North Carolina Cotton - 2014



North Carolina State University







Crop Insurance

Final Planting Date

.. May 25, 2014

Generalizations about cotton varieties Early varieties versus later varieties

- Fruit lower on the plant
- >Do not stand stress as well
- >Have poorer fiber quality
- > Mature earlier

3-YEAR STATEWIDE AVERAGE PERFORMANCE OF COTTON VARIETIES – 2010-13.

| BRAND VARIETY | # Lint/A | Lint % | % open bolls | Longth (In) | Mike |
|------------------|----------|--------|--------------|--------------|------|
| PHY499WRF | 1179** | 44.8 | 52 | 1.14 | 4.9 |
| | | _ | | | |
| DP0912B2RF | 1166* | 42.6 | 52 | 1.13 | 4.9 |
| DP1028B2RF | 1139* | 45.0 | 49 | 1.14 | 4.8 |
| Am NG1511B2RF | 1132* | 44.9 | 47 | 1.15 | 4.8 |
| DP1137B2RF | 1102* | 44.1 | 53 | 1.13 | 4.8 |
| AM1550B2RF | 1087 | 42.9 | 59 | 1.12 | 4.7 |
| DP1252B2RF | 1080 | 45.6 | 42 | 1.13 | 4.7 |
| Dyna-Gro2610B2RF | 1074 | 43.9 | 47 | 1.15 | 4.6 |
| DP1034B2RF | 1046 | 44.4 | 51 | 1.16 | 4.6 |
| PHY375WRF | 1042 | 43.6 | 54 | 1.14 | 4.6 |

2-YEAR STATEWIDE AVERAGE PERFORMANCE COTTON VARIETIES - 2012-13.

| | | | | STORY TO SERVE A SERVER | 5,4 2015-2000 |
|---------------------|----------|-------------------|--------------|--|---------------|
| BRAND VARIETY | # Lint/A | Lint % | % open bolls | Length (In.) | Mike |
| DP0912B2RF | 1297** | 42.6 | 53 | 1.14 | 4.7 |
| PHY499WRF | 1283* | 44.7 | 57 | 1.17 | 4.8 |
| Americot NG1511B2RF | 1278* | 44.7 | 48 | 1.17 | 4.6 |
| DP1321B2RF | 1271* | 43.8 | 53 | 1.16 | 4.6 |
| Americot AM1550B2RF | 1231* | 43.0 | 63 | 1.15 | 4.6 |
| ST 4946GLB2 | 1225* | 42.9 | 51 | 1.15 | 4.9 |
| DP1028B2RF | 1225* | 44.6 | 54 | 1.16 | 4.7 |
| DP1137B2RF | 1193* | 43.6 | 55 | 1.16 | 4.7 |
| Croplan CG3787B2RF | 1191* | 44.2 | 48 | 1.17 | 4.8 |
| Dyna-Gro2285B2RF | 1186* | 42.6 | 51 | 1.18 | 4.6 |
| ST 6448GLB2 | 1173 | 41.8 | 52 | 1.18 | 4.6 |
| PHY339WRF | 1172 | 42.5 | 56 | 1.18 | 4.5 |
| DP1048B2RF | 1170 | 44.1 | 54 | 1.17 | 4.5 |
| PHY375WRF | 1169 | 43.4 | 58 | 1.15 | 4.5 |
| DP1311B2RF | 1162 | 44.1 | 53 | 1.17 | 4.5 |
| +DP1252B2RF | 1159 | 45.0 | 42 | 1.15 | 4.6 |
| Dyna-Gro2610B2RF | 1158 | 43.6 | 49 | 1.16 | 4.6 |
| DP1050B2RF | 1153 | 44.8 | 53 | 1.17 | 4.5 |
| DP1034B2RF | 1137 | 44.1 | 52 | 1.18 | 4.5 |
| Croplan CG3428B2RF | 1090 | 42.9 | 51 | 1.18 | 4.6 |
| | | THE STREET STREET | | NO. OF STREET, | |

STATEWIDE AVERAGE PERFORMANCE OF COTTON VARIETIES - 2013. (Top half)

| | | 7.51 | | | |
|---------------------|----------|--------|--------------|--------------|------|
| BRAND VARIETY | # Lint/A | Lint % | % open bolls | Length (In.) | Mike |
| PHY 333WRF | 1216** | 45.0 | 55 | 1.17 | 4.2 |
| Americot NG1511B2RF | 1167* | 45.5 | 47 | 1.17 | 4.3 |
| DP 0912B2RF | 1162* | 43.1 | 55 | 1.17 | 4.2 |
| PHY 417WRF | 1156* | 44.0 | 52 | 1.18 | 4.4 |
| PHY 339WRF | 1131* | 42.7 | 55 | 1.15 | 4.5 |
| PHY 375WRF | 1128* | 44.4 | 50 | 1.16 | 4.6 |
| DP 1321B2RF | 1128* | 44.4 | 54 | 1.15 | 4.3 |
| ST 4747GLB2 | 1108* | 43.6 | 60 | 1.18 | 4.2 |
| PHY 499WRF | 1095* | 45.6 | 51 | 1.15 | 4.7 |
| ST 4946GLB2 | 1094* | 42.8 | 46 | 1.15 | 4.7 |
| FM 1944GLB2 | 1084* | 41.2 | 40 | 1.18 | 4.6 |
| Dyna-Gro 2285B2RF | 1084* | 43.0 | 54 | 1.17 | 4.3 |
| Americot AM1550B2RF | 1079* | 43.4 | 56 | 1.15 | 4.3 |
| DP 1044B2RF | 1069 | 42.2 | 50 | 1.17 | 4.5 |
| PHY 427WRF | 1062 | 42.0 | 57 | 1.17 | 4.4 |

STATEWIDE AVERAGE PERFORMANCE OF COTTON VARIETIES - 2013. (bottom half)

| BRAND VARIETY | # Lint/A | Lint % | % open bolls | Length (In.) | Mike |
|----------------------------|----------|--------|--------------|--------------|------|
| ST 6448GLB2 | 1030 | 41.9 | 44 | 1.15 | 4.5 |
| DP 1028B2RF | 1002 | 44.5 | 42 | 1.18 | 4.4 |
| Croplan CG3787B2RF | 998 | 44.5 | 43 | 1.18 | 4.7 |
| DP 1311B2RF | 988 | 44.5 | 49 | 1.17 | 4.3 |
| DP 1048B2RF | 963 | 43.9 | 47 | 1.16 | 4.3 |
| DP 1034B2RF | 950 | 44.2 | 37 | 1.18 | 4.4 |
| DP 1137B2RF | 945 | 43.9 | 51 | 1.15 | 4.5 |
| Dyna-Gro 2610B2RF | 937 | 44.0 | 41 | 1.15 | 4.5 |
| DP 1050B2RF | 935 | 44.7 | 49 | 1.15 | 4.5 |
| Croplan CG3428B2RF | 906 | 43.1 | 51 | 1.15 | 4.6 |
| Americot NG5315B2RF | 898 | 44.0 | 37 | 1.18 | 4.5 |
| PHY 599WRF | 873 | 42.6 | 28 | 1.17 | 4.4 |
| Seed Source HQ210CT | 801 | 42.1 | 45 | 1.16 | 4.6 |
| Seed Source Genetics UA222 | 744 | 42.2 | 51 | 1.17 | 4.5 |



Keith Edmisten

North Carolina State University

CI/Cotton Specialist Large Plot Variety Tests 2013

| ton | Bertie 1 | Bertie | 2 |
|---------------|---|--|--|
| 1176 a | 1710 | a | 1238a |
| 1022b | 1339 | е | |
| 1060 ab | 1380 | de | 1265 a |
| 1076 ab | 1496 | cd | 1312a |
| 1065 ab | 1415 | de | 1230a |
| 1027b | 1487 | cd | 1360 a |
| 1142 ab | 1553 | bc | 1350a |
| 1023b | 1165 | f | 1221a |
| 1103 ab | 1647 | ab | 1341a |
| 1099 ab | 1630 | ab | 1340a |
| 1124ab | 1424 | de | 1238a |
| 1063 ab | A | A SECURITY CONTRACTOR OF THE PARTY OF THE PA | No. of the last of |
| | 1176 1022b 1060ab 1076ab 1065ab 1027b 1142ab 1023b 1103ab 1099ab 1124ab | 1176 a 1710 1022 b 1339 1060 ab 1380 1076 ab 1496 1065 ab 1415 1027 b 1487 1142 ab 1553 1023 b 1165 1103 ab 1647 1099 ab 1630 1124 ab 1424 | 1176a 1710a 1022b 1339e 1060ab 1380de 1076ab 1496cd 1065ab 1415de 1027b 1487cd 1142ab 1553bc 1023b 1165f 1103ab 1647ab 1099ab 1630ab 1124ab 1424de |

2012 Large-Plot Variety by Technology Triala

| 2015 | arge riot var | incly by it | cimology. | mai |
|---------|---------------|-------------|-------------|---------|
| Variety | Lewiston | Rocky Mt. | Jackson Sp. | Average |
| | | | | |

| | 8 | <i>J J</i> | 61 | |
|-----|----------|------------|--------------|------|
| ety | Lewiston | Rocky Mt. | Jackson Sp. | Aveı |
| | | lint viel | ld (lb/acre) | |

1290**

1210

1190

1170

1290**

1310*

1120

1260**

1020

1040

1050

920**

880**

950**

870

870

830

880**

760

1000*

890**

750

1320

1290**

1280**

1250**

1250**

1240**

1230

1200

1150

1130

1130

1760*

1750**

1670**

1690**

1600

1600

1680**

1590

1400

1460

1570

. a DP and PHY varieties treated with 32 oz Roundup PowerMax applied twice; FM and ST varieties received 32 oz Liberty applied twice to 2- to 3-leaf cotton and repeated on 5- to 6-leaf cotton.

* Highest yielder. ** Not different from highest yielder at $p \le 0.05$.

PHY 375 WRF

PHY 499 WRF

PHY 339 WRF

ST 4747 GLB2

ST 4946 GLB2

PHY 367 WRF

FM 1944 GLB2

DP 1137 B2RRF

DP 1028 B2RRF

ST 6448 GLB2

DP 1321 B2RRF

| 2013 L | large-riot val | itely by I | echinology i | ıılaı |
|--------|----------------|--------------|--------------|-------|
| ty | Lewiston | Rocky Mt. | Jackson Sp. | Ave |
| | | and the same | | |

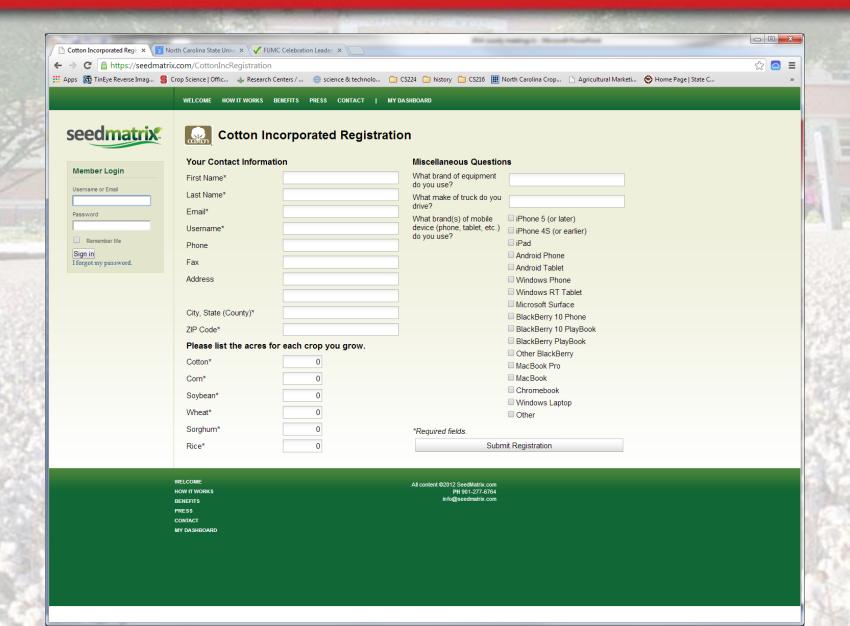
2013 Large-Plot Variety by Technology Trial. Average of 3 locations.^a

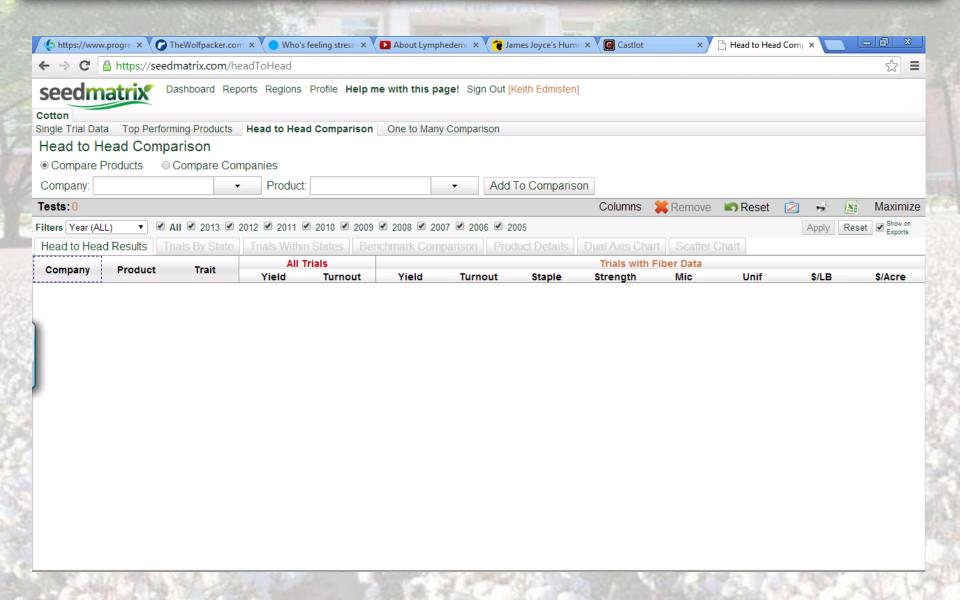
| Variety ^b | Lint yield (lb/A) | % lint | Micro- naire | Length (in) | Strength (g/tex) | Uniformity (%) | Loan rate (cents/lb) ^c |
|----------------------|----------------------|---------------|-----------------|----------------|---------------------|-------------------|--------------------------------------|
| PHY 375 WRF | 1320 a | 44.9 ab | 4.5 g | 1.14 cd | 29.0 f | 84.1 bc | 53.7 ab |
| PHY 499 WRF | 1290 ab | 45.5 a | 4.8 d | 1.14 cd | 31.3 ab | 84.6 ab | 53.7 ab |
| DP 1321 B2RRF | 1280 abc | 44.1 bc | 5.1 a | 1.13 d | 29.6 ef | 84.3 ab | 51.9 d |
| PHY 339 WRF | 1250 abc | 43.4 cd | 4.5 g | 1.19 b | 30.6 abc | 84.5 ab | 53.7 ab |
| ST 4747 GLB2 | 1250 abc | 44.0 bcd | 4.7 e | 1.19 b | 30.3 de | 84.3 ab | 53.8 a |
| ST 4946 GLB2 | 1240 abc | 42.8 e | 5.0 b | 1.15 c | 31.5 ab | 84.3 ab | 53.1 bc |
| PHY 367 WRF | 1230 bcd | 43.1 de | 4.6 f | 1.14 cd | 30.4 cde | 83.6 c | 53.7 ab |
| FM 1944 GLB2 | 1200 cde | 42.4 e | 4.6 f | 1.18 b | 32.3 a | 84.1 bc | 53.9 a |
| DP 1137 B2RRF | 1150 de | 44.6 ab | 4.9 c | 1.15 с | 29.2 f | 84.4 ab | 52.7 c |
| DP 1028 B2RRF | 1130 e | 45.4 a | 4.8 d | 1.15 с | 28.9 f | 84.2 ab | 53.1 bc |
| ST 6448 GLB2 | 1130 e | 42.4 e | 4.6 f | 1.21 a | 30.5 cde | 84.7 a | 53.8 a |

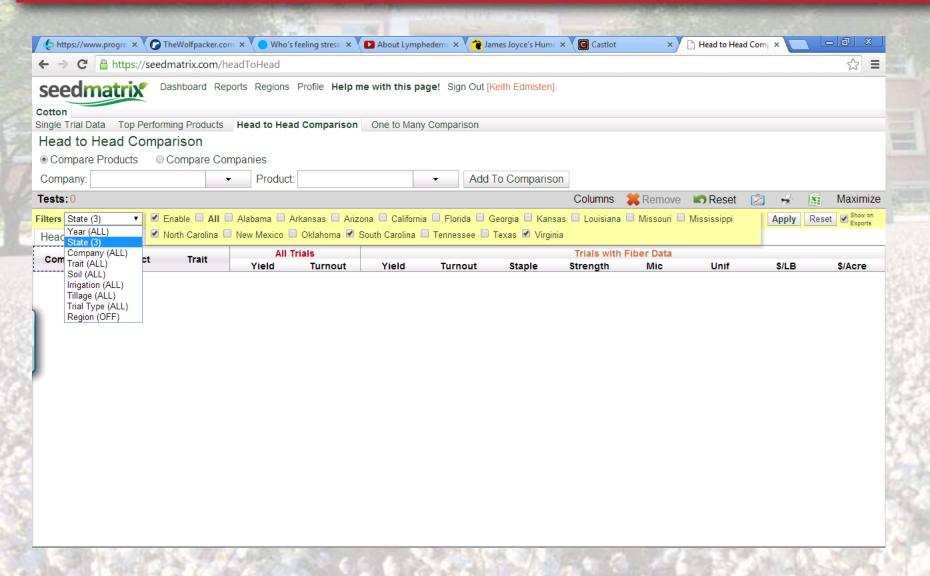
^a Means within a column with same letter are not different at 5% probability level.

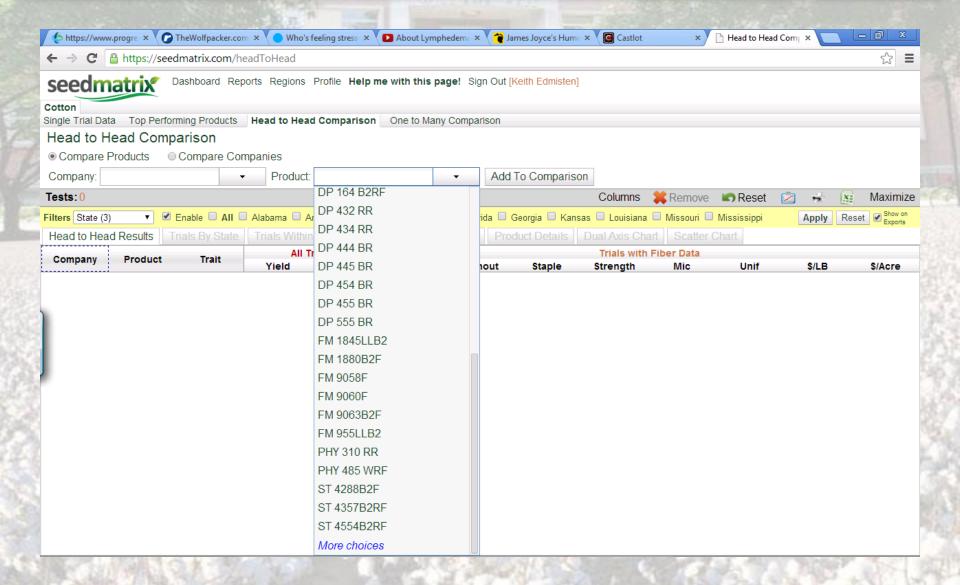
^b DP and PHY varieties treated with 32 oz Roundup PowerMax applied twice; FM and ST varieties received 32 oz Liberty applied twice to 2- to 3-leaf cotton and repeated on 5- to 6-leaf cotton.

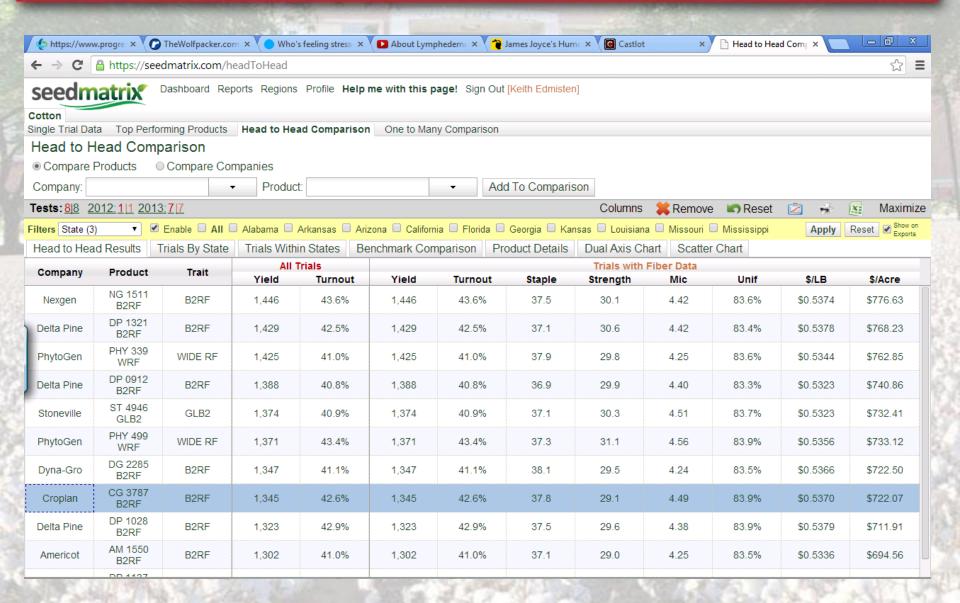
^c Based upon 52-cent loan with discounts and premiums for micronaire, length, strength, and uniformity.

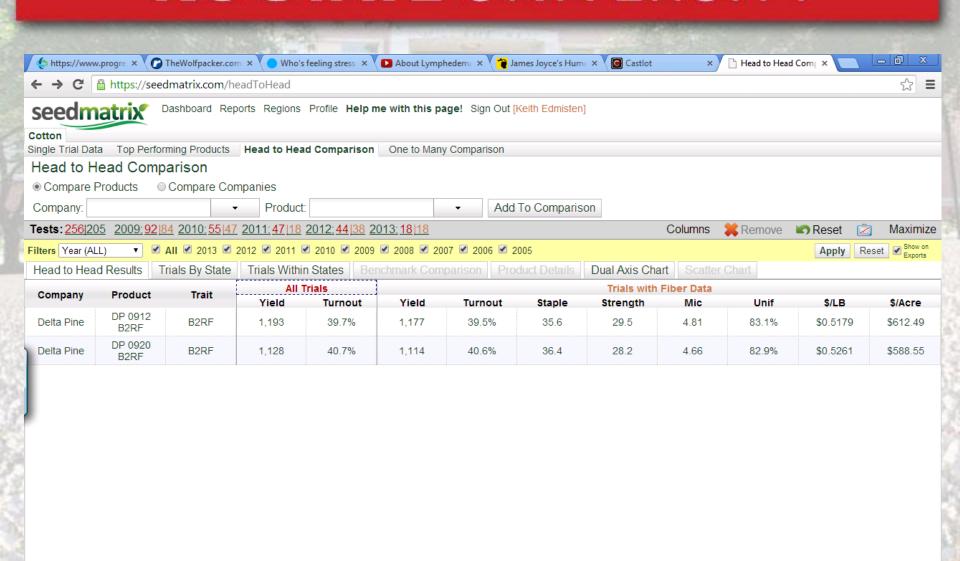














Americot Varieties

- **>NG 1511 B2RF (medium)**
- > NG 5315 B2RF (late)
- >Amply supply of both

Bayer Varieties

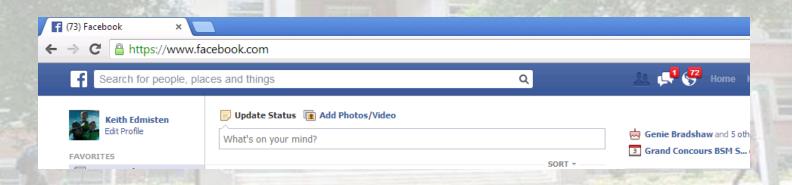
- >ST 4747GLB2 supply will be pretty limited
- >ST 4946GLB2, ST 6448GLB2 and FM 1944GLB2 have excellent supply

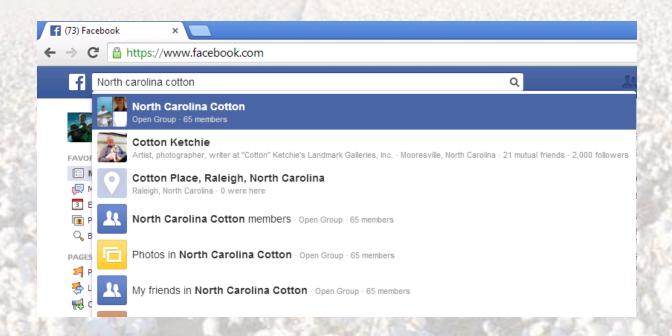
Deltapine Varieties

- ➤DP1311B2RF (early)
- > **DP1321B2RF** (early)
- >Excellent supply of both

PhytoGen Varieties

- >PHY 333, 495, and 427 all very short supply
- > PHY 339 and 575 good but not unlimited
- >427 root knot resistance







← → C 🖺 https://www.facebook.com/groups/344058599029946/



North Carolina Cotton





Keith Edmisten

strip-till on the left, bedded conventional on the right from David Jordan's plots. Looks like Alan York's early work that showed conventional was better than reduced tillage in a wet year was on the money. We probably need to think of ways to include bedding in striptill systems.



Like · Comment · Share · August 6, 2013 at 4:51pm



David Morrison, Mary Thurman Wilks, Sarah Marie Arthur and 3 others like this.





Keith Edmisten and yes it looks like the pigweed likes it better drained and less denitrification as well! August 6, 2013 at 11:10pm · Like



Mary Thurman Wilks we took your advice and plowed some cotton, in 10 days it looked much better! August 6, 2013 at 11:43pm · Like

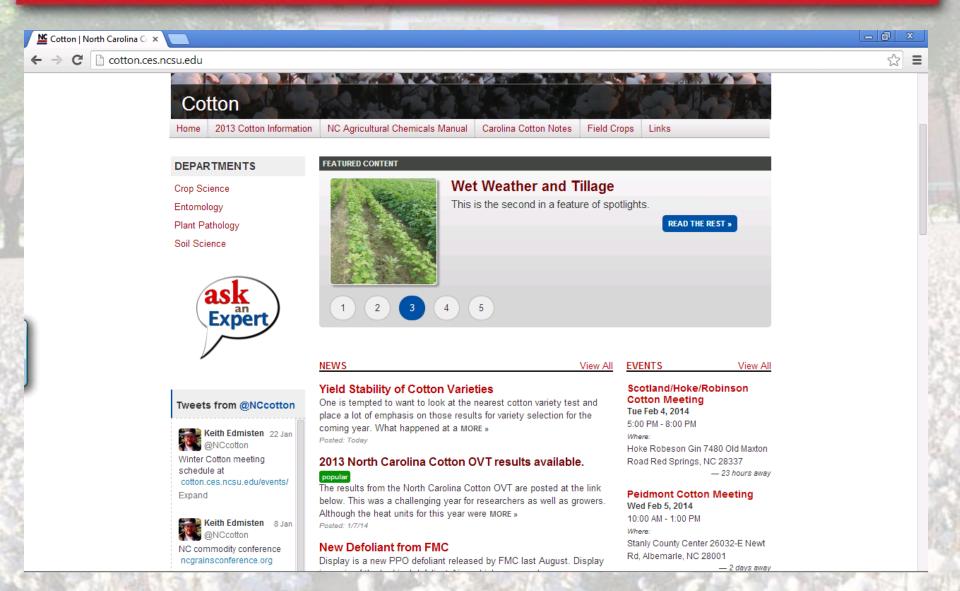


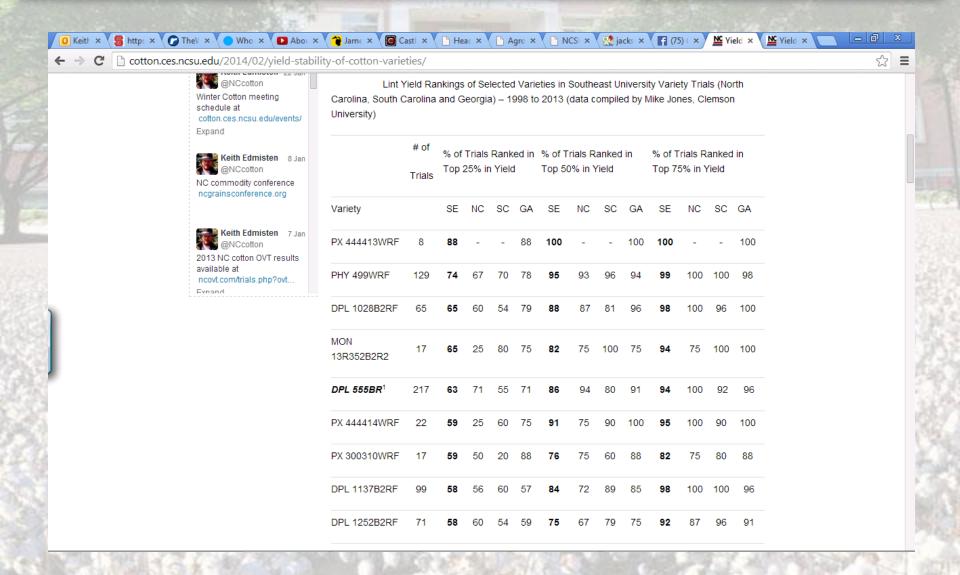
Keith Edmisten In these days sometimes we forget what a plowing can do. One of the best things Roundup cotton did for us was get us away from too much tillage and root pruning, but a well timed tillage can

Cotton lint yield in conventional* and strip tillage cotton

| Tillage | 2012 | 2013 | 2012 | 2013 | 2012 + 2013 | |
|--------------|----------|------|------|---------|-------------|--|
| _ | lbs/acre | | | \$/acre | | |
| Conventional | 1049 | 753 | 313 | 83 | 396 | |
| Strip | 1045 | 496* | 312 | -128 * | 184 * | |

*Conventional was bedded.





CULLUIT

2014 Cotton Information

NC Agricultural Chemicals Manual

Carolina Cotton Notes

Field Crops

Links

DEPARTMENTS

Crop Science

Entomology

Plant Pathology

Soil Science



FEATURED CONTENT



Carolina Cotton Notes

Carolina Cotton Notes is where we used to post information prior to the "blog age". Most of the information posted here deals with in-season problems we have seen in North Carolina such as hail damage, foliar fertilizing, frost...

READ THE REST »





Tweets from @NCcotton



Information about the new farm bill cotton.ces.ncsu.edu



Keith Edmisten 21 Feb @NCcotton

Hertford, Halifax and Northampton county meetings rescheduled for Feb 27 and 28th. Details at cotton.ces.ncsu.edu

NEWS

Farm Bill - Agricultural Act 2014

Hopefully most of you are aware that there are some decisions you need to make for the new farm bill. Here are some links to information concerning the farm bill that might be MORE »

Posted: 2/21/14

Stink Bug Decision Aid App Now Available

The Stink Bug Decision Aid App is now available for phones using the iOS platform free of charge thanks to funding provided by Cotton Inc. You can download here, or search the Apple App MORE »

Posted: 2/19/14

Three new 'Focus on Cotton' Webcasts Give Producers a Good Head Start for the Growing Season

popular

Variety selection, weed management strategies, and nematodes are often at the front of cotton producers minds during the winter and early

View All **EVENTS** View All

Edgecombe/Nash/Wilson area cotton meeting

Mon Feb 24, 2014 Today 12:00 PM - 3:00 PM

Where:

East Carolina Ag & Education Center: 1175 Kingsboro Road, Rocky

Mount

— 2 hours away

Pitt county cotton meeting

Tue Feb 25, 2014

12:00 PM - 3:00 PM

Where:

Pitt County Agriculture Center, 403 Government Circle, Greenville, NC 27834

— Tomorrow

Cotton | North Carolina C ×





cotton.ces.ncsu.edu

ncgrainsconference.org



Keith Edmisten 7 Jan @NCcotton

2013 NC cotton OVT results available at

ncovt.com/trials.php?ovt... Expand



Keith Edmisten 11 Dec

Calendar of winter cotton meetings at cotton.ces.ncsu.edu



Keith Edmisten 18 Nov @NCcotton

added more to the info on imidicloprin at facebook.com/groups/34405



Keith Edmisten 24 Oct @NCcotton

comments on Gramoxone as defoliant at facebook.com/groups/34405



Keith Edmisten 24 Oct @NCcotton

new defoliation info at facebook.com/groups/34405 Expand

Display is a new PPO detoliant released by FMC last August. Display is a mix of the herbical defoliant Aim, which you may have some familiarity, and a herbicide called Cadet. We have MORE » Posted: 9/27/13

Bark in Cotton

There have been some concerns and questions levels of bark after the 2012 crop. Dr. Thomas Valco, the Cotton Technology Transfer Coordinator for USDA, AMS has been investigating possible reasons for the increased MORE »

Posted: 9/13/13

Last Effective Bloom Date

We are right at the time that is considered to be the last date you have a reasonable chance of a bloom actually producing a harvestable boll. August 15 was once considered to MORE »

Posted: 8/22/13

COTTON DISEASE UPDATE: Leaf spots on Cotton

Steve Koenning, Extension Plant Pathologist and Keith Edmisten Cotton Extension Specialist COTTON DISEASE UPDATE: Leaf spots on Cotton Leaf spot on cotton is especially common throughout North Carolina A variety of fungi can MORE »

Posted: 8/2/13

Foliar Fertilization of Cotton

Hopefully the fields will be drying out enough for cotton to start recovering from all the rain and possible loss of nutrients some fields. A lot of people are interested in foliar feeding MORE »

Posted: 7/16/13



Wet Weather Blight on Cotton

Keith Edmisten and Steve Koenning The wet cloudy weather at planting was fairly conducive to wet weather blight, particularly for some planting dates. Wet weather blight is caused by ascochyta fungus. We see MORE »

Posted: 6/7/13

— 2 days away

Jones/Craven area cotton meeting

Thu Feb 6, 2014

12:00 PM - 3:00 PM

Jones County Cotton Gin 474 Nobles Loop Road, Trenton, NC 28585

— 3 days away

Bertie county cotton meeting

Mon Feb 10, 2014

10:00 AM - 12:30 PM

WINDSOR COMMUNITY BUILDING 201 South Queen Street Windsor, North Carolina

— 7 davs awav

Martin county cotton meeting

Mon Feb 10, 2014 12:30 PM - 3:30 PM

Where:

Martin county cotton meeting

— 7 days away

Northeast NC cotton meeting Mon Feb 10, 2014

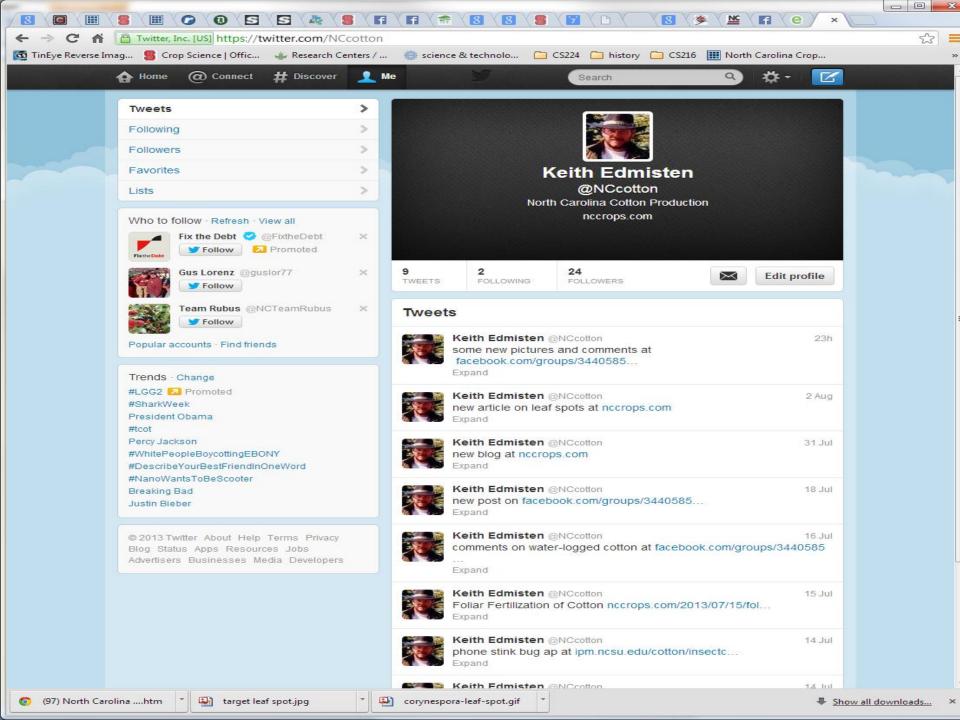
5:00 PM - 8:00 PM

Leon Nixon's Catering - 749 Virginia Rd. Edenton

- 7 days away

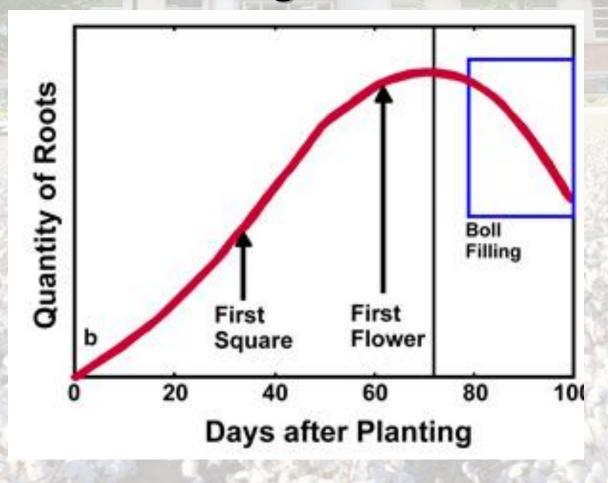
Blacklands cotton meeting

Tue Feb 11, 2014 10:00 AM - 1:00 PM

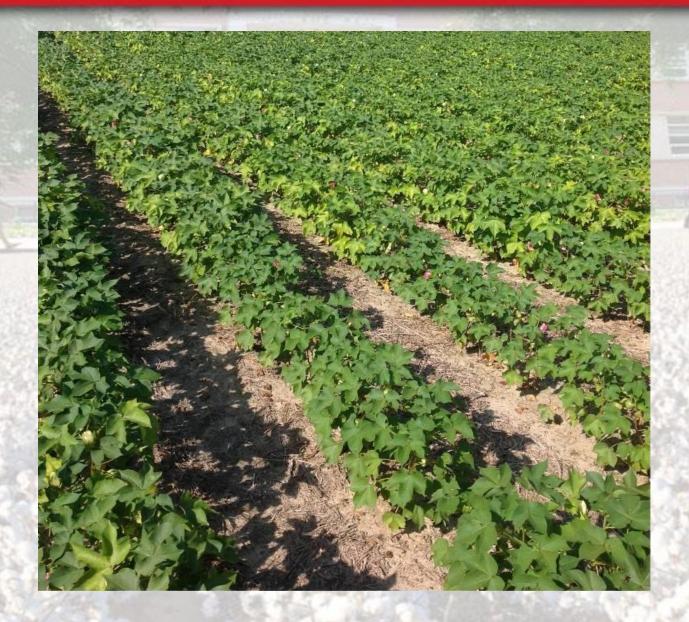




Roots will not grow after bloom.







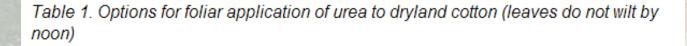


Replacing lost fertilizer

Consider side-dressed fertilizer up to end of second week of bloom.

Foliar after the second week of bloom





| #N/acre | # 46% urea | gal. of 23% N Urea | application volume |
|---------|------------|--------------------|--------------------|
| 4.6 | 10 | 2.1 | 5 gallons |
| 5.5 | 12 | 2.5 | 10 gallons |
| 6.9 | 15 | 3.1 | 15 gallons |
| 9.2 | 20 | 4.2 | 20 gallons |

Table 2. Options for foliar application of urea to irrigated cotton or fields that have had recent rainfall*

| #N/acre | #46% urea | gal. of 23% N urea | application volume |
|---------|-----------|--------------------|--------------------|
| 6.6 | 14 | 3.0 | 5 gallons |
| 7.8 | 17 | 3.5 | 10 gallons |
| 9.2 | 20 | 4.2 | 15 gallons |
| 11.5 | 25 | 5.25 | 20 gallons |

^{*} Caution: These rates can cause leaf burn if leaves contain inadequate moisture, especially when two or more consecutive weekly applications are made.



Replacing lost fertilizer

- **≻Nitrogen**
- >Sulfur

Potassium





Replacing lost fertilizer



Table 5-5. Nitrogen adjustments for leaching

| Topsoil Depth | Estimated Water Percolated through Soil | Percentage of Applied Nitrogen to Replace after Transplanting ^a | | |
|--------------------------------|---|---|-----------|-----------|
| | | 1-3 Weeks | 4–5 Weeks | 6–7 Weeks |
| Less than 10 inches to clay | 1 inch | 0 | 0 | 0 |
| | 2 inches | 20 | 10 | 0 |
| | 3 or more inches | 30 | 20 | 0 |
| 10 to 16 inches to clay | 1 inch | 30 | 20 | 0 |
| | 2 inches | 45 | 30 | 10 |
| | 3 or more inches | 60 | 40 | 15 |
| 17 or more inches to clay | 1 inch | 50 | 25 | 15 |
| | 2 inches | 75 | 35 | 20 |
| | 3 or more inches | 100 | 45 | 25 |

^a Apply about one pound of potassium (K_2 0) for each pound of nitrogen used as a leaching adjustment if the topsoil is deeper than 10 inches.

Replacing lost fertilizer

| Topsoil (inches clay | | Estimated inches of water percolated through soil | Squaring through 2cd week of bloom | 3 rd -4 th week of bloom | >4 th week of bloom |
|----------------------------|--------------|---|---|---|-----------------------------------|
| <10 | 1 | 0 | O | o | |
| | 2 | 20 | 10 | o | |
| | 3+ | 30 | 20 | o | |
| 10-16 | 1 | 30 | 20 | o | |
| | 2 | 45 | 30 | 10 | |
| | 3+ | 60 | 40 | 15 | |
| 17 or more | 1 | 50 | 25 | 14 | |
| | | 2 | 75 | 35 | 20 |
| | This care of | 3+ | 90 | 45 | 25 |



Stressed Cotton

> Petiole tests are not acurate

> Plants will not take up foliar fertilizers







Late Season Defoliation

- Freeze can help open the crop or can freeze it shut.
- The more moisture in a boll, the more likely a freeze will be detrimental.
- ➤ Gramoxone is much like a frost on cotton