

marketing order in 1960 covering only processing strawberries set up quality and grading standards that possibly modified the nature and even total supply of California frozen strawberries reaching the market. Added stipulations in the 1960 supplemental marketing order governing procedures for posting prices have been followed by more stable prices reported as paid to growers during the season and more limited seasonal fluctuations in quoted prices to growers during the last two years.

Competitive areas

Major and minor competitive areas of strawberry production have had to be recognized and considered in making production and marketing decisions. At the same time the frozen strawberry industry in the United States showed decreases in movement, Mexican imports increased. Mexico had been shipping an increasing supply of frozen strawberries to the U. S. during the 1950's, mostly in institutional (30-lb.) size. Suddenly, in 1960 and 1961, these imports more than doubled, rising from an earlier annual figure of 14 million pounds to nearly 30 million pounds in 1961. Although total U. S. imports do not run as high as 10% of the national supply, the impact of Mexican competition was felt, not only domestically, but in the Canadian market as well. The U. S. had been the major Canadian supplier until 1960 when Mexican imports (again largely in institutional pack) supplied almost 43% of the total Canadian imports of frozen strawberries.

Mexican competition

A new dimension has been added to the Mexican competition in the past two years with fresh strawberry imports from Mexico showing a marked increase. In general these shipments reach the eastern markets in direct competition with the Florida berries and the earliest southern California fresh shipments. But there has been some very recent indication that imports directly into California may be expected to increase.

Thus the 1960's present the strawberry industry and the strawberry grower with certain inescapable facts:

(1) Per capita consumption of frozen strawberries now seems to be settling at the level of the early '50's. Consumption of all strawberries, fresh and frozen combined, has not equalled the per capita figure of the prewar period when fresh strawberries were overwhelmingly dominant.

(2) Fresh and frozen utilization of strawber-

ries are interrelated both in production and price. Now that processing and fresh market channels divide the industry, competing and supplementary sources of both must be accounted for, and influences anticipated. Inter-regional aspects are now superimposed on the regional relationships prevalent when the industry was dominated by fresh shipments.

(3) Total production of strawberries is a dominant influence, but specifically important is total production on the Pacific Coast, with special emphasis on the relationship between California, the Northwest, and Mexico in frozen strawberries.

Based on economic-statistical analyses, and supplementary information, emergent market relationships suggest that of all the important influences on price to strawberry growers—such as U. S. personal disposable income, total supply of the product, and shifts in utilization—an essential factor affecting price to grower is the interaction of the strawberry industries in California and the Northwest, particularly in the processing segment of the Pacific Coast strawberry industry. In an economic-marketing sense, the two producing areas are interlocked, with developments in one affecting and being affected by the developments in the other. In the past several years, a somewhat similar tendency has emerged with respect to the processing strawberry industry of Mexico and that in the United States.

Production changes

The 1960's have seen a resurgence in California strawberry yield and total production, a return to higher fresh market utilization, and application of the newest techniques in the growing and marketing of strawberries. The adaptation of new fumigants for soil preparation, new plant varieties and new methods of controlled growth, new miticides, fertilizers, and irrigation techniques, some shifts in acreage and an increased use of air transport, all indicate that California growers are receptive to change in their own interest. Harvesting methods are now being reviewed to cope with special problems of labor supply.

A clear picture of relevant market price relationships is also important for the California strawberry industry if production planning and marketing policies are to be designed for profitable decisions.

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**ALFALFA
TEST
PLOTS**

Photo Briefs

Safflower test plots at Antelope Valley Field Station near Lancaster in Los Angeles County. Center plot was to demonstrate safflower survival on root rot infested soil under border irrigation. Plot in background includes over 1,200 plant introductions, collected from many parts of the world, which are being tested for cold hardiness and resistance to phytophthora root rot. The plant introduction trials are supervised by P. F. Knowles of the Department of Agronomy, University of California, Davis.

**SAFFLOWER
TEST PLOTS**

TULE TEST PLOTS



Night lighting for alfalfa test plots at Imperial Valley Field Station forces blooming during the winter months when alfalfa does not normally bloom—eliminating the possibility of cross-pollination with other varieties in the area. Lights cycle on automatically to give plants an additional five to six hours of light. Tests are under the direction of William F. Lehman of the Agronomy Department, University of California, Davis.

short photographic reports on current agricultural research

Effects of soil sterilization are visible in this test plot photo taken nearly a year following application of an experimental material to control cattails and tules along a ditch bank in Sutter County. The soil sterilant was applied November 30, 1962. Photo was taken in September, 1963. Plots were set out by Clyde Elmore, Farm Advisor, and W. B. McHenry, Extension Weed Technologist, Davis, to compare effectiveness of the material with the standard tule control practice involving use of 2,4-D low volatile ester plus diesel oil applied at flowering stage and again when regrowth is 3 to 5 feet high. Further testing will be necessary before recommendations can be made.

