California Prune Industry May Face Market Adjustment

S. W. Shear and George B. Alcorn

During the next few years the California prune industry will go through a period of difficult adjustment largely because of the poor and uncertain foreign market outlook. Demand for California dried prunes will have to be increased or bearing acreage and average production decreased before profits can be expected that, without government support, are sufficient to maintain efficient growers in the state. In the next few years prices and overall demand for California dried prunes will probably cause the average grower to be held down: 1. At home, by keen competition among many sources of supply of prunes and fruit products. 2. Abroad, by considerable lower commercial demand and imports for our prunes than prevailed before the war, particularly in European markets. Prune orchards with old and low-yielding trees, producing fruit of poor quality and small size, will probably be unprofitable again as before the war. Owners of these poor prune orchards should, therefore, give careful consideration to replanting them with other crops to which their land is adapted and for which better returns might be expected. Before the long run than from prunes. However, growers with good-sized fruit who probably would not replant their prune orchards with other crops unless they are convinced that by so doing they can increase their returns, will probably be unprofitable again during the next 10 or 15 years. There is some probability, although not absolute, that if the prune and prune-crop production in the world is further reduced, the price of European marketprunes will follow. Thus European marketprunes and beauty prunes acreage and production within the next few years may more than offset the expected low level of domestic demand and decreased exports, so that the supply and demand for California prunes may again come into balance at a price that will give efficient growers a good return. (Continued on page 3)

Research On Granulation Of Valencia Oranges Shows Only Limited Control Measures Exist

E. T. Bartholomew, W. B. Sinclair and F. M. Turrell

Granulation of Valencia oranges is not caused by a fungus, a virus, or a bacterium. It is definitely related to the growth activity of the tree. Since 1920 over 200,000 Valencia

In each case the percentage of granulation produced on the wet plot was a little over twice that produced on the dry plot. Lime spray at 50 pounds per 100 gallons reduced the amount and severity of granulation about half. This treatment is not recommended because the treated trees lost excessive amounts of leaves during the fall and winter periods. During a period of seven years, air sprays were found to augment the amount and severity of granulation. Their use should be avoided wherever possible.

Beet By-products In Mixed Rations As Livestock Feed

The sugar-beet industry offers two important by-products to the livestock industries. These by-products are molasses and sliced beet pulp. Both of these by-products contain high protein and are good feeds for livestock. Their utilization is of mutual interest to livestock and poultrymen.

Poultrymen May Have More Market Competition Ahead

E. C. Voorhees

California does not produce enough eggs to meet the needs of the markets. We must ship in eggs from other states, mainly the Mississippi Valley. This puts the local producer in a favorable position because he gets a better price, and the consumer gets better eggs. The top quality ones are no longer shipped to eastern markets. Our in-shippers, however, do not come only from the Western states, as formerly, but in increasing numbers from those farther east, mainly the Mississippi Valley. People have now developed a taste for good eggs. This taste was encouraged by war-time competition on eggs as a protective food, plus the fact that eggs were rationed and were relatively higher in price. The buyer still wants, and has the money to buy, good eggs. It is up to the poultryman to see that he gets them. If the producer keeps the eggs in the market, people will continue to eat more eggs. If quality drops, consumption and prices will go down.

Chill-Related Conditions

If domestic consumption is lowered, the poultryman cannot count on foreign markets to take his surplus eggs. Europe, the chief wartime market, cannot afford to import eggs now, and we no longer have lend-lease and lend-buy demands for their eggs. During the war, large quantities of eggs were used for overseas shipment. Dried egg production, largely carried on in the middle west, has now taken a big drop, which means more midwestern eggs for domestic market use.

Good-quality eggs are good advertising, and good prices as compared to other meats can be made. The only demand for eggs at a high level.

Cold weather is of mutual interest to livestock and poultrymen. A colder climate is a corner on new production methods. At one time year more eggs were produced between October and February— the period of low production in other regions. However, the egg men in other states, especially our chief competitors on the Mississippi Valley, have also developed improved management practices so that they do not have such big gaps between seasons. In California there is less difference between the year’s highest and lowest egg prices. (Continued on page 2)

Ladybirds, Lacewings, Parasites Tested As Long-tailed Mealybug Controls In California Citrus

Paul DeBear and C. A. Fleischer

The long-tailed mealybug, Pseudococcus longispinus, is a relatively recent pest of citrus and occurs primarily in coastal areas of Orange, Los Angeles, and Ventura counties.

The first minor outbreak of the long-tailed mealybug was found on citrus in 1923 in the Rivers-Downey section of Los Angeles County. Parasites were introduced to combat this pest and it was generally thought they were keeping the mealybug in check.

In 1943 another build-up of the long-tailed mealybug occurred on citrus: this time in the Anaheim area of Orange County. This infestation...
To determine whether granulation might be avoided by the proper selection of bud stock, trees on both sweet and sour orange show were studied in 1934 and 1935.

The buds for these trees were taken from parent trees known to be either high producers or low producers of granulated fruit. The parent trees were then cross-topworked.

The trees on the specially budded trees and the topworked trees were examined each year from 1941 to 1943, except in 1943. The results of the experiments, compared with those of the other field studies mentioned, indicate that there is not much immediate hope of developing a "strain" of Valencia that will not produce granulated fruit.

Laboratory studies

Laboratory studies indicated that:

1. A Valencia granulated juice sac may be 59 times as hard as a non-granulated juice sac.

2. Granulation may increase to many times its usual thickness.

3. One bunch of fruits from a granulated juice sac look coarse, and it was probably for this reason that in the past the affected fruits were said to be crystallized.

4. During the process of granulation the affected juice sacs lose or use up almost half of their sugar.

5. The badly granulated juice sac has a measurable 70% of their acid;

6. Granulation does not materially change the nitrogen content of the juice sacs.

7. During granulation, the total protein content of the affected sacs is almost doubled.

8. Although most much juice can be pressed from the badly granulated portion of the fruit, the granulated juice sac actually contain a little higher percentage of moisture than the healthy sacs.

9. Based on equal weights of granulated and healthy juice sac the increase in dry weight of the granulated sacs was not over 2%, but when determined on a basis of individual sacs the increase was at least 500%.

10. Basic constituents of pectin, such as calcium, magnesium, and potassium occur in concentrated amounts in the granulated sacs.

Controlling Measures

Unfortunately no adequate control measure has been discovered. Granulation has been reported from 13 foreign countries, but none of these countries has suggested control measures by means of which it can be avoided.

Any factor that will affect growth, such as climate, amount of soil moisture, oil sprays, and rootstocks, will influence the amount of granulation produced.

The nearest approach to a control measure in California is to pick the large fruits early, especially on the south and inside of the trees.

Although the Valencia is to be removed from trees that all buds were taken from trees that were known to be the producers of granulation when they were young trees.

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Monograph date of this article is slightly greater detail may be obtained, without charge, through the Farm Advisor's office in counties where citrus is grown.