

QUALITY OF THE 2002 CROP

Robbie L. Seals

USDA, AMS, Cotton Program

Memphis, TN

Abstract

The overall quality of the 2002 American Upland cotton crop, which totaled about 14.7 million bales as of December 26, is significantly lower than that of the previous years. This crop was subjected to some of the most detrimental harvesting weather ever – mainly torrential rains which fell on opened bolls and saturated the fields in the southeastern and mid-south states. As a result of this weather, average fiber quality measurements were lower for color grade, leaf grade and extraneous matter. Staple length was just slightly lower when compared to the 2001 crop. Micronaire and length uniformity remained at the same level as the previous crop. The average strength increased significantly and was higher than any of the previous four crop years.

The percentage of official color grades that were 41/32 and higher was 74 compared to 87 percent for the 2001 crop. (Official USDA color grades were determined by HVI measurement instead of by classers for the 2002 crop. This change in official cotton classing procedures was first implemented by USDA in response to a unanimous request from the U.S. cotton industry for crop year 2000.) The classer leaf grade average was 3.4 in 2002, less desirable than the 3.0 of the 2001 crop. Through December 26, 2002, extraneous matter was identified in significantly more cotton than in 2001; extraneous matter was found in 5.5 percent of the 2002 crop versus only 3.1 percent of the 2001 crop.

Measurements of micronaire and length uniformity for the 2002 crop averaged the same as those factors in 2001 - 4.6 for micronaire and 81.3 for the length uniformity index. Strength measurements for U.S. cotton continued to increase for the second consecutive year, reaching an average 28.6 grams per tex in 2002, up noticeably from the average of 28.2 in 2001. Average staple length was slightly shorter for 2002 at 34.4 thirty-seconds. This was a slight drop from the average staple of 34.5 last year.

The quality of the 2002 American Pima crop increased from 2001. Grade 3 and higher accounted for 97.3 percent of the crop, compared to 96.7 percent the previous year. Average micronaire for Pima was up slightly to 4.1 units from 4.0 in 2001. Pima length was longer at 46.7 thirty-seconds and strength was higher at 40.8 grams per tex.

Introduction

Quality of the 2002 Upland and American Pima cotton crop as determined by USDA classification procedures is compared with crops from the previous five years for the most important quality factors.

The official color and leaf grades for American Upland and American Pima cotton, extraneous matter for Upland, plus instrument measurements for micronaire, strength, staple length, and the length uniformity index were compared. The comparisons were made for the entire United States Upland and Pima crops with the following regional comparisons made for Upland: the Southeast; the Mid-South; Texas-Oklahoma; the Desert Southwest; and the San Joaquin Valley. The regional breakdown and USDA classing office groupings by region are as follows:

REGION

Southeast
Mid-South
Texas-Oklahoma
Desert Southwest
San Joaquin Valley

CLASSING OFFICES DATA INCLUDED

Florence, Macon, Birmingham
Rayville, Dumas, Memphis
Corpus Christi, Abilene, Lamesa, Lubbock
Phoenix
Visalia

Discussion

Color Grade

The percentage of official color grades for American Upland in the 41/32 and higher-grade range was 74 for the 2002 crop, the lowest percentage recorded in the six years being compared. Percentages of 41/32 grades were also lower in 2002 when compared to the previous year in each region except for the San Joaquin Valley, where the percentage went from 98.4 in 2001 to 99.1 in 2002. The most dramatic change was in the percentage of grades in the 41/32 range and higher for the southeastern states – it fell from 97.2 last year to 46.5 in 2002. This is a disaster for southeastern region cotton farmers.

Classer's Leaf Grade

The leaf grade average of 3.4 for the 2002 U.S. crop is the highest one for the six years compared in this presentation, reflecting the leafiest cotton in several years. Average leaf grades in the Texas-Oklahoma-Kansas region increased a full grade this year, although they were higher in all regions except the San Joaquin Valley, where the average stayed the same as in 2001.

Extraneous Matter (Bark and Grass)

Extraneous matter percentages for last year's crop were the lowest recorded in the last six years, but the 2002 extraneous matter percentage increased dramatically to 5.5 percent through December 26. Regionally, extraneous matter levels all doubled, or more, in 2002. Texas-Oklahoma- Kansas extraneous matter accounted for 14.4 percent of the region's crop in 2002.

Micronaire

Micronaire averaged 4.6 for 2002, and that was an exact repeat from last year. This was up from the 4.3 average for 2000 and 4.4 for 1999. This was the highest mike average in recent years. Regional averages moved one unit or less with the exception of the southeastern states, where the average mike was 4.4 last year and 4.8 this year.

Strength

Average 2002 crop strength was 28.6 grams per tex, up significantly from the 28.2 average in 2001. Regional strength averages did not deviate much from last year, but strength averages increased in all regions except the southeastern states.

Length

The 2002 Upland cotton crop averaged 34.4 thirty-seconds of an inch in length, and this was only a slight decrease from 34.5 last year. When the regions are compared, the San Joaquin Valley had the largest increase in length - .8 thirty-seconds, and the largest decrease was .5 thirty-seconds in the southeastern states.

Length Uniformity

The length uniformity average was unchanged for the 2002 crop to 81.3. This follows the pattern of crop years 1997 through 2001, when the length uniformity index remained in a narrow range between 81.1 and 81.4.

American Pima

American Pima cotton color and leaf grades were first separated for the 2001 crop harvest. Grade 3 and higher color and leaf accounted for 97.3 percent of the 2002 crop. This was slightly higher than the previous year and second only to the record high percentage of 99.4 for 1999. The Micronaire average for this cotton was 4.1, up slightly from the previous year and comparable to the 1997 thru 1999 crops. The length average was 46.7 thirty-seconds of an inch, longer than any year in the comparison. The strength average of 40.8 grams per tex for American Pima was the highest recorded in the past six years.

Summary

The 2002 U.S. American Upland crop quality will be remembered with disappointment, especially by growers in the southeastern and mid-south states. Overall, only 37.8 percent of the crop could be included in the base quality quoted by daily U. S. spot markets (white color grade Strict Low Middling or above, leaf grade 1 to 4, length 1.05 inches or longer, strength 26.5 grams/tex or better, and micronaire 3.5 to 4.9). This was because the color and leaf grades were the lowest in the six most recent years of comparison. Even though the fiber strength averages were second highest for the six years and the micronaire, length and length uniformity factors showed little variability, the low color and leaf grades, when combined with increased extraneous matter, could not be overcome for overall quality.

The American Pima crop was excellent in 2002. Color and leaf grades were the second highest in the six years compared, micronaire was up slightly for the year, the length average was longer than for any other year listed, and the strength was 40.8 grams per tex, longest recorded in recent years.