



COTTON INCORPORATED

**USA COTTON QUALITY
MEASUREMENTS AND ANALYSIS**

2001 UPLAND CROP

Final Report

KATHLEEN VAN WINKLE

FIBER QUALITY RESEARCH

4/5/2002

TABLE OF CONTENTS

Quality Summary of 2001 and 2000 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 2001	24
USDA Cotton Classing Offices for 2001	27
USDA Color Grade Chart... ..	28

QUALITY SUMMARY 2001 USA UPLAND CROP

The tables on the following pages give a summary of the quality of the 2001 US 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 Program, United States Department of Agriculture, Memphis, Tennessee).

As of 2000, human classing of color was replaced by HVI colorimeter readings. The HVI reads the color in terms of "Rd, and "+b," and plots these values onto the standard color grading chart (see p. 28 for chart) to attain the color grades. The upper portion of each chart below lists, by classing office, the percentage of bales that were placed in these various grades by the HVI. 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 HVI determines a color grade, while a human classer determines 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 listed includes all levels of leaf. For example, the 18.9% of the bales classed in Florence, SC in 2001 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 the classing offices 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 2001 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	78.2	18.9	1.3	98.4	0.6	0.6	0.2	1.4	0.2	0.8
Macon, GA	65.9	26.5	5.6	98.0	0.8	1.0	0.2	2.0	0.0	1.4
Birmingham, AL	67.2	25.0	4.0	96.2	1.5	1.4	0.3	3.2	0.6	3.9
Rayville, LA	17.7	45.6	3.9	67.2	2.9	19.9	5.7	28.5	4.3	0.7
Memphis, TN	45.4	33.5	4.8	83.7	4.9	8.6	1.5	15.0	1.3	0.4
Dumas, AR	33.4	34.0	1.3	68.7	5.5	20.4	2.4	28.3	3.0	0.8
C. Christi, TX	69.7	4.8	0.5	75.0	10.3	1.1	2.6	14.0	11.0	2.1
Abilene, TX	44.3	14.4	1.7	60.4	9.7	14.9	7.1	31.7	7.9	11.2
Lubbock, TX	74.5	2.8	0.0	77.3	16.2	3.1	0.1	19.4	3.3	6.3
Lamesa, TX	77.1	2.8	0.0	79.9	16.3	1.6	0.0	17.9	2.2	3.9
Phoenix, AZ	90.6	4.0	0.2	94.8	4.0	0.8	0.1	4.9	0.3	3.6
Visalia, CA	92.5	2.7	0.6	95.8	2.7	0.6	0.1	3.4	0.8	0.3
AVERAGE	60.6	21.0	2.3	83.9	5.5	6.8	1.4	13.7	2.3	

	MIC unit	LEN 32/in	L.UI (%)	STR g/t	TRASH (%)	MAT RATIO	FIN mtex	LGRD INDEX	NO. BALES	LEN inch
Florence, SC	4.5	34.4	81.5	27.9	0.46	0.937	175	3.4	2,221,875	1.08
Macon, GA	4.4	34.1	81.0	27.9	0.37	0.953	171	3.1	2,191,412	1.07
Birmingham, AL	4.4	34.4	81.3	27.3	0.41	0.935	175	3.2	1,014,336	1.08
Rayville, LA	4.9	34.2	81.1	27.3	0.43	0.991	184	3.3	1,126,293	1.07
Memphis, TN	4.7	34.6	81.9	28.2	0.39	0.969	186	3.2	3,033,523	1.08
Dumas, AR	4.8	34.4	81.6	27.3	0.44	0.985	185	3.3	2,635,648	1.08
C. Christi, TX	4.4	34.4	81.2	28.8	0.34	0.984	165	2.7	956,135	1.08
Abilene, TX	4.6	34.0	80.7	28.2	0.35	0.993	176	3.0	826,639	1.06
Lubbock, TX	4.4	33.6	81.1	28.5	0.25	0.955	175	2.5	2,232,590	1.05
Lamesa, TX	4.5	33.7	80.9	28.5	0.24	0.968	173	2.5	318,315	1.05
Phoenix, AZ	4.6	35.4	80.6	28.0	0.22	1.010	177	2.1	868,666	1.11
Visalia, CA	4.3	36.2	81.6	31.9	0.22	0.997	157	2.4	1,613,643	1.13
AVERAGE	4.56	34.5	81.3	28.3	0.36	0.971	177	3.0	19,039,075	1.08

Classing Week Ending – FINAL 2001

FIBER QUALITY RESEARCH

*Number of physical bales, not calculated by weight. 19.0 million physical bales ~ 19.4 million 480-lb bales.

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	

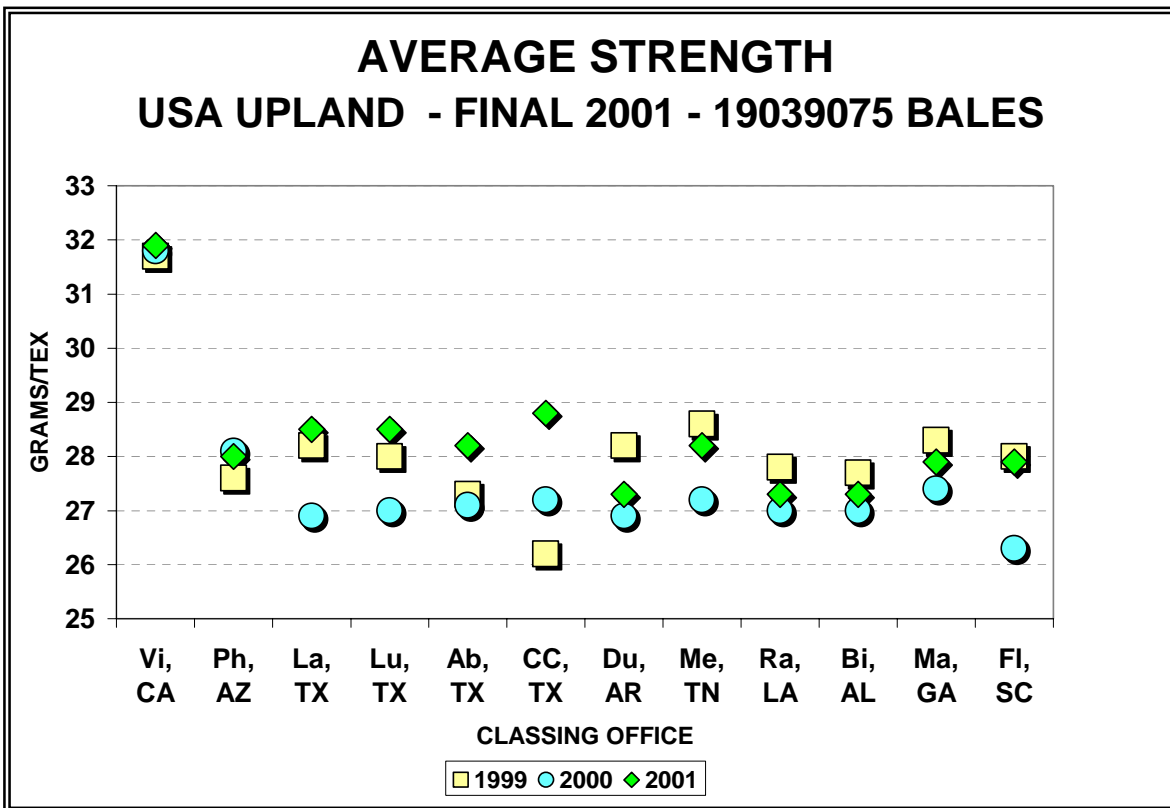
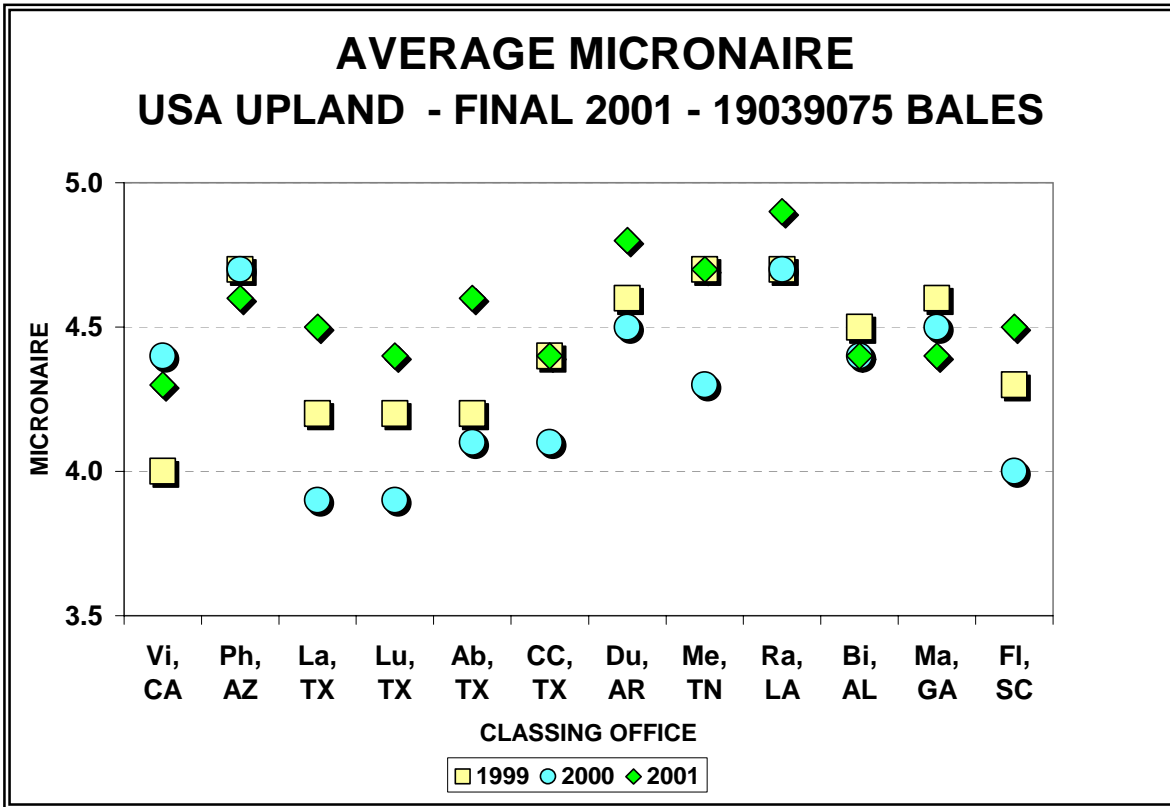
	MIC unit	LEN 32/in	L.UI (%)	STR g/t	TRASH (%)	MAT RATIO	FIN mtex	LGRD INDEX	NO. BALES	LEN inch
Florence, SC	4.0	34.2	81.1	26.3	0.5	0.865	173	3.4	1,911,605	1.07
Macon, GA	4.5	34.3	81.1	27.4	0.4	0.949	181	3.1	1,639,003	1.07
Birmingham, AL	4.4	33.7	81.1	27.0	0.4	0.918	174	3.0	608,177	1.05
Rayville, LA	4.7	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

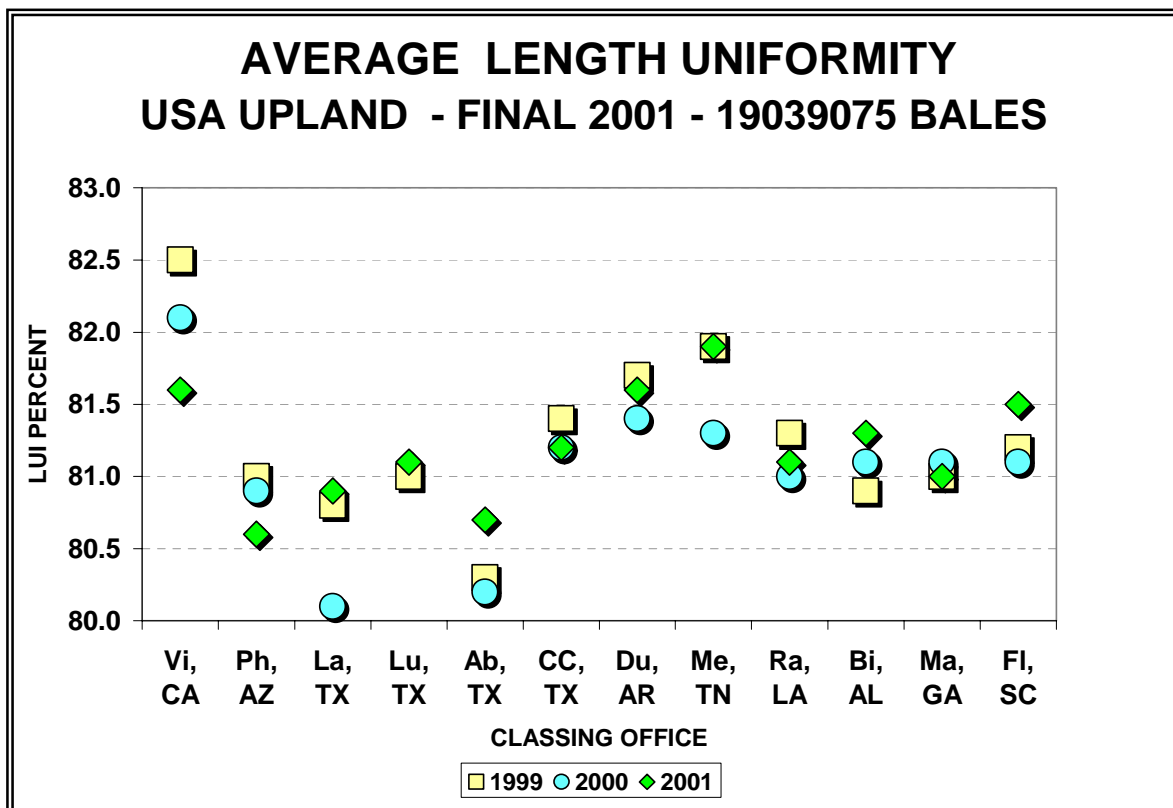
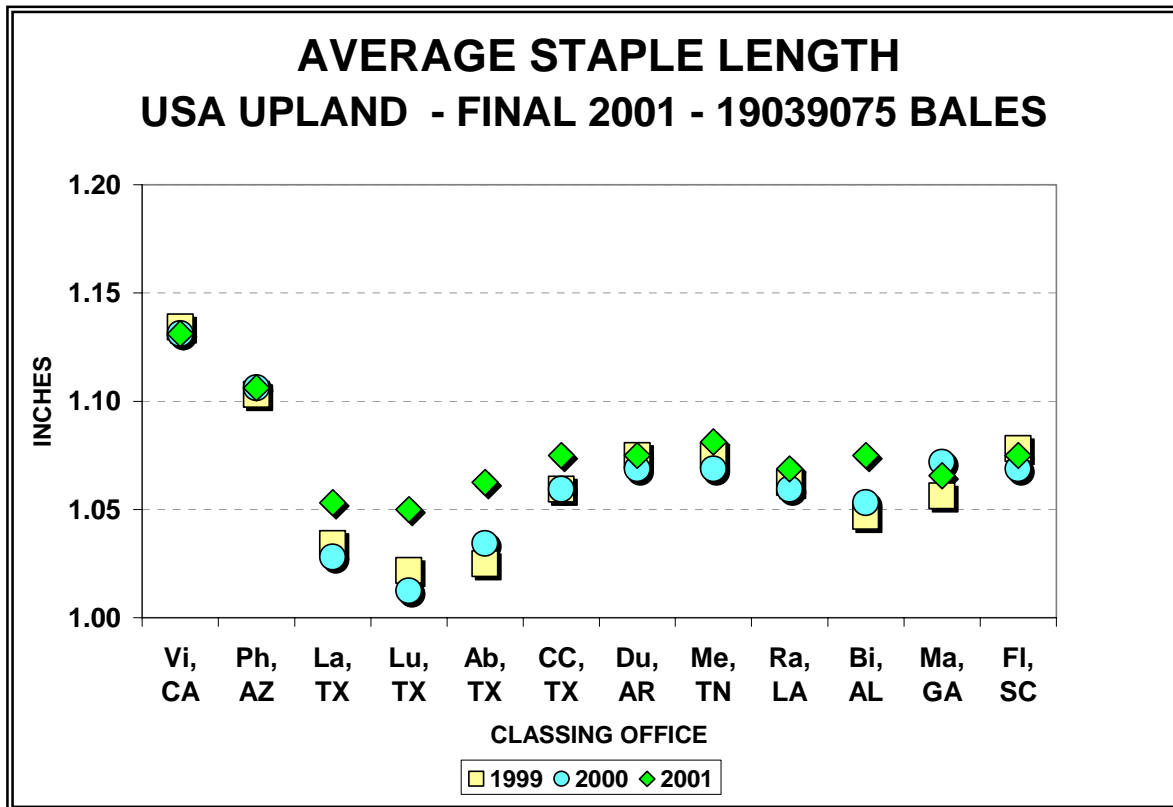
FIBER QUALITY RESEARCH

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

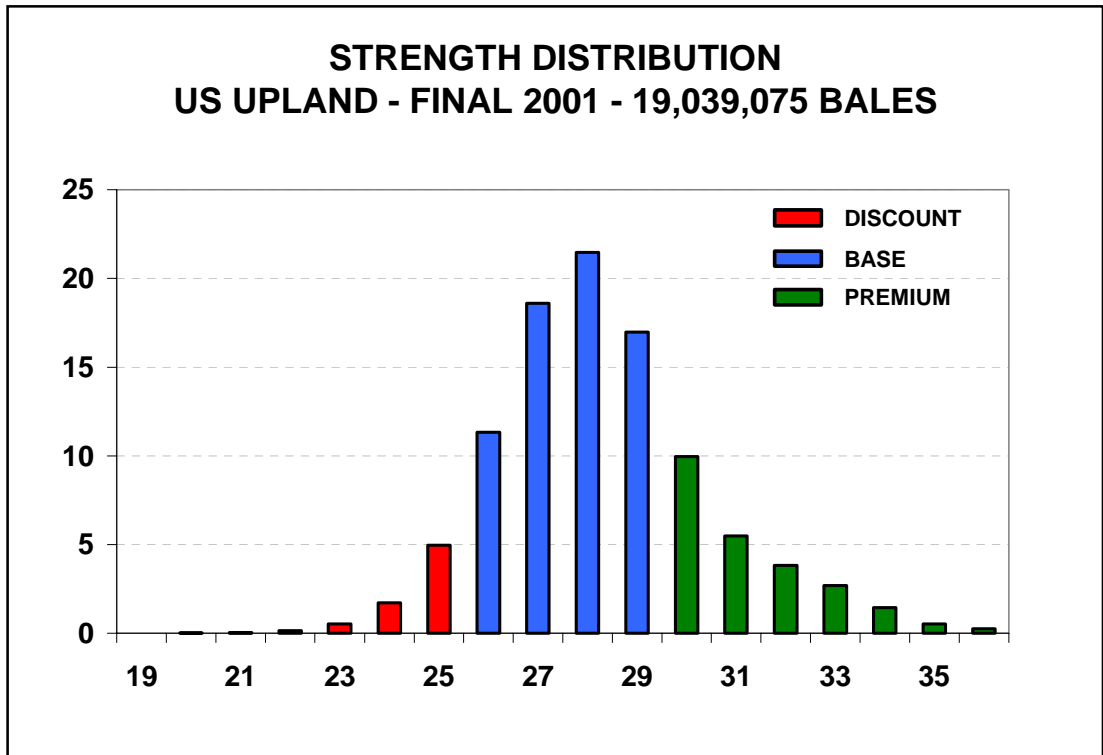
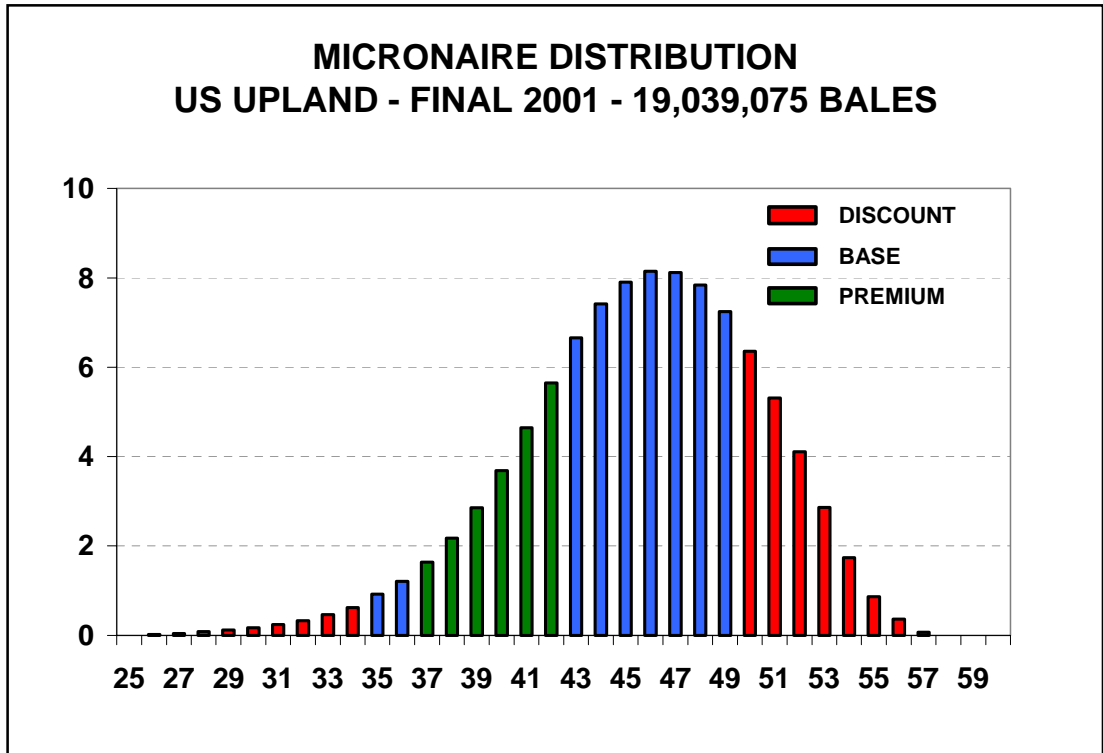
AVERAGES OF SELECTED FIBER PROPERTIES BY CLASSING OFFICE



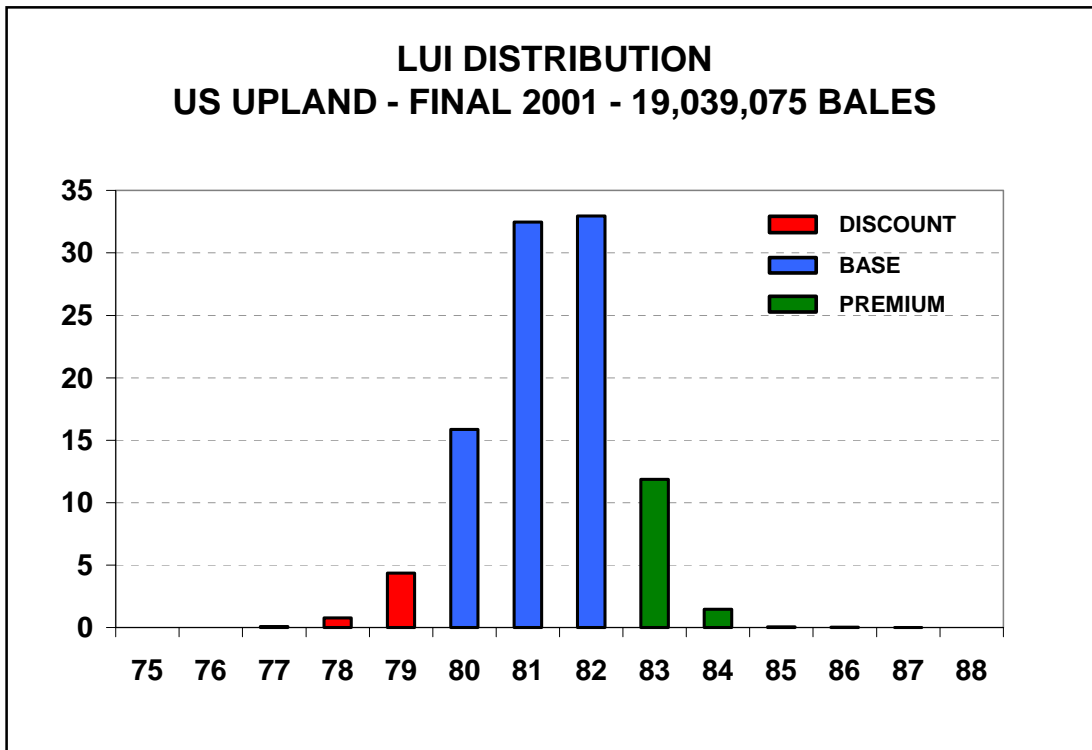
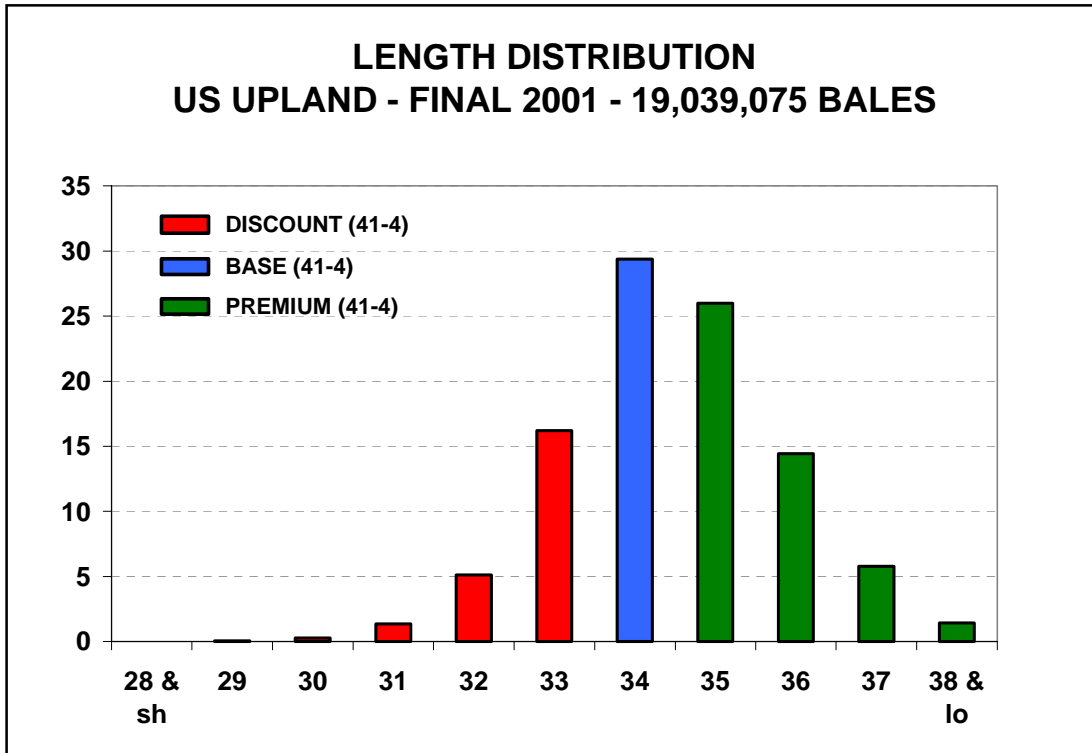
AVERAGES OF SELECTED FIBER PROPERTIES BY CLASSING OFFICE



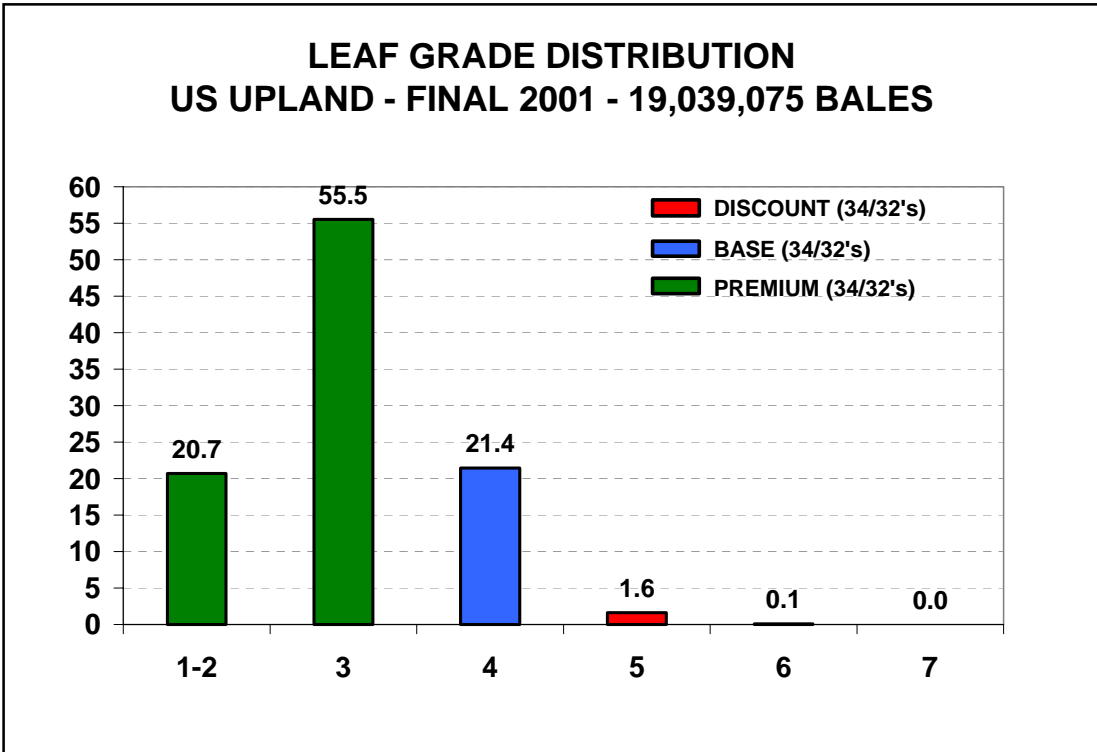
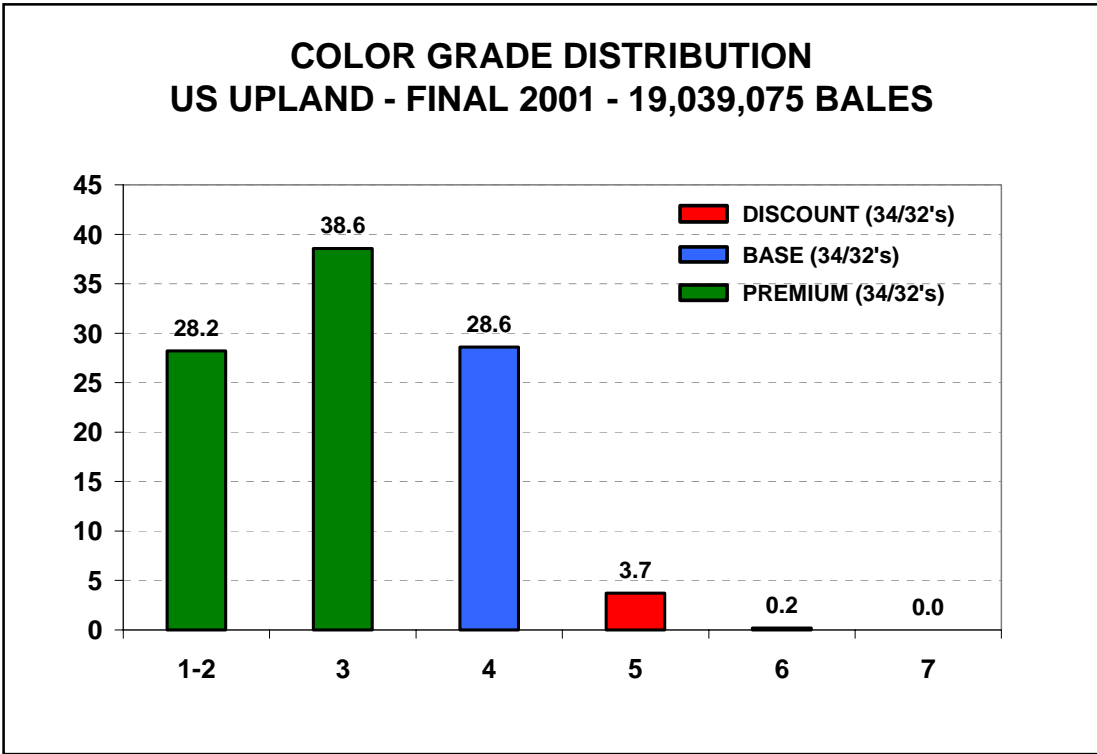
DISTRIBUTIONS OF SELECTED FIBER PROPERTIES



DISTRIBUTIONS OF SELECTED FIBER PROPERTIES



DISTRIBUTIONS OF SELECTED FIBER PROPERTIES

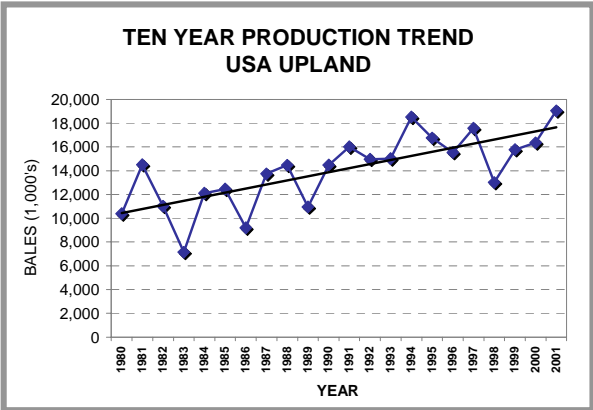
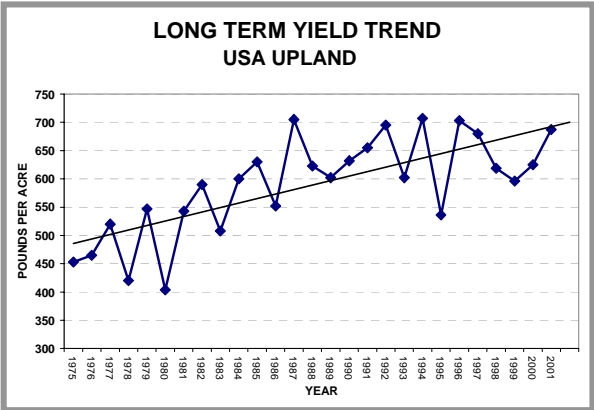


QUALITY TRENDS USA UPLAND COTTON

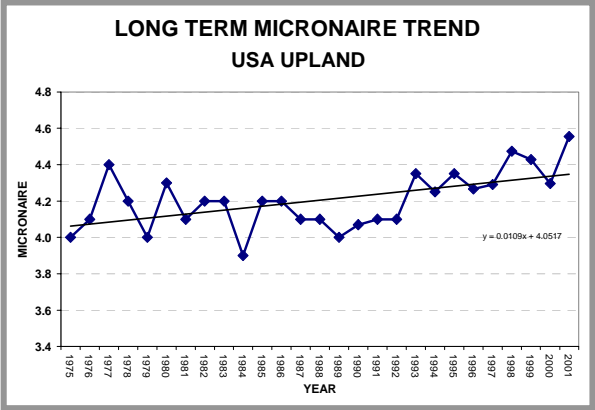
This summary report analyzes trends in the quality of USA upland cotton. Information used for this analysis, except for yield data, comes from the publication, "Quality of Cotton Classed under the Smith-Doxey Act." This is a USDA publication, issued weekly during the harvest season beginning in August.

YIELD

The final 2001 crop yield estimate was placed at 687 pounds per acre. This was a nice improvement over last year's yield of 625 pounds per acre. US Production was at a record high for 2001, with approximately 19.4 million bales of upland cotton, about **2.6 million** bales above 2000 production*.



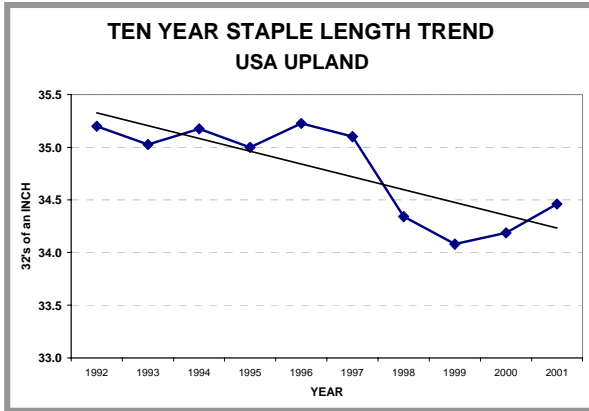
MICRONAIRE



The final US micronaire average for 2001 is 4.56, significantly higher than the average micronaire of the 2000 crop (4.30). This is a record high for the US crop, with marked increases mainly in Texas and the Mid-South. Only Visalia, Phoenix, and Macon classing offices showed slight decreases in micronaire.

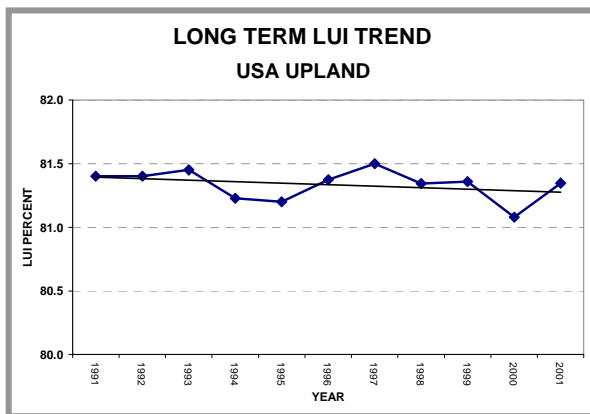
* This value is different than what is reported on USDA's Smith-Doxey report. The Smith-Doxey (which supplies the information for our Crop Quality Report) reports the number of actual bales classed. Not all bales weigh exactly 480 pounds. To represent the total amount of cotton in the crop, the production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

LENGTH



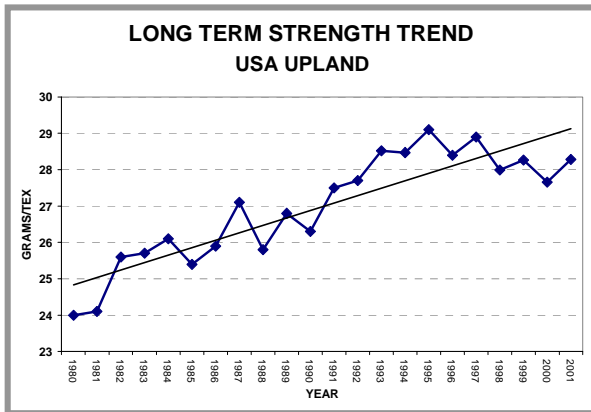
The 2001 crop has an average staple length of 34.5/32s of an inch. This is an improvement over the past three crop years, where length was averaging 34.2/32s.

LENGTH UNIFORMITY INDEX



The USDA has reported length uniformity data since 1991. The 2001 crop has an average length uniformity index of 81.3%, an increase of 0.2% from last year's crop. As shown in the chart, the trend line indicates that length uniformity index has been relatively stable over time.

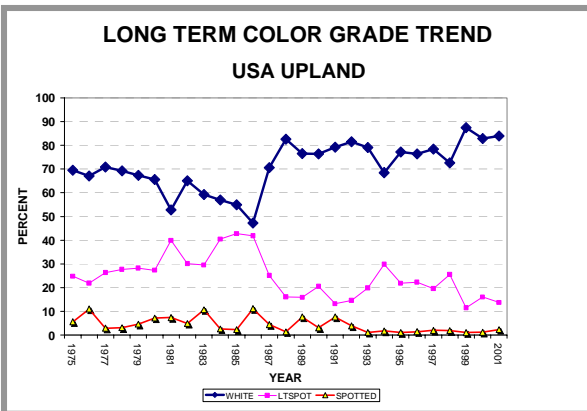
STRENGTH



The average strength for the 2001 crop is 28.3 grams/tex, up 0.6 grams/tex from the 2000 crop. Since HVI strength records were started in 1980, the annual increase in strength has been 0.20 grams/tex per year, but this trend has leveled off in recent years, after reaching it's peak of 29.1 grams/tex in 1995. Premiums and discounts have been paid for fiber strength since 1991, when 100% HVI testing was initiated in the classing

system.

COLOR GRADE

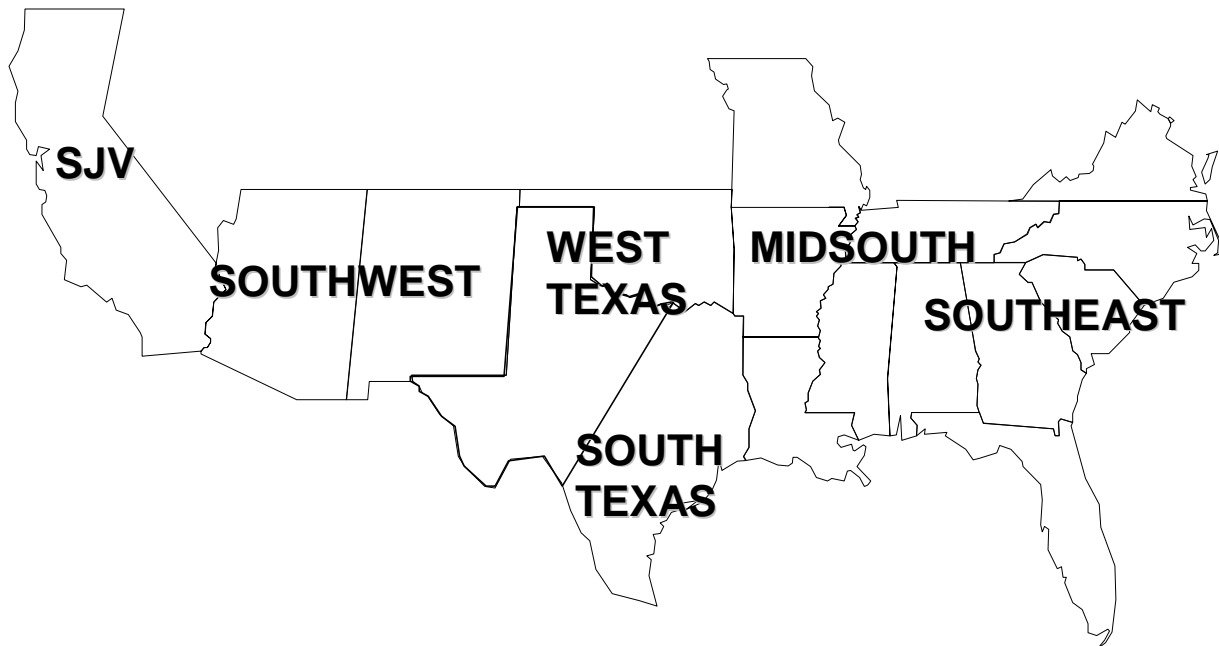


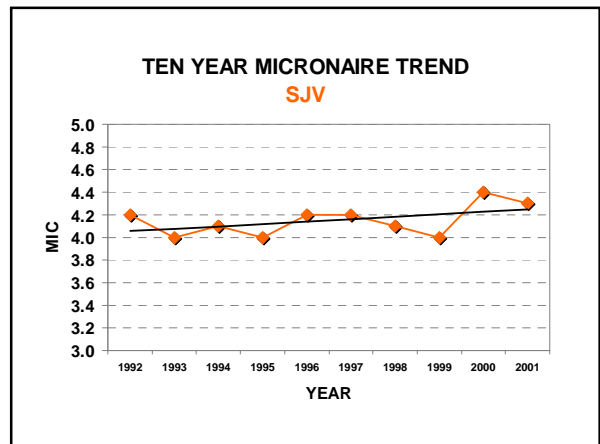
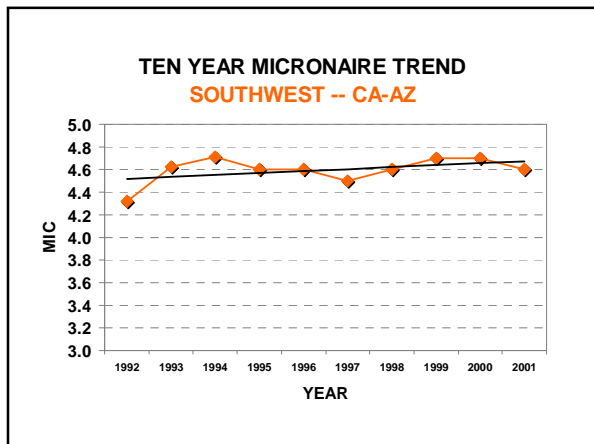
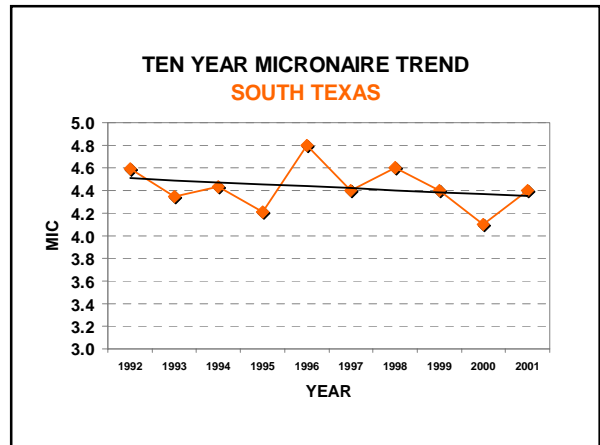
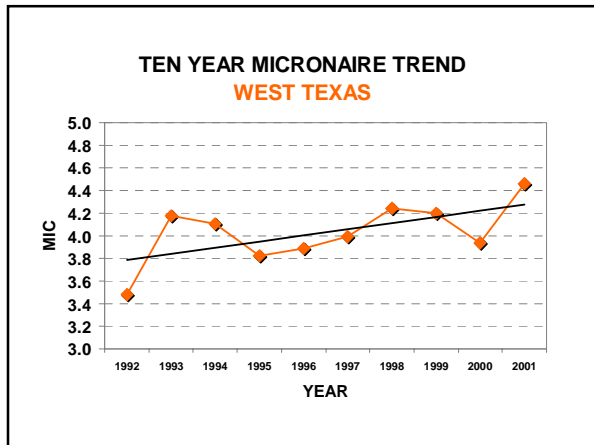
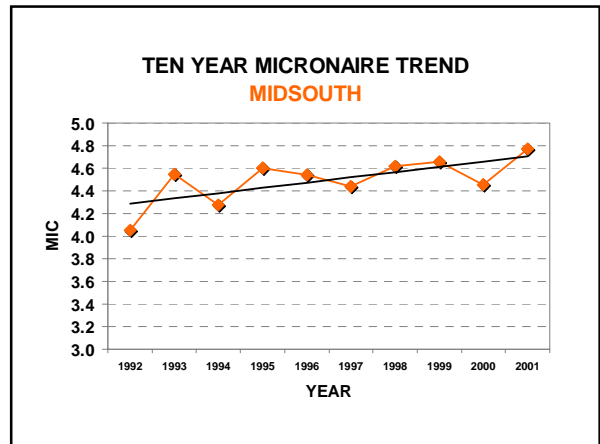
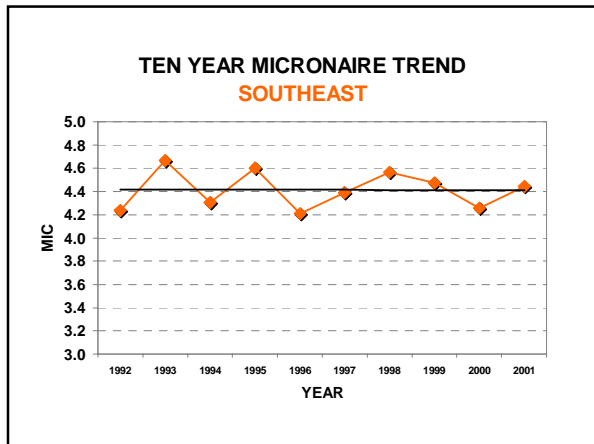
The chart below illustrates the color grades of USA upland cotton crops since 1975. There was a gradual decline from 1975 to 1986 in the percentage of the crop classed into "white" grades. This trend was dramatically reversed in the 1987 crop-- and the average percentage of white grades now averages in the mid 80's. The 2001 final crop had 83.9% classified as "white".

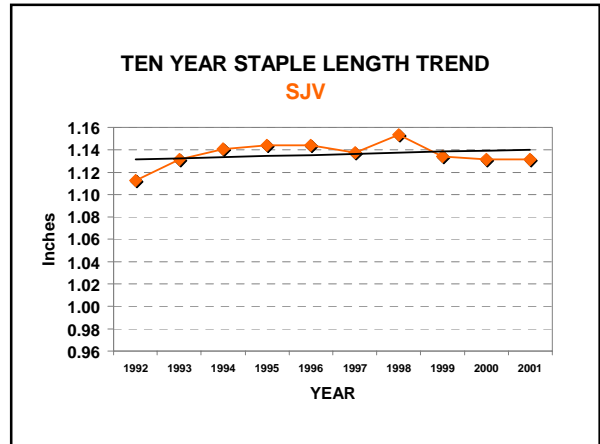
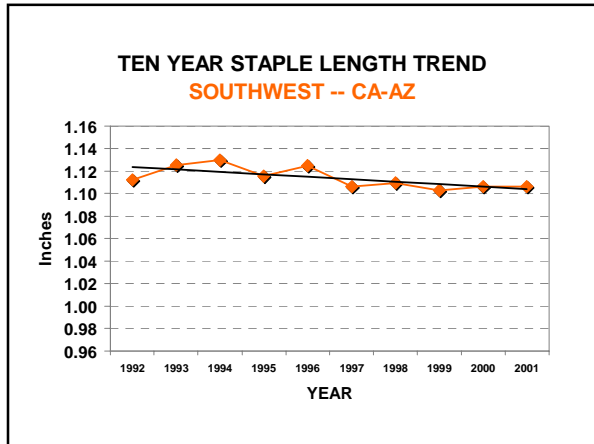
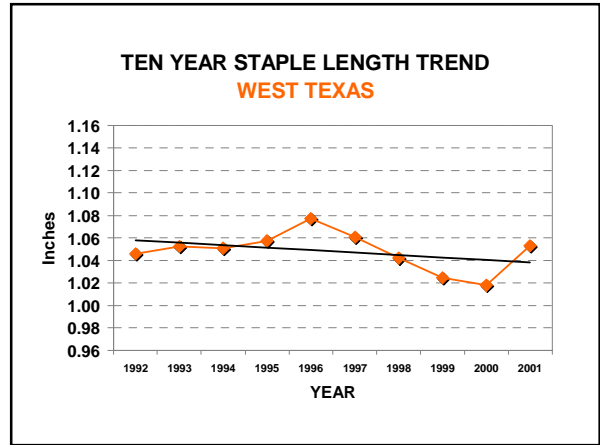
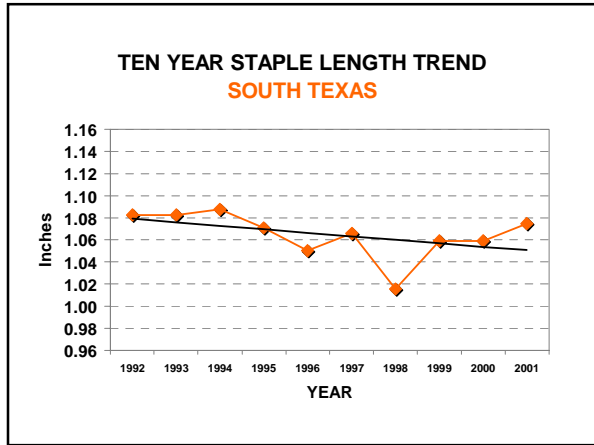
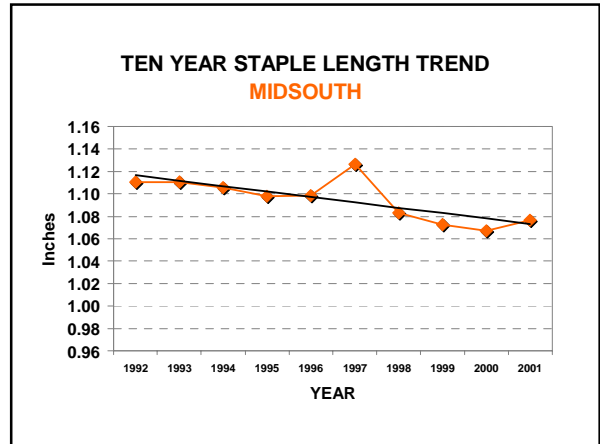
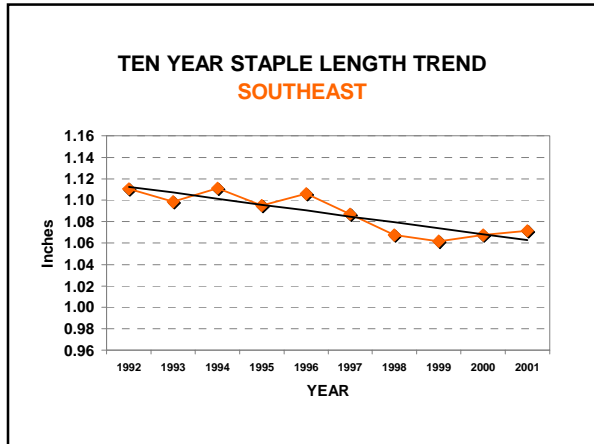
Note: Beginning in 1993, the classer grade was split into color grade and leaf grade. The grade is not reduced because of the presence of extraneous materials such as bark or grass. The percentages given in the graph above for the crops beginning in 1993 are for the color grades, but each color grade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

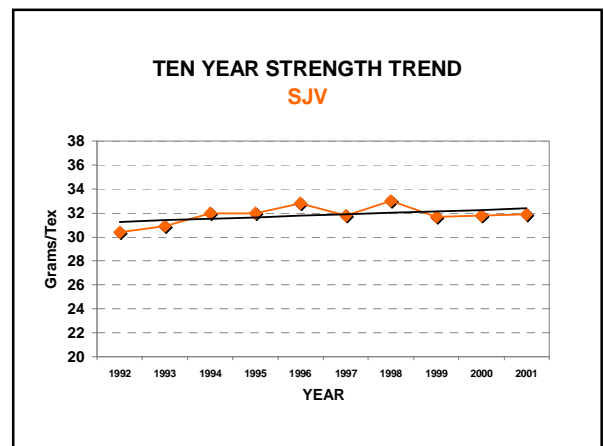
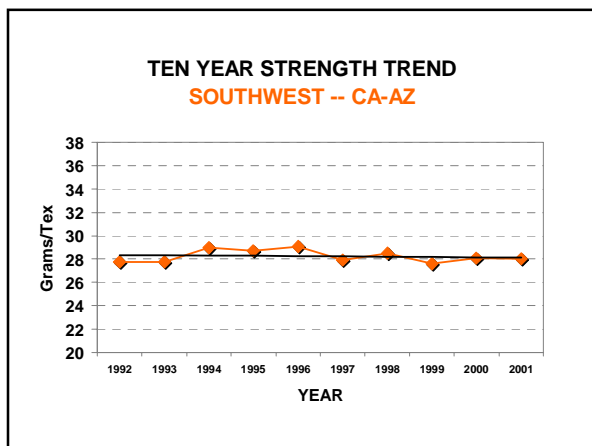
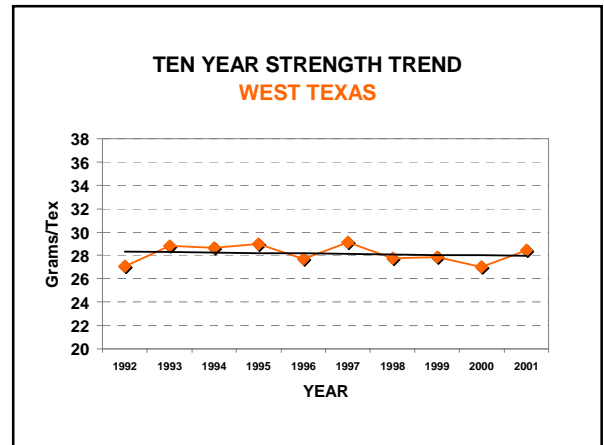
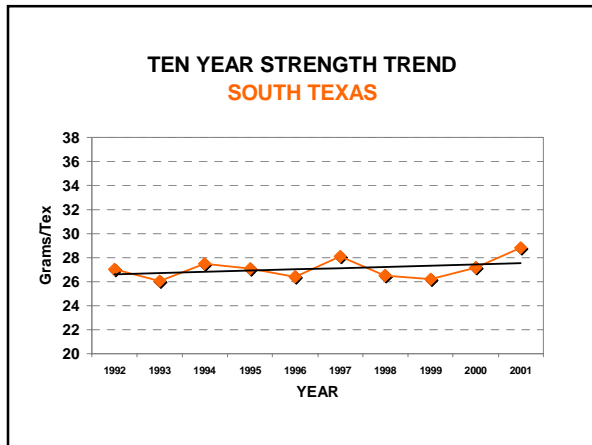
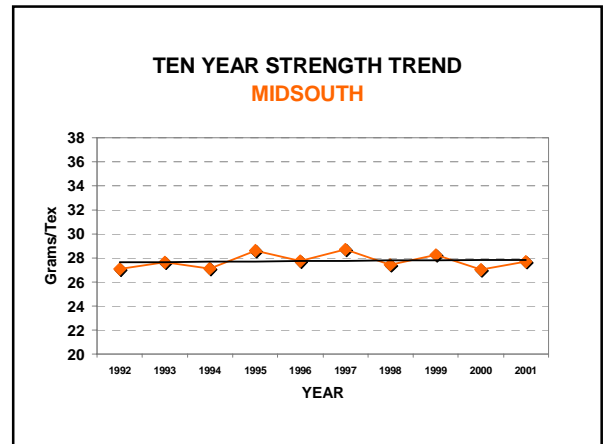
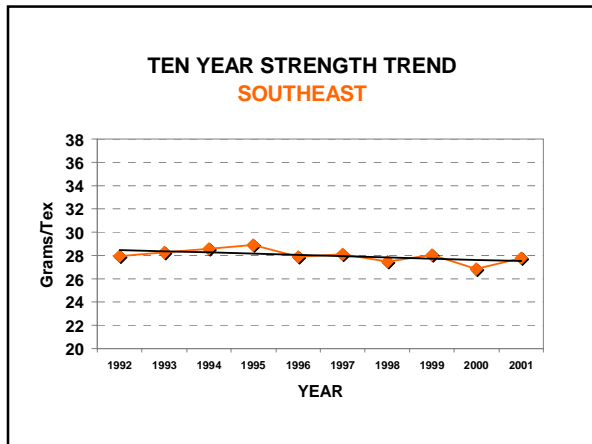
TEN YEAR TRENDS BY REGION

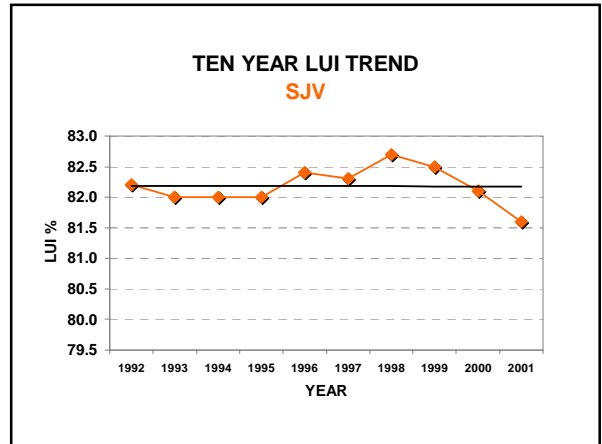
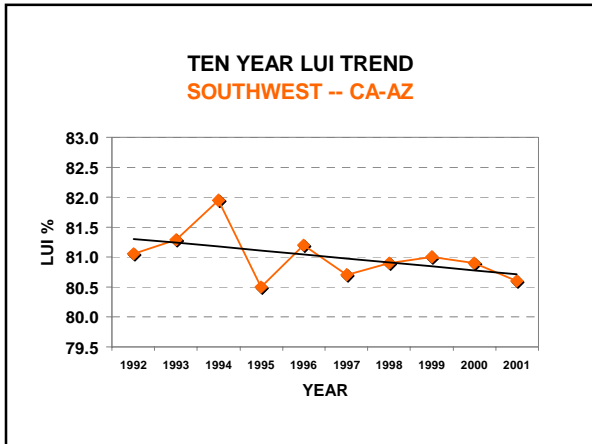
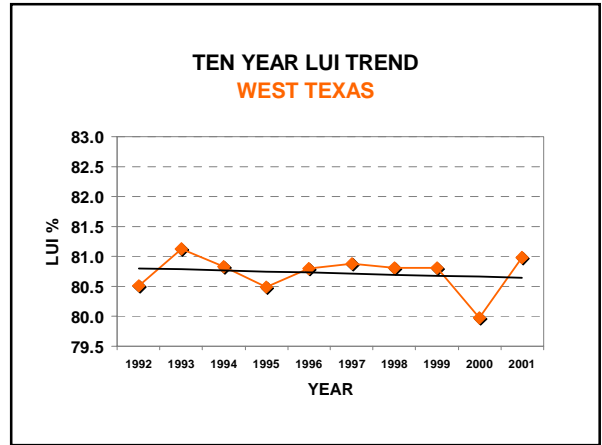
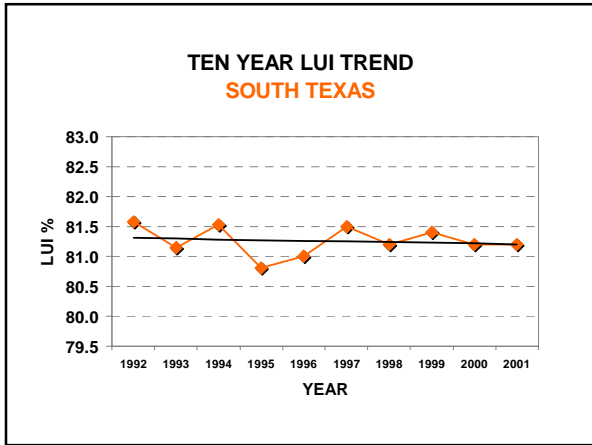
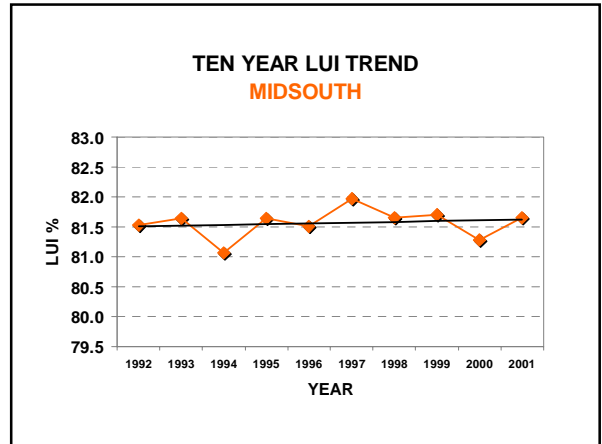
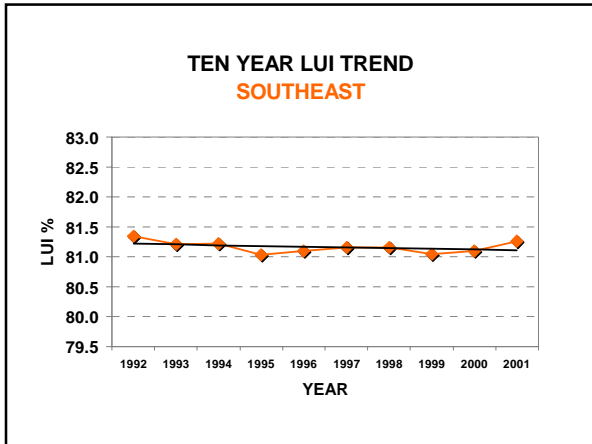
US UPLAND COTTON CROP QUALITY 2001 Final





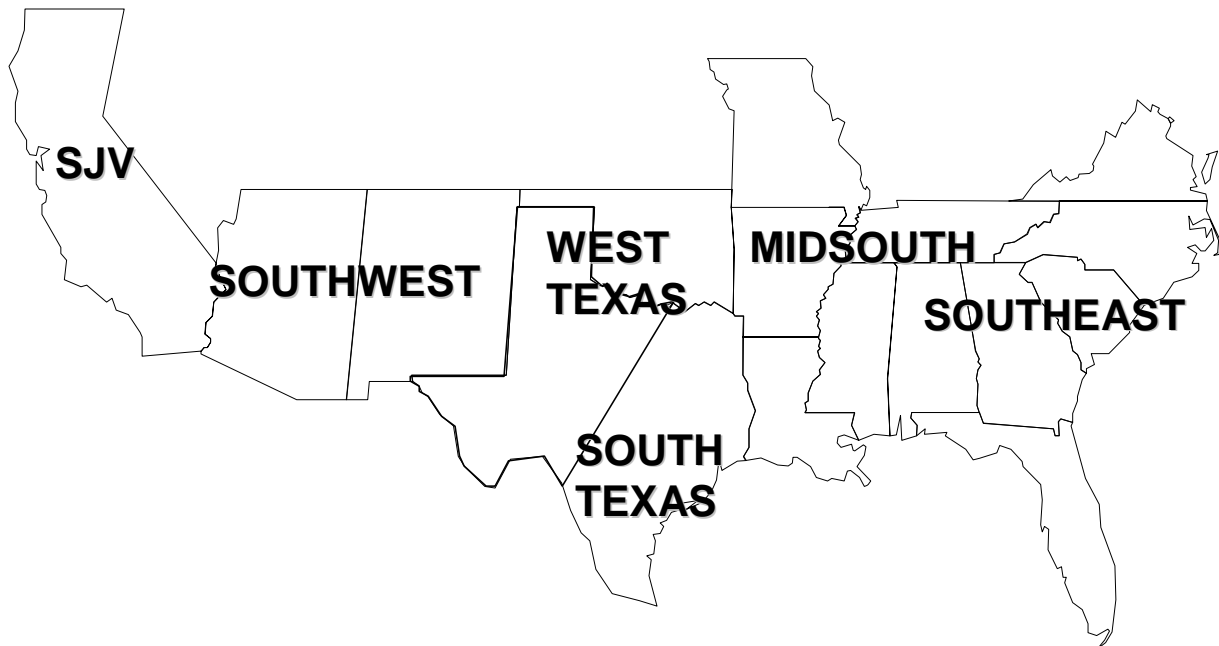


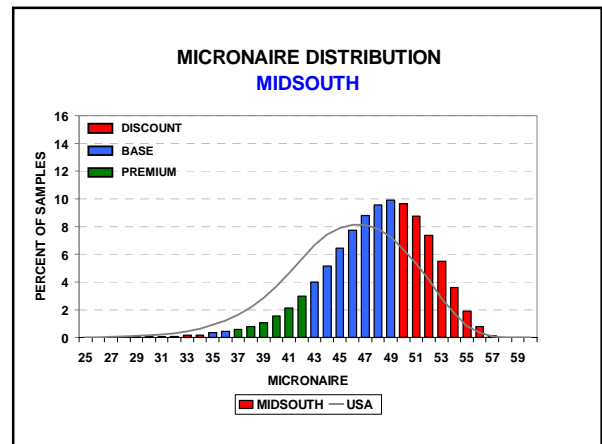
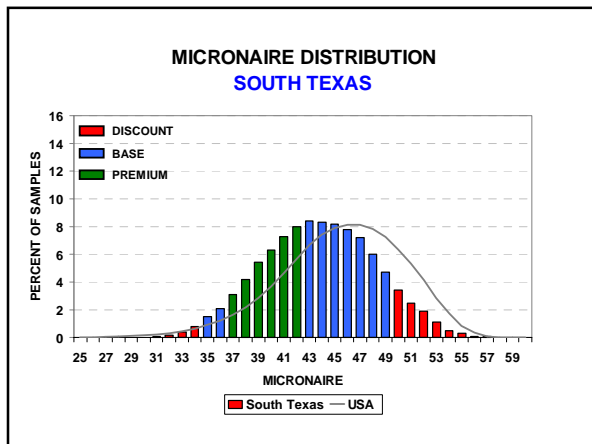
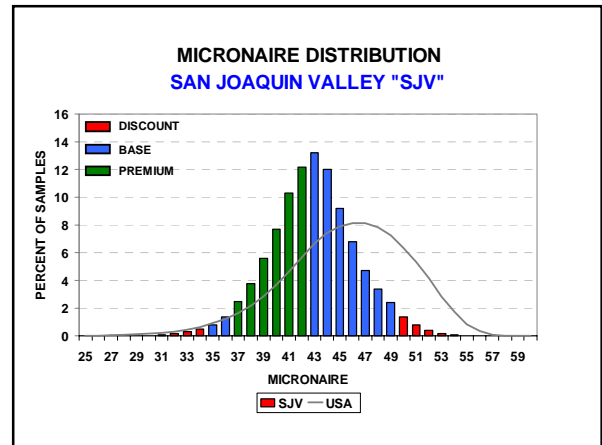
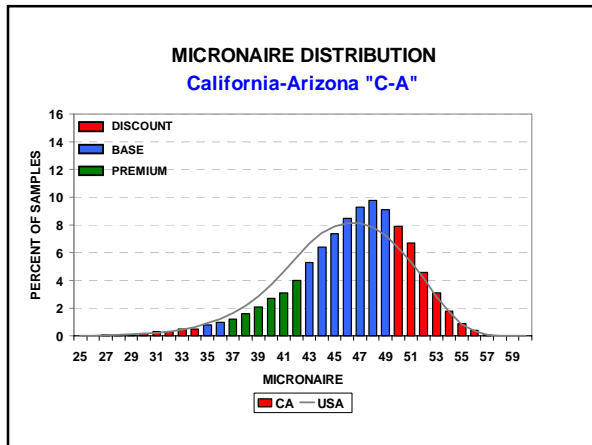
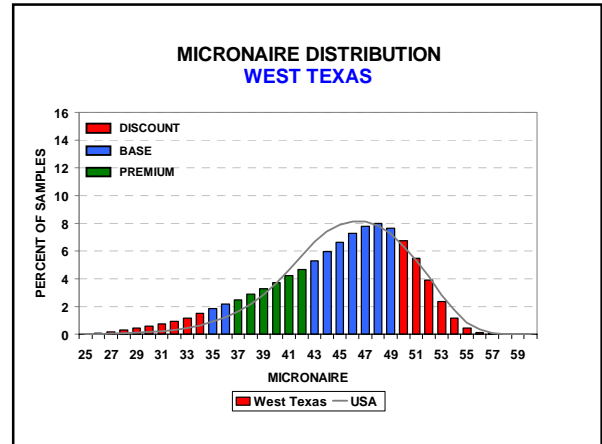
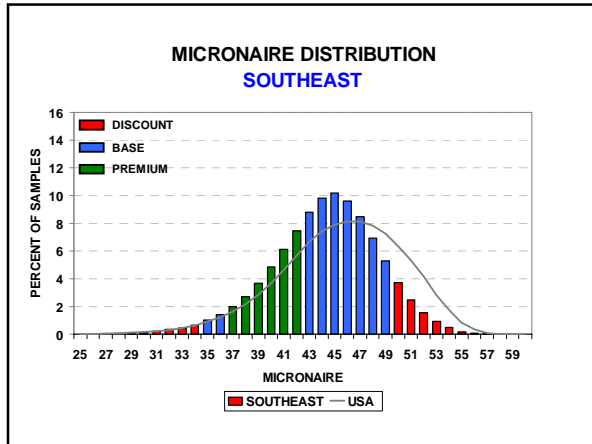


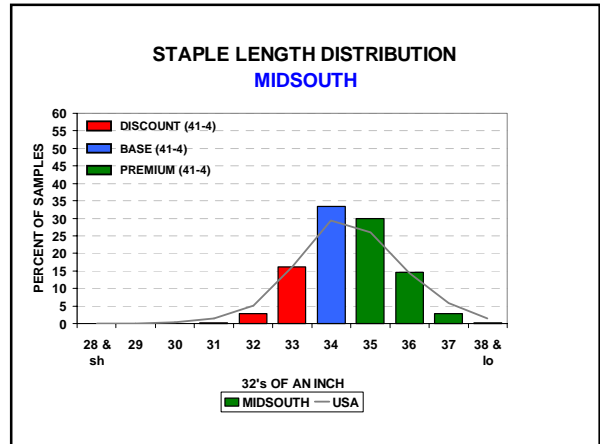
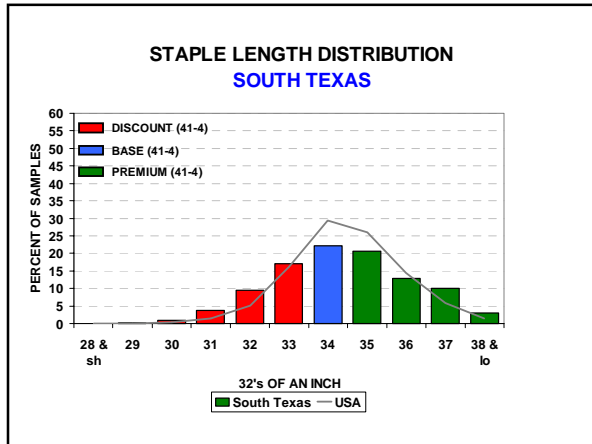
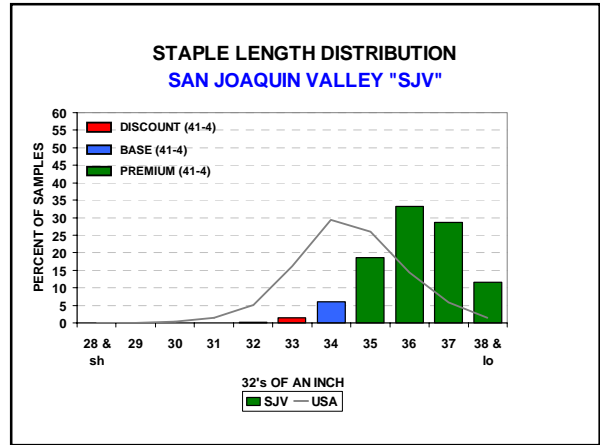
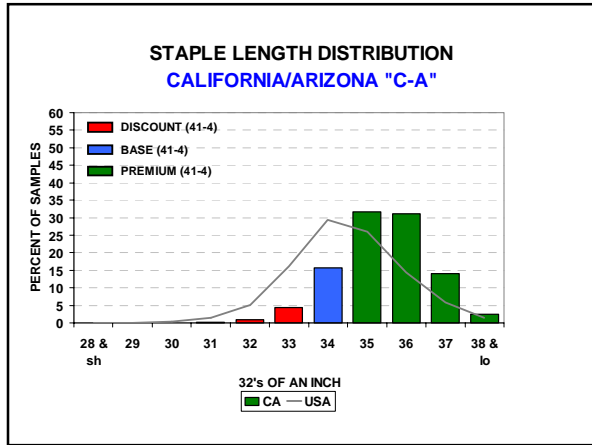
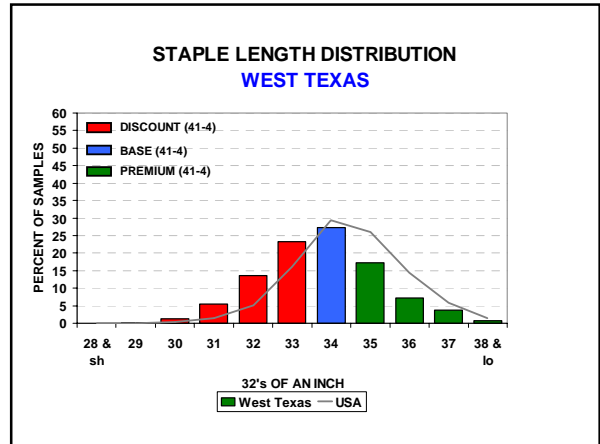
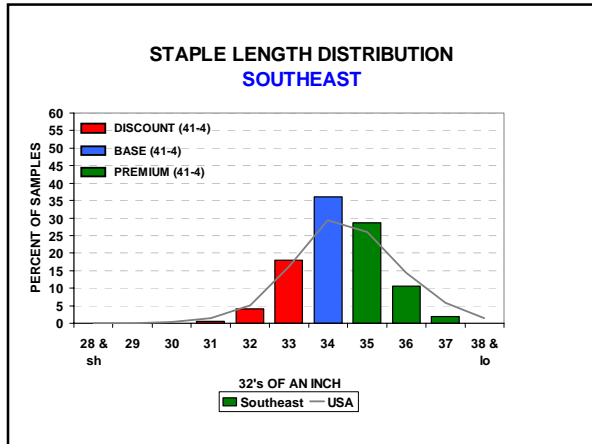


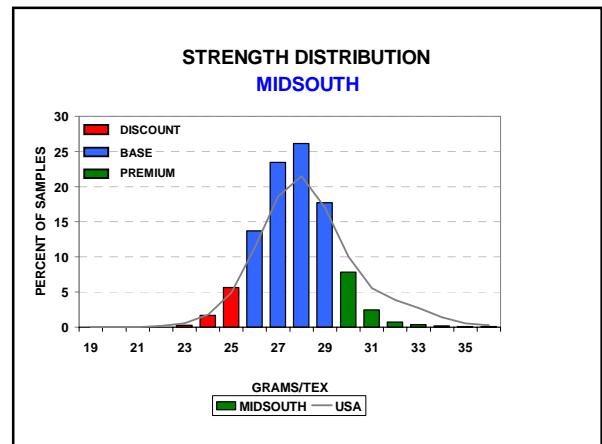
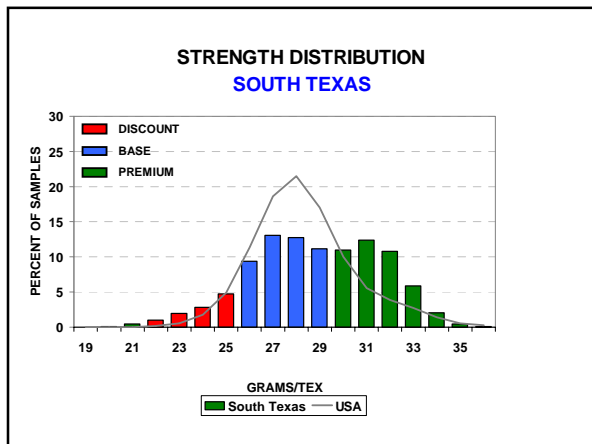
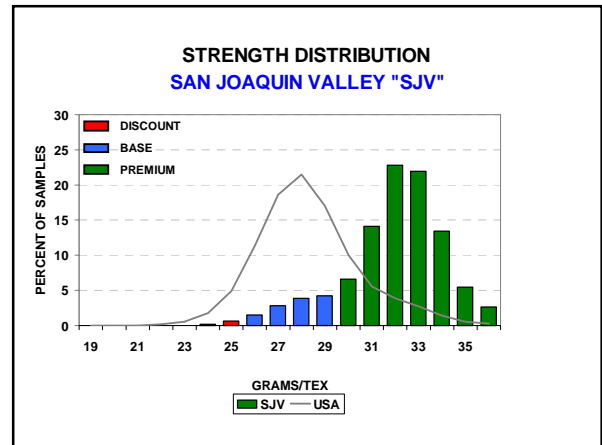
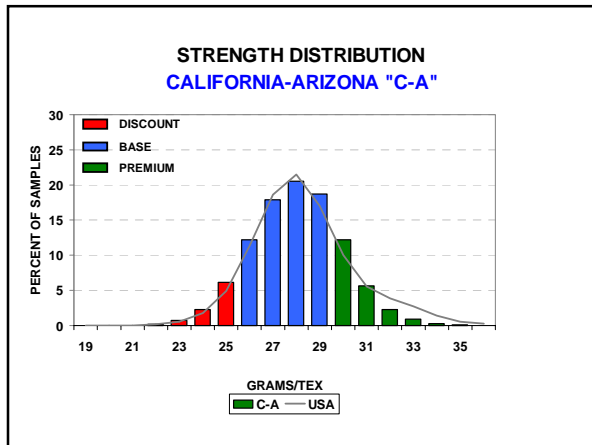
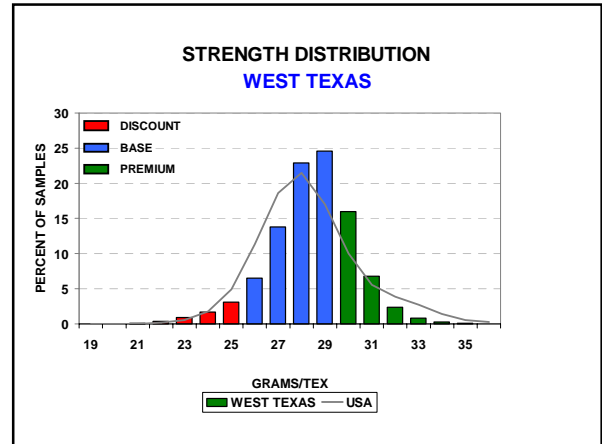
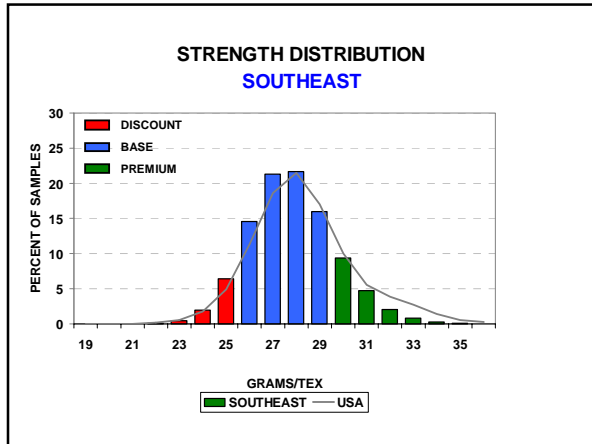
DISTRIBUTIONS BY REGION

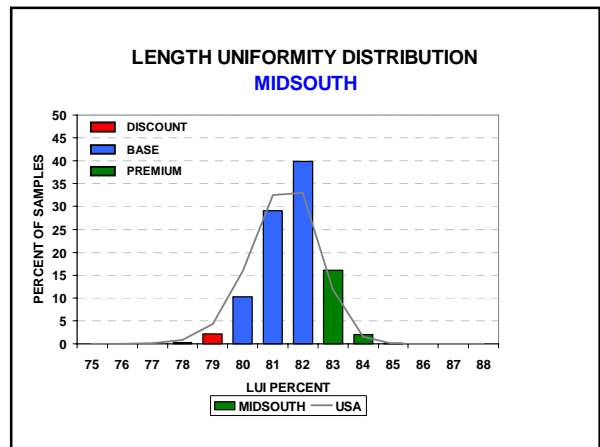
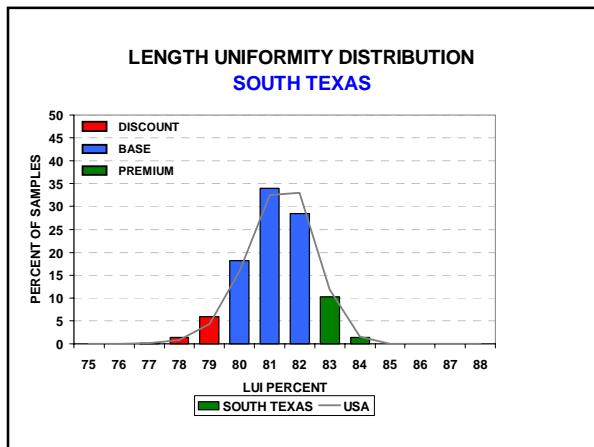
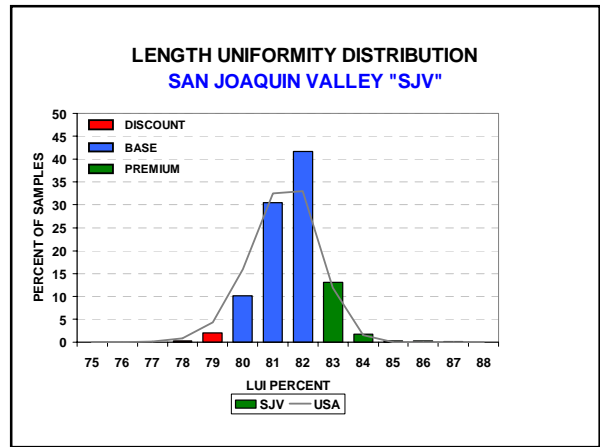
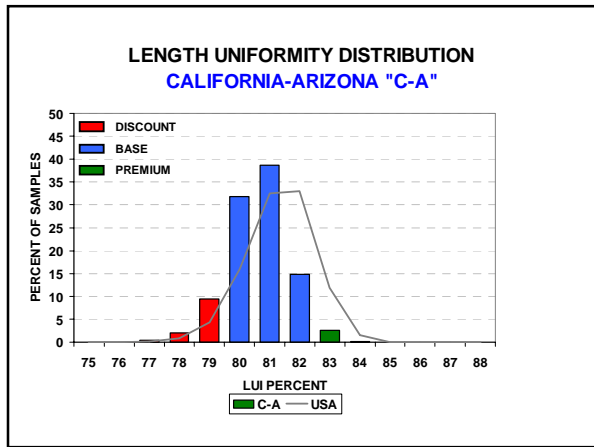
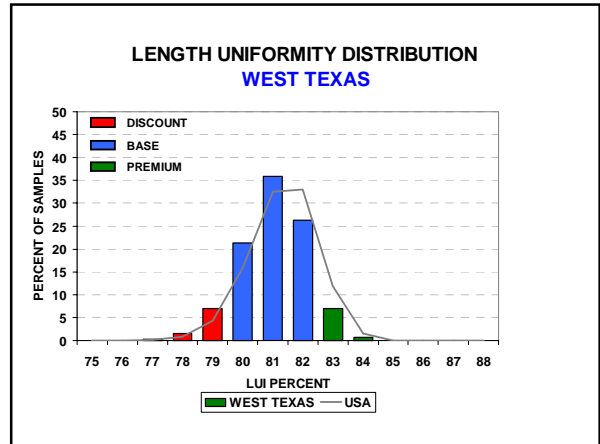
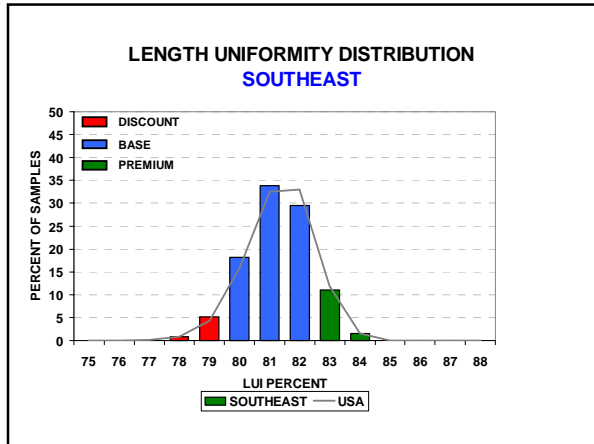
US UPLAND COTTON CROP QUALITY 2001 Final











MOST POPULAR VARIETIES FOR 2001 BY STATE

LOCATION	VARIETY	PERCENT OF ACREAGE
<i>(SOUTHEAST)</i>		
<i>Virginia</i>	<i>Stoneville BXN 47</i>	13
<i>North Carolina</i>	<i>Deltapine DP 451 B/RR</i>	15
<i>South Carolina</i>	<i>Stoneville ST 4892BR</i>	25
<i>Georgia</i>	<i>Deltapine DP 458 B/RR</i>	21
<i>Florida</i>	<i>Deltapine DP 458 B/RR</i>	46
<i>Alabama</i>	<i>Paymaster PM 1218 BG/RR</i>	17
<i>(MIDSOUTH)</i>		
<i>Louisiana</i>	<i>Deltapine 451 B/RR</i>	16
<i>Mississippi</i>	<i>Paymaster 1218 BG/RR</i>	35
<i>Arkansas</i>	<i>Paymaster 1218 BG/RR</i>	25
<i>Tennessee</i>	<i>Paymaster 1218 BG/RR</i>	74
<i>Missouri</i>	<i>Stoneville BXN 47</i>	38
<i>(SOUTHWEST)</i>		
<i>Texas</i>	<i>Paymaster PM 2326 RR</i>	29
<i>Oklahoma/Kansas</i>	<i>Paymaster PM 2326 BG/RR</i>	21
<i>(FAR WEST)</i>		
<i>New Mexico</i>	<i>Acala 1517-95</i>	34
<i>Arizona</i>	<i>Deltapine NuCOTN 33 B</i>	13
<i>California</i>	<i>CPCSD Acala Riata RR</i>	22

Source: USDA AMS – Cotton Program

Estimates of the percentage of the various varieties of cotton planted in the United States for 2001 were based on informal surveys made by the Cotton Program Classing Offices. Those surveyed included ginners, seed dealers, extension agents, and other knowledgeable sources.



TRANSGENIC VARIETIES FOR 2001 BY STATE

LOCATION	PERCENT OF ACREAGE
<i>(SOUTHEAST)</i>	
<i>Virginia</i>	75
<i>North Carolina</i>	85
<i>South Carolina</i>	91
<i>Georgia</i>	88
<i>Florida</i>	92
<i>Alabama</i>	93
 <i>(MIDSOUTH)</i>	
<i>Louisiana</i>	96
<i>Mississippi</i>	94
<i>Arkansas</i>	93
<i>Tennessee</i>	97
<i>Missouri</i>	84
 <i>(SOUTHWEST)</i>	
<i>Texas</i>	65
<i>Oklahoma/Kansas</i>	93
 <i>(FAR WEST)</i>	
<i>New Mexico</i>	39
<i>Arizona</i>	75
<i>California</i>	36

Source: USDA AMS – Cotton Program

Estimates of the percentage of the various varieties of cotton planted in the United States for 2001 were based on informal surveys made by the Cotton Program Classing Offices. Those surveyed included ginners, seed dealers, extension agents, and other knowledgeable sources.



MOST POPULAR VARIETIES FOR 2001 BY CLASSING OFFICE

LOCATION	VARIETY	PERCENT OF ACREAGE
<i>(SOUTHEAST)</i>		
<i>Florence</i>	<i>Deltapine DP 451 B/RR</i>	13
<i>Macon</i>	<i>Deltapine DP 458 B/RR</i>	20
<i>Birmingham</i>	<i>Deltapine DP 458 B/RR</i>	15
<i>(MIDSOUTH)</i>		
<i>Rayville</i>	<i>Deltapine 451 B/RR</i>	16
<i>Memphis</i>	<i>Paymaster 1218 BG/RR</i>	40
<i>Dumas</i>	<i>Paymaster 1218 BG/RR</i>	31
<i>(SOUTHWEST)</i>		
<i>Corpus Christi</i>	<i>Aventis FiberMax 832</i>	44
<i>Abilene</i>	<i>Paymaster PM 2326 RR</i>	15
<i>Lubbock</i>	<i>Paymaster PM 2326 RR</i>	44
<i>Lamesa</i>	<i>Paymaster PM 2326 RR</i>	30
<i>(FAR WEST)</i>		
<i>Phoenix</i>	<i>Deltapine NuCOTN 33 B</i>	14
<i>Visalia</i>	<i>CPCSD Acala Riata RR</i>	23

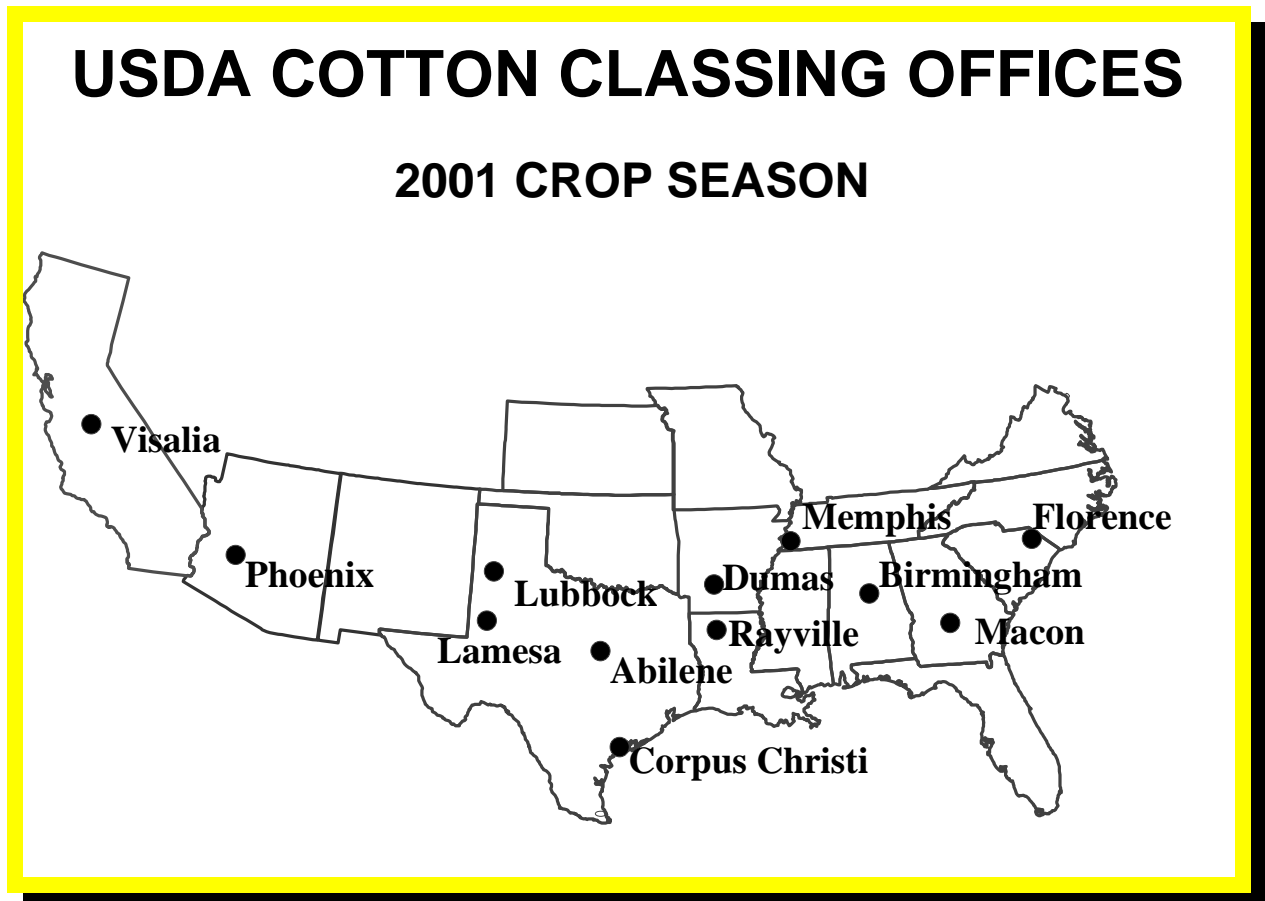
Source: USDA AMS – Cotton Program

Estimates of the percentage of the various varieties of cotton planted in the United States for 2001 were based on informal surveys made by the Cotton Program Classing Offices. Those surveyed included ginners, seed dealers, extension agents, and other knowledgeable sources.



USDA COTTON CLASSING OFFICES - 2001

For the 2001 season, there are 12 USDA cotton classing offices located throughout the cotton production regions of the USA.



HVI COLOR GRADES FOR AMERICAN UPLAND COTTON

