

Cotton Marketing Basics

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QUALITY

One of the most important aspects of producing a profitable cotton crop is lint quality. In fact, the marketing component of cotton production begins with lint quality. This paper describes the factors that determine cotton quality and discusses the basic options Kansas producers have to market their cotton.

Premiums and discounts associated with several quality factors can have a significant impact on the price producers receive for cotton. Together, these quality factors determine the grade. The components of cotton grade determinations include: leaf grade, fiber length, length uniformity, strength, micronaire, trash, and color. Except for leaf grade, all cotton quality factors are determined by High Volume Instrument (HVI) systems. The following quality factor descriptions are based on information from the USDA Agricultural Marketing Service (AMS) Cotton Program.

Leaf Grade

Leaf grade refers to the leaf or trash content in the cotton. Graded on a scale of 1 to 8, leaf grade is determined by human classers who compare a lint sample to Universal standards for the grades. A leaf grade of 8 is referred to as “below grade”, and can result in large price discounts. Leaf is determined by plant condition, harvest preparation, weather conditions at harvest, and weeds present in the field at harvest. In addition to the initial leaf grading, cotton bales can be further downgraded for specific trash contaminants such as bark from aggressive stripper operation on weathered stalks or grass from uncontrolled grassy weeds at harvest. Use of hairy leaf varieties, poor defoliation prior to harvest, hard freezes on rapidly growing plants, and harvesting damp cotton can also be causes of high leaf. Regardless of the cause, high leaf grades can result in significant price discounts.

Fiber Length

Fiber length is the average of the longest half of a fiber bundle and is reported in hundredths of an inch and 32nds of an inch. The official standards for fiber or staple length range from 26/32 inches upward, generally in graduations of one thirty-seconds of an inch. The upper half mean length of fiber is measured by the HVI system in hundredths of an inch and length is converted to thirty-seconds of an inch. Fiber length is primarily determined by cotton variety, but growing conditions and fertility can affect length as well. Nighttime temperatures of 60-70°F are optimum for fiber length development. Temperatures above or below this range result in shorter fibers. Reduced length can also result from deficit or excess soil moisture levels. Potassium deficiencies may result in the plant being unable to move adequate water and/or nutrients to developing fibers, and adequate nitrogen is necessary for normal growth and development of the entire plant. The first 16-20 days following flowering determine fiber

length. Stress on the cotton plant during this period can reduce fiber length and thus price.

Length Uniformity

Length uniformity is the ratio between the mean length of fiber and the upper half mean length expressed as a percentage. Low uniformity values are a function of fibers that are more easily broken. Fibers may become more susceptible to breaking if cotton is weathered, is ginned at moisture levels less than 6%, or if there is excessive lint cleaning. Premiums for uniformity are paid for readings of 83 and above, while discounts are incurred for readings of 79 and below.

Strength

Strength is measured by clamping and breaking the beard of fibers with an 1/8-inch gage spacing between the clamp jaws. The strength reported is the force in grams required to break a bundle of fibers one tex unit in size. A tex unit equals the weight in grams of 1,000 meters of fiber. With readings from below 18 to above 32, strength premiums are paid for readings above 29.4, while discounts are incurred for readings below 25.5. Like length, strength is determined primarily by cotton variety.

Micronaire

Micronaire (mike) is a measure of the fineness of the cotton fiber. Unlike fiber length, mike is determined more by environmental conditions than variety. Mike is developed after the full fiber length is obtained. Therefore, mike is developed from 16-20 days to 40-45 days following flowering. Cool and/or dry weather and fertilizer shortage (especially potassium) can cause low mike values. Low mike refers to fine fibers, while high mike refers to coarse fibers. Mike values below 3.5 and above 4.9 are discounted, while premiums are paid for mike readings between 3.7 and 4.2.

Trash

Trash is a measurement of trash present in the lint. The measurement is made by the HVI video trashmeter which measures the percentage area and particle count of trash on the sample surface. This measurement provides an estimate of the total amount of trash in the bale.

Color

Color is the measure of grayness and yellowness of the lint. Reported as a two-digit code as measured by the HVI, color usually is not affected by variety. Rather, it is influenced by weathering (excessive rainfall) in the field or in the module. Typically, color is not a quality concern for cotton in Kansas.

Kansas Cotton Quality

Overall, the quality of the Kansas cotton crop in 2003 was decent. Slightly over 50% of cotton produced had a color grade of MID 31, while 18.5% graded SM & Better 11 & 21, and 13.7% graded SLM 41. Nearly 33% of the Kansas cotton crop had a leaf grade of 4, 31.4% of the cotton had a leaf grade of 5, and 21.3% had a leaf grade of 3. The average staple length, strength, mike, and uniformity were 32.5, 28.7, 38.0, and 80.1, respectively. Thus, the average Kansas cotton sample had a slight discount for length, and a slight premium for mike. Strength and uniformity fell within acceptable parameters.

MARKETING COTTON

As explained in the previous section, quality is an essential factor in determining price. Regardless of current market conditions, the quality of the cotton to be marketed is the first, and arguably the most important step in the marketing process. Producing an acceptable quality crop can be done through management, but requires favorable growing conditions as well. These considerations may be especially important for producers in Kansas, where cotton production is marginal.

(Disclaimer: The following description of marketing alternatives is not intended to promote any business or neglect others. It is simply an outline of the major marketing alternatives available to cotton producers in Kansas. Producers interested in growing cotton should contact their local cotton gin to discuss all viable marketing options.)

Marketing cotton is somewhat different than marketing tradition commodities in Kansas. Cotton growers in Kansas essentially have four options to market their cotton. Three of the four options involve marketing through the Plains Cotton Cooperative Association, while the fourth option is to market cotton via USDA marketing assistance loans. Plains Cotton Cooperative Association (PCCA) is a farmer-owned cotton marketing cooperative organized with the goal of helping producers receive good, average prices for their cotton. PCCA offers three alternatives for cotton growers to market their cotton through PCCA affiliated cotton gins. These alternatives include the marketing pool, electronic trading through The Seam, and crop contracting.

Marketing Pool

The most popular method of marketing cotton is the marketing pool. The objective of the marketing pool is to receive a good, average price for member's cotton. To participate in the pool, producers contract acres by FSA farm number via their local cotton gin. Signup for the pool takes place in April. The contract is for one year, allowing producers to signup additional farms, or sign out current farms. Since the contract is based on acres, producers are not required to deliver cotton if planting is prevented or a crop loss occurs.

Initial advances for pool cotton are set by the PCCA board of directors in August. In recent years, the initial advance has been the CCC loan rate. This advance is paid to growers once the cotton has been invoiced to the pool. To be invoiced, cotton must be

ginned, received at a warehouse, and classed by USDA graders. Typically, advanced payments are available within 10 days of ginning. The first progress payment is made in early January, typically followed by another in April.

The Seam

If producers choose to market their own cotton they can do so via The Seam. The Seam is an electronic trading system, operated by PCCA that links the producer's gin to a network of buyers throughout the U.S. The system allows the producer to market his cotton at a price that he chooses. After a producer offers his cotton, a buyer can accept the offer or make a counter-offer. If the buyer makes a counter-offer, the producer may accept it or make a counter-offer. Following the producer's instructions, all transactions are handled by the producer's gin. After an offer is accepted, PCCA, who guarantees all trades, will make a payment to the producer.

Crop Contracting

The third marketing option available to cotton producers through PCCA is forward contracting. Cotton growers have the option of contracting every other bale or every third bale on a set amount of acres. The contract price is typically basis the December futures contract. In this contract, producers are required to deliver the grade they specify in the contract. Discounts will apply if the cotton delivered is a lower quality than that specified in the contract. In addition, there are no premium opportunities for higher quality cotton.

Marketing Assistance Loans

Marketing assistance loans are available on all upland cotton production for farms with a PFC contract. Like other crops, to be eligible producers must comply with applicable conservation and wetland requirements, report their planted upland cotton acreage, comply with crop insurance requirements, and maintain beneficial interest in the cotton from harvest throughout the term of the loan. Compared to other crops, cotton must meet some other requirements as well. Cotton must be ginned, carry an approved USDA Agricultural Marketing Service (AMS) class, and be placed in a Commodity Credit Corporation (CCC)-approved warehouse. A crop may be put under loan for a term of 9 months beginning the first day of the month after the loan is made. The loan repayment rate is the lower of the loan rate or the adjusted world price (AWP). Cotton placed under loan may also be forfeited to CCC when the loan expires.

Instead of placing cotton under loan, producers may receive loan deficiency payments (LDP) when the AWP is below the loan rate. The LDP rate is equal to the difference between the loan rate and the loan repayment rate in effect during the week in which the application for payment is filed. Unlike the loan process, producers can lock in an LDP rate prior to ginning while the cotton is in ricks, modules, or trailers by providing module numbers at the time of application. LDPs are then dispersed after the cotton is ginned

and are subject to the payment limitation. Producers are allowed to participate in the LDP program on a bale-by-bale basis.

Summary

In order to successfully grow cotton in Kansas, producers will have to become knowledgeable of the cotton marketing process. Understanding the factors that determine quality and how those factors affect price, is critical to successfully growing cotton. This paper gives a brief explanation of the factors that determine quality and the affect those quality factors have on price. For more extensive explanations of cotton quality classifications, consult AMS Cotton Program publications at www.ams.usds.gov. For loan rate charts showing the relationship between quality and price, and more information about marketing options, contact your local cotton gin.

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