Cotton Price and Production

long term gains for California cotton growers depend on competitive pricing and growth of domestic, export markets

Trimble R. Hedges

Second of a two-part article based on Mimeographed Report No. 215, An Evaluation of Allotment Plans A and B on California Cotton Farms in 1959 *by the same author and Douglas D. Caton and released by the Giannini Foundation, Division of Agricultural Sciences, University of California, Berkeley.*

Sharp increases in 1959 production and carryover of California and United States cotton would accompany decisions to adopt Allocation Plan *B* by farmers operating any sizeable percentage of the total cotton acreage. If all growers were to choose Plan *B*—a most unlikely occurrence—total United States production might reach 21.5 million bales in 1959, and result in an addition of 9.5 million bales to the carryover of August 1, 1960. These data are based on recent yields and rates of use; they represent the extreme upper range of possible increases under the optional plans for 1959.

There is no evidence that the new changes in price support levels or methods would stimulate consumption sufficiently to offset—in any reasonable time—the huge jump in cotton supplies. The domestic demand for cotton is relatively inelastic and the new price supports can have little influence on exports, unless domestic prices drop more than the present 6¢–7¢ Commodity Credit Corporation preferential price margin for exports. Such a price decline does not appear likely, so long as the Plan *B* support is set at only 15 percentage points below Plan *A*, and the latter remains at not less than 80% of parity.

A drop of 3¢–5¢ in the domestic cotton price should encourage increased United States consumption, but not enough to absorb an extra 10.0 million bales, or more than double the present annual use. If the increase brought 1959–60 United States use to a level equalling the highest level for any season since 1950, the total domestic consumption would equal only 10.5 million bales. This would represent a gain of 2.25 million bales over the estimate for 1958–59.

Many farmers will not find Plan *B* more profitable than Plan *A*. Only a part of the cotton growers—with a portion of the potential acreage—will take advantage of the 40% expansion possible under the 1958 legislation. An analysis of Plan *A* and Plan *B* indicates that for the most part growers with the relatively larger operations and with the higher yields will choose Plan *B*. The probable acreage and production increases will not be known until later in the season. Therefore, total California and United States production for 1959 is an unknown quantity. Weather and pests will affect yields more than any other condition on farms operating under Plan *A;* any disadvantages in these influences, compared with 1958, would tend to indicate lower yields in 1959. Plan *B* growers will face the same weather and pest hazards, and, in addition, technological and other conditions may tend to reduce total yields compared with 1958 on their expanded 1959 acreages.

The California Agricultural Stabilization and Conservation Committee announced on March 26, that 6,127 California farm operators have increased their 1959 cotton allotments by 180,125 acres by choosing Plan B. *All United States farmers have increased their allotments by 1,023,000 acres. The increases represent 24.5% and 6.3%, respectively, for California and the entire country. At yields equalling the average for the three years 1956–1958, these added acres would bring production increases of 376,000 bales in California and 894,000 bales in the United States, as compared with production at the same yield levels under Plan* A.

The United States market probably will show some increases in cotton consumption over the next two or three seasons beginning with August 1, 1959. This should occur even without price reductions, due to population growth and recovery from the 1958 recession. Such increases are unlikely to exceed 2.0 million bales per year at recent prices; thus they may, at the most, bring total United States consumption to about 10.0 million bales per year during this period. If farmers produce more, and if the present Plans *A* and *B* continue, it would appear that support levels will have to drop, perhaps sharply. Foreign demand and United States exports offer little promise of sharp increases. Recent trends, continuing into 1958–59, are in the opposite direction, toward reduced takings.

Both United States and foreign cotton consumption have increased in the past 25 years, but in foreign countries more than in the United States. Current evidence indicates that the same forces responsible for past growth still are operating. Total United States population passed the 175 million mark in late 1958, and continues to increase at a rapid rate. Various estimates for 1975 range from slightly over 200 million to 230 million or more. Total production of goods and services, and, therefore, national buying power, also is increasing, at a rate of about 3% per year. Recessions cause temporary interruptions of this trend but it has been estimated that per capita gains and increased population may carry real consumer income—buying power in goods and services—in 1975 to a level almost 167% of that in 1951–1953.

This economic growth offers important opportunities to expand cotton consumption—unless declines in per capita use offset the increases in population. That the latter could occur is suggested by the downward trend in per capita cotton consumption beginning in 1952, and continuing through 1957. United States consumers used an average of 30.9 pounds of cotton in the calendar year 1950, but by 1957 consumption had dropped to 23.7 pounds per capita; an important reduction. If Americans would use 30.9 pounds per capita in 1959—considering 1958 population—it would

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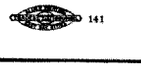

NEMATODE

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The nematode counts in Tests I and II are comparable, but may be as much as 50% below actual populations because later observations showed that the soil contained about as many females as were attached to the roots when they were washed.

The two tests indicate that the optimum temperature range for sugar-beet nematode larvae is relatively narrow, 70°F–80°F. Activity was significantly lower at 65°F and below and also at 85°F and above. In Test II, where 500 larvae were introduced, the final population level at 70°F was not as high as it was at 75°F and 80°F. Where 5,000 larvae were added, the resulting nematode population apparently exceeded the maximum supportable by the plant size. In this case, plant size rather than temperature limited the population increase, and the final population at above 70°F did not exceed the final population at 70°F.

Unfortunately, in the date-of-planting tests it was not possible to arrange harvest dates to allow each planting exactly the same number of growing days. However, past experience in this experimental plot has shown that beets heavily infested with sugar-beet nematode do not make continued satisfactory growth.

The soil temperature records show that an average maximum of 70°F is not reached in the test area until May; and that it was 77°F–78°F during June. The yield records show that planting dates in January and February were the latest with which 18 tons per acre or more were obtained. With later dates the yields were reduced more than 50%. As the temperature control tests indicate that 70°F is near the minimum requirements for activity of sugar-beet nematode larvae, it appears that sugar beets may become well enough established to produce economical yields if sufficient growth can be made before soil temperatures reach the 70°F level. However, it does not indicate the maximum production in such fields, because the nematode undoubtedly caused some reductions of yields in the early plantings.

The date-of-planting tests indicate that the lower soil temperatures in the early growing season favor beet germination and growth—but not nematode hatching, migration, and invasion of roots—and that 2–3 months of beet growth when soil temperatures are below 70°F results in significant yield increases on nematode-infested land.

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STRAWBERRIES

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paper tore so easily that it was extremely difficult to apply.

Salt accumulation is apparently more of a problem where the beds are not covered than where they are covered. At the end of the harvest season, soils from the various beds compared in the experiments were tested for relative salt concentration. Soils from beds not covered had salt concentrations more than twice as high as the soils from the covered beds. Soil surface evaporation apparently contributes greatly to salt accumulation in raised beds.

The results of these experiments indicate clear polyethylene should be used if early fruit production is desired, but it is doubtful whether the black material should ever be used. On the other hand, perhaps the black is the better material if early fruit production is not important, and weed control is of primary concern.

The use of any of the materials will generally result in a higher gradeout of sound, clean fruit than can be realized from uncovered beds, particularly early in the season when rains are anticipated.

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COTTON

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mean a market for an additional 2.64 million bales of cotton. The 1950–1957 drop reflects in some degree the recession in 1957 and 1958. California and United States cotton growers will get a part of the market back if consumers do restore at least a portion of the cut in per capita use. The fact that rayon and acetate also had per capita use declines in 1956 and 1957 suggests that an important portion of the total decline in United States per capita cotton consumption may reflect the 1957–1958 economic recession.

Even if United States per capita cotton use does not increase from 1957 levels, the projected United States population growth in the 15 years between 1959 and 1975 can mean an increase of 2.5–3.5 million bales in the domestic market for California and United States cotton. The higher cotton use level would be associated with the higher population growth rates. This addition to the market takings would expand further in direct ratio as United States consumers increase their per capita use. Thus the total gains could amount to 4.0–5.5 million bales by 1975.

Growers can be more optimistic about per capita use recovery from the temporary impacts of a recession than about the chances of recovering cotton markets lost to competing synthetic fibers. The consensus of researchers studying cotton marketing and prices is that it is extremely difficult to recover a market for United States cotton, once it is lost, whether the successful competitor is foreign cotton in the foreign market or synthetics in either the foreign or the domestic market.

Cotton growers have already lost sizeable segments of the United States market as industry uses very little cotton now to produce automobile tires, and consumes greatly reduced amounts for bags and containers. Another indication of this problem is that United States production of synthetic fibers increased from the equivalent of about 0.5 million bales in the early 1930's to over 5.0 millions in the middle 1950's—a gain of 10 times—but not all of this growth represents lost cotton markets; much nylon, for example, goes into noncompeting uses. Similar unfavorable long-term shifts also have occurred in foreign markets, where both foreign cotton and synthetics compete with United States cotton.

Price support provisions of the new 1958 cotton legislation offer an important opportunity to cotton growers and the rest of the industry. The expected drop in United States domestic prices will improve the competitive position of cotton relative to synthetic fibers in the United States market. A drop of 3¢–5¢ will make cotton considerably more attractive compared with rayon and acetate, and should aid cotton to share importantly in the increased market demand as population and the national product grow.

Cotton growers should not expect too much increase in market takings in the next few years, however, regardless of lower prices accompanying the currently effective cotton price support program.

Lower domestic cotton prices are essential, however, to enable cotton to get its share in future market expansion. Synthetics will continue to take markets from cotton unless cotton prices are competitive and to be competitive they must be lower than 1958 United States prices. The 1958 legislation promises to lower cotton prices and improve cotton's competitive position in 1959, but the synthetic industry will offer sharp competition in research, efficiency and cost cutting, and market promotion.

United States cotton producers also may be able to obtain a share of market growth in foreign countries, but the immediate prospects for the domestic mar-

ket are less favorable. Even the new legislation probably will leave the United States domestic cotton price somewhat above the world market. Subsidies or preferential prices, therefore, still are necessary to maintain existing export levels.

Cotton farmers' incomes in 1959—and possibly in 1960—quite likely will be lower than in 1958 under either Plan *A* or Plan *B*. Nor can the growers expect a sharp improvement in gross receipts and profits for several years. Their net earnings may rule lower for five or more years than under recent relatively high price support levels. In spite of this relatively discouraging prospect for the near future, it is to the advantage of efficient growers to live with the new program or a comparable one that will allow domestic—and ultimately world—prices for cotton to come into line with competitive conditions. This is because there is a sizeable growth potential in the United States market, particularly, and also in the foreign market. Realistic prices, quality maintenance, and efficient production will enable California and United States cotton growers to take advantage of such growth.

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CUT FLOWERS

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thereby exercising a competitively restraining effect on prices.

Consumer buying habits in floral purchases, under the present marketing system, throw little light on what to expect if floral products were mass marketed; and no studies have been made on consumer buying habits in the limited mass-merchandising efforts that have been made.

Competition among products for display, shelf, and storage space in retail food and variety stores is a major hurdle to the introduction of a new line of merchandise. Wholesalers must show retailers that a new product will be convenient to handle, will require a minimum number of changes in facilities and work methods, will be available at conveniently located wholesale houses at all times, and has potential turnover and margin rates that will improve the retailers' net returns. Retailers are accustomed to surveying their alternatives and to selecting the kinds and qualities of merchandise they wish to sell but modern merchandising caters to consumer convenience as exemplified by supermarkets and shopping centers. A further move to serve the consumer has been the search for the most desirable packages, colors, and other measurable physical characteristics that affect consumer choice. This phase of merchandising is one of the most competitive aspects of retailing. Prepackaging of flowers for sale to retail stores and consumers is in an experimental stage. From the standpoint of the retailer, prepackaging by the grower for consumer sale could have distinct advantages in handling. However, the consumer would not be able to inspect the contents of the package and whether he would accept prepackaged flowers on large scale remains to be seen.

The extent to which cut flower sales would be increased by placing more emphasis on price and less on service is not known. However, it appears that the average man or woman is far less concerned with the finer points of a perfect flower than are florists and plant breeders. A few produce dealers who have had experience in selling flowers, foliages, and potted plants found customers reluctant to pay more than a dollar for any one purchase of flowers or plants. On the other hand, consumer demand caused one produce dealer handling floral items to add a number of special preparation services at a special charge. This service-type flower operation is estimated to account for about 60% of the dollar sales but only 25% to 30% of the volume in the flower department. Apparently consumers are price conscious when buying flowers for home use but much less so when making occasional obligation purchases to conform to social customs.

There is an apparent conflict of interest among flower growers, wholesale dealers, and retailers that has become important in the floral industry because of the use of improved production methods at the grower level and the need to find profitable markets for a greater volume of products. The problem and the pressure to solve it originate at the grower level but the solutions being proposed could greatly alter established marketing channels and practices if introduced by the industry.

Many prominent wholesalers and retailers—and even some growers—have discouraged efforts to mass merchandise cut flowers on the theory that their immediate interests would suffer and there would be no long-run advantage to be gained from such a change. The impetus to change appears to be coming from food and variety store operators who see possibilities for using mass-merchandising methods for selling flowers and potted plants. Such a change could lead to more direct dealing between growers and retailers. For independent supermarkets this has proved true. The type of facilities required to handle fresh fruits and vegetables is quite similar to that used by florists, and the wholesalers have an established retail food store clientele, which immediately would be available as potential customers for floricultural items. Such a marketing arrangement would reduce some of the procurement problems by making it possible for the retailers to inspect their flower purchases along with other items bought from the wholesaler or to depend on the wholesaler to deliver acceptable qualities of flowers. Although a shift to fruit and vegetable wholesalers could have serious repercussions on many of the specialized floricultural grower-wholesalers and wholesalers now serving the industry the procedure appears to be an economically feasible way of increasing the availability of flowers to the general public and, at the same time, offering certain procurement and distribution cost advantages to growers and marketing agencies.

Competition for the consumer's expendable income is keen and various analyses show an average of less than 0.3% of each dollar consumers spend for personal consumption items is used to buy flowers. The usual pattern—whenever homemakers have a desire for fresh flowers—is to satisfy such a desire with home-grown flowers, a tendency which is reflected in the sale of garden seed, bulbs, and plants for home gardens.

Even though there is a wide assortment of highly competitive market-tested products with which retail dealers can stock their stores, there remain two conditions that favor the introduction of a new line of products. The first is the varying success among competing retailers in selling like products. Frequently, a retailer will seek a better use of the resources at his disposal by taking on different kinds of products. If the new venture is successful, the initial returns may be high, particularly until competing retailers introduce the same kind of product. A second favorable condition exists as a result of the activities of a small group of marketing innovators who encourage experimentation and risk taking. However, the ability of a grower initially to establish a trade relationship with a wholesale or retail outlet does not mean that such outlets can be kept open automatically. The grower must maintain service to his customers in terms of product availability, quality, and price. Even then wholesalers and retailers can not be expected to maintain an interest in selling the product unless it yields a net return equal to or in excess of other products that can be handled equally well.

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