, received a temporary reprieve from a one-time contribution, that has allowed it to remain open until July. However it is still on the chopping block unless ongoing financing can be secured from a few major sources. If you use this service and are concerned, contribute to the grass-roots support effort by contacting your county commissioners, commodity commission office, legislators, and anyone who can have an organized impact. Questions should be directed to the network manager in Griffin, Ian Flitcroft (iflitcro@uga.edu).



WHEAT

Stay on Top of Small Grain Harvest

By Dewey Lee

Small grain harvest is about underway and there are a few tips that we can share with growers to help them maintain a quality crop to sell.

1) Harvesting at a higher moisture percentage though it requires drying avoids the drying and re-wetting caused by heavy dews or rainfall that can occur when they wait for the crop to reach 11-12% moisture. This will maintain a much higher test weight and possibly avoid sprout damage. Test weight is lost when the grain dries and swells again from the re-wetting. The grain does not dry to its original density and the starch fractures, losing weight.

2) Seed will be small to average in size this year so adjust the combine accordingly to prevent excessive loss.

3) Harvest around heavy infestations of ryegrass and/or wild radish. Harvest those areas last and together. Then clean the combine thoroughly to avoid contaminating other areas. A high pressure water hose should be used to wash some of the hard to reach portions of the combine.

4) Clean the bins thoroughly and treat the bins with an approved insecticide. If the grower plans to hold the grain during the summer make sure the bin can be sealed tightly in order to fumigate later. We have a video that growers can get to learn how to put together a closed-loop fumigation system on their bins if they plan to hold grain for sell later in the year.

CORN

Irrigation Scheduling for Corn

By Buster Haddock

We are extremely dry and everybody that can is irrigating corn. As Dr. Lee mentioned at our meeting this year it is not a good idea to wait until a sign of wilting to water as yield will have already been lost at that point. This is an excellent chart. It breaks it down by growth stage, days after planting and inches per day. This is the total water use for the corn plant, therefore it is extremely important to account for rain and soil moisture when scheduling irrigation applications. Consider this . . . If you have a corn field that is 40-45 days old it needs about .20" per day, so the crop will need about 1.4" for the week. However, we are also losing .20" per day to evaporation. Therefore to get the 1.4" of moisture the plant needs you will also have to apply an additional 1.4" inches to satisfy your losses. So, to get 1.4" of moisture on the crop you will have to actually put 2.8" total inches of rain for the week to give the plant acceptable moisture. So, pray for rain and turn on the irrigation.

Soil types are also very important to consider as well. Heavier soils hold water better than sandy soils, but they do not receive water as quickly as sandy soils. Here in Randolph County most of the soils in row-crops have an infiltration rate of 1-1.2 inches per hour and 1-1.5 inches of water holding capacity per foot of soil. There are also several other factors that come in to play like hard-pan depth, soil compaction, evaporation rates, etc. I would also like to stress proper irrigation maintenance. Make sure irrigation nozzles are open and operating properly. Monitor your end-guns and determine if they are making the proper turns they cover a large area. I would also repair boot and gasket leaks. Irrigation uniformity can be dramatically affected by these different problems.

It is also a good idea to have a uniformity test done by the NRCS or Georgia Soil & Water Conservation Commission, if available. They can give you a good idea of the effectiveness of your system. Also, be sure to utilize your water meters to determine how much water you are putting out per application. The meters are also useful in determining impeller wear and/or drop in water levels due to the flow compared with the rpm's. The drought last year really told on some farmers who didn't manage their irrigations properly. A nozzle clogged at the end of an irrigation system can cost you dearly. In closing I would also like to add that we should not fear investing in our irrigated corn crops as we have excellent prices and traditionally we make higher yields in dry years.

<u>Growth Stage</u>	<u>DAP (days after planting)</u>	<u>Inches Per Day</u>
Emergence and primary root developing.	0-7	.03
	8-12	.05
Two leaves expanded and nodal roots forming.	13-17	.07
	18-22	.09
Four to six leaves expanding. Growing point near surface. Other leaves and roots developing.	23-27	.12
	28-32	.14
	33-36	.17
Six to eight leaves. Tassel developing. Growing point above ground.	37-41	.19
	42-45	.21
Ten to twelve leaves expanded. Bottom 2-3 leaves lost. Stalks growing rapidly. Ear shoots developing. Potential kernel row number determined.	46-50	.23
	51-54	.25
Twelve to sixteen leaves. Kernels per row and size of ear determined. Tassel not visible but about full size. Top two ear shoots developing rapidly.	55-59	.27
	60-64	.29
Tassel emerging, ear shoots elongating.	65-69	.31
Pollination and silks emerging.	70-74	.32
	75-79	.33
Blister stage.	80-84	.33
Milk stage, rapid starch accumulation.	85-89	.34
Early dough stage, kernels rapidly increasing in weight.	90-94	.34
Dough stage.	95-99	.33
Early dent.	100-104	.30
Dent.	105-109	.27
Beginning black layer.	110-114	.24
Black layer (physiological maturity).	115-119	.21

PEANUTS

Is May 2011 turning into May 2007???

By John Beasley

We have had a very dry spring thus far and no sign of consistent or widespread rain forecast for the immediate future. With a very few exceptions, fields that can't be irrigated are too dry to plant. You only have to think back four years to April and May 2007 when it was so dry during that two-month stretch that we were having emergency crop insurance meetings the last few days of May to discuss "prevented planting" options in crop insurance policies.

I am not pushing the "panic" button yet but we need to be prepared to deal with continued dry weather and its impact on peanut planting. Here are some critical factors to discuss with your producers.

DO NOT place seed in completely dry soil, or "dustin' them in" as some producers imply. Peanut seed are much more sensitive to planting in dry soil compared to cotton. Make sure that peanut seed are planted in moisture, i.e., completely surrounded by moist soil. If planting seed at the two-inch depth then there should be moist soil just above that depth, as well as below.

In fields that can be irrigated the question is "do you water the soil and then plant or plant and then water"? In the earlier part of the growing season there are definite concerns of irrigating after planting due to the cold "shock" the seed will experience. However, once the soil warms up well above 70 degrees at the four-inch depth, by the time the cold water from deep-well irrigation reaches the seed at

the two-inch depth it has warmed sufficiently from the soil above to prevent "shocking" the seed. Therefore, at this time in May and later I would not hesitate to plant and then irrigate, especially if watering in herbicides such as Valor.

How late can we plant? All of the cultivars we are planting this year are in the medium maturity range, or 135-145 days after planting, under normal conditions. For example, if we are forced to plant in early June, and if "normal" growing conditions prevail the remainder of the growing season, harvest would be expected in mid to late October. We typically have warm enough nights in mid to late October to mature out the crop. However, several of the past 5-6 years we've had cold enough nights by the third week of October to shut down maturity. Therefore, planting our current group of cultivars in early to mid June does increase the risk of not reaching full maturity. We need to plant by the end of May, if at all possible.

Which cultivar do you plant when planting late? Georgia-06G will comprise 80% or more of the seed supply so there won't be much of an option or choice. As mentioned in #3 above, all of the cultivars we are planting now are within a week of each other in maturity. Georgia-07W and Florida-07 are typically a week later maturing than Georgia Greener. Maturity of Georgia-06G ranges from the same as Georgia Greener to a week later like Georgia-07W. The past couple of years Georgia-06G has trended more like Georgia-07W than Georgia Greener. Tifguard has typically matured about the same as Georgia Greener.

Georgia Peanut Achievement Club

By John Beasley

**Congratulations to Peavy Brothers Farms!!*

We had 17 entries in the 2010 Georgia Peanut Achievement Club. There were some outstanding yields submitted this year. In fact, eight of the 17 had average yields in excess of 6,000 pounds per acre and 13 of the 17 had an average yield above 5,500 pounds per acre.

There were some tweaks to the rules for this year so that 10 producers could be recognized and honored with a trip sponsored by Syngenta to the 2011 Southern Peanut Growers Conference in Panama City Beach, FL. The 10 winners were determined in the following manner:

- Highest average yield, statewide, in the 100-300 acre category
- Highest average yield, statewide, in the 300 acres and above category
- The remaining eight spots were determined by the highest average yield in 300-700 acreage category and the 700 plus acreage category within four GPAC Districts.

The tables below lists the winning entries compared to all 17 entries submitted.

100 – 300 Acres			
Producer	County	Acres	Lbs/Acre
*Kreg Freeman	Miller	165.0	6,626
Brad Thompson	Seminole	238.6	5,635
Tillmanstone Farms	Jenkins	121.1	5,751
Darrell Ross	Irwin	250.6	5,231

*Overall State Winner

300 plus Acres			
Producer	County	Acres	Lbs/Acre
*Al Sudderth	Calhoun	445.5	6,328

*State Winner

300 – 700 Acres			
District I	County	Acres	Lbs/Acre
*Harold Hobbs	Lee	642.0	6,145
Mike Newberry	Early	315.2	6,072
District II	County	Acres	Lbs/Acre
*Gaines & Dowdy	Baker	305.6	6,245
District III	County	Acres	Lbs/Acre
*Hulin Reeves, Jr.	Ben Hill	504.2	5,553
District IV	County	Acres	Lbs/Acre
*Philip Grimes	Tift	532.0	6,259
Art Dorminy	Irwin	315.0	5,269

*District Winners

700 plus Acres			
District I	County	Acres	Lbs/Acre
*Peavy Brothers Farm	Randolph	741.6	6,204
Jimmy Webb	Calhoun	1,545	5,501
District II	County	Acres	Lbs/Acre
*Jerry & Jeff Heard	Baker	840.6	6,111
Mims Farms	Seminole	905.0	5,578
District III	County	Acres	Lbs/Acre
*Ken Hall Farms	Worth	1,038	4,871
District IV	County	Acres	Lbs/Acre

*Wayne Sayer	Irwin	1,009	5,032
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*District Winners

It was an outstanding year for these producers, despite very difficult growing conditions throughout most of the crop year. The 10 winners will be recognized at a banquet during the Southern Peanut Growers Conference, July 21-23, at the Edgewater Beach Resort in Panama City Beach, FL. The winners and County Extension Agents from their counties will be receiving information concerning the trip in the near future.

Calcium at Pegging? And Other Calcium Questions Answered

By Glenn Harris

For years, the recommendations for providing calcium to the pegging zone were pretty clear. If you needed a pH adjustment you can apply the recommended rate of lime at planting, or if your pegging zone sample calls for gypsum, you apply 1000 lb/a at bloom time. But along the way, things change and a number of new products have been introduced. Even the timing of gypsum applications (including wanting to apply gypsum all at planting or split applications) has come into question. A lot of these new questions are the result of the shift from small-seeded to large-seeded runners and the increasing importance of calcium nutrition. The following is an attempt to answer some of these questions as clear and concise as possible:

1) Q: Have the calcium recommendations changed since the shift from small-seeded to large-seeded runners?

A: Technically no. Research data from the last 2 years shows that both the 500 lb/a calcium in the pegging zone requirement and the 1000 lb/a gypsum application rate overall, appear to hold for large-seeded runners. However, it is clear that following this recommendation is more important for large-seeded runners, and especially for GA 06G. Also, when the pegging zone calcium is between 500 and 750 lb/a you are in a "grey area" where calcium applications may still be beneficial. Even calcium chloride or calcium thisulfate applied through center pivots may be helpful when you are in this pegging zone calcium range (this will be addressed further in another question).

2) Q: Are foliar calcium applications recommended on peanuts?

A: No! No! No! This one is abundantly clear. Foliar calcium products recommended in the 1 qt/a range that are sprayed on the leaves in total spray volumes of 10-20 gal/ acre do not provide enough calcium. Even if they did, they do not get translocated from the leaves to the developing pods.

3) Q: Isn't putting calcium chloride or calcium thisulfate liquids through a center pivot a foliar application then? I mean the water hits the leaves right?

A: No ! No ! No ! Putting these "liquid calciums" through a center pivot is a soil applied application. The reason is that you are putting so much water out per acre that even though the water does hit the leaves, initially, the majority of it runs off and is basically applied to the soil. Think of it this way, when you foliar feed, you apply approximately 10 gal/a final spray volume and try to keep the spray on the leaf. When you apply 1 acre-inch of water you are applying approximately 27,000 gallons !Huge difference !

4) Q: So do you recommend putting calcium chloride or calcium thiosulfate through center pivots? And does it replace using gypsum?

A: Yes and No ! Based on research data from the last 2 years conducted at the Stripling Irrigation Park near Camilla, GA, calcium chloride and calcium thiosulfate applied through the a center pivot (to supply approximately 25 lb/a of highly soluble calcium during bloom) did improve yield, calcium in the seed and germination compared to the untreated check. However, these products do not increase the soil test calcium levels after harvest near as high as gypsum, so in that regard they do not replace gypsum. These two products applied with center pivot irrigation appear to have the best fit when the pegging zone calcium levels are in that "grey area"of 500- 750 lb Ca/a. If your pegging zone calcium level is below 500 lb/a then gypsum should be applied instead.

5) Q: Which is better, lime at planting or gypsum at bloom time?

A: Technically they should both work equally as well. However, the lime method is only supposed to be used when a pH adjustment is called for according to a soil test result. In addition, based on a field study done in Tifton in 2010, the lime method did not work near as well as gypsum in a dry land situation when there was drought stress.

6) Q: Can I apply gypsum at planting?

A: This is not recommended at this point since there is always a chance that depending on soil type and the amount of rainfall and irrigation, even the calcium in gypsum could leach below the pegging zone.

7) Q: Should I split my gypsum applications and put some on at planting and some at early bloom?

A: This is also not recommended at this time. However, research studies are being conducted on irrigated, deep sand soils (again at the Stripling Irrigation Park) with adequate irrigation to see if there may be a benefit to this timing of application.

8) Q: How late is too late to put out gypsum?

A: Gypsum should be applied at "early bloom" or approximately 30-45 days after planting depending on growing conditions. Once you get past 100 days after planting, the majority of pods have probably already absorbed the proper amount of calcium or not. Plus, after 100 days after planting, running over lapped vines is not desirable.

Q: What about this new product called TigerCal30 that I have seen advertised so much?

A: This is also not recommended at this time since it has not been tested thoroughly in Georgia.

COTTON

Advantages and Risks of Waiting for Moisture

By Guy Collins & Phillip Roberts

Now that cotton planting is largely underway, it is important consider the significant investment in planting a cotton crop, and to avoid hasty decisions that could compromise the crop. As cotton acreage is increasing and equipment and labor resources are stretched thinner, another pressing factor to consider is time. The most challenging planting decisions during the early part of our planting window

are often associated with dry land acreage. When warm temperatures prevail, growers usually begin planting dry land acreage as soon as sufficient soil moisture is available. This year has been relatively dry so far, and several growers have been faced with decisions of whether to “dust in” seed in anticipation of rain if soils are extremely dry, plant deeper to capture some subsurface moisture, or to delay planting until it rains. Of course, there is a risk that it will continue to remain relatively dry which could force growers to plant in suboptimal conditions. However, growers should keep in mind that we are still at the very beginning of our planting season, and there is considerable time remaining to plant.

At this point, waiting on rain poses little risk and there is little need to plant in soils with suboptimal moisture. This risk really only becomes greater as time elapses, and these decisions are much more difficult towards the end of our planting window. Some growers may also want to utilize or capture available soil moisture by deep planting. Deeper planted cotton in Georgia should be planted at depths between 0.75 and 1.25 inches but not greater than 1.25 inches. Planting on the shallower end of this spectrum is advised when encountering unfavorable soil or environmental conditions, or if surface crusting is likely. Deep planting in unfavorable soil temperatures, or in soils that tend to crust, could lead to germination and emergence problems. Planting at depths closer to 1.25 inches is only appropriate when planting in good soil moisture, warm soil temperatures, and in well-drained soils without the potential for crusting. The success of deep planting is more probable if soil moisture at these depths are sufficient and forecasted conditions continue to remain favorable until seedlings emerge.

Sincerely,

Buster Haddock

Buster Haddock
ANR Agent
Randolph County

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