



ALABAMA COTTON

VARIETY REPORT 1978

DEPARTMENT OF AGRONOMY & SOILS
AGRICULTURAL EXPERIMENT STATION
R. DENNIS ROUSE, DIRECTOR

FEBRUARY 1979

DEPARTMENTAL SERIES NO. 48
AUBURN UNIVERSITY
AUBURN, ALABAMA

1978 ALABAMA COTTON VARIETY REPORT^{1/}

A Report of the Performance of Cotton Varieties
Tested at Nine Locations in Alabama During 1978

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The Alabama Cotton Variety Test is a continuing evaluation of available cotton varieties from private companies and state experiment stations. Breeding lines that are likely to be released as varieties are also tested. Tests are conducted on units of the Agricultural Experiment Station by Experiment Station personnel. Cultural practices are as generally recommended by Auburn University to farmers. Every effort is made to test the varieties and present the data in an unbiased manner.

Experimental Design and Plot Size

A randomized block design in four replications was used at each location. Length of plots at different locations varied from 34 to 110 feet. Plots were two-row at Prattville and Belle Mina and single row at the other locations.

Seasonal Conditions

All tests were planted within the optimum planting period. Most varieties had acceptable stands but several rows were not harvested for record or yields were adjusted to account for skips. The greatest adjustment because of poor stand was at Prattville. The coefficient of variation for this test was reasonably low which would support the validity of the yield adjustments.

Insect control was generally adequate. However, at Headland the top

^{1/}February 1979

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bolls were almost completely destroyed by bollworms. Rainfall on the E. V. Smith Research Center near Shorter was sparse all season. Most other locations had normal rainfall through July but less than normal rainfall thereafter. Moisture at Brewton and Crossville was adequate throughout the season.

Explanation of Data

Harvest of Seed Cotton: Tests at Prattville, Brewton, Monroeville, Shorter, and Tallasseee were harvested by a mechanical spindle picker. Tests at Winfield, Belle Mina, Headland, and Crossville were harvested by hand. Average weight of seed cotton per acre was determined for each variety at each location.

Lint Percentage: A sample of seed cotton from each variety at each location was taken at harvest and ginned on a 10-saw gin. Lint percentage was calculated by dividing weight of lint by weight of seed cotton.

Yield of Lint: Lint yield was determined by multiplying the lint percentage by yield of seed cotton.

Fiber Properties: Because of the time required for the detailed determinations of the fiber properties, data presented in the current report are from samples of the previous year. Fiber qualities were determined by the USDA Cotton Quality Spinning Laboratory, Knoxville, Tennessee.

- (a) Span length: This is the fiber length measured on the digital fibrograph. The figure given is the distance spanned by 2.5% of the fibers, where the initial point of scanning is 100%. This length, in inches, approximates classer's staple.

- (b) Stelometer: T_1 is a measure of breaking strength of a standard fiber bundle with the holding jaws separated by 1/8 inch. This is a metric measurement similar to Pressley strength except the figures are in centinewtons per tex. A centinewton is a measure of force and a tex is a size measurement of the fibers. The larger the T_1 , the stronger the fibers. E_1 measures the percentage stretch before the fibers break.
- (c) Micronaire: This measures the fineness and maturity of the cotton fibers. The smaller the micronaire reading, the finer and/or more immature the fibers. The desirable range of micronaire is 3.5 - 4.9.

Earliness: Where more than one harvest was made, earliness is reported as the percentage of the total yield harvested at the first picking.

Fusarium Wilt: Reaction of varieties to Fusarium wilt was evaluated at the Plant Breeding Unit, Tallahassee, by growing the varieties in fields with a high natural incidence of the fusarium wilt-root-knot nematode complex. Severity of the disease varies from year to year and also within the experimental area in the same year. Therefore, several years' data are necessary to realistically characterize a variety's wilt reaction. Stoneville 213, Hancock, Stoneville 731N, Vail 7, and Brycot 4 have consistently shown a high incidence of wilt. All other varieties that have been tested for at least 3 years have acceptable tolerance to fusarium wilt.

New and Experimental Varieties

Several experimental varieties were tested in 1978. These are:

Coker 4601, Coker 315, Coker 6118, Coker 3114, Coker 420, and Deltapine 7141. None of these have been released for planting in 1979. It is the policy of the Auburn University Agricultural Experiment Station to evaluate a limited

number of such experimental varieties as a service to plant breeders and also to enable the testing of potential varieties prior to their release.

Paymaster 303 and Acala SJ-5 are varieties adapted to the western areas of cotton production and are included in certain Alabama variety tests as national standard varieties. These tests are part of a national cooperative variety testing program. Neither variety is adapted to Alabama conditions. Rex 731 has been tested previously as "New Rex". The variety is the same; only the name has been changed. DES 56 was developed by the Mississippi Agricultural Experiment Station and is being tested in Alabama for the first time in 1978. Stoneville 825 is a nectariless variety similar to Stoneville 731N. McNair 235 has been previously tested at certain locations as McNair 3035. This is the first year it has been entered in the regular variety tests.

Statistical Analysis

Appropriate analyses of the yield data were made. For each location, the variability of the test was calculated and expressed as a percentage of the test mean, coefficient of variation (C.V.). An indication of the difference between variety averages necessary to be a real difference is given, Least Significant Difference (L.S.D. .05).

Table 1. Performance of Cotton Varieties in Northern Alabama, 1978

| Variety | Yield of lint per acre | | | | Av. lint percentage | Percent earliness | | |
|-----------------|------------------------|-------------------|-----------------|------------|---------------------|--------------------|--------------------|--|
| | Crossville Lb. | Belle Mina Lb. | Winfield Lb. | Ay. Lb. | | Crossville Pct. | Belle Mina Pct. | |
| Hancock | 1144 | 646 | 312 | 701 | 40 | 72 | 68 | |
| McNair 235 | 1154 | 701 | 240 | 698 | 39 | 71 | 81 | |
| Coker 4601 | 1125 | 673 | 249 | 682 | 39 | 80 | 75 | |
| Rex 731 | 1006 | 616 | 412 | 678 | 37 | 74 | 59 | |
| Coker 315 | 1063 | 659 | 311 | 678 | 39 | 79 | 68 | |
| Stoneyville 213 | 1009 | 679 | 329 | 672 | 39 | 60 | 67 | |
| Dixie King III | 1031 | 694 | 238 | 654 | 38 | 69 | 64 | |
| Coker 3114 | 1060 | 616 | 251 | 643 | 41 | 71 | 75 | |
| Brycot 4 | 977 | 640 | 305 | 641 | 38 | 58 | 57 | |
| Stoneville 603 | 962 | 713 | 242 | 639 | 39 | 76 | 73 | |
| Deltapine 55 | 952 | 667 | 261 | 626 | 40 | 65 | 58 | |
| Coker 304 | 1104 | 581 | 181 | 622 | 40 | 74 | 65 | |
| Vail 7 | 983 | 648 | 210 | 614 | 38 | 60 | 57 | |
| Deltapine 26 | 954 | 570 | 308 | 611 | 41 | 52 | 48 | |
| Coker 310 | 1080 | 494 | 209 | 594 | 37 | 74 | 73 | |
| McNair 220 | 926 | 571 | 270 | 589 | 38 | 69 | 66 | |
| Deltapine 7141 | 871 | 636 | 216 | 574 | 39 | 61 | 60 | |
| Deltapine 61 | 964 | 549 | 208 | 574 | 38 | 64 | 66 | |
| Delcot 277 | 845 | 608 | 239 | 564 | 37 | 70 | 64 | |
| Coker 420 | 1039 | 437 | 194 | 557 | 38 | 80 | 60 | |
| DES 56 | 1137 | | 311 | | 40 | 74 | | |
| DES 24 | 1123 | | 253 | | 40 | 70 | | |
| Stoneville 825 | 1085 | | 196 | | 40 | 74 | | |
| Auburn 56 | 715 | | 68 | | 38 | 44 | | |
| Coker 6118 | | 620 | 150 | | 38 | | 82 | |
| Stoneville 731N | 1051 | | | | 40 | 74 | | |
| S. C.-1 | 952 | | | | 40 | 74 | | |
| Paymaster 303 | 949 | | | | 39 | 74 | | |
| Acala SJ-5 | 935 | | | | 39 | 66 | | |
| Deltapine 703 | | 710 | | | 40 | | 72 | |
| C.V. % | 10.4 | 15.8 | 32.7 | | | | | |
| L.S.D. .05 | 148 | 139 | N.S. | | | | | |

Table 2. Performance of Cotton Varieties in Northern Alabama,
Two-Year Average, 1977-78

| Variety | Yield of lint per acre | | | | Av. lint percentage | Percent earliness* |
|-----------------|------------------------|-------------------|-----------------|------------|---------------------|--------------------|
| | Crossville Lb. | Belle Mina Lb. | Winfield Lb. | Av. Lb. | | |
| Hancock | 763 | 588 | 488 | 613 | 39 | 80 |
| Rex 731 | 713 | 659 | 421 | 597 | 38 | 75 |
| Stoneville 213 | 666 | 681 | 400 | 582 | 38 | 78 |
| Coker 315 | 751 | 586 | 397 | 578 | 39 | 79 |
| Stoneville 603 | 653 | 700 | 371 | 575 | 39 | 83 |
| Coker 3114 | 711 | 613 | 385 | 570 | 41 | 82 |
| Deltapine 26 | 626 | 652 | 389 | 556 | 41 | 67 |
| Vail 7 | 668 | 625 | 366 | 553 | 39 | 72 |
| Coker 310 | 736 | 563 | 352 | 550 | 39 | 83 |
| McNair 220 | 695 | 542 | 397 | 545 | 38 | 79 |
| Dixie King III | 679 | 618 | 325 | 541 | 38 | 76 |
| Coker 304 | 733 | 566 | 304 | 534 | 40 | 77 |
| Deltapine 55 | 653 | 636 | 304 | 531 | 40 | 70 |
| Delcot 277 | 622 | 636 | 328 | 529 | 39 | 77 |
| Deltapine 61 | 701 | 577 | 295 | 525 | 39 | 75 |
| DES 24 | 778 | | 332 | | 40 | |
| Brycot 4 | | 636 | 351 | | 37 | 72 |
| Auburn 56 | 522 | | 277 | | 40 | |
| Stoneville 731N | 696 | | | | 42 | |

* Belle Mina location.

Table 3. Performance of Cotton Varieties in Northern Alabama,
Three-year Average, 1976-1978

| Variety | Yield of lint per acre | | | | Av. lint percentage | Percent earliness** |
|----------------|------------------------|------------|----------|-----|---------------------|---------------------|
| | Crossville* | Belle Mina | Winfield | Av. | | |
| | Lb. | Lb. | Lb. | Lb. | Pct. | Pct. |
| Hancock | 736 | 540 | 445 | 553 | 39 | 73 |
| Vail 7 | 668 | 634 | 343 | 533 | 38 | 67 |
| Stoneville 603 | 653 | 634 | 342 | 529 | 38 | 75 |
| Stoneville 213 | 666 | 569 | 373 | 520 | 38 | 66 |
| Coker 310 | 736 | 501 | 365 | 509 | 39 | 76 |
| Deltapine 61 | 701 | 545 | 306 | 494 | 38 | 70 |
| Deltapine 26 | 626 | 539 | 348 | 489 | 41 | 61 |
| McNair 220 | 695 | 485 | 345 | 485 | 37 | 71 |
| Delcot 277 | 622 | 508 | 335 | 472 | 39 | 69 |
| Coker 304 | 733 | 446 | 319 | 470 | 40 | 70 |
| Deltapine 55 | 653 | 519 | 289 | 462 | 39 | 62 |
| Dixie King III | 679 | 471 | 302 | 460 | 38 | 63 |
| DES 24 | 778 | | 320 | | 39 | |
| Auburn 56 | 522 | | 308 | | 38 | |
| Brycot 4 | | 611 | 361 | | 38 | 67 |

*1977-1978 data only.

**Belle Mina location.

Table 4. Performance of Cotton Varieties in Central and Southern Alabama, 1978

| Variety | Yield of lint per acre | | | | | | | Ay. lint percentage | Percent earliness* |
|------------------|------------------------|-----------|--------------|-------------|-----------|---------|------|---------------------|--------------------|
| | Brewton | Head-land | Monroe-ville | Pratt-ville | Tallassee | Shorter | Ay. | | |
| | Lb., | Lb., | Lb., | Lb., | Lb., | Lb., | Lb., | | |
| Coker 4601 | 971 | 542 | 580 | 728 | 767 | 415 | 667 | 39 | 85 |
| McNair 235 | 981 | 681 | 601 | 775 | 405 | 456 | 650 | 39 | 90 |
| Stoneyville 603 | 944 | 466 | 677 | 723 | 627 | 431 | 645 | 39 | 88 |
| DES 24 | 1029 | 452 | 610 | 659 | 588 | 418 | 626 | 40 | 83 |
| Vail 7 | 996 | 325 | 594 | 741 | 665 | 402 | 620 | 39 | 84 |
| Coker 304 | 945 | 398 | 580 | 683 | 638 | 426 | 612 | 38 | 83 |
| DES 56 | 952 | 394 | 583 | 701 | 640 | 377 | 608 | 39 | 83 |
| Coker 315 | 874 | 463 | 576 | 718 | 602 | 378 | 602 | 40 | 85 |
| Deltapine 26 | 1045 | 275 | 632 | 790 | 519 | 335 | 599 | 41 | 84 |
| McNair 220 | 869 | 386 | 558 | 651 | 719 | 403 | 598 | 38 | 87 |
| Hancock | 978 | 366 | 566 | 710 | 521 | 428 | 595 | 39 | 86 |
| Brycot 4 | 933 | 333 | 648 | 765 | 466 | 421 | 594 | 38 | 85 |
| Dixie King III | 976 | 365 | 684 | 687 | 413 | 428 | 592 | 38 | 84 |
| Coker 310 | 873 | 310 | 564 | 753 | 667 | 381 | 591 | 39 | 84 |
| Deltapine 7141 | 687 | 536 | 535 | 736 | 694 | 324 | 585 | 41 | 87 |
| Coker 6118 | 837 | 513 | 509 | 682 | 542 | 388 | 578 | 37 | 88 |
| Deltapine 55 | 807 | 427 | 529 | 780 | 572 | 324 | 573 | 40 | 88 |
| Stoneyville 825 | 895 | 425 | 582 | 750 | 334 | 437 | 571 | 39 | 87 |
| Stoneyville 213 | 967 | 376 | 592 | 672 | 356 | 425 | 565 | 39 | 86 |
| Deltapine 61 | 792 | 309 | 568 | 799 | 568 | 333 | 561 | 38 | 83 |
| Coker 3114 | 939 | 334 | 614 | 643 | 348 | 384 | 544 | 41 | 82 |
| Rex 731 | 733 | 414 | 466 | 597 | 543 | 452 | 534 | 35 | 84 |
| Coker 420 | 832 | 448 | 477 | 582 | 342 | 370 | 508 | 37 | 81 |
| Delcot 277 | 877 | | 528 | 685 | 600 | 413 | | 37 | 82 |
| Auburn 56 | 832 | | 550 | 701 | 604 | 372 | | 36 | 82 |
| Stoneyville 731N | | | | | | 463 | | 39 | |
| Paymaster 303 | | | | | | 416 | | 37 | |
| S. C.-1 | | | | | | 361 | | 38 | |
| Acala SJ-5 | | | | | | 307 | | 38 | |
| C.V. % | 11.6 | 40.3 | 9.0 | 11.5 | 17.7 | 13.6 | | | |
| L.S.D. .05 | 147 | N.S. | 73 | 115 | 137 | 75 | | | |

*Prattville location only.

Table 5. Performance of Cotton Varieties in Central and Southern Alabama

Two-year Average, 1977-78

| Variety | Yield of lint per acre | | | | | | | Av. lint percentage | Percent earliness** |
|----------------|------------------------|------------|--------------|-------------|------------|----------|-----|---------------------|---------------------|
| | Brewton | Head-land* | Monroe-ville | Pratt-ville | Tallassee* | Shorter* | Av. | | |
| | Lb. | Lb. | Lb. | Lb. | Lb. | Lb. | Lb. | Pct. | Pct. |
| Hancock | 946 | 366 | 694 | 684 | 521 | 428 | 663 | 40 | 82 |
| Stoneville 603 | 792 | 466 | 703 | 711 | 627 | 431 | 660 | 40 | 83 |
| DES 24 | 789 | 452 | 691 | 713 | 588 | 418 | 649 | 40 | 80 |
| Vail 7 | 812 | 325 | 673 | 712 | 665 | 402 | 643 | 39 | 77 |
| Deltapine 26 | 792 | 275 | 746 | 786 | 519 | 335 | 642 | 42 | 77 |
| McNair 220 | 693 | 386 | 684 | 703 | 719 | 403 | 630 | 39 | 83 |
| Dixie King III | 754 | 365 | 730 | 719 | 413 | 428 | 624 | 40 | 76 |
| Coker 315 | 658 | 463 | 699 | 713 | 602 | 378 | 620 | 40 | 81 |
| Deltapine 61 | 672 | 309 | 713 | 787 | 568 | 333 | 617 | 38 | 77 |
| Coker 304 | 686 | 398 | 670 | 671 | 638 | 426 | 613 | 41 | 78 |
| Coker 310 | 729 | 310 | 632 | 692 | 667 | 381 | 607 | 38 | 84 |
| Brycot 4 | 717 | 333 | 678 | 747 | 413 | 421 | 606 | 39 | 77 |
| Deltapine 55 | 687 | 427 | 588 | 747 | 572 | 324 | 596 | 39 | 82 |
| Stoneville 213 | 730 | 376 | 678 | 673 | 356 | 425 | 591 | 38 | 81 |
| Coker 3114 | 659 | 334 | 627 | 653 | 348 | 384 | 549 | 42 | 77 |
| Rex 731 | 672 | 414 | 499 | 583 | 543 | 452 | 546 | 35 | 82 |
| Delcot 277 | 786 | 623 | 679 | 600 | 413 | 649 | 38 | 82 | |
| Auburn 56 | 753 | 637 | 643 | 604 | 372 | 630 | 36 | 75 | |

*1978 data only.

**Prattyville location only.

Table 6. Performance of Cotton Varieties in Central and Southern Alabama
Three-year Average, 1976-78

| Variety | Yield of lint per acre | | | | | | Av. lint percentage | Percent earliness*** Pct. |
|----------------|------------------------|----------------|-------------------------|------------------------|--------------------|------------------------|------------------------|---------------------------------|
| | Brewton Lb. | Head- land* | Monroe- ville Lb. | Pratt- ville Lb. | Tallassee** Lb. | Shorter* Av. Lb. | | |
| Hancock | 1070 | 366 | 699 | 757 | 765 | 428 | 762 | 41 83 |
| Deltapine 26 | 919 | 275 | 777 | 835 | 780 | 335 | 751 | 42 77 |
| DES 24 | 967 | 452 | 713 | 775 | 727 | 418 | 745 | 41 82 |
| Stoneville 603 | 904 | 466 | 712 | 765 | 791 | 431 | 740 | 40 83 |
| Vail 7 | 912 | 325 | 702 | 790 | 828 | 402 | 738 | 39 79 |
| Deltapine 61 | 856 | 309 | 749 | 860 | 768 | 333 | 736 | 39 77 |
| McNair 220 | 922 | 386 | 723 | 766 | 774 | 403 | 736 | 40 83 |
| Coker 304 | 915 | 398 | 688 | 744 | 749 | 426 | 720 | 43 77 |
| Dixie King III | 900 | 365 | 751 | 766 | 580 | 428 | 708 | 40 73 |
| Brycot 4 | 839 | 333 | 694 | 803 | 717 | 421 | 707 | 39 77 |
| Deltapine 55 | 847 | 427 | 654 | 788 | 749 | 324 | 701 | 40 80 |
| Coker 310 | 883 | 310 | 648 | 784 | 710 | 381 | 697 | 40 81 |
| Stoneville 213 | 848 | 376 | 708 | 735 | 635 | 425 | 688 | 39 81 |
| Delcot 277 | 946 | 650 | 728 | 738 | 413 | 738 | 39 | 83 |
| Auburn 56 | 892 | 657 | 734 | 751 | 372 | 727 | 37 | 75 |

*1978 data only.

**1976 and 1978 data only.

***Prattville location only.

Table 7. Percentage of Plants Showing Symptoms of Fusarium Wilt^{1/}

| Variety | Average wilt percentage | | | | | | | | |
|------------------|-------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|
| | 1978 | 2-yr 1977-78 | 3-yr 1976-78 | 6-yr 1973-78 | 7-yr 1972-78 | 8-yr 1971-78 | 9-yr 1970-78 | 10-yr 1969-78 | 12-yr 1967-78 |
| Auburn 56 | 10.9 | 13.3 | 10.0 | 19.7 | 18.3 | 18.3 | 21.3 | 19.9 | 18.1 |
| Stoneville 213 | 17.3 | 30.8 | 26.0 | 40.6 | 39.2 | 40.8 | 46.9 | 50.6 | 53.8 |
| Coker 310 | 12.1 | 16.1 | 14.6 | 23.4 | 21.5 | 27.7 | 24.5 | 23.2 | |
| Stoneville 603 | 11.1 | 18.5 | 13.9 | 17.3 | 17.8 | 21.7 | 23.6 | 22.9 | |
| Delcot 277 | 2.6 | 9.2 | 10.5 | 15.4 | 14.8 | 17.7 | 23.3 | | |
| McNair 511 | 5.8 | 12.3 | 12.5 | 19.0 | 18.7 | 21.0 | | | |
| Coker 304 | 10.5 | 14.2 | 12.2 | 21.1 | 20.9 | | | | |
| Deltapine 55 | 4.8 | 16.6 | 13.9 | 22.0 | 21.3 | | | | |
| Dixie King III | 8.9 | 15.6 | 12.8 | 19.8 | | | | | |
| Hancock | 40.3 | 47.6 | 42.0 | 51.1 | | | | | |
| Brycot 4 | 39.0 | 36.3 | 34.5 | | | | | | |
| Deltapine 26 | 7.2 | 5.6 | 4.4 | | | | | | |
| Deltapine 61 | 5.5 | 10.2 | 13.2 | | | | | | |
| McNair 220 | 6.6 | 11.6 | 9.5 | | | | | | |
| Stoneyville 731N | 19.1 | 33.7 | 34.2 | | | | | | |
| Vail 7 | 25.6 | 31.8 | 31.1 | | | | | | |
| Coker 315 | 7.7 | 17.0 | | | | | | | |
| Coker 420 | 6.9 | 15.6 | | | | | | | |
| Coker 3114 | 13.2 | 19.8 | | | | | | | |
| Rex 731 | 8.5 | 16.3 | | | | | | | |
| Coker 6118 | 3.4 | | | | | | | | |
| Coker 4601 | 5.5 | | | | | | | | |
| Deltapine 7141 | 7.6 | | | | | | | | |
| Deltapine 7132 | 5.2 | | | | | | | | |
| Gumbo | 9.6 | | | | | | | | |
| McNair 235 | 6.7 | | | | | | | | |

^{1/}Data were taken from a field severely infested with the fusarium wilt fungus and root-knot nematodes, Plant Breeding Unit, Tallahassee, Alabama.

Table 8. Fiber Properties of Cotton Varieties at Belle Mina, Alabama, 1977

| Variety | Span length 2.5% | Stelometer | | Micronaire |
|-----------------|---------------------|----------------|----------------|------------|
| | | T ₁ | E ₁ | |
| | In. | cN/tex | % | Units |
| Auburn 56 | 1.05 | 18.13 | 6.86 | 4.62 |
| Brycot 4 | 1.09 | 18.88 | 6.34 | 4.65 |
| Coker 304 | 1.13 | 20.52 | 7.16 | 5.10 |
| Coker 310 | 1.11 | 20.49 | 6.48 | 5.00 |
| Coker 315 | 1.09 | 19.90 | 6.63 | 4.95 |
| Coker 417 | 1.12 | 19.93 | 6.59 | 4.85 |
| Coker 3114 | 1.10 | 19.56 | 6.92 | 4.82 |
| Coker 420 | 1.09 | 21.26 | 6.81 | 4.60 |
| Delcot 277 | 1.12 | 20.22 | 9.81 | 4.40 |
| Deltapine 16 | 1.06 | 18.98 | 9.09 | 5.10 |
| Deltapine 26 | 1.07 | 19.61 | 7.06 | 5.00 |
| Deltapine 55 | 1.07 | 20.51 | 7.28 | 4.72 |
| Deltapine 61 | 1.08 | 20.04 | 9.36 | 5.25 |
| DES 24 | 1.10 | 19.92 | 8.27 | 4.87 |
| Dixie King III | 1.03 | 19.91 | 7.07 | 4.65 |
| Hancock | 1.03 | 19.27 | 7.19 | 4.75 |
| McNair 220 | 1.06 | 20.54 | 6.64 | 5.07 |
| McNair 511 | 1.04 | 20.46 | 7.31 | 5.15 |
| McNair 612 | 1.09 | 18.96 | 6.98 | 4.82 |
| Rex 731 | 1.07 | 15.94 | 8.08 | 4.80 |
| Stoneville 213 | 1.06 | 18.88 | 8.53 | 5.00 |
| Stoneville 603 | 1.04 | 19.33 | 6.80 | 5.10 |
| Stoneville 731N | 1.06 | 17.85 | 5.60 | 5.15 |
| Vail 7 | 1.06 | 18.09 | 6.28 | 4.90 |

Table 9. Fiber Properties of Cotton Varieties at Winfield, Alabama, 1977

| Variety | Span length 2.5% In. | Stelometer | | Micronaire Units |
|-----------------|----------------------------|----------------|----------------|---------------------|
| | | T ₁ | E ₁ | |
| | | cN/tex | % | |
| Auburn 56 | 1.03 | 17.11 | 7.48 | 3.80 |
| Brycot 4 | 1.05 | 16.76 | 6.09 | 4.15 |
| Coker 304 | 1.11 | 18.40 | 7.72 | 3.75 |
| Coker 310 | 1.08 | 19.45 | 6.84 | 4.05 |
| Coker 315 | 1.11 | 18.24 | 6.50 | 4.27 |
| Coker 417 | 1.10 | 18.47 | 6.61 | 3.80 |
| Coker 3114 | 1.12 | 18.89 | 7.28 | 4.10 |
| Coker 420 | 1.14 | 20.66 | 7.58 | 3.95 |
| Delcot 277 | 1.13 | 17.85 | 8.41 | 3.62 |
| Deltapine 16 | 1.09 | 17.42 | 9.61 | 4.10 |
| Deltapine 26 | 1.06 | 17.87 | 7.04 | 4.40 |
| Deltapine 55 | 1.08 | 17.33 | 7.45 | 3.75 |
| Deltapine 61 | 1.10 | 19.69 | 8.56 | 4.17 |
| DES 24 | 1.07 | 17.71 | 7.66 | 3.95 |
| Dixie King III | 1.07 | 17.43 | 7.01 | 3.85 |
| Hancock | 1.04 | 16.94 | 7.19 | 3.85 |
| McNair 220 | 1.07 | 17.28 | 6.99 | 4.05 |
| McNair 511 | 1.04 | 17.96 | 7.53 | 3.95 |
| McNair 612 | 1.08 | 17.84 | 6.96 | 4.32 |
| Rex 731 | 1.12 | 14.41 | 7.58 | 4.00 |
| Stoneville 213 | 1.08 | 16.20 | 7.97 | 4.20 |
| Stoneville 603 | 1.10 | 17.87 | 6.64 | 4.15 |
| Stoneville 731N | 1.04 | 16.93 | 6.23 | 4.07 |
| Vail 7 | 1.07 | 16.52 | 6.18 | 4.25 |

Table 10. Fiber Properties of Cotton Varieties at Brewton, Alabama, 1977

| Variety | Span length 2.5% | Stelometer | | Micronaire |
|-----------------|---------------------|----------------|----------------|------------|
| | | T ₁ | E ₁ | |
| | In. | cN/tex | % | Units |
| Auburn 56 | 1.12 | 15.62 | 8.72 | 4.55 |
| Brycot 4 | 1.13 | 17.07 | 8.02 | 3.87 |
| Coker 304 | 1.17 | 17.62 | 7.86 | 3.50 |
| Coker 310 | 1.21 | 18.82 | 7.61 | 4.13 |
| Coker 315 | 1.20 | 17.59 | 8.05 | 3.50 |
| Coker 417 | 1.19 | 18.74 | 7.76 | 3.75 |
| Coker 3114 | 1.17 | 19.26 | 8.64 | 3.75 |
| Coker 420 | 1.18 | 19.43 | 8.51 | 3.95 |
| Delcot 277 | 1.19 | 18.78 | 10.70 | 3.45 |
| Deltapine 16 | 1.17 | 17.42 | 10.32 | 3.27 |
| Deltapine 26 | 1.16 | 18.77 | 8.19 | 3.55 |
| Deltapine 55 | 1.15 | 18.28 | 8.79 | 3.45 |
| Deltapine 61 | 1.17 | 17.42 | 10.32 | 3.27 |
| DES 24 | 1.17 | 18.69 | 9.31 | 3.85 |
| Dixie King III | 1.12 | 19.69 | 8.13 | 3.72 |
| Hancock | 1.07 | 17.87 | 8.13 | 4.00 |
| McNair 220 | 1.13 | 17.62 | 7.86 | 3.80 |
| McNair 511 | 1.13 | 18.38 | 8.60 | 4.33 |
| McNair 612 | 1.12 | 17.84 | 8.16 | 3.75 |
| Rex 731 | 1.10 | 15.55 | 9.11 | 4.10 |
| Stoneville 213 | 1.12 | 17.73 | 8.94 | 3.80 |
| Stoneville 603 | 1.11 | 19.06 | 8.25 | 4.12 |
| Stoneville 731N | 1.14 | 17.07 | 7.83 | 3.72 |
| Vail 7 | 1.11 | 17.02 | 7.77 | 3.75 |

Table 11. Fiber Properties of Cotton Varieties at Headland, Alabama, 1977

| Variety | Span length 2.5% | Stelometer | | Micronaire |
|-----------------|---------------------|----------------|----------------|------------|
| | | T ₁ | E ₁ | |
| | In. | cN/tex | % | Units |
| Auburn 56 | 1.05 | 15.97 | 7.26 | 4.65 |
| Brycot 4 | 1.04 | 17.49 | 7.18 | 5.25 |
| Coker 304 | 1.06 | 17.37 | 7.64 | 4.67 |
| Coker 310 | 1.10 | 17.93 | 7.93 | 4.57 |
| Coker 315 | 1.11 | 18.30 | 7.37 | 4.37 |
| Coker 417 | 1.06 | 17.32 | 6.81 | 4.42 |
| Coker 3114 | 1.09 | 17.12 | 7.44 | 4.50 |
| Coker 420 | 1.09 | 17.55 | 7.42 | 4.12 |
| Delcot 277 | 1.07 | 17.18 | 9.77 | 4.05 |
| Deltapine 16 | 1.08 | 16.47 | 8.98 | 4.65 |
| Deltapine 26 | 1.02 | 17.07 | 7.99 | 5.15 |
| Deltapine 55 | 1.02 | 16.85 | 7.55 | 4.85 |
| Deltapine 61 | 1.06 | 18.41 | 8.54 | 4.78 |
| DES 24 | 1.06 | 17.44 | 7.99 | 4.80 |
| Dixie King III | 0.98 | 16.52 | 6.98 | 4.20 |
| Hancock | 1.05 | 15.44 | 7.55 | 4.35 |
| McNair 220 | 1.06 | 17.31 | 7.21 | 4.55 |
| McNair 511 | 1.02 | 16.71 | 7.90 | 4.73 |
| McNair 612 | 1.03 | 15.51 | 7.19 | 4.33 |
| Rex 731 | 1.04 | 15.31 | 7.64 | 4.68 |
| Stoneville 213 | 1.06 | 16.24 | 8.02 | 4.85 |
| Stoneville 603 | 1.05 | 16.34 | 7.20 | 4.75 |
| Stoneville 731N | 1.01 | 16.66 | 6.64 | 5.33 |
| Vail 7 | 1.04 | 15.68 | 7.26 | 4.90 |

Table 12. Fiber Properties of Cotton Varieties at Monroeville, Alabama, 1977

| Variety | Span length 2.5% | <u>Stelometer</u> | | Micronaire |
|-----------------|---------------------|-------------------|----------------|------------|
| | | T ₁ | E ₁ | |
| | In. | cN/tex | % | Units |
| Auburn 56 | 1.10 | 15.91 | 9.22 | 4.40 |
| Brycot 4 | 1.08 | 18.16 | 7.39 | 4.10 |
| Coker 304 | 1.12 | 17.11 | 7.45 | 4.22 |
| Coker 310 | 1.14 | 17.21 | 7.42 | 4.15 |
| Coker 315 | 1.14 | 17.02 | 7.58 | 4.33 |
| Coker 417 | 1.13 | 17.96 | 7.39 | 4.30 |
| Coker 3114 | 1.18 | 18.39 | 8.67 | 4.10 |
| Coker 420 | 1.14 | 18.38 | 8.44 | 4.40 |
| Delcot 277 | 1.15 | 17.72 | 10.32 | 4.05 |
| Deltapine 16 | 1.16 | 17.12 | 10.26 | 4.15 |
| Deltapine 26 | 1.10 | 18.19 | 8.78 | 4.10 |
| Deltapine 55 | 1.12 | 16.32 | 8.26 | 4.25 |
| Deltapine 61 | 1.10 | 16.54 | 10.32 | 4.35 |
| DES 24 | 1.15 | 17.48 | 9.20 | 4.52 |
| Dixie King III | 1.10 | 16.96 | 8.04 | 4.10 |
| Hancock | 1.15 | 17.11 | 8.12 | 3.93 |
| McNair 220 | 1.13 | 17.43 | 7.35 | 4.45 |
| McNair 511 | 1.10 | 17.07 | 8.91 | 4.48 |
| McNair 612 | 1.10 | 17.11 | 7.22 | 4.70 |
| Rex 731 | 1.11 | 14.62 | 9.10 | 5.00 |
| Stoneville 213 | 1.09 | 15.44 | 8.61 | 4.35 |
| Stoneville 603 | 1.12 | 17.93 | 7.37 | 3.95 |
| Stoneville 731N | 1.12 | 17.20 | 7.86 | 4.15 |
| Vail 7 | 1.08 | 16.81 | 7.51 | 4.15 |

Table 13. Fiber Properties of Cotton Varieties at Prattville, Alabama, 1977

| Variety | Span length 2.5% | Stelometer | | Micronaire |
|-----------------|---------------------|----------------|----------------|------------|
| | | T ₁ | E ₁ | |
| | In. | cN/tex | % | Units |
| Auburn 56 | 1.04 | 16.82 | 6.66 | 4.65 |
| Brycot 4 | 1.07 | 16.56 | 5.97 | 4.80 |
| Coker 304 | 1.12 | 17.16 | 6.96 | 5.03 |
| Coker 310 | 1.13 | 18.84 | 5.94 | 4.80 |
| Coker 315 | 1.08 | 19.65 | 6.03 | 5.20 |
| Coker 417 | 1.16 | 18.15 | 6.96 | 4.47 |
| Coker 3114 | 1.07 | 17.48 | 7.85 | 4.85 |
| Coker 420 | 1.13 | 18.98 | 7.47 | 4.65 |
| Delcot 277 | 1.12 | 18.76 | 8.50 | 4.25 |
| Deltapine 16 | 1.14 | 17.92 | 8.67 | 4.87 |
| Deltapine 26 | 1.15 | 18.07 | 8.12 | 4.55 |
| Deltapine 55 | 1.05 | 18.13 | 6.93 | 4.67 |
| Deltapine 61 | 1.10 | 17.53 | 9.86 | 5.10 |
| DES 24 | 1.14 | 19.28 | 7.08 | 4.60 |
| Dixie King III | 1.06 | 17.91 | 6.55 | 4.85 |
| Hancock | 1.03 | 17.67 | 7.04 | 5.00 |
| McNair 220 | 1.06 | 19.61 | 5.97 | 5.40 |
| McNair 511 | 1.07 | 18.22 | 7.07 | 5.18 |
| McNair 612 | 1.07 | 18.57 | 6.09 | 5.25 |
| Rex 731 | 1.07 | 14.94 | 7.51 | 4.55 |
| Stoneville 213 | 1.07 | 17.36 | 7.37 | 5.05 |
| Stoneville 603 | 1.07 | 18.11 | 6.21 | 4.85 |
| Stoneville 731N | 1.07 | 17.78 | 6.20 | 5.20 |
| Vail 7 | 1.08 | 16.75 | 6.64 | 5.15 |

Source of Seed for the 1978 Cotton Variety Tests

| Variety | Seed source |
|----------------|---|
| Auburn 56 | Auburn University (Alabama) Agricultural Experiment Station Auburn, AL 36830 |
| Deltapine 55 | |
| Deltapine 26 | Delta and Pine Land Co. |
| Deltapine 61 | Scott, MS 38772 |
| Deltapine 7141 | |
| Stoneville 213 | |
| Stoneville 603 | Stoneville Pedigreed Seed Co. |
| Stoneville 825 | Stoneville, MS 38776 |
| Dixie King III | |
| Coker 310 | |
| Coker 6118 | |
| Coker 304 | Coker's Pedigreed Seed Co. |
| Coker 315 | Hartsville, SC 29550 |
| Coker 420 | |
| Coker 3114 | |
| Coker 4601 | |
| Delcot 277 | Delta Center Portageville, MO 63873 |
| McNair 235 | |
| McNair 220 | McNair Seed Co. Laurinburg, NC 28532 |
| Hancock | West Tennessee Experiment Station Jackson, TN 38301 |
| Brycot 4 | |
| Vail 7 | Bryco Jonesboro, AR 72401 |
| DES 24 | |
| DES 56 | Delta Branch Experiment Station Stoneville, MS 38776 |
| Rex 731 | Cotton Branch Experiment Station Marianna, AR 72360 |

