



COTTON INCORPORATED

**USA COTTON QUALITY
MEASUREMENTS AND ANALYSIS**

2000 UPLAND CROP

Final Report

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FIBER QUALITY RESEARCH

4/20/01

TABLE OF CONTENTS

| | |
|---|----|
| Quality Summary of 2000 and 1999 USA Upland Crops | 3 |
| Averages for Selected Fiber Properties by Classing Office | 6 |
| Distributions of Fiber Properties | 8 |
| Quality Trends in USA Upland Cotton | 11 |
| Regional Trends... .. | 14 |
| Regional Distributions..... | 19 |
| Varieties Planted in 2000 | 24 |
| USDA Cotton Classing Offices for 2000..... | 25 |

QUALITY SUMMARY 2000 USA UPLAND CROP

The tables on the following pages give a summary of the quality of the 2000 USA upland cotton crop. These data were obtained from the weekly reports issued by the USDA (United States Quality of Cotton Classed under Smith-Doxey Act; Agricultural Marketing Service, Cotton Division, United States Department of Agriculture, Memphis, Tennessee).

The upper portion of each chart lists, by classing office, the percentage of bales that were placed in various grades by the classers. The "White Grades" section has three columns that give the percentages of bales placed into grades 11, 21, or 31 (MID+), 41 (SLM), and grades 51, 61, or 71 (LM-). The "TOTAl" column gives the total percentage of bales classified as "white" at each classing office. The "Light Spotted Grades" section gives percentages of bales classified into groups 12, 22, or 32 (MID+), 42 (SLM), and 52 or 62 (LM-). The "TOTAl" column gives the total percentage of bales classified as "Light Spotted" at each classing office. The "Other Grades" column includes all bales at each classing office that were classed as "Spotted", "Tinged", "Yellow Stained", or "Below Grade". The "% Barky Grades" column lists the percentage of bales from each classing office contained bark.

In 1993, the classer grading system was changed. Under the old system of grading, the classer determined a composite grade of color and trash content; and bales that contained bark and grass were reduced one or more grade levels. Under this system, the classer determines a color grade, a leaf (trash) grade and notes whether there is bark or grass present in the bale without any reduction in grade. Each color grade percentage will include all levels of leaf. For example, the 23.7% of the bales classed in Florence, SC in 2000 with SLM white color grade includes all bales at all leaf levels (2-7 leaf) with SLM white color.

The lower portion of the chart lists average physical properties at each classing office. Micronaire (MIC), length (LEN), length uniformity index (LUI), strength (STR) and TRASH are measurements taken by the High Volume Instruments (HVI). The TRASH measurement is an estimate of the percent of the surface of the sample covered by the trash. The maturity ratio and fineness data are derived from random samples submitted each week by classing office and tested using the Shirley Fineness and Maturity Tester (FMT).

The number of bales graded at each classing office is also given.

The charts that follow the tables give a visual picture of the data by classing office, for micronaire, strength, length and length uniformity index. Distributions of the US crop for micronaire, strength, length, length uniformity index, and color grade follow the classing office charts.

QUALITY SUMMARY OF 2000 U.S. UPLAND COTTON

| CLASSING OFFICE | PERCENT OF BALES | | | | | | | | | |
|--------------------|------------------|-------------|------------|-------------|----------------------|------------|------------|-------------|-----------------|-----------------|
| | WHITEGRADES | | | | LIGHT SPOTTED GRADES | | | | OTHER GRADES | BARKY GRADES |
| | MID+ | SLM | LM- | TOT | MID+ | SLM | LM- | TOT | | |
| Florence, SC | 72.6 | 23.7 | 0.8 | 97.1 | 1.0 | 1.4 | 0.1 | 2.5 | 0.4 | 2.5 |
| Macon, GA | 30.3 | 43.5 | 11.8 | 85.6 | 0.9 | 8.5 | 4.1 | 13.5 | 0.9 | 3.0 |
| Birmingham, AL | 53.0 | 28.3 | 5.5 | 86.8 | 4.1 | 6.2 | 1.6 | 11.9 | 1.3 | 2.6 |
| Rayville, LA | 39.3 | 38.8 | 4.1 | 82.2 | 5.7 | 8.9 | 2.4 | 17.0 | 0.8 | 0.3 |
| Memphis, TN | 56.8 | 27.7 | 1.7 | 86.2 | 5.4 | 7.2 | 1.0 | 13.6 | 0.2 | 0.4 |
| Dumas, AR | 32.1 | 38.3 | 3.1 | 73.5 | 5.6 | 16.5 | 3.6 | 25.7 | 0.8 | 0.4 |
| C. Christi, TX | 63.4 | 14.6 | 1.9 | 79.9 | 11.2 | 7.2 | 1.1 | 19.5 | 0.6 | 1.8 |
| Abilene, TX | 52.1 | 5.7 | 4.2 | 62.0 | 16.4 | 5.8 | 8.2 | 30.4 | 7.6 | 21.8 |
| Lubbock, TX | 34.7 | 24.9 | 1.5 | 61.1 | 12.0 | 21.9 | 1.6 | 35.5 | 3.4 | 33.8 |
| Lamesa, TX | 46.6 | 17.7 | 0.6 | 64.9 | 16.3 | 15.2 | 0.7 | 32.2 | 2.9 | 20.8 |
| Phoenix, AZ | 61.4 | 29.0 | 4.4 | 94.8 | 3.0 | 0.9 | 0.7 | 4.6 | 0.6 | 7.2 |
| Visalia, CA | 81.7 | 15.2 | 0.7 | 97.6 | 1.6 | 0.3 | 0.1 | 2.0 | 0.4 | 0.2 |
| AVERAGE | 52.4 | 27.2 | 3.2 | 82.8 | 5.6 | 8.6 | 1.8 | 16.0 | 1.2 | |

| | MIC unit | LEN 32/in | L.UI (%) | STR g/t | TRASH (%) | MAT RATIO | FIN mtex | LGRD INDEX | NO. BALES | LEN inch |
|----------------|-------------|--------------|-------------|-------------|--------------|--------------|-------------|---------------|-------------------|-------------|
| Florence, SC | 4.0 | 34.2 | 81.1 | 26.3 | 0.5 | 0.865 | 173 | 3.4 | 1,911,605 | 1.07 |
| Macon, GA | 4.5 | 34.3 | 81.1 | 27.4 | 0.4 | 0.949 | 181 | 3.1 | 1,639,003 | 1.07 |
| Birmingham, AL | 4.4 | 33.7 | 81.1 | 27.0 | 0.4 | 0.918 | 174 | 3.0 | 608,177 | 1.05 |
| Rayville, LA | 4.7 | 33.9 | 81.0 | 27.0 | 0.3 | 0.970 | 184 | 2.6 | 1,002,905 | 1.06 |
| Memphis, TN | 4.3 | 34.2 | 81.3 | 27.2 | 0.4 | 0.905 | 178 | 2.9 | 2,143,549 | 1.07 |
| Dumas, AR | 4.5 | 34.2 | 81.4 | 26.9 | 0.4 | 0.934 | 178 | 2.9 | 2,052,672 | 1.07 |
| C. Christi, TX | 4.1 | 33.9 | 81.2 | 27.2 | 0.3 | 0.898 | 159 | 2.6 | 1,078,355 | 1.06 |
| Abilene, TX | 4.1 | 33.1 | 80.2 | 27.1 | 0.3 | 0.923 | 163 | 2.5 | 525,416 | 1.03 |
| Lubbock, TX | 3.9 | 32.4 | 79.9 | 27.0 | 0.5 | 0.864 | 157 | 3.4 | 2,071,532 | 1.01 |
| Lamesa, TX | 3.9 | 32.9 | 80.1 | 26.9 | 0.4 | 0.884 | 160 | 3.0 | 302,119 | 1.03 |
| Phoenix, AZ | 4.7 | 35.4 | 80.9 | 28.1 | 0.3 | 0.981 | 186 | 2.5 | 959,650 | 1.11 |
| Visalia, CA | 4.4 | 36.2 | 82.1 | 31.8 | 0.3 | 0.959 | 168 | 2.6 | 2,052,820 | 1.13 |
| AVERAGE | 4.30 | 34.2 | 81.1 | 27.7 | 0.4 | 0.922 | 173 | 2.9 | 16,347,803 | 1.07 |

Classing Week Ending – FINAL CROP 2000

FIBER QUALITY RESEARCH

*Number of physical bales, not calculated by weight. 16.3 million physical bales ~ 16.8 million 480-lb bales.

QUALITY SUMMARY OF 1999 U.S. UPLAND COTTON

| CLASSING OFFICE | PERCENT OF BALES | | | | | | | | | |
|--------------------|------------------|-------------|------------|-------------|----------------------|------------|------------|-------------|-----------------|-----------------|
| | WHITEGRADES | | | | LIGHT SPOTTED GRADES | | | | OTHER GRADES | BARKY GRADES |
| | MID+ | SLM | LM- | TOT | MID+ | SLM | LM- | TOT | | |
| Florence, SC | 25.5 | 56.9 | 5.1 | 87.5 | 1.9 | 7.8 | 2.2 | 11.9 | 0.6 | 1.5 |
| Macon, GA | 23.3 | 51.2 | 6.3 | 80.8 | 1.6 | 12.8 | 3.7 | 18.1 | 1.1 | 1.9 |
| Birmingham, AL | 42.9 | 37.3 | 1.7 | 81.9 | 7.0 | 9.8 | 0.8 | 17.6 | 0.5 | 2.9 |
| Rayville, LA | 58.0 | 30.5 | 1.4 | 89.9 | 4.0 | 5.1 | 0.6 | 9.7 | 0.4 | 0.4 |
| Memphis, TN | 70.0 | 14.1 | 1.2 | 85.3 | 6.5 | 5.9 | 1.1 | 13.5 | 1.2 | 0.2 |
| Dumas, AR | 55.2 | 30.8 | 2.1 | 88.1 | 4.8 | 5.7 | 1.1 | 11.6 | 0.3 | 0.6 |
| C. Christi, TX | 50.1 | 18.6 | 2.5 | 71.2 | 13.1 | 8.2 | 2.0 | 23.3 | 5.5 | 10.5 |
| Abilene, TX | 79.6 | 2.5 | 0.0 | 82.1 | 15.9 | 1.0 | 0.0 | 16.9 | 1.0 | 3.1 |
| Lubbock, TX | 93.8 | 0.3 | 0.0 | 94.1 | 5.4 | 0.0 | 0.0 | 5.4 | 0.5 | 2.7 |
| Lamesa, TX | 88.2 | 0.1 | 0.0 | 88.3 | 10.3 | 0.0 | 0.0 | 10.3 | 1.4 | 2.4 |
| Phoenix, AZ | 93.2 | 1.1 | 0.0 | 94.3 | 4.8 | 0.6 | 0.0 | 5.4 | 0.3 | 4.0 |
| Visalia, CA | 98.0 | 0.9 | 0.0 | 98.9 | 0.7 | 0.2 | 0.0 | 0.9 | 0.2 | 0.1 |
| AVERAGE | 65.3 | 20.4 | 1.8 | 87.5 | 5.7 | 4.8 | 1.0 | 11.5 | 1.0 | |

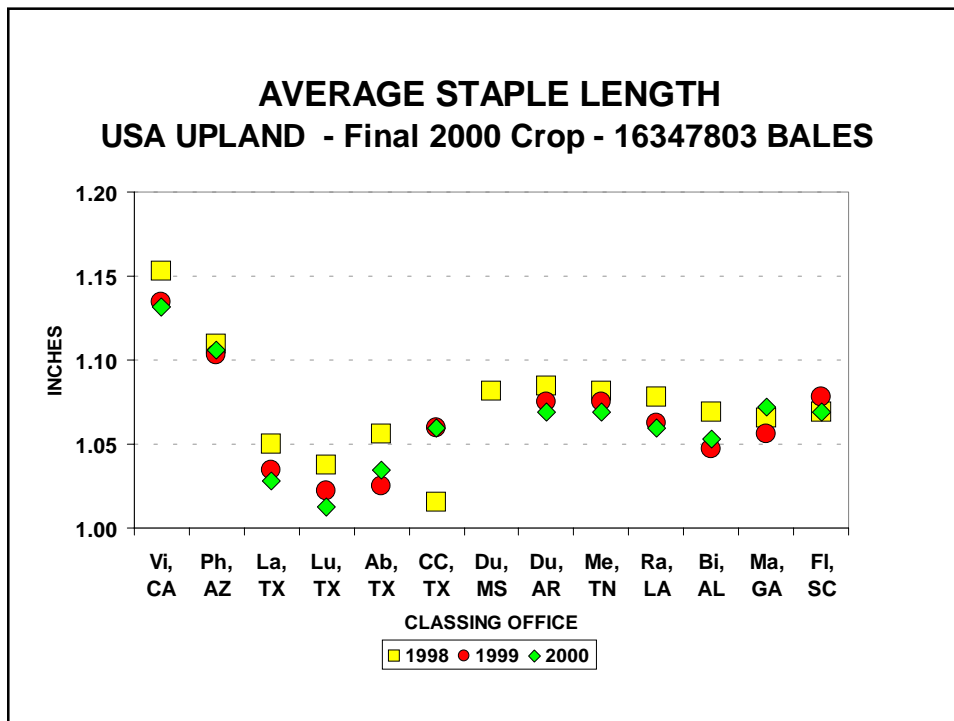
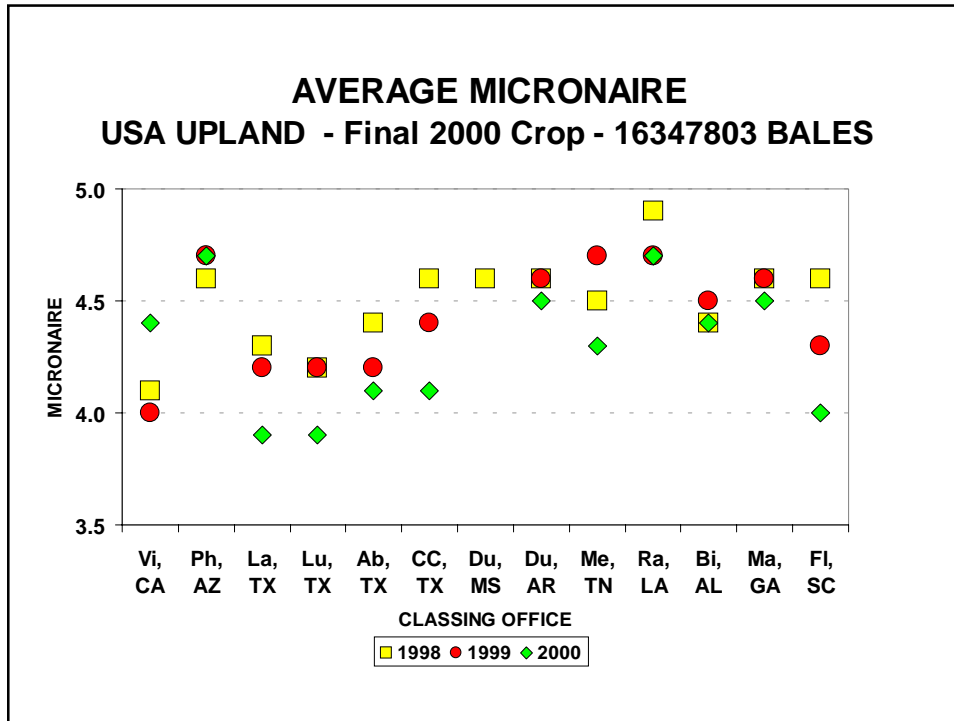
| | MIC unit | LEN 32/in | L.UI (%) | STR g/t | TRASH (%) | MAT RATIO | FIN mtex | LGRD INDEX | NO. BALES* | LEN inch |
|----------------|-------------|--------------|-------------|-------------|--------------|--------------|-------------|---------------|-------------------|-------------|
| Florence, SC | 4.3 | 34.5 | 81.2 | 28.0 | 0.39 | 0.92 | 177 | 3.4 | 1,201,023 | 1.08 |
| Macon, GA | 4.6 | 33.8 | 81.0 | 28.3 | 0.44 | 0.98 | 182 | 3.4 | 1,531,218 | 1.06 |
| Birmingham, AL | 4.5 | 33.5 | 80.9 | 27.7 | 0.38 | 0.96 | 178 | 3.2 | 712,469 | 1.05 |
| Rayville, LA | 4.7 | 34.0 | 81.3 | 27.8 | 0.35 | 1.00 | 183 | 2.9 | 969,351 | 1.06 |
| Memphis, TN | 4.7 | 34.4 | 81.9 | 28.6 | 0.33 | 0.97 | 192 | 2.8 | 1,959,819 | 1.08 |
| Dumas, AR | 4.6 | 34.4 | 81.7 | 28.2 | 0.35 | 0.98 | 183 | 3.0 | 2,077,005 | 1.08 |
| C. Christi, TX | 4.4 | 33.9 | 81.4 | 26.2 | 0.35 | 0.94 | 175 | 3.0 | 1,187,670 | 1.06 |
| Abilene, TX | 4.2 | 32.8 | 80.3 | 27.3 | 0.24 | 0.95 | 166 | 2.4 | 848,035 | 1.03 |
| Lubbock, TX | 4.2 | 32.7 | 81.0 | 28.0 | 0.25 | 0.94 | 173 | 2.5 | 2,355,395 | 1.02 |
| Lamesa, TX | 4.2 | 33.1 | 80.8 | 28.2 | 0.22 | 0.94 | 170 | 2.3 | 623,870 | 1.03 |
| Phoenix, AZ | 4.7 | 35.3 | 81.0 | 27.6 | 0.17 | 1.00 | 188 | 2.0 | 842,279 | 1.10 |
| Visalia, CA | 4.0 | 36.3 | 82.5 | 31.7 | 0.20 | 0.94 | 154 | 2.2 | 1,465,110 | 1.13 |
| AVERAGE | 4.43 | 34.1 | 81.4 | 28.3 | 0.31 | 0.96 | 177 | 2.8 | 15,773,244 | 1.06 |

Classing Week Ending – Final 1999 Crop

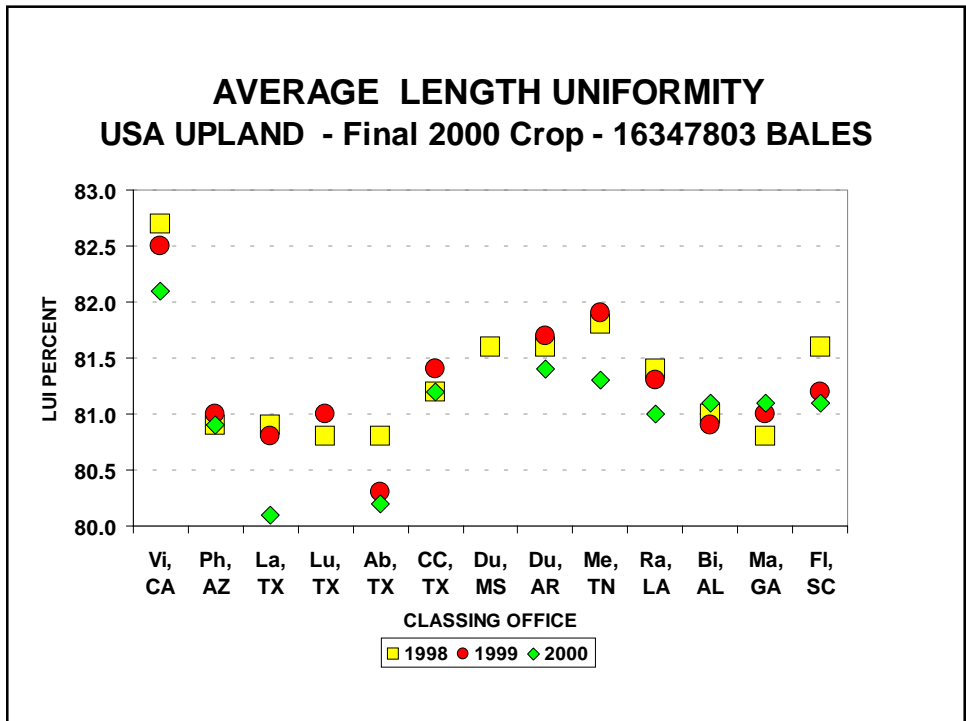
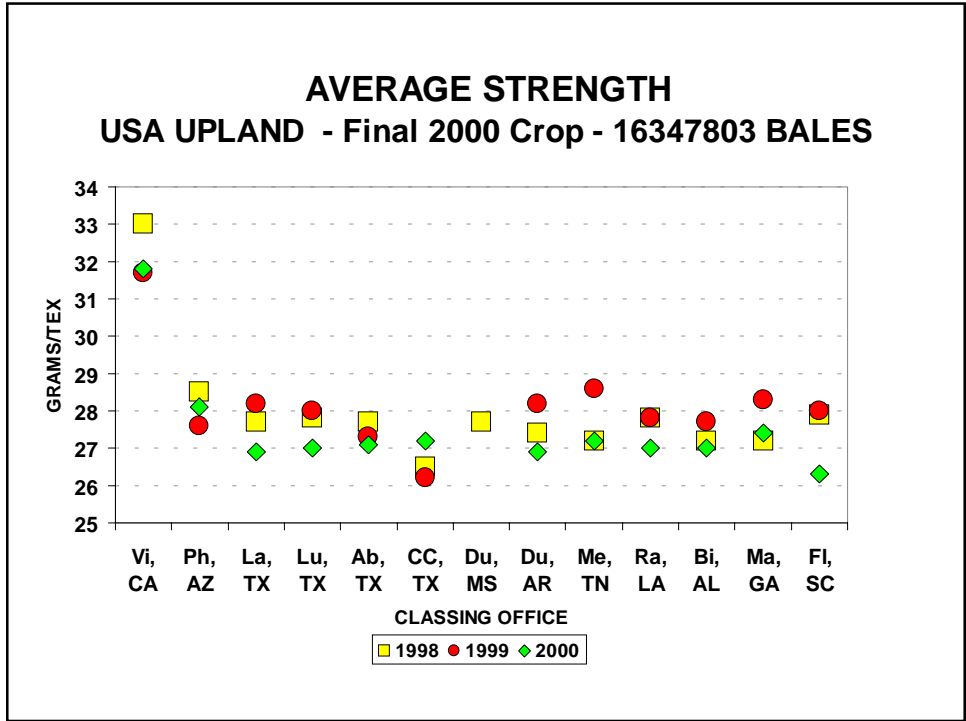
FIBER QUALITY RESEARCH

*Number of physical bales, not calculated by weight. 15.8 million physical bales ~ 16.2 million 480-lb bales.

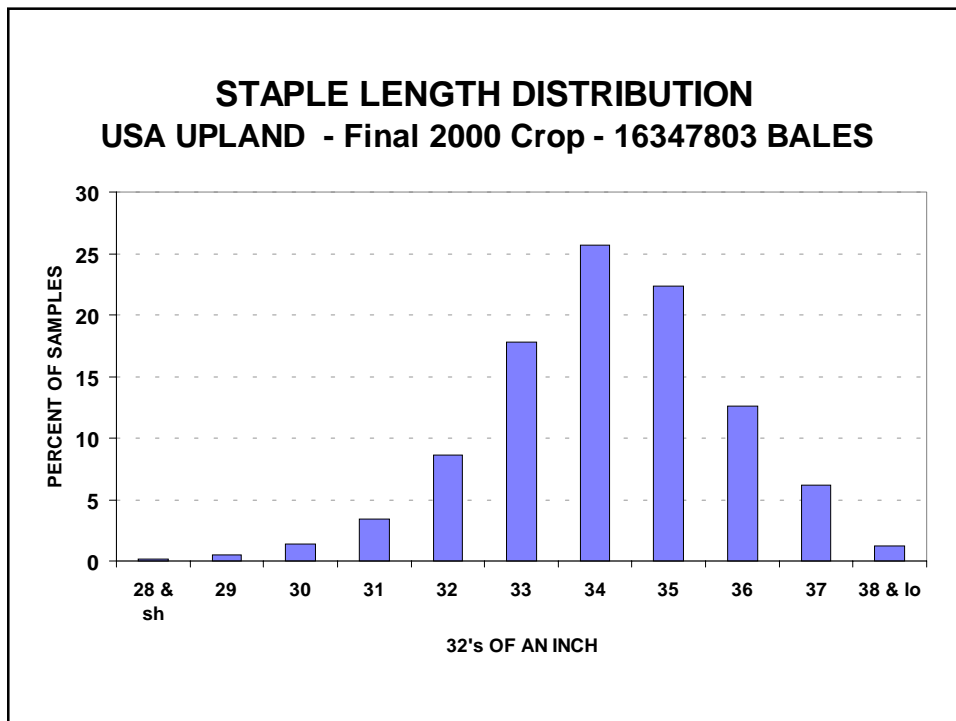
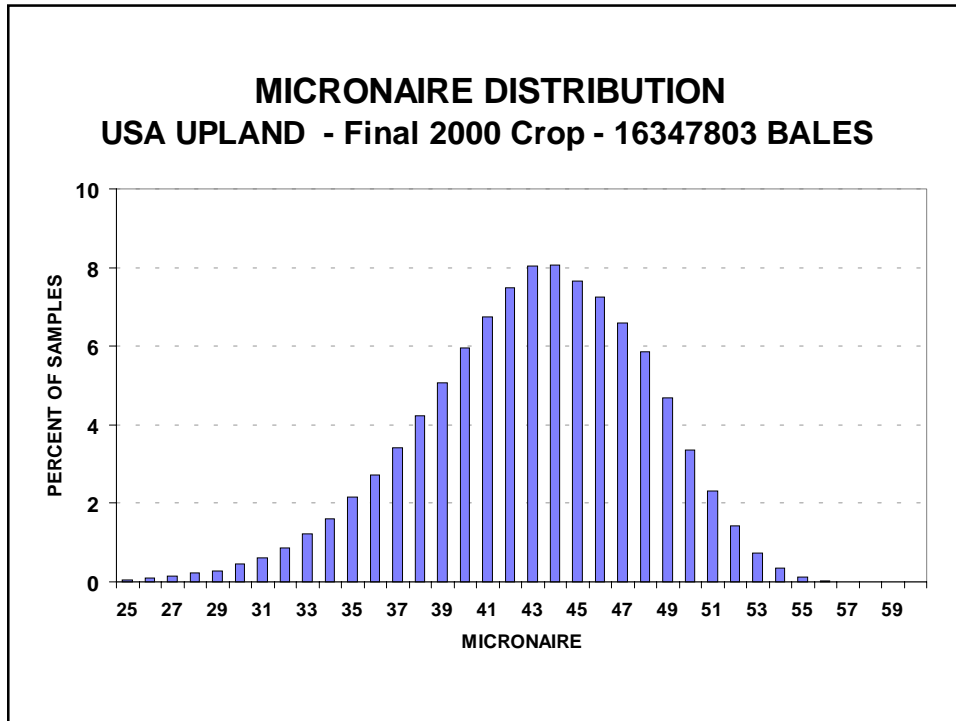
AVERAGES OF SELECTED FIBER PROPERTIES BY CLASSING OFFICE



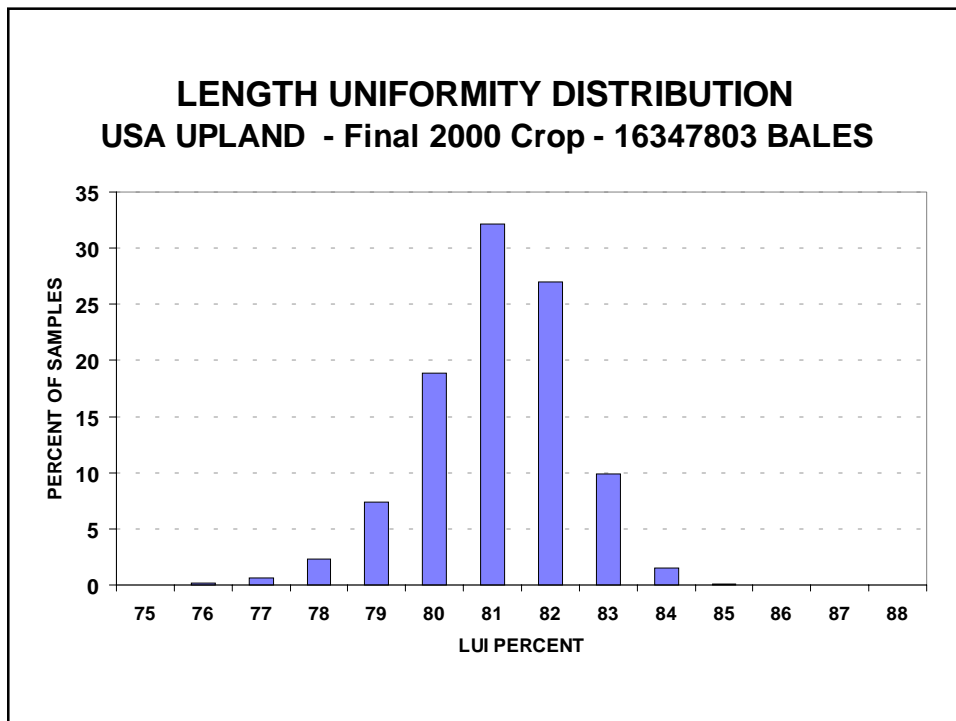
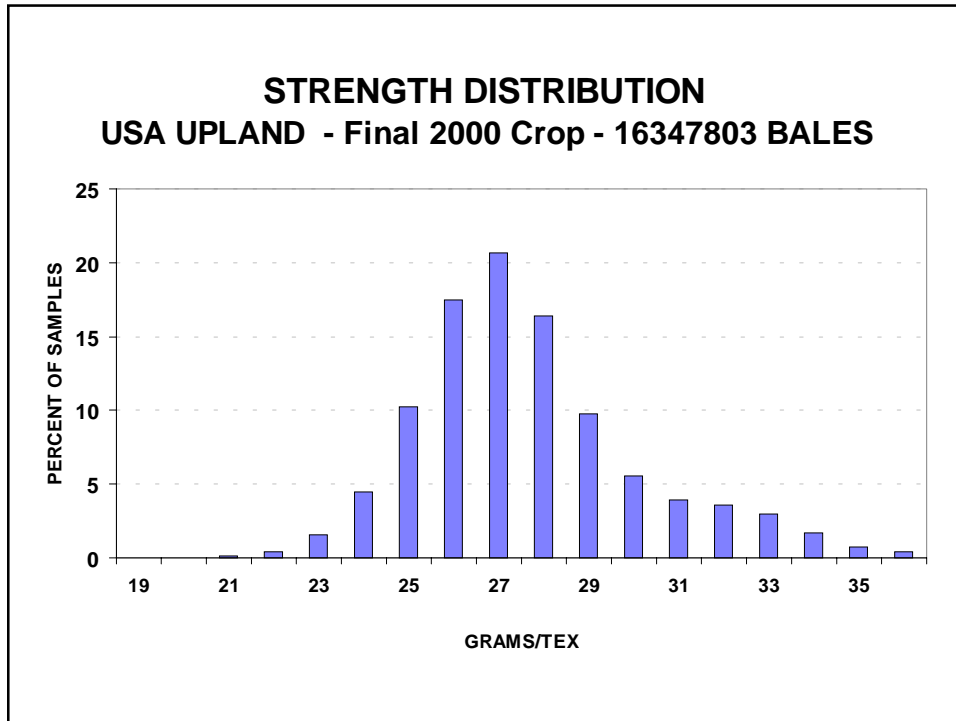
AVERAGES OF SELECTED FIBER PROPERTIES BY CLASSING OFFICE



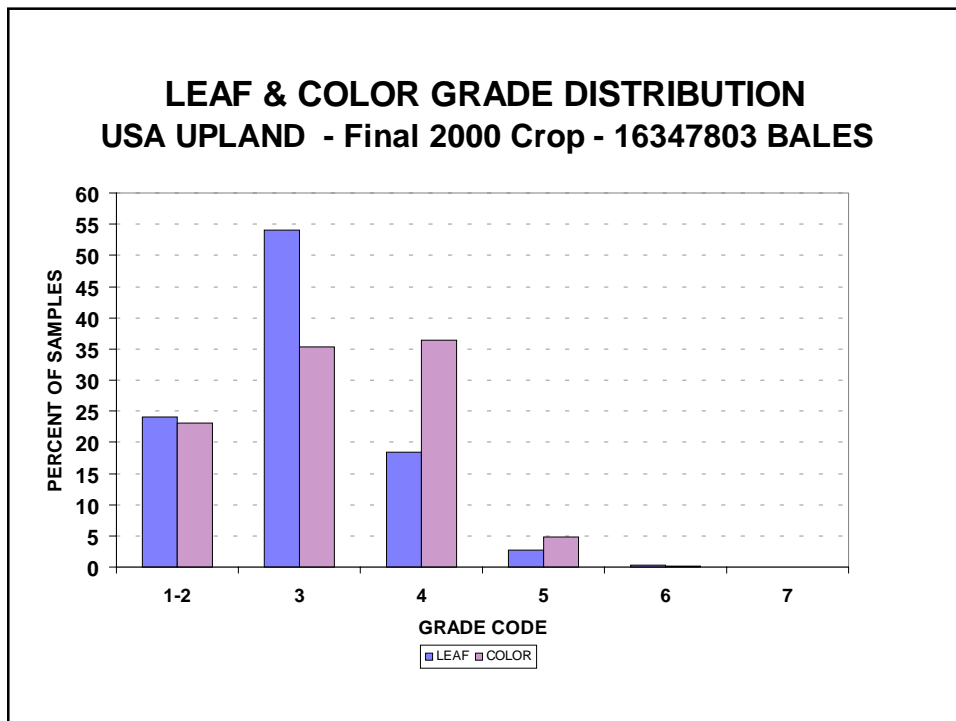
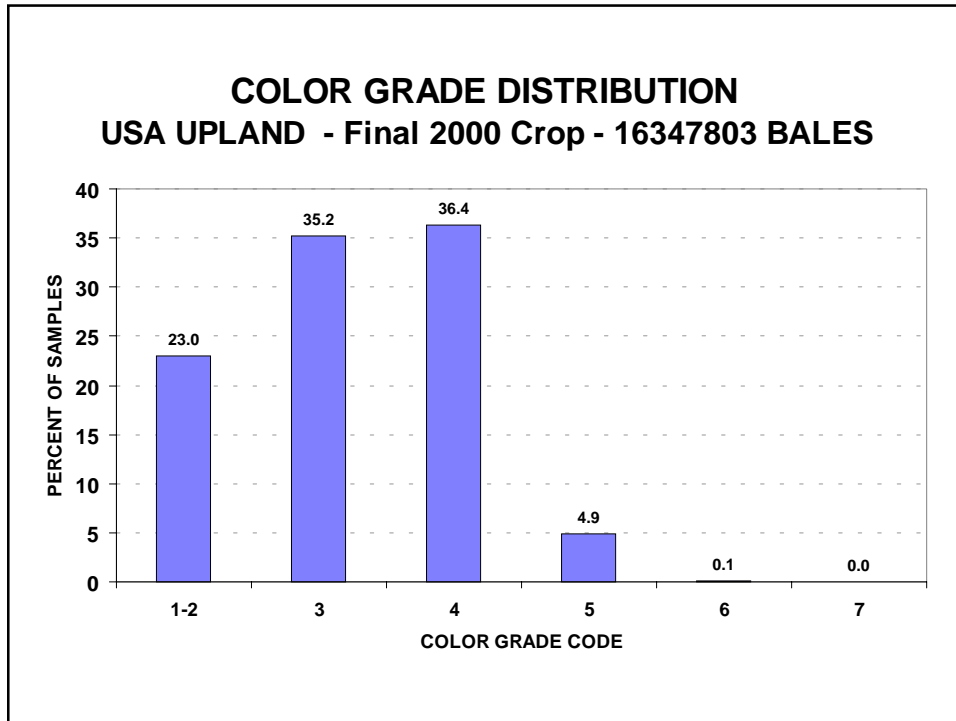
DISTRIBUTIONS OF SELECTED FIBER PROPERTIES



DISTRIBUTIONS OF SELECTED FIBER PROPERTIES



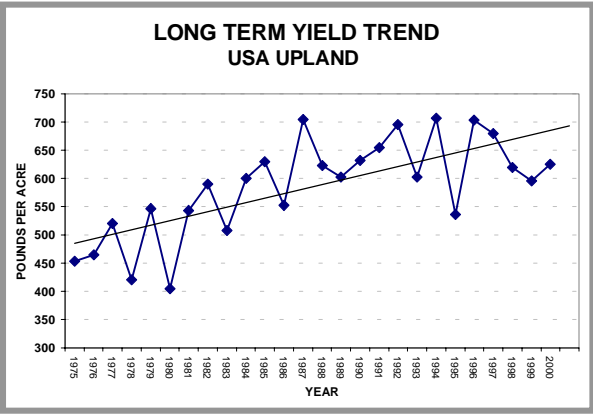
DISTRIBUTIONS OF SELECTED FIBER PROPERTIES



QUALITY TRENDS USA UPLAND COTTON

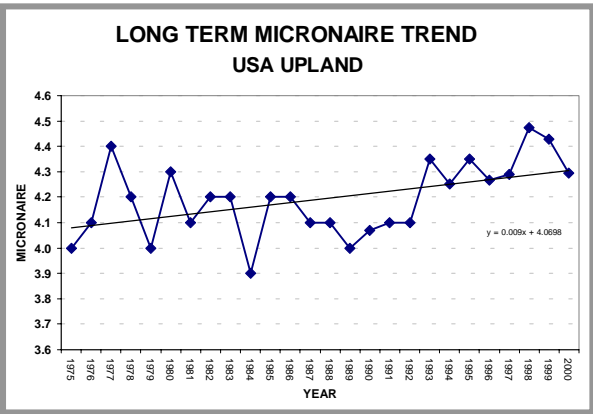
This summary report analyzes trends in the quality of USA upland cotton. Information used for this analysis, except for yield data, comes from the publication, "Quality of Cotton Classed under the Smith-Doxey Act." This is a USDA publication, issued weekly during the harvest season beginning in August.

YIELD



The final 2000 crop yield estimate was placed at 625 pounds per acre. While long-term yield trends show increases, the trend since 1988 has been flat. Total production for 2000 is approximately 16.8 million bales* of upland cotton, about 600 thousand bales above 1999 production.

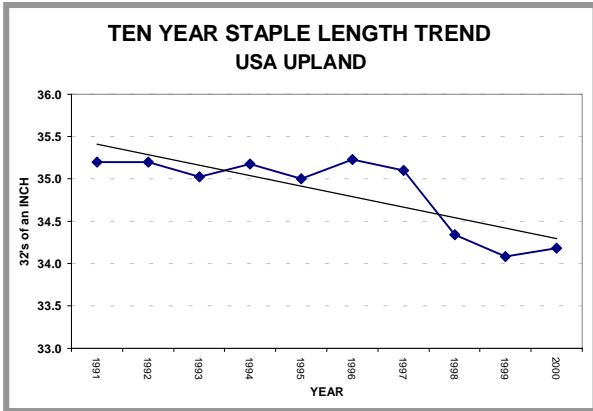
MICRONAIRE



The 2000 final micronaire average of 4.30 is below the average micronaire of the 1999 crop (4.43). For comparison, the national five-year average for micronaire is 4.35. A ten-year trend shows micronaire increasing at a rate of 0.03 units per year.

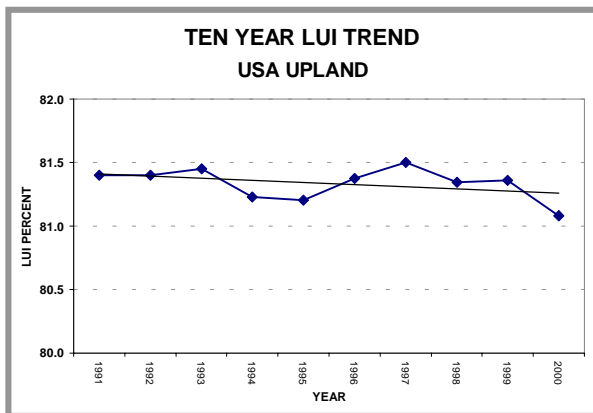
*This value is different than what is reported on the USDA's Smith-Doxey report. The Smith-Doxey (which supplies the information for our Crop Quality Report) reports the number of actual bales classed. Not all bales weigh exactly 480 pounds. To represent the total amount of cotton in the crop, the production is more accurately reported as the number of 480-pound bales.

LENGTH



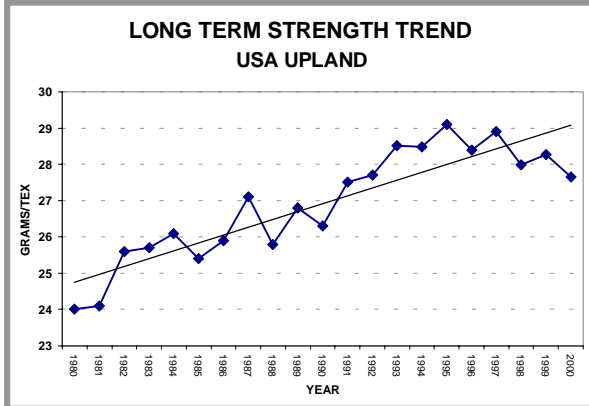
The 2000 crop has an average staple length of 34.2/32s of an inch (1.068 inches). For the 1999 crop, the average staple length was 34.1/32's of an inch (1.065 inches). The five-year average US staple 34.6/32's (1.081 inches). Staple length has been trending downward, at a rate of 0.12/32's per year (.0038 inches) for the past ten years.

LENGTH UNIFORMITY INDEX



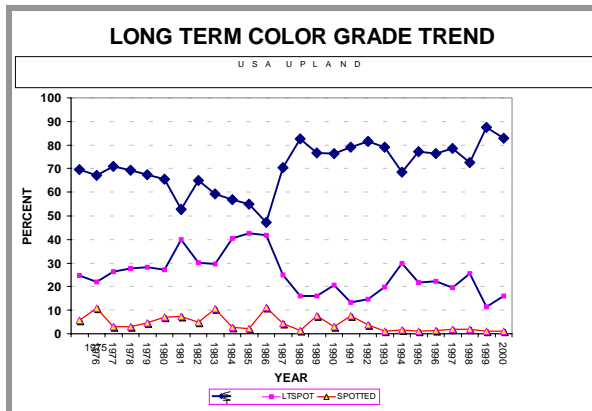
This is the thirteenth year that the USDA has been supplying length uniformity index data. The 2000 crop has a national average for length uniformity index of 81.1%, down 0.3% from last year's crop. Length uniformity has been decreasing at a rate of 0.02% per year since 1991. The five-year average for is 81.3%.

STRENGTH



The average strength for the 2000 crop is 27.7 grams/tex, compared to the average strength of 28.2 g/tex for 1999. Since HVI began recording strength in 1980, the annual increase in strength has been 0.22 grams/tex per year. Premiums and discounts have been paid for fiber strength since 1991, when 100% HVI testing was initiated in the classing system. Since then, the rate of increase has slowed to .02 g/tex per year.

CLASSER'S GRADE

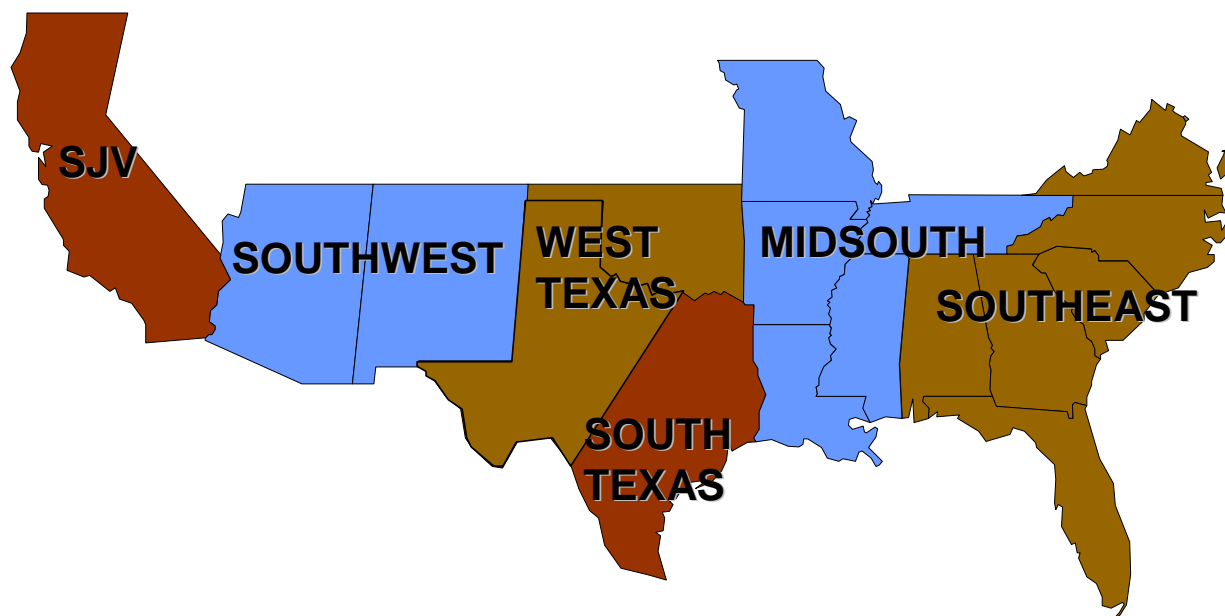


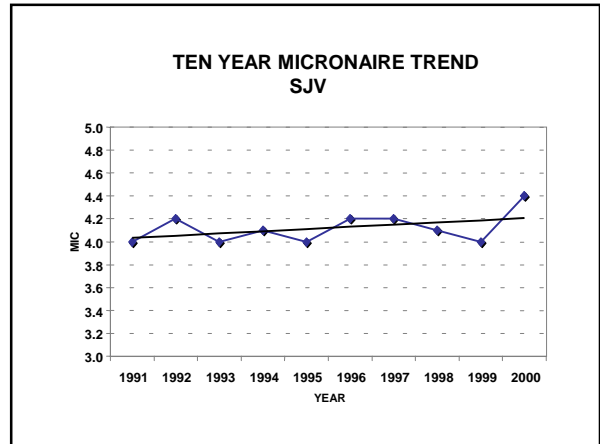
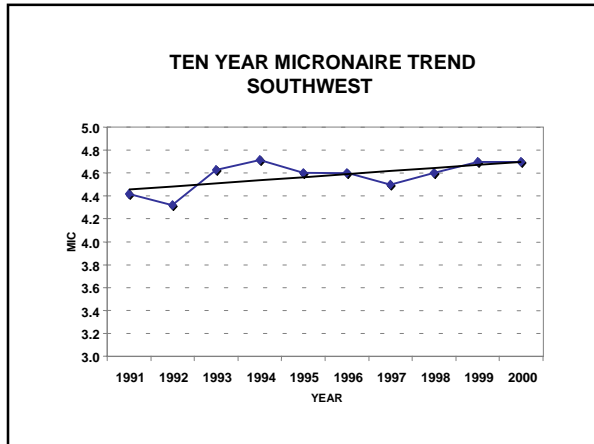
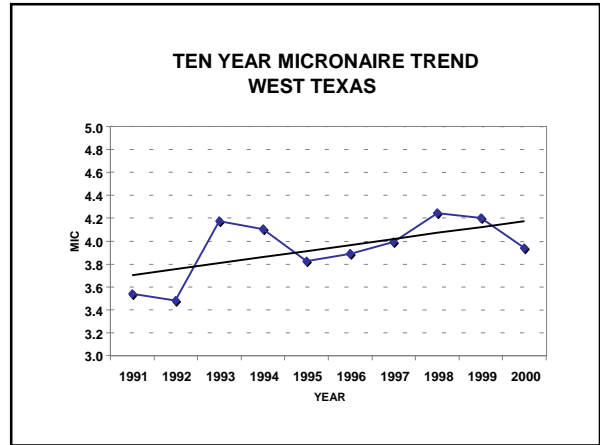
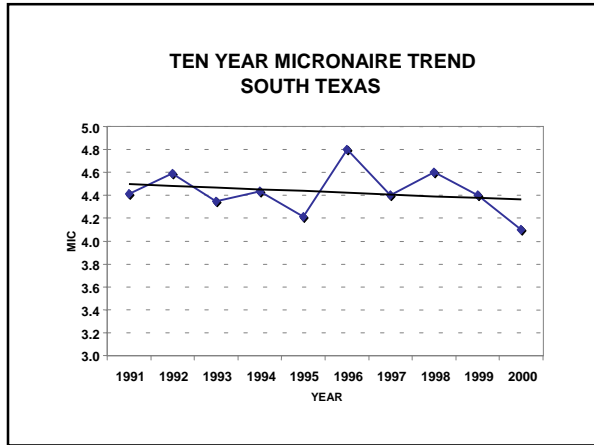
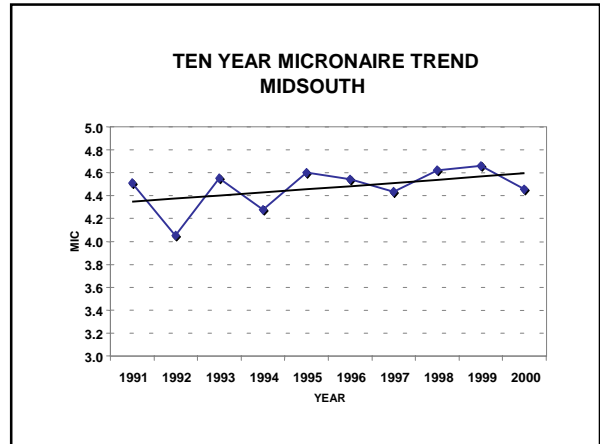
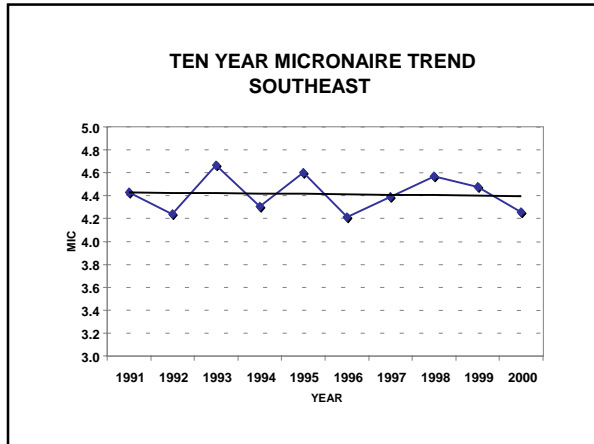
The chart below illustrates the classer grades of USA upland cotton crops since 1975. There was a gradual decline from 1975 to 1986 in the percentage of the crop classed into "white" grades. This trend was reversed in the 1987 crop-- and the average percentage of white grades has stabilized near 80% since that time. The 2000 final crop had 82.8% classified as "white".

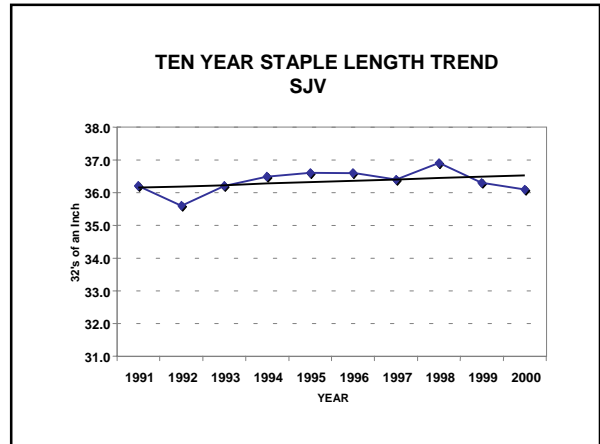
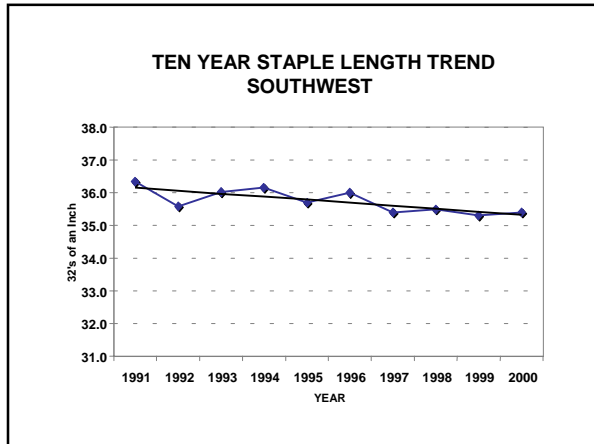
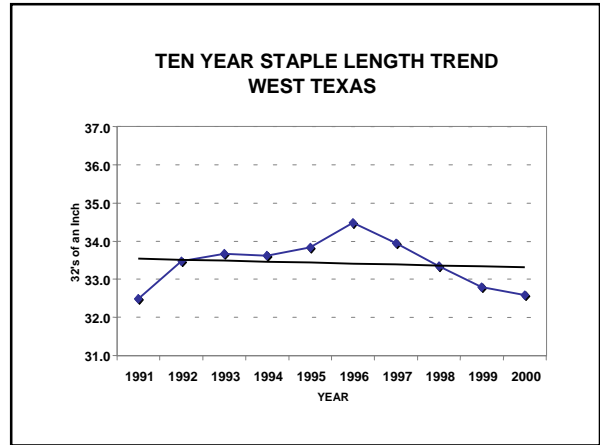
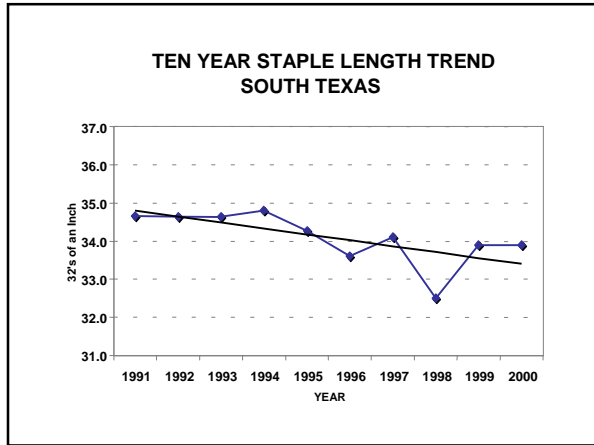
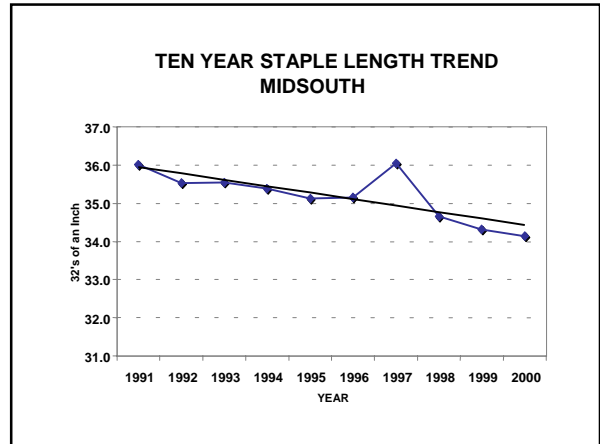
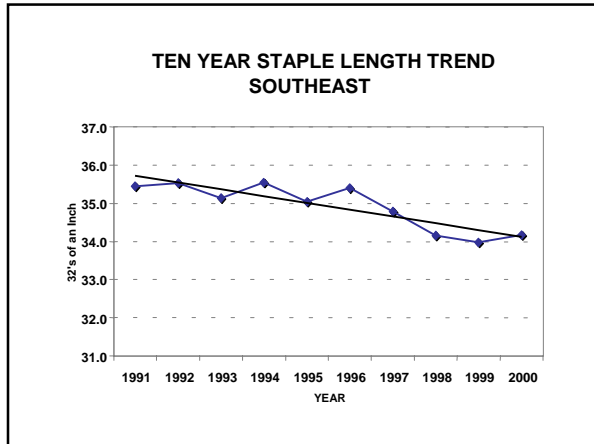
Beginning in 1993, the classer grade was split into color grade and leaf grade. The grade is not reduced because of the presence of extraneous materials such as bark or grass. The percentages given in the graph above for the crops beginning in 1993 are for the color grades, but each color grade includes all leaf grades in that color group. The data for the last seven years are biased from data for the previous years because there are no reductions in color grade for extraneous matter.

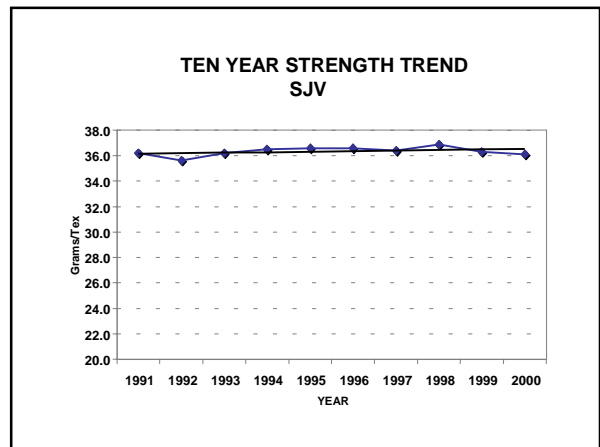
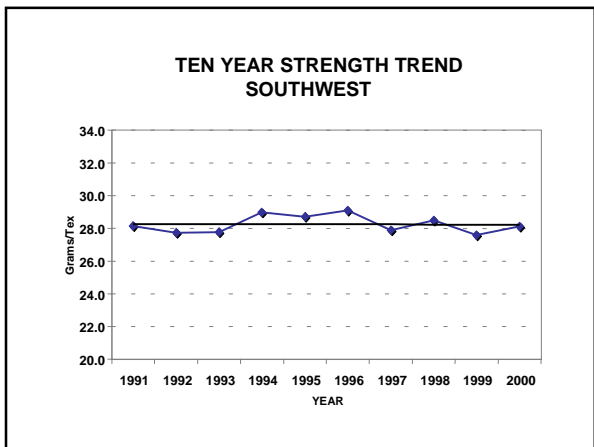
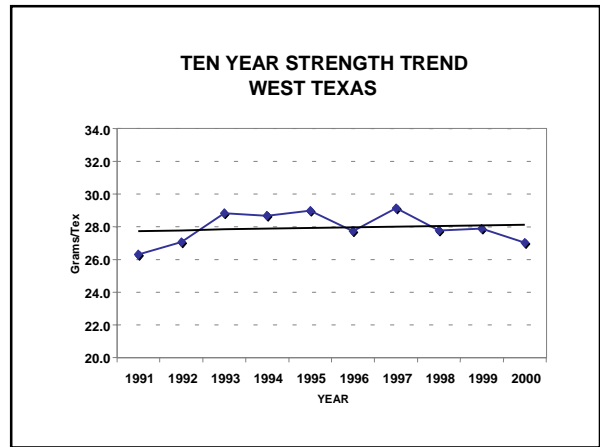
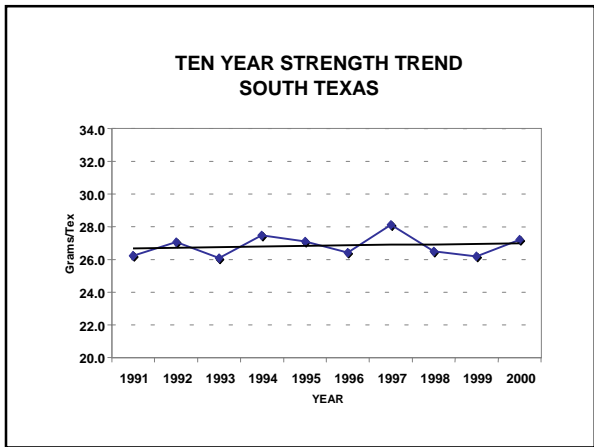
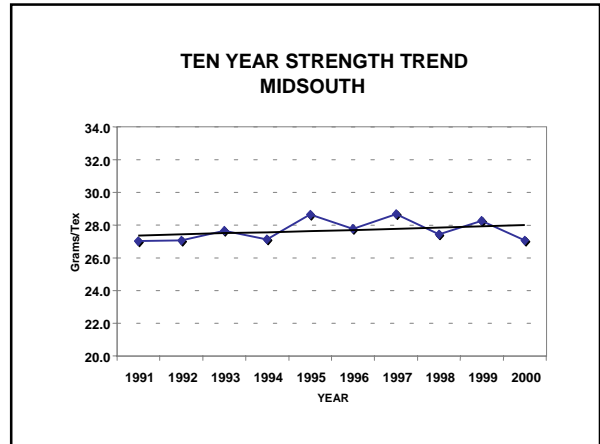
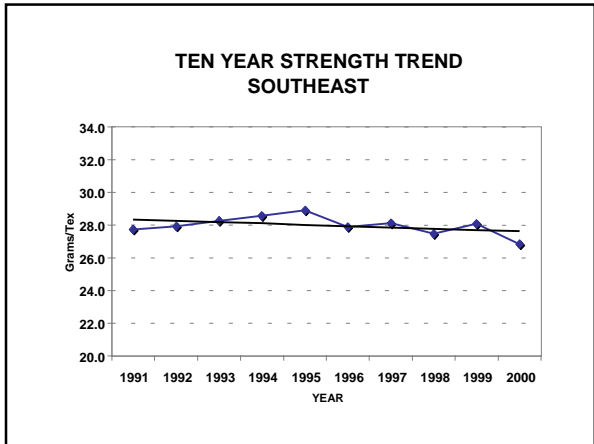
TEN YEAR TRENDS BY REGION

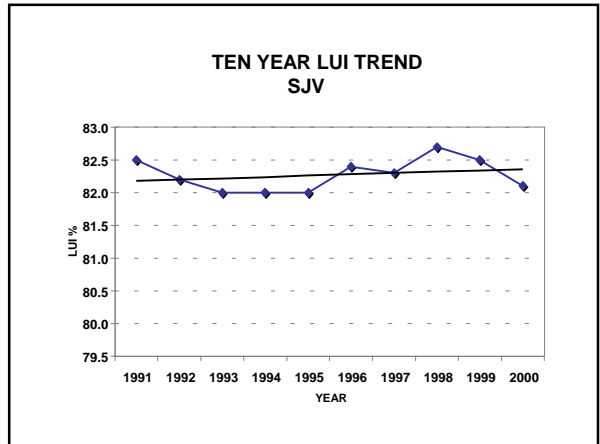
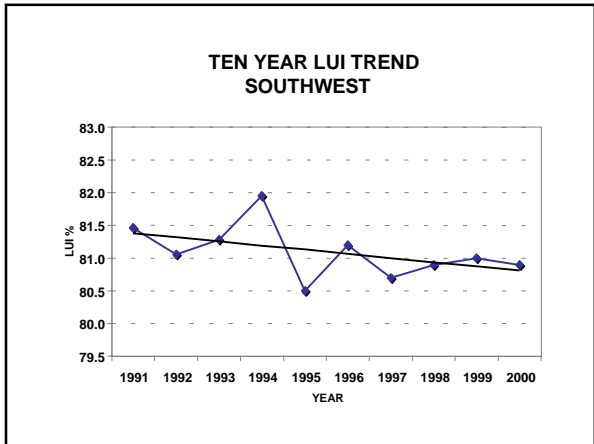
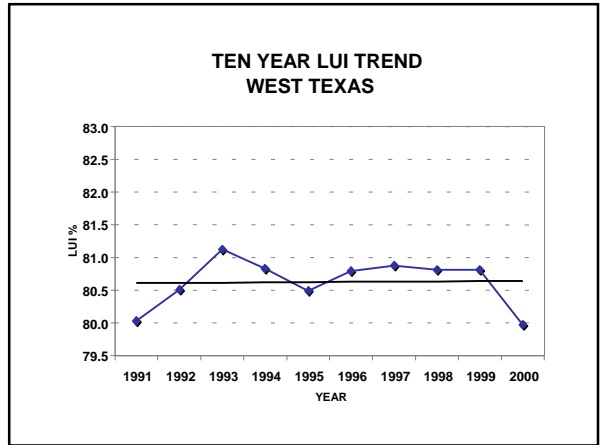
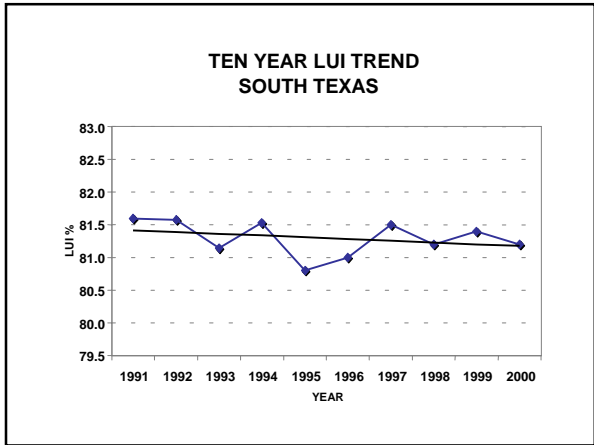
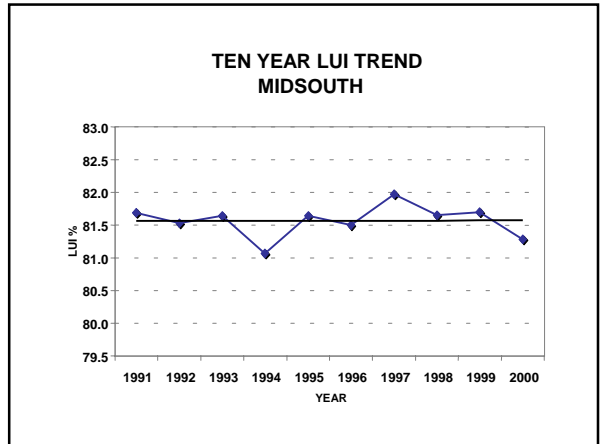
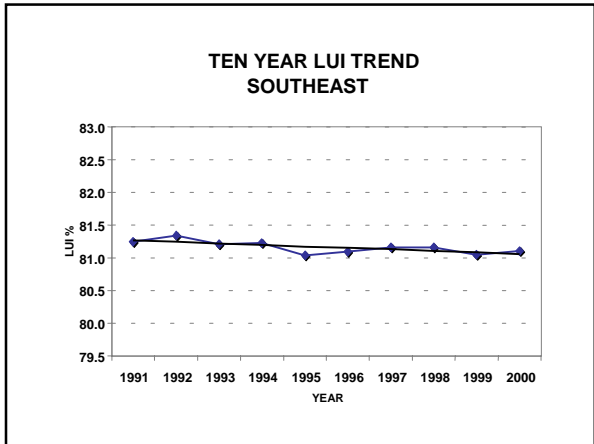
US UPLAND COTTON CROP QUALITY 2000 Final





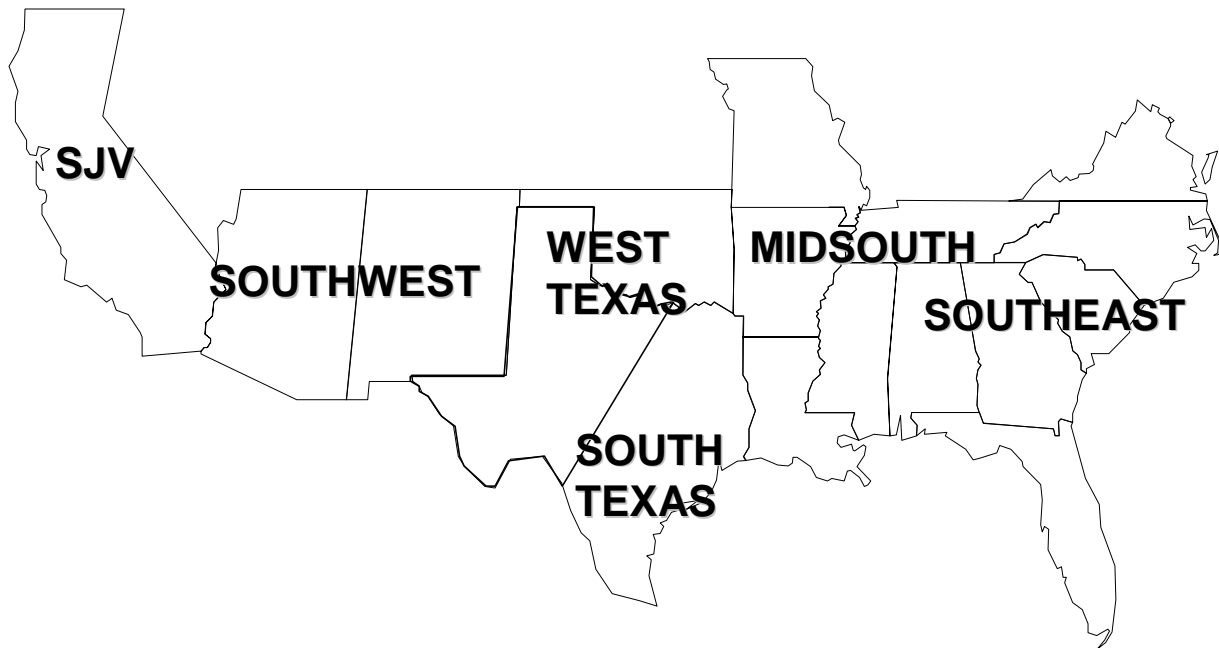


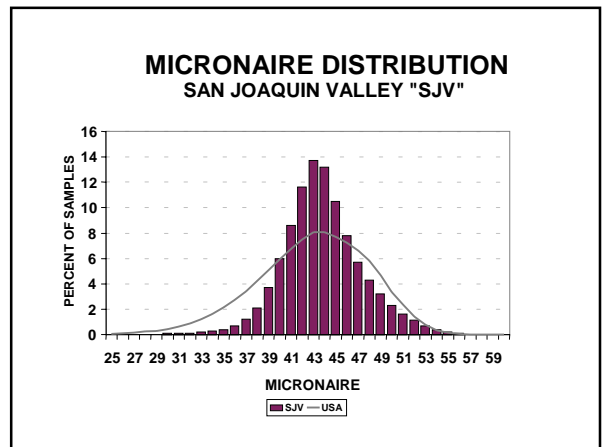
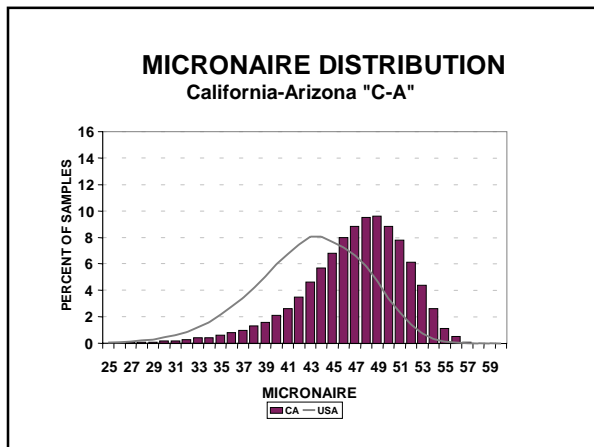
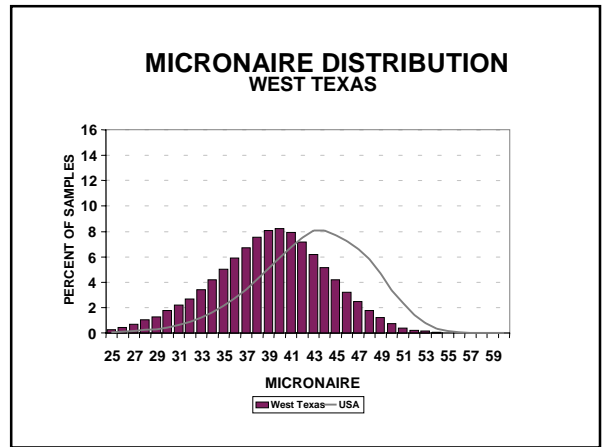
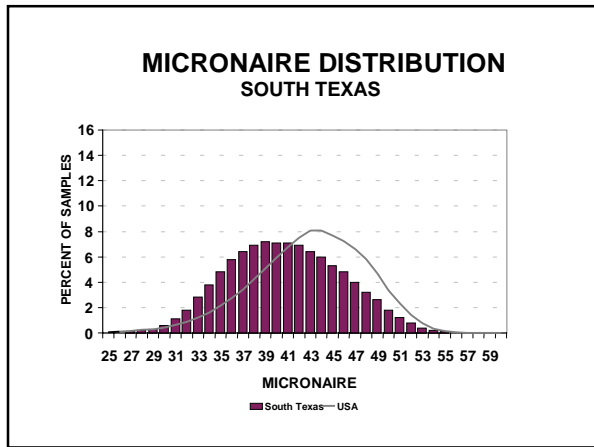
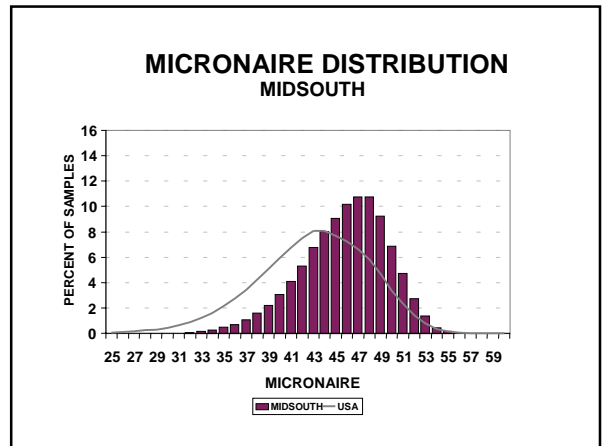
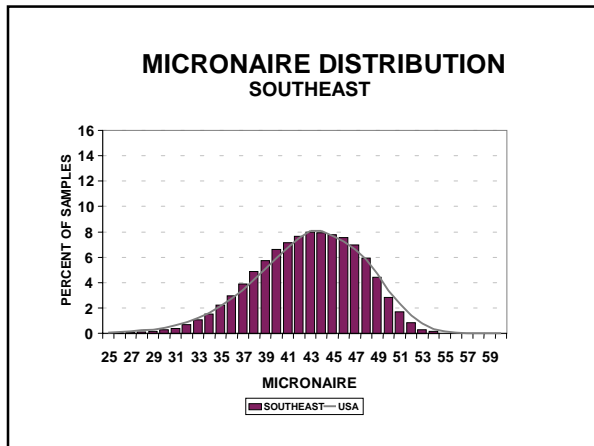


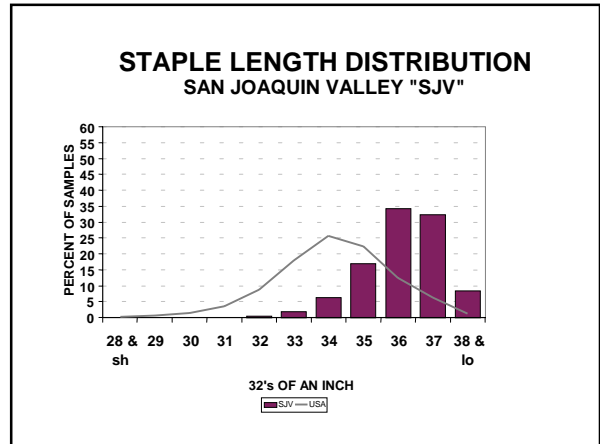
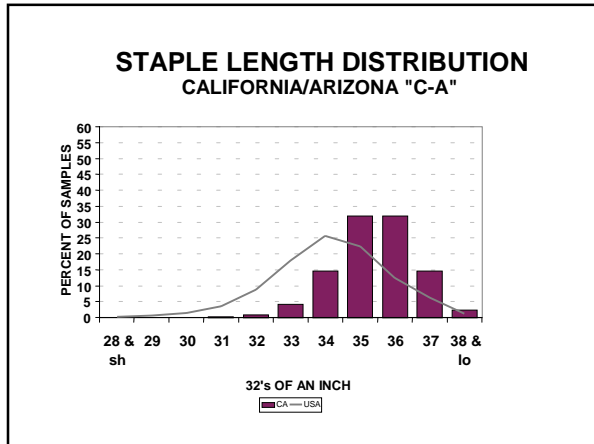
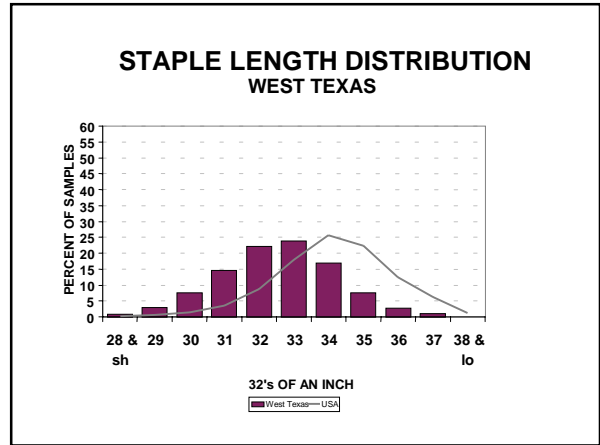
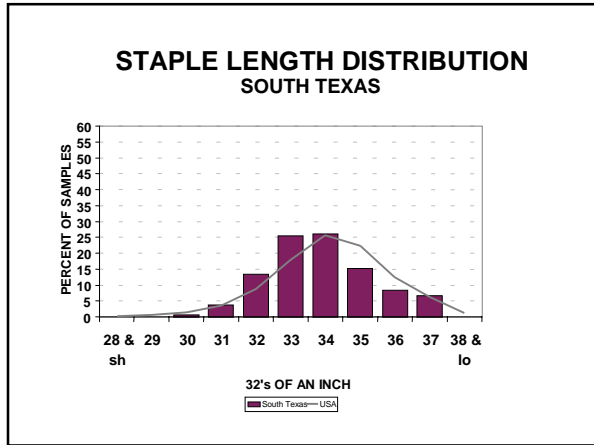
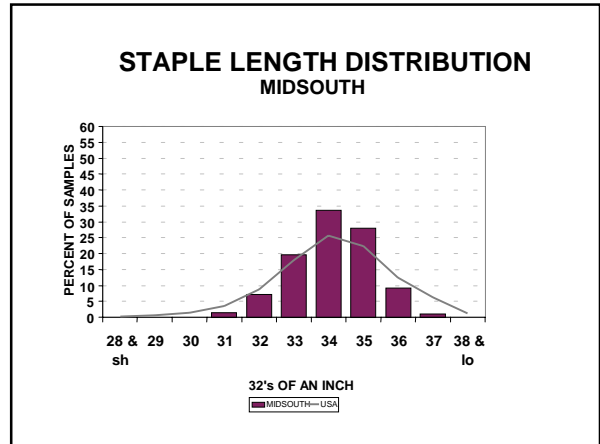
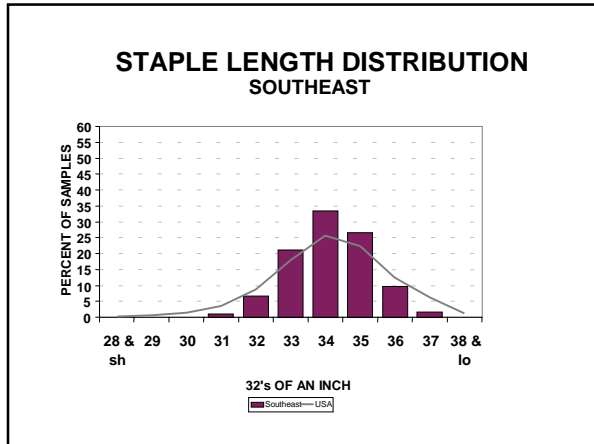


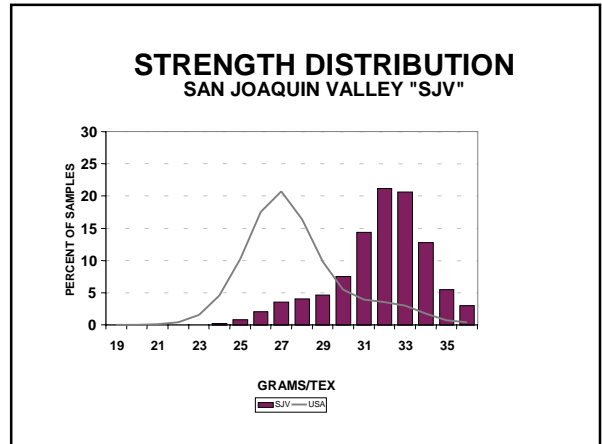
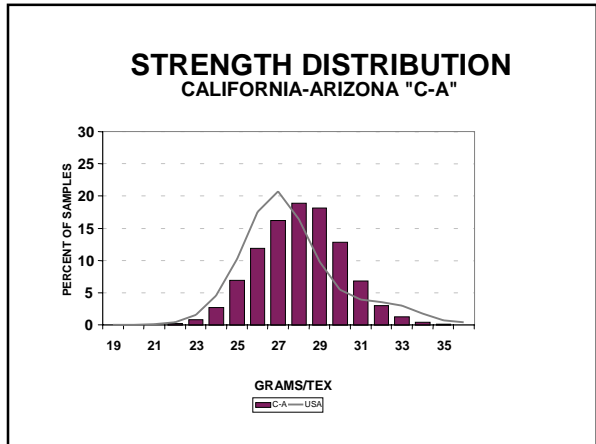
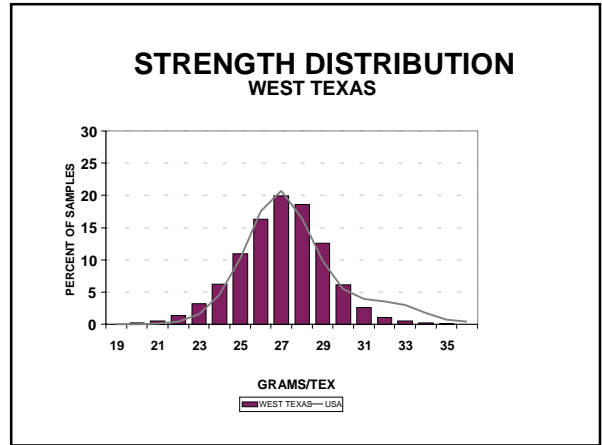
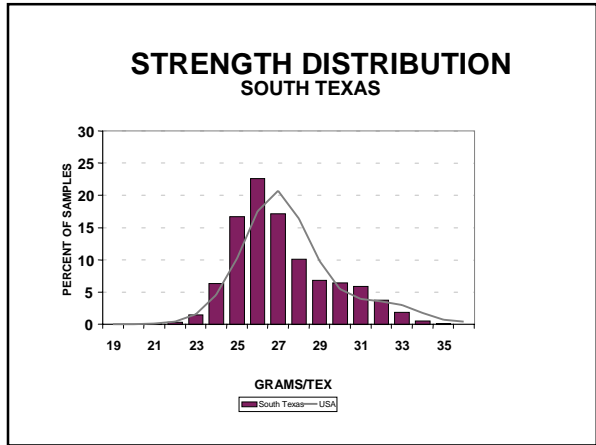
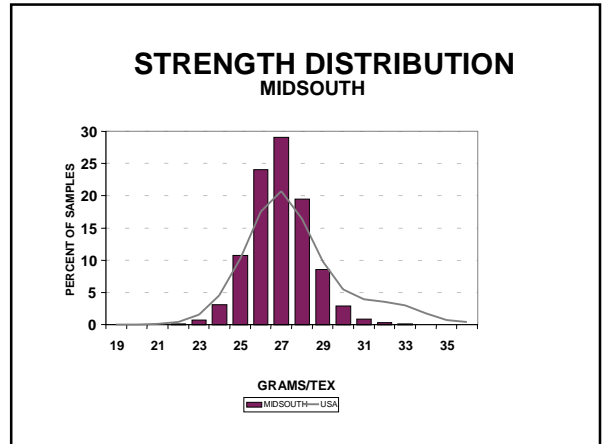
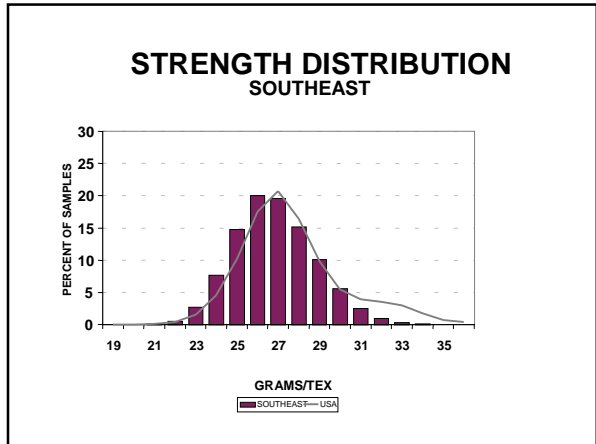
DISTRIBUTIONS BY REGION

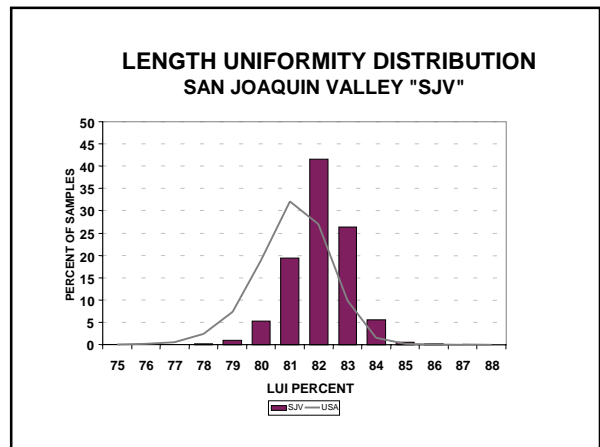
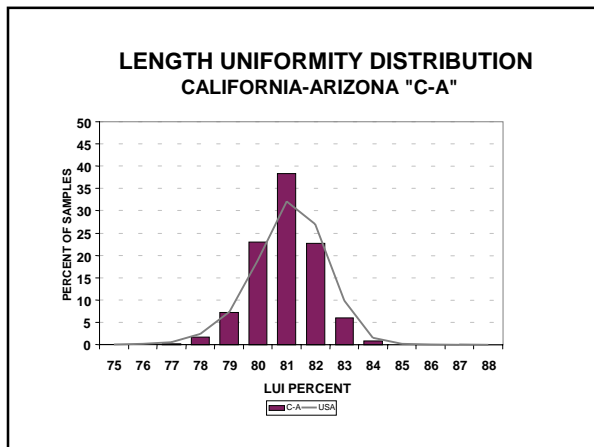
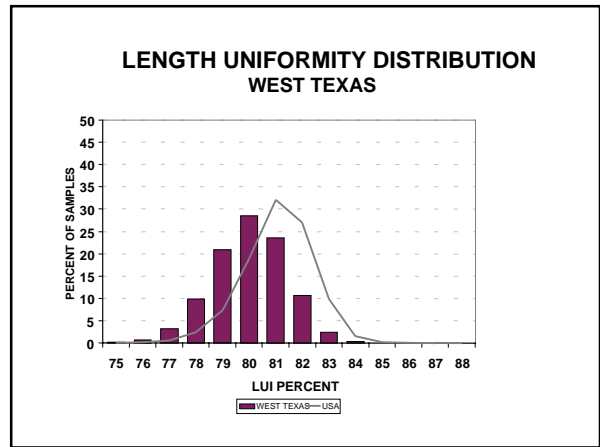
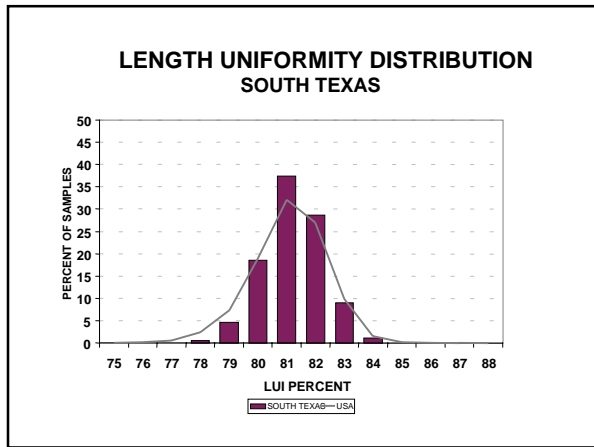
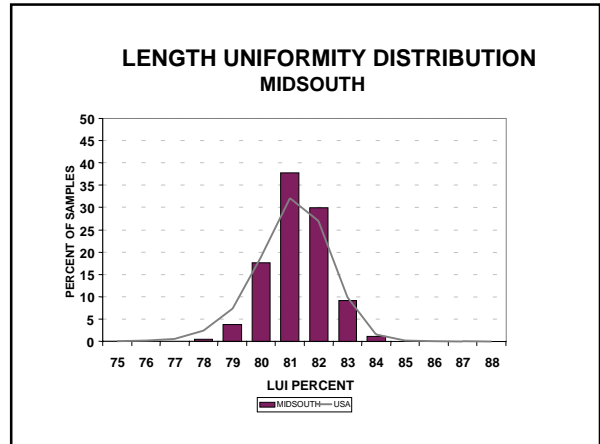
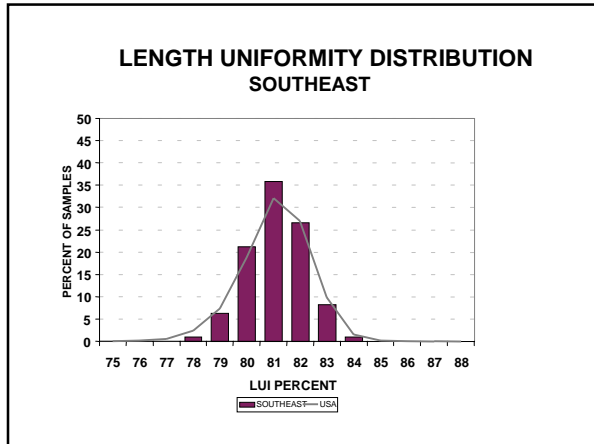
US UPLAND COTTON CROP QUALITY 2000 Final











MOST POPULAR VARIETIES FOR 2000 BY STATE

| LOCATION | VARIETY | PERCENT OF ACREAGE |
|-----------------------|--------------------------------|-----------------------|
| <i>(SOUTHEAST)</i> | | |
| <i>Virginia</i> | <i>Stoneville BXN 47</i> | 16 |
| <i>North Carolina</i> | <i>Stoneville BXN 47</i> | 12 |
| <i>South Carolina</i> | <i>Deltapine DP 655 B/RR</i> | 13 |
| <i>Georgia</i> | <i>Deltapine DP 90 B/RR</i> | 9 |
| <i>Florida</i> | <i>Deltapine DP 655 B/RR</i> | 13 |
| <i>Alabama</i> | <i>Sure-Grow 125</i> | 9 |
| <i>(MIDSOUTH)</i> | | |
| <i>Louisiana</i> | <i>Deltapine Nucleon 33 B</i> | 21 |
| <i>Mississippi</i> | <i>Deltapine DP 451 B/RR</i> | 27 |
| <i>Arkansas</i> | <i>Stoneville BXN 47</i> | 22 |
| <i>Tennessee</i> | <i>Paymaster PM 1218 BG/RR</i> | 51 |
| <i>Missouri</i> | <i>Stoneville BXN 47</i> | 39 |
| <i>(SOUTHWEST)</i> | | |
| <i>Texas</i> | <i>Paymaster PM 2326 RR</i> | 26 |
| <i>Oklahoma</i> | <i>Deltapine 655 B/RR</i> | 13 |
| <i>(FAR WEST)</i> | | |
| <i>New Mexico</i> | <i>Acala 1517-95</i> | 24 |
| <i>Arizona</i> | <i>Deltapine Nucleon 33</i> | 26 |
| <i>California</i> | <i>CPCSD Acala MAXXA</i> | 32 |

USDA COTTON CLASSING OFFICES - 2000

For the 2000 season, there are 12 USDA cotton classing offices located throughout the cotton production regions of the USA.

