NATURE OF THE CRISIS IN COTTON

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The surplus problem for cotton is now the worst of any major agricultural commodity. Our stocks of upland cotton on August 1 of this year were 16.6 million bales, a record high and about one-third larger than disappearance during the 1965-66 marketing year. Furthermore, during the past five years, production of cotton in the United States has consistently been larger than demand, and carryover stocks have grown at an average rate of almost 2 million bales per year.

The accumulation of surplus stocks of commodities is not unique in our country. For example, in 1961, our stocks of wheat and of feed grains were greatly in excess of any reasonable reserve level. The carryover of wheat in that year was 1.4 million bushels—more than a full year's disappearance. Stocks of feed grains were 85 million tons—twice the level needed for any predictable contingency.

It has taken us approximately five years to work our way out of the grain surplus position of 1961. But we have done it. For feed grains, we anticipate that the carryover at the end of the current season, next September 30, will be at a level we can call a reserve—not a surplus. A sharp increase in the wheat acreage allotment for the 1967 crop has been announced—16 million acres more in 1967 than in 1966. The wheat and feed grain problems were solved by increasing demand and restraining production.

The demand for wheat in the world has increased as population has grown. World population is growing at a rate of better than 2 percent a year. Most of this population growth is occurring in developing countries, and the production of food grains in these countries is not increasing as fast as population.

The demand for feed grains is also increasing because of rising population and, perhaps even more important, because of rising consumer income in the industrialized countries. As income rises, the consumption of livestock products also increases.

There are no major substitutes for wheat and feed grains. On the other hand, cotton grown in the United States faces severe competition from two sources: (1) man-made fibers and (2) sharply rising cotton production in other countries. The competitive situation influences the kind of cotton program which may be successful.

The solution to the surplus problem for cotton will be more difficult than was the solution of the surplus problem for wheat and feed grains. Nevertheless, we must solve this problem for we cannot continue to carry stocks of cotton which are considerably larger than a year's disappearance and, furthermore, we cannot continue to accumulate ever larger surpluses with each passing year.

If we are to stop the accumulation of surpluses and reduce stocks of cotton, production should be restricted, and disappearance should be stimulated. In times of need, production control is a temporary expedient to help restrain surplus accumulations and to help dispose of surpluses already in existence. However, restriction of production cannot be temporary unless disappearance tends to increase over the years at a steady and respectable rate.

It is necessary for disappearance to grow, because our production has grown and will continue to increase even with constant or slightly declining acreage. Yields per acre are steadily rising, and disappearance must rise in order to absorb the output of our increasingly efficient cotton farmers (Figure 1).

Consumption of cotton by our domestic mills was between 8 and 9 million bales each year from 1956 through 1963 except for 1957 when it dropped to 7.9 million bales. Consumption remained static

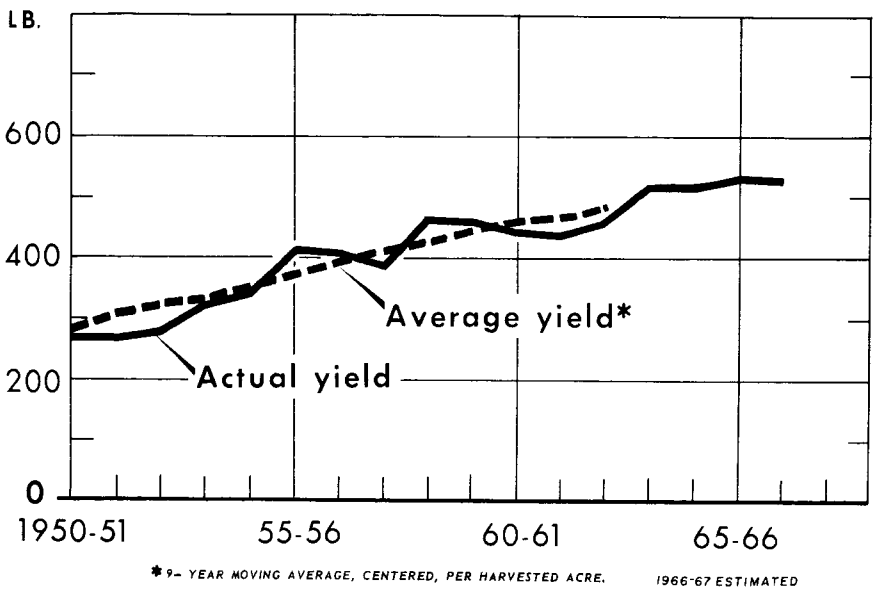


FIGURE 1. COTTON YIELDS PER ACRE. SOURCE: USDA, ECONOMIC RESEARCH SERVICE.

while population and consumer income increased. This means that consumption of cotton per person declined despite growth in economic forces which have a stimulating effect on fiber consumption. Consumption of man-made fibers increased, and imports of cotton textiles increased sharply at the same time that exports of such textiles declined. In other words, fibers competing with cotton absorbed most of the increase in demand for fibers, and textiles manufactured abroad absorbed some of the larger market, although their penetration covered only a small part of the market.

During the late 1950's and the early 1960's, we priced our cotton for export at 20 to 30 percent below the price for which we sold cotton to domestic mills and at which we supported prices for our cotton farmers. This policy enabled rayon and acetate to substitute for cotton because mills could buy these fibers cheaper than they could purchase cotton. At the same time, domestic mills were steadily and rapidly increasing their use of noncellulosic man-made fibers (polyester, acrylic, nylon, etc.). Although these fibers were and are much more expensive than cotton, the price discrepancy is not so great as commonly thought. This stems from the fact that less than one pound of noncellulosic man-made fibers is required to do the same job as a pound of cotton. Therefore, the price of the noncellulosic man-made fibers required to replace a pound of cotton is less than the price for a pound of these fibers. Nevertheless, cotton prices, even on an adjusted basis, are well below the prices for noncellulosic man-made fibers.

One way to summarize this situation is to express the consumption of other fibers in the United States in cotton equivalent units. Under this procedure we adjust the pounds of other fibers used in the United States so that they show the quantity of cotton required to replace them. Also, the fibers used to manufacture imported textiles are added to domestic mill consumption, and the fibers used to manufacture exported textiles are subtracted.

This analysis shows a bleak picture (Figure 2). In 1946 cotton held about 73 percent of the total fiber market in the U.S. and man-made fibers held about 21 percent. Cotton's share declined steadily and in 1965 cotton held only 44 percent, but man-made fibers' share had increased to 53 percent. In 1965, rayon and acetate accounted for about 20 percent, and noncellulosic man-made fibers held 33 percent of the total fiber market. In 1946, noncellulosic man-made fibers held less than 1.5 percent of this market, but rayon held about the same percentage as in 1965.

Over this nineteen-year period, cotton has steadily lost ground,

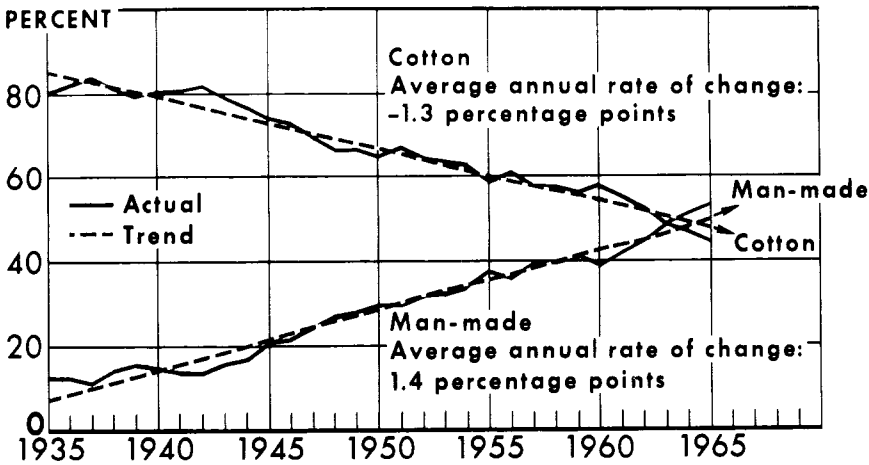


FIGURE 2. U.S. DOMESTIC FIBER CONSUMPTION IN COTTON EQUIVALENT POUNDS (COTTON AND MAN-MADE FIBERS AS A PERCENT OF TOTAL FIBER CONSUMPTION). SOURCE: USDA, ECONOMIC RESEARCH SERVICE.

relative to other fibers, rayon has about held its own, and non-cellulosic man-made fibers have gained sharply and steadily. However, these shares are parts of a larger pie. Fiber consumption in the U.S., in cotton equivalent units, in 1965 was about 72 percent larger than in 1946. But almost all of the increase was taken up by other fibers, and cotton consumption increased less than 5 percent from 1946 to 1965.

At the same time that domestic mill use of cotton was stagnating at relatively low levels, our exports of cotton declined. From 1956 to 1965, our exports fell despite an export price that was maintained at about 24 to 26 cents per pound. This change occurred because foreign cotton production was growing faster than foreign cotton consumption. In other words, foreign producers found it quite attractive to rapidly expand their cotton production. As a result, our export markets shrank rapidly.

The history of exports of the last ten years is most illuminating (Figure 3). From 1956 through 1965, United States exports of cotton declined at an average rate of 5.8 percent a year. Our exports declined from about 7.6 million bales in 1956 to 2.9 million bales in 1965. On the other hand, exports of cotton from other free world countries moved in the opposite direction. They increased at an annual rate of 6.4 percent a year—rising from 6.6 to 11.8 million bales from 1956 to 1965.

Production of cotton in the foreign free world over the past ten

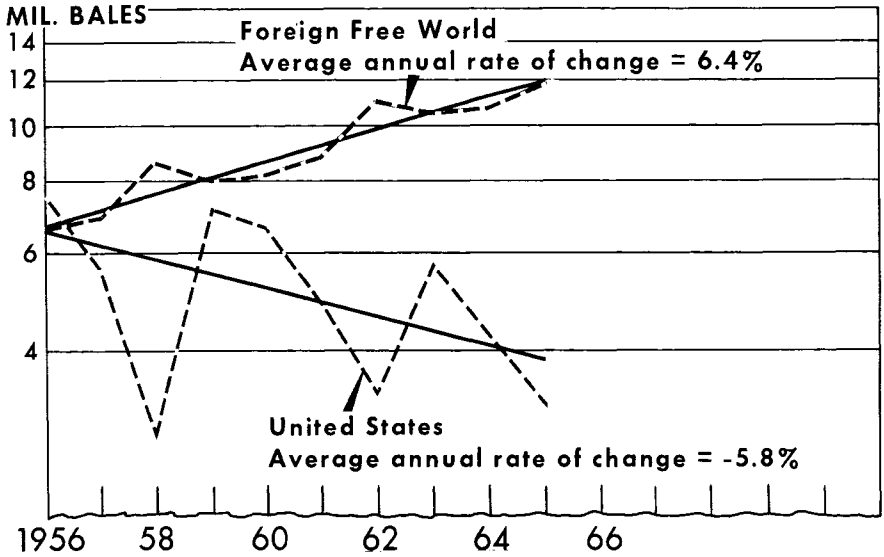


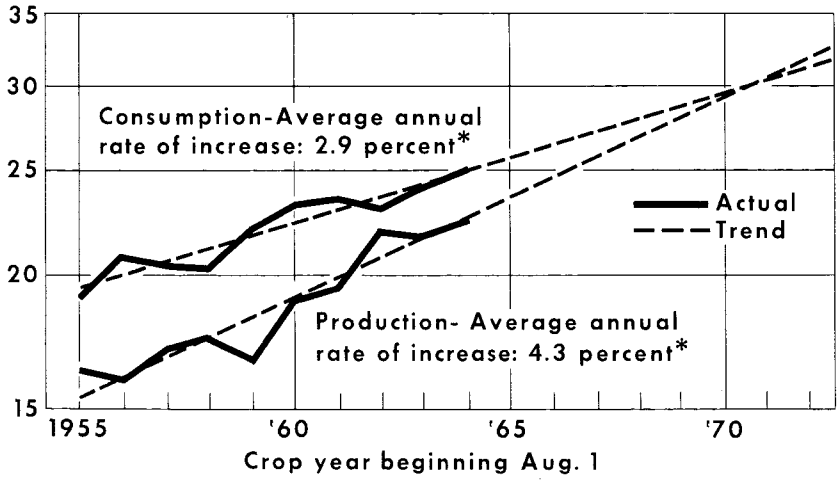
FIGURE 3. COTTON EXPORTS: UNITED STATES AND FOREIGN FREE WORLD. SOURCE: USDA, ECONOMIC RESEARCH SERVICE.

years has been increasing at an average rate of 4.3 percent a year. In contrast, consumption abroad (foreign free world) has been increasing at a rate of only 2.9 percent a year. If these trends were to continue, production in the foreign free world would equal consumption in about 1971 (Figure 4).

The other factor in the falling demand for U.S. cotton abroad is the rapid growth in foreign use of man-made fibers, just as in this country. In 1965, the consumption of man-made fibers abroad was equivalent to 24.8 million bales of cotton—almost ten times the figure for 1946. A slowing of the growth in the use of man-made fibers would increase demand for cotton, and the U.S. could export more cotton.

The passage of the Food and Agriculture Act of 1964 helped cotton to compete with rayon domestically. As a result, cotton consumption has increased sharply in the past year while the rate of increase in rayon and acetate consumption has slowed sharply. As time goes by, the lower prices for cotton are expected to cause further increases in cotton consumption at the expense of rayon and acetate.

The 1964 act, however, did not affect export prices for our cotton, and our exports continued to shrink. For the 1965-66 marketing year our exports fell to only 2.9 million bales.



500 pound gross weight bales

*Plotted on ratio scale where equal vertical distances represent equal percentage changes

FIGURE 4. FOREIGN FREE WORLD PRODUCTION AND CONSUMPTION OF COTTON. SOURCE: USDA, STAFF ECONOMISTS GROUP.

Despite larger consumption of upland cotton, which was 9.4 million bales in 1965-66, small exports held total disappearance to below 13 million bales. This disappearance was about 2 million bales lower than production.

The Food and Agriculture Act of 1965 will, it is hoped, help to cure the dilemma in which the cotton industry finds itself. We do not expect to reduce the carryover of 16.6 million bales to 5, 6, or 7 million bales in one year. But, we do expect a substantial reduction in the carryover by the time the act expires on July 31, 1970.

The objectives of the new legislation are clear. The act is designed to reduce our surpluses, to market our cotton at a price which will stimulate the disappearance of American cotton, and to maintain farm income at a reasonable level.

The programs under the act are designed to encourage farmers to reduce their acreage so that production of cotton in the United States will be smaller than disappearance. The difference between disappearance and production, the short fall, will be supplied from CCC stocks. In this way, the world's surplus cotton stocks which are now held by CCC will be reduced.

The key to stimulating the disappearance for U.S. cotton lies in the pricing arrangements specified in the act. In essence the supply of, and the demand for, cotton in the entire world will affect the

price for which U.S. cotton is sold at home and abroad. Foreign cotton producers can no longer expect the United States to hold a relatively high price umbrella over their cotton production regardless of the quantity of cotton produced abroad. Rayon producers at home and abroad can no longer expect profitable prices simply because cotton prices in the United States are supported at levels which ignore competition from other fibers.

Because these two competitors (foreign grown cotton and rayon) will be forced into taking more risks than in the past, expansion in the production and use of them is expected to decline. Cotton grown in the United States will have the opportunity to fill some of the demand that would have gone to these competitors in the past.

Manufacturers of noncellulosic man-made fibers will also have to consider the new competitive position of U.S. cotton. Future expansion of production facilities for the noncellulosics may not be as rapid as it would have been under previous programs, but expansion at home and abroad probably will still be dangerously fast.

Cotton must acquire additional new and improved quality characteristics to meet the competition from noncellulosic man-made fibers. Such improvement can be developed only through effective research in breeding and in the chemical laboratories. As these new and improved characteristics are developed, promotion and service programs will be useful in introducing them to textile manufacturers, to merchandisers, and to ultimate consumers.

Research and promotion programs are aspects of cotton's competitive problems which are not touched by the Food and Agriculture Act of 1965. Nevertheless, they are important if the cotton industry in the United States hopes to have its product utilized in commercial markets in the future.

The acreage harvested to cotton for the 1966 crop is only 9.8 million acres—the smallest acreage harvested to cotton in nearly a hundred years. With larger disappearance coupled with restricted acreage and smaller output, stocks may be reduced by 4 million bales in the first year of operation of the new program. This situation is the start for the cotton industry in reducing its huge surplus. It is a move toward getting the industry to stand on its own two feet with a minimum of government help. If the carryover continues to decline in subsequent seasons, the Food and Agriculture Act of 1965 will have served the cotton industry well.

Even with large diversion during the transition period, we do not expect farm income to suffer. Because of diversion payments,

net farm income will probably be higher than under preceding programs. Farmers simply do not have to incur many of the expenses required in connection with production in order to receive the diversion payments, and net farm income will rise. However, funds used to purchase production goods and services will be smaller.

A program such as outlined above for cotton has implications for others than those engaged in agriculture in the United States. As mentioned above, cotton production abroad has increased sharply over many years, and most of this increase has occurred in the developing countries. The Food and Agriculture Act of 1965 states that future price-support loans shall be set at not more than 90 percent of the estimated world market price. In other words, the supply of, and demand for, cotton in the entire world will affect the level of the CCC loans. The agricultural development plans of other cotton producing countries, their plans for economic development, and their plans for earning foreign exchange will reflect this change in our policy.

The rayon industry in this country and abroad developed during a period when we supported the price of our cotton and the price other countries received for cotton at a relatively high level. Under our new policy, the supply of, and the demand for, cotton in the world probably will cause prices for cotton to decline below levels which would stimulate larger production of rayon. In time, competition from cotton could even cause rayon production to decline, but this is a long-term prospect which probably will not materialize for several years.

It seems quite apparent from our experience over the past thirty-two years that high prices for cotton lead to losses of markets. Once a market is lost, it is most difficult to regain it. Therefore, we cannot afford to deliberately increase the price of the fiber in the future through governmental action, nor can we afford to let our competitors believe that we plan such action. The cotton industry must use every tool at its disposal to regain and hold its markets.

The Food and Agriculture Act of 1965 is designed to stimulate disappearance and dispose of our surplus cotton. Part of this disposal program involves the limitation of production for a few years and part involves the permanent stimulation of demand for U.S. cotton. If this program is successful, the cotton industry will start to receive the benefits of larger demand for its product a few years from now. These benefits will continue for many years into the future, and production of cotton will increase. We must, however, dispose of our surplus cotton before we can look forward to larger output.