

2010 UGA Cotton Defoliant Evaluation ProgramTifton Location

Guy D. Collins, Ph.D. Extension Cotton Agronomist University of Georgia, Tifton, Ga.

Jared R. Whitaker, Ph.D. Extension Agronomist University of Georgia, Statesboro, Ga.

Field Description

The Tifton trial was conducted at the UGA Gibbs Farm. Crop condition and plant maturity were evaluated the day prior to application of harvest aid treatment. Leaves on the large majority plants were mature to very mature, with very few juvenile leaves throughout the field (Figure 1). Most leaves were beginning to senesce naturally (reddish color indicative of leaf aging and chlorophyll degradation), and there were some signs of Stemphyllium and angular leaf spot diseases, which can enhance the senescence process in some cases. There were hardly any signs of juvenile regrowth in terminals or the axial node tissue (basal region).



Figure 1. Crop condition on the day prior to application of defoliant treatments.

Plant height generally ranged from 30 to 40 inches tall, and the boll population ranged from 53 to 76 percent open bolls, with an average of 67 percent open bolls. Nodes above cracked boll ranged from 1 to 3, with an average of 2.2. Upon examination of internal boll components (seed and fiber maturity), the unopened bolls appeared to be adequately mature to initiate defoliation without compromising the opening of these bolls. Additionally, this particular field appeared to be drought-stressed in the days leading up to the day of harvest aid application.

Individual treatments (tank-mixes of harvest aid products and rates) were determined by the manufacturers based on the crop condition, current weather conditions and the weather forecast. The weather forecast for the day of treatment included a high of 95°F and a low of 74°F, with a 30 percent chance of rain, although no rain occurred on the day of treatment (Figures 2 and 3). During the week following application, daytime highs were expected to slowly decrease by 7 degrees (88°F one week later) and nighttime lows were expected to decrease 5 degrees (69°F one week later). Chances of rain were approximately 50 percent for the two days following treatment, resulting in 0.2 inches of rain on the day following defoliant application.

Trial Description

Defoliants were applied on September 10, 2010. All treatments were applied using a $\rm CO_2$ -pressurized backpack sprayer equipped with regular 110-02 flat fan nozzles, calibrated to deliver 15 GPA at 3 mph. Treatments were arranged in a randomized complete block design and replicated three times. Plots consisted of two rows approximately 30 feet long. Percent defoliation, percent desiccation and percent open bolls were visually estimated at 7 and 14 days after treatment (DAT). Percent defoliation, percent desiccation and percent regrowth were also visually estimated at 20 DAT. Data were subjected to Analysis of Variance, and means were separated using Fisher's Protected LSD at p \leq 0.05.

Observations and Results

This trial was initiated in relatively hot and dry conditions, thus the results should represent early season warm/hot weather harvest aid performance. Daytime high temperatures rarely fell below 90°F and rain was infrequent within the first 14 days of treatment (Figures 2 and 3). Additionally, there were hardly any signs of regrowth formation within the first 14 days following treatment. In these conditions, the risk of desiccation was much higher than in somewhat lower temperature environments. Additionally, some regrowth was evident in some treatments at 20 DAT, likely due to rainfall events that occurred between 14 and 30 DAT.

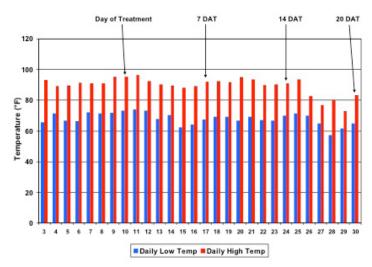


Figure 2. Daily high and low temperatures during September 2010.

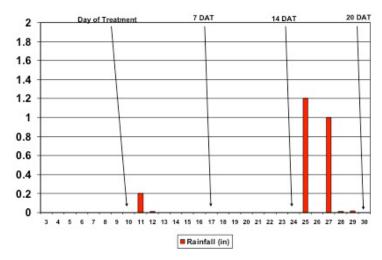


Figure 3. Daily rainfall during September 2010.

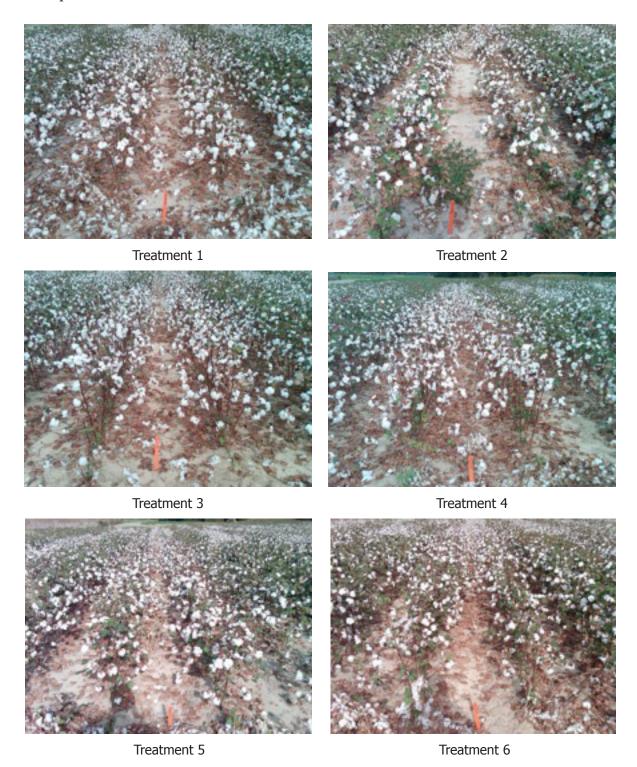
| Kalte % decletionism % decletionism </th <th>Treatment</th> <th>u</th> <th>7 DAT 9/17/2010</th> <th></th> <th></th> <th>14 DAT 9/24/2010</th> <th></th> <th></th> <th>20 DAT 9/30/2010</th> <th></th> | Treatment | u | 7 DAT 9/17/2010 | | | 14 DAT 9/24/2010 | | | 20 DAT 9/30/2010 | |
|---|---------------------|---------------|--------------------|----------------|--------------|---------------------|--|----------------|---------------------|-------------|
| State | Rate | % apea, bolls | % defeliation | % desiccation. | % apea bolls | % defoliation. | % desiccation. | % defoliation. | % desiccation. | % regressth |
| 15 column | 6.4 0Z/a | 88.0 a.c | 95.0 a | 0.0 a | 92.3 bg. | 96.0 ak | B 7.0 | ₩ 0.66 | 0.0 a | 30.0 a.c |
| Barbara St. com/a St. co | 8 02/a | 82.3 c-f | 91.7 ab | 0.0 a | 90.3 €. | 97.0 ஆ | 0.0 ஆ | 98.7 a. | 0.0 a | 21.3 Grf |
| State | 32 oz/a | | | | | | | | | |
| State Stat | 56 02/a 1.6 02/a | 91.0 abc | 85.3 a-d | æ 5.8 | | 91.3 abs. | 6.7 a | 94.7 a-c | 3.3 & | 24.0 b.e |
| 1 | | 94.0 & | 87.7 abs. | 7.7 & | 98.7 a. | 93.3 abs. | 3.7 & | 94.0 b.f | 3.3 & | 23.0 b.c |
| promote (b.a.b.gen) 0.75 sa/a 92.7 sa/a 73.3 def 0.0 a. 92.3 bar chance (b.a.b.gen) 1 % w/v 1 % w/v 8.7.3 sec 83.3 sec 93.2 sec 90.3 cc chance (b.a.b.gen) 8 c cours 8 7.7 sec 87.7 sec 97.0 sec 97.0 sec chance (b.a.b.gen) 1 % w/v 1 % w/v 1 % w/v 1 % w/v 97.0 sec 97.0 sec chance (b.a.b.gen) 1 6 cours 15.7 f. f. 60.3 cf. 0.0 a. 93.7 séc chance (b.a.b.gen) 1 6 cours 1 5.7 f. f. 60.3 cf. 1 % a. 95.0 sec chance (b.a.b.gen) 1 6 cours 1 5.7 f. f. 60.3 cf. 1 % a. 95.0 sec chance (b.a.b.gen) 1 6 cours 1 5.7 f. f. 91.3 dec 87.7 séc 95.0 sec chance (b.b.a.gen) 1 6 cours 83.3 kr. f. 87.1 séc 87.2 sec 91.0 cc chance (b.b.a.gen) 1 6 cours 1 6 cours 1 7.7 ccf 1 7.2 cc 1 7.2 cc chance (b.b.a.gen) 1 5 cours 8 cours 94.0 sec | | | | | | | | | | |
| 1 % 4 \to 2 \to | 0 | 92.7 ab | 73.3 def | 0.0 a | 92.3 bg | 86.7 bcd | 0.0 a | 90.0 | 1.0 % | 41.7 ab |
| τροποία (ε Πλαύμει) 0.5 αρύα 87.3 ace 88.3 acd 0.0 a. 90.3 a. πάχει (ε Ιλαύμει) 1 % χ/γ 88.0 ace 87.7 abc 23 a. 97.0 abc πάχει (ε Ιλαύμει) 2 αρύα 75.7 £ 69.3 ac 97.0 abc 93.7 abc πάχει (ε Ιλαύμει) 2 αρύα 75.7 £ 69.3 ac 97.0 ac 93.7 abc πάχει (ε Ιλαύμει) 2 αρύα 75.7 £ 69.3 ac 93.7 abc 93.7 abc πάχει (ε Ιλαύμει) 2 αρύα 82.3 kcf 92.5 abc 93.2 abc 93.0 ac πάχει (ε Ιλαύμει) 0.25 % χ/γ 82.3 kcf 87.7 abc 92.5 ac 93.0 ac πάχει (ε Ιλαύμει) 0.25 % χ/γ 80.0 ac 94.0 ac 94.0 ac 91.0 ac πάχει (ε Ιλαύμει) 0.25 % χ/γ 94.0 ac 94.0 ac 94.0 ac 99.0 ac πάχει (ε Γλαύμει) 0.25 % χ/γ 94.0 ac 94.0 ac 99.0 ac 99.0 ac πάχει (ε Γλαύμει) 0.25 % χ/γ 94.0 ac 94.0 ac 99.0 ac 99.0 ac πάχει (ε Γλαύμει) | | | | | | | | | | |
| time (e lb airjeat) 28 ou/a 88.0 ace 87.7 abo 23 a, 97.0 ach abbons (e lb airjeat) 1 % x/v 88.0 ace 87.7 abo 23 a, 97.0 ach abbons (e lb airjeat) 1 6 ou/a 75.7 t 69.3 cf 00.3 a, 95.0 ach abbons (e lb airjeat) 1 6 ou/a 75.7 t 69.3 cf 00.0 a, 95.0 ach abous (e lb airjeat) 1 6 ou/a 80.0 ach 75.3 dcf 50.3 ach 95.0 ach abous (e lb airjeat) 1 6 ou/a 82.5 kf 92.3 ach 95.0 ach 95.0 ach abous (e lb airjeat) 0.25 % x/v 83.3 kf 87.7 abo 1.7 a, 92.3 bc abous (e lb airjeat) 0.25 % x/v 83.3 kf 87.7 abo 1.7 a, 99.0 a, abous (e lb airjeat) 0.25 % x/v 83.3 kf 87.7 abo 91.0 c, abous (e lb airjeat) 1 6 ou/a 94.0 a, 94.0 ach 94.0 ach 99.0 ach abous (e lb airjeat) 1 5 ou/a 94.0 ach 94.0 ach 94.0 ach 99.0 ach abous (e lb | 0.5 02/a | 87.3 a-c | 83.3 a-d | 0.0 a | 90.3 €. | 86.3 cd | 0.0 a | 95.0 a-c | 1.0 a | 45.0 a. |
| Section 1 1 1 1 1 1 1 1 1 | | | | | | | | | | |
| Age control (E Audigal) 4 op/a 88.0 a/c 87.7 abor 2.3 a 97.0 abor Age control (E Audigal) 1.6 oz/a 75.7 f 69.3 cf 0.0 a 95.0 abor Age control (E Badigal) 1.6 oz/a 75.7 f 69.3 cf 0.0 a 95.0 abor Age control (E Badigal) 1.6 oz/a 82.5 brf 92.3 ab 90.3 cf 90.3 cf Age control (E Badigal) 1.6 oz/a 82.5 brf 97.3 abor 97.3 abor 97.3 abor Age control (E Badigal) 1.6 oz/a 83.3 brf 87.7 abor 1.7 a 95.3 br Age control (E Badigal) 1.6 oz/a 83.3 brf 81.3 brf 81.3 brf 81.3 brf 81.3 brf Age control (E Badigal) 1.6 oz/a 83.3 brf 81.3 brf 81.3 brf 81.3 brf 99.0 ap Age control (E Badigal) 1.6 oz/a 84.0 ap 94.0 ap 94.0 ap 95.0 ap 99.0 ap Age control (E Badigal) 1.5 oz/a 80.0 det 77.7 ccf 1.7 a 99.0 ap Age control (E Badigal) 1.5 oz/a 86.3 | | | | | | | | | | |
| 15 opin 15 o | 4 02/a | | 87.7 abs. | 2.3 a | 97.0 ab | 94.0 abs. | 0.7 a | 95.0 a-c | 0.0 a | 30.0 3-c |
| A pipe (blasigal) 21 og/a | - | | | | | | | | | |
| December (c Deskigal) 21 casts 75.7 t 75.3 dof 5.0 a. 75.7 dof 75.3 dof 5.0 a. 75.7 dof 75.3 dof 5.0 a. 75.7 dof 75.3 dof 5.0 a. 95.0 dof 75.3 dof 5.0 a. 95.0 dof | | | 0 000 | 0.00 | | | 0.0 | . 000 | 0 | |
| 1 cox a 90.0 a-d 73.3 degf 50 a, a 95.0 abec | | 75.7 € | 69.3 ct | 0.0 a | 93.7 abc. | 92.7 abs. | 0.0 a | 92.0 d-g | 0.0 a | 25.0 b-e |
| about (6 lb, akigat) 2.4 og/a 82.5 lb.f 92.5 alb 0.0 a, 90.3 g, signet (6 lb, akigat) 16 og/a 82.5 lb.f 92.5 alb 0.0 a, 90.3 g, signet (6 lb, akigat) 1.6 og/a 83.3 lb.f 87.7 albo, 1.7 a, 92.3 lb. securon (4 lb, akigat) 0.25 % a/v 83.3 lb.f 81.3 lb.e 8.3 a, 91.0 g, securon (4 lb, akigat) 1.6 og/a 83.3 lb.f 81.3 lb.e 8.3 a, 91.0 g, stack (6 lb, akigat) 1.6 og/a 83.3 lb.f 81.3 lb.e 83.3 a, 91.0 g, stack (6 lb, akigat) 1.6 og/a 94.0 a, 94.0 a, 94.0 a, 99.0 a, stack (6 lb, akigat) 1.5 og/a 80.0 a,d 92.0 a,d 92.0 a,d 92.0 a,d stack (6 lb, akigat) 1.5 og/a 80.0 a,d 92.0 a,d 92.0 a,d 92.0 a,d stack (6 lb, akigat) 1.5 og/a 80.0 a,d 92.0 a,d 92.0 a,d 92.0 a,d stack (6 lb, akigat) 1.5 og/a 80.0 a,d 92.0 a,d 92.0 a,d 92.0 a,d | | 90.0 a-d | 73.3 def | 5.0 ₽ | 95.0 abc. | 86.3 cd | 0.7 a | 90.0 | 0.0 a | 41.0 ab |
| 15 core 25 c | | | | | | | | | | |
| Decided (a) Decided (b) Decided (b) Decided (c) | | + | | | | | | | | |
| 10 2.5 6.5 | | 82.5 p.f | 92.5 ak | 0.0 a | 90.3 € | 88.0 a-d | 0.0 a | 97.7 abs. | 0.0 a | 46.0 & |
| 1.0 cg/a 83.3 hrf 87.7 shoc 1.7 s, 92.3 hr 9 | | | | | | | | | | |
| Sequence (4 th sirgar) 1.6 octal and the structure (5 th sirgar) 1.6 octal and the structure (5 th sirgar) 1.6 octal and the structure (5 th sirgar) 1.5 octal and the structure (5 th sirgar) 1.5 octal and the structure (6 th sirgar) 1.5 octal and the structure (7 th sirga | 0.5 02/9 | | 87.7 ahc. | 17.9 | 92 3 hc | 80 7 a-d | 113 | 91.7 ofo | 0.0 a | 54.3 a-d |
| about (6 lb,at/gal) 24 ox/a 81.3 hr 81.3 hr 81.3 hr 91.0 g, fixe (6 lb,at/gal) 8 ox/a 81.3 hr 81.3 hr 81.3 hr 91.0 g, fixe (6 lb,at/gal) 1.6 ox/a 94.0 g, 94.0 g, 94.0 g, 99.0 g, shop (6 lb,at/gal) 0.25 % g/v 94.0 g, 94.0 g, 94.0 g, 99.0 g, shop (6 lb,at/gal) 1.2 ox/a 80.0 g,c/a 90.0 g,c/a 92.0 g,c/a 99.0 g,c/a abon (6 lb,at/gal) 1.5 ox/a 86.3 g,c/a 81.7 g,c/a 91.0 c,c/a 94.3 gbc 2 ox/a abon (6 lb,at/gal) 1.5 ox/a 86.3 g,c/a 81.7 g,c/a 94.3 gbc 2 ox/a abon (6 lb,at/gal) 1.5 ox/a 86.3 g,c/a 81.7 g,c/a 94.3 gbc 3 ox/a abon (6 lb,at/gal) 1.6 g/v/a 89.3 g,c/a 89.3 g,c/a 91.3 g,c/a 3 ox/a abon (6 lb,at/gal) 1.6 g/v/a 89.3 g,c/a 90.7 gbc 1.7 g,c/a 91.3 g,c/a 3 ox/a abon (6 lb,at/gal) 1.8 g/v/a 89.3 g,c/a 90.7 gbc | | | | • | * | | 4 | | • | 5 |
| figs (6 hai/gal) 0.25 % g/v 83.3 h-f 81.3 h-e 8.3 g, 91.0 g, scatum (4 lb ai/gal) 1.6 oz/a 83.3 h-f 81.3 h-e 8.3 g, 91.0 g, abon (6 lb, ai/gal) 2.4 oz/a 94.0 g, 94.0 ap, 0.0 a, 99.0 a, str 6.4 oz/a 94.0 g, 94.0 ap, 0.0 a, 99.0 a, str 6.4 oz/a 94.0 g, 92.0 ap, 1.7 a, 99.0 a, str 6.4 oz/a 94.0 ap, 92.0 ap, 1.7 a, 99.0 a, str 6.2 oz/a 90.0 a-d 92.0 ap, 1.7 a, 99.0 a, str str 92.0 ap, 1.7 a, 99.0 a, str str 92.0 ap, 1.7 a, 99.0 a, str abot 6 lb, ai/gal) 1.2 a, 98.7 a, str abot (6 lb, ai/gal) 1.2 a, 91.3 c, str abot (6 lb, ai/gal) 1.8 g/s 91.3 c, str abot 6 lb, ai/gal 90.7 ap, 91.3 c,< | | | | | | | | | | |
| ### 6 Pro a Jugal 8 GaZa 83.3 krf 81.3 kre 8.3 a, 91.0 c, granted (b Jugala) 1.6 GaZa 83.3 krf 81.3 kre 8.3 a, 91.0 c, granted (b Jugala) 1.6 GaZa 94.0 a, | 0.25 % ¼/v | | | | | | | | | |
| above (6 lb,ai/gal) 24 og/a 94.0 a, a 94.0 a, a 94.0 a, a 94.0 a, a 99.0 a, a sh 6 Pro 32 og/a 94.0 a, a 94.0 a, a 94.0 a, a 99.0 a, a 99.0 a, a sh 6 Pro 32 og/a 90.0 a, d 92.0 a, a 94.0 a, a 99.0 a, a sh 6 Pro 15 og/a 80.0 a, d 92.0 a, a 97.0 a, a 98.7 a, a sh 6 Pro 15 og/a 80.0 a, d 77.7 c, f 1.7 a, a 98.7 a, a sh 6 Pro 15 og/a 86.3 a, e 81.7 a, e 0.0 a, a 94.3 a, a 5 og/a 32 og/a 85.3 a, e 81.7 a, e 0.0 a, a 91.3 c, a 5 og/a 32 og/a 83.3 a, e 65.0 f, a 0.0 a, a 91.3 c, a 5 og/a 32 og/a 89.3 a, e 65.0 f, a 0.0 a, a 91.3 c, a 5 og/a 32 og/a 89.3 a, e 90.7 a, a 97.7 a, a 5 og/a 32 og/a 32 og/a 90.7 a, a 90.7 a, a 97.7 a, a 5 og/a 32 og/a | | 83.3 h-f | 81.3 b.e | 8.3 a | 91.0 % | 94.7 abs. | 1.7 & | 93.0 def | 2.3 & | 13.3 of |
| sist 6.4 oz/a 94.0 ap 94.0 ap 99.0 a, sist 6.4 oz/a 94.0 a, 94.0 ap 99.0 a, sist 6.4 oz/a 94.0 a, 94.0 ap 99.0 a, sist 90.0 a, 92.0 ap 1.7 a, 98.7 a, sist 1.5 oz/a 80.0 d, | | | | | | | | | | |
| state 6.4 og/a 94.0 ag 94.0 ag 0.0 a 99.0 a state 32 og/a 90.0 a-d 92.0 ag 1.7 a 98.7 a state 2 og/a 80.0 deg 77.7 c-f 1.7 a 98.7 a shops (6 lb,at/gal) 32 og/a 86.3 a-c 81.7 a-c 0.0 a 94.3 apc shops (6 lb,at/gal) 32 og/a 88.3 b-f 65.0 f 0.0 a 94.3 apc spop (6 lb,at/gal) 32 og/a 83.3 b-f 65.0 f 0.0 a 94.3 apc spop (6 lb,at/gal) 32 og/a 83.3 b-f 65.0 f 0.0 a 94.3 apc spop (6 lb,at/gal) 32 og/a 83.3 b-f 65.0 f 0.0 a 94.3 apc spop (6 lb,at/gal) 32 og/a 83.3 b-f 65.0 f 0.0 a 91.3 c spop (6 lb,at/gal) 32 og/a 89.3 a-d 90.7 apc 97.7 apc spop (6 lb,at/gal) 32 og/a 89.3 a-d 90.7 apc 23 a 97.7 apc spop (6 lb,at/gal) 32 og/a 89.3 a-d 90.7 apc 2 | | | | | | | | | | |
| site Pro | 6.4 02/a | | 94.0 ak | 0.0 a | 99.0 & | 95.7 abs. | 0.7 a | 98.3 ab | 0.0 & | 40.7 abs. |
| state 8 cg/a 90.0 a-d 92.0 aph 1.7 a. 98.7 a. sh 6 Fro. 21 cg/a 80.0 dcf 77.7 c-f 1.7 a. 91.0 c. shon (6 lb,ai/gal) 32 cg/a 86.3 a-c 81.7 a-c 0.0 a. 94.3 abc. shon (6 lb,ai/gal) 1.5 cg/a 86.3 a-c 81.7 a-c 0.0 a. 94.3 abc. saction (4 lb ai/gal) 2 cg/a 83.3 b-f 65.0 f 0.0 a. 91.3 c. saction (6 lb,ai/gal) 32 cg/a 89.3 a-d 90.7 abc. 91.3 c. c 1 % g/v 1 % g/v 91.3 c. 91.3 c. c 1 % g/v 89.3 a-d 90.7 abc. 23 a. 97.7 ab. c 1 % g/v c 2 cg/a 89.3 a-d 90.7 abc. 2.3 a. 97.7 ab. c 2 cg/a 1 % g/v 1 % g/v 1 % g/v 1 % g/v c 2 cg/a 1 % g/v 1 % g/v 1 % g/v 1 % g/v | 32 QZ/a | | | | | | | | | |
| 1.5 og/a 80.0 deg, 77.7 c-f 1.7 a, 91.0 c, 1.5 og/a 80.0 deg, 77.7 c-f 1.7 a, 91.0 c, 1.5 og/a 86.3 a-c 81.7 a-c 0.0 a, 94.3 abc, 1.5 og/a 83.3 b-f 65.0 f, 0.0 a, 91.3 c, 2 og/a 83.3 b-f 65.0 f, 0.0 a, 91.3 c, 3 og/a 89.3 a-d 90.7 abc, 2.3 a, 97.7 ab, 3 og/a 89.3 a-d 90.7 abc, 2.3 a, 97.7 ab, 4 og/a 91.3 cf 0.0 a, 81.3 cf 0.0 a, 5 og/a 89.3 a-d 90.7 abc, 81.3 cf 0.0 a, 6 og/a 91.3 cf 91.3 cf 91.3 cf 91.3 cf 91.3 cf 7 og/a 89.3 a-d 90.7 abc, 2.3 a, 97.7 ab, 8 og/a 91.3 cf 91.3 cf 91.3 cf 91.3 cf 91.3 cf 9 og/a 90.7 abc, 90.7 abc, 91.3 cf 91.3 cf 91.3 cf 9 og/a 90.7 abc, 90.7 abc, 91.3 cf | 8 oz/a 21 oz/a | 90.0 æd | 92.0 ab | 1.7 & | 98.7 a | 93.0 abc. | 5.0 a | 96.0 a-c | 0.0 a | 28.7 a-c |
| about (6 lb,at/gal) 32 og/a 86.3 a/c 81.7 a/c 94.3 abo about (6 lb,at/gal) 1.5 og/a 86.3 a/c 81.7 a/c 94.3 abo accuract (4 lb at/gal) 2 og/a 83.3 b/c 65.0 t 91.3 c accuract (4 lb at/gal) 32 og/a 83.3 b/c 65.0 t 90.0 a/c 91.3 c, accuract (4 lb,at/gal) 32 og/a 89.3 a/c 90.7 abc 97.7 ab 97.7 ab accuract (4 lb,at/gal) 32 og/a 89.3 a/c 90.7 abc 2.3 a, 97.7 ab accuract (4 lb at/gal) 32 og/a 89.3 a/c 90.7 abc 2.3 a, 97.7 ab accuract (4 lb at/gal) 32 og/a 89.3 a/c 90.7 abc 2.3 a, 97.7 ab accuract (4 lb at/gal) 32 og/a 89.3 a/c 90.7 abc 2.3 a, 97.7 ab | 1.5 02/a | 80.0 def | 77.7 G.E | 1.7 & | 91.0 € | 81.7 d | 1.3 & | 91.7 cfg | 0.0 & | 35.0 a-d |
| 1% sky 1.5 s | | | | 1 | | | | | | |
| Section 1 % 4 % 4 % 4 % 4 % 4 % 4 % 4 % 4 % 4 % | 1 % % I | | 2 2 2 3 | - 00 | 04.2 aka | 26.2 24 | - 0. | 03.3 2.6 | - 00 | 23.24.0 |
| 1 % 4/v 1 % | | 90.3 9.6 | 91.7 4-0 | ۵.0.0 م | 34.5 | D3 C.08 | ٠ د د د د د د د د د د د د د د د د د د د | 150 6.06 | ¥ 0.0 | 27.7 Q-c |
| (6 lb,ai/gal) 1% s/v 83.3 brf 65.0 f 0.0 a, 91.3 c, 91.3 c, (6 lb,ai/gal) 32 cg/a 89.3 ard 90.7 abc, 2.3 a, 97.7 ap cd, 1b ai/gal) 32 cg/a 9.2 cg/a 90.7 abc, 2.3 a, 97.7 ap cd, 1b ai/gal) 3.2 cg/a 1 % s/v 7 83.2 cg 0.0 a, 81.3 cf 1 % s/v 7 83.2 cg 0.0 a, 81.3 cf | | | | | | | | | | |
| (6 that/gal) 32 og/a 83.3 th-f 65.0 t 0.0 a, 91.3 c, 91.3 c, (6 that/gal) 32 og/a 89.3 a-d 90.7 abc, 2.3 a, 97.7 ab og (4 that/gal) 3.2 og/a 3.2 og/a 1.% s/v 78.3 cf 0.0 g, 0.0 a, 81.3 d, 11.% s/v 78.3 cf 0.0 g, 0.0 a, 81.3 d, | | | | | | | ì | | į | |
| (6 lb, at/gal) 32 og/a 1 % u/v (6 lb, at/gal) 32 og/a og. (4 lb at/gal) 3.2 og/a 1 % u/v 1 % u/v | | 83.3 h-f | ₹ 0.59 | 0.0 a | 91.3 €. | 81.7 d | 0.0 a | 87.7 g. | 0.0 & | 26.7 8.0 |
| (6 lb, ai/gal) 32 og/a 89.3 a,d 90.7 abc, 2.3 a, 97.7 ab, ac,d bai/gal) 32 og/a 3.2 og/a 3.3 | | | | | | | | | | |
| (6 (had/gal) 32 og/a 3.2 og/a 3.2 og/a 1.5 og/a | 0.5 02/3 | | 90.7 abc | 23.9 | 97.7 ab | 92 0 abc. | 47.9 | 96 3 a-d | 10.8 | 16.7 def |
| distilleration (4 lb ai/gal) 3.2 og/a 1 % 4/v 1 % 4/v 81.3 d. Non-Treated Control 78.3 cf. 0.0 g. 81.3 d. | | 7.00 | 2000 | 4 C-7 | *** | 25.0 | 6 | 200 | 6 | 10.7 |
| COU. Non-Treated Control 178.3 cf 0.0 g 0.0 g 81.3 d. | 3 | | | | | | | | | |
| | | | 9.00 | 0.0 a | 81.3 d | 0.0 € | 0.0 a | 0.0 h | 0.0 a | 2.3 £ |
| LSD @ p<0.05 | | 10.21 | 13.61 | 8.66 | 5.39 | 9.57 | 5.82 | 4.54 | 2.82 | 19.45 |

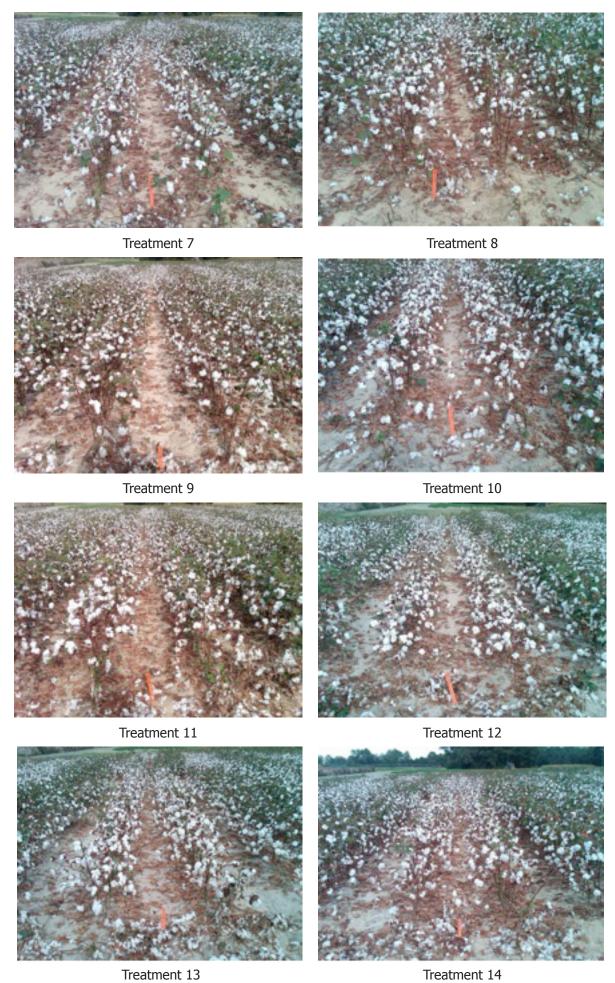
Drought-stressed cotton is almost always difficult to adequately defoliate without desiccating some leaves, especially when temperatures remain relatively high. In this trial, it generally appeared that any treatment containing higher rates of thidiazuron and/or ethephon, in addition to some other harvest aids, allowed for rapid leaf removal, rapid boll opening and relatively lower desiccation.

The outcome of any particular defoliation strategy is very difficult to predict, even among experienced agronomists. Although performance is the primary parameter from which decisions are made, the costs of a defoliant mixture should also be calculated to determine if potential gains could offset the costs.

Additionally, these results illustrate performance in these specific conditions; therefore, performance in slightly different conditions may be quite different. There are numerous product / rate / tank-mix combinations currently available; therefore, growers should always consult their county agent when making defoliation decisions, as any two situations are rarely exactly alike. Growers should also realize that harvest aid performance can be highly variable and unpredictable, and is dependent upon crop and environmental conditions at application and thereafter. It is always advised to consult the label of any harvest aid product regarding directions for use, rates and safety information.

The photos below illustrate defoliant performance in one replication taken at 14 days after treatment. Treatment numbers correspond to treatments listed in the data table.







Treatment 19

Annual Publication 112 November 2013

The University of Georgia and Ft. Valley State University, the U.S. Department of Agriculture and counties of the state cooperating. UGA Extension offers educational programs, assistance and materials to all people without regard to race, color, national origin, age, gender or disability.