Processing Milk Powders For Their Particular Uses

Hodge Shipstead

The first successful milk drying process was the atmospheric double drum dryer. The advantages of this dryer are its simplicity and low cost of investment.

The milk powder made from precondensed milk has a much better keeping quality than that made from fluid milk. The particles of the precondensed milk are larger and heavier and present a much smaller surface for the escape of the air.

Keeping Quality Improved

Elimination of upper and intermediate condensation resulted in a great improvement in keeping quality. In spite of this, and other improvements, it was not possible to keep whole milk powder at room temperature for more than two to six months without development of a tallowy flavor. It was evident that this flavor was caused by oxidation of the unsaturated fatty acids in whole milk powders.

Prevent the flavor score of the powder against the amount of oxygen absorbed during the critical level of oxygen absorption to be around 0.5 per pound of powder. This meant it would be necessary to remove the air from the cans of whole milk powder to reduce the total remaining free oxygen to below 0.1 cc.

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Investigations On The Control Of Coding Moth On The Payne Walnut In Central California

E. F. Michiels and W. W. Middlekauff

The coding moth, Carpocapsa poecilopelma, occurs throughout California and is one of the most important pests of walnuts.

In central California investigations on the control of this pest have been conducted by members of the entomology staff at the Citrus Experiment Station, Riverside, while in central California the study has been carried out by members of the entomological staff at Berkeley.

If the early spray is neglected, observations have shown that under conditions of severe attack, 25 percent or more of the walnut crop may be infested before the end of May. This will illustrate the importance of applying an early spray in these areas where the coding moth is a major pest.

Powdered milk carpets mostly enter the nuts at the bloom end, and the great majority of these nuts are doubtless whether the results justify the added expense.

In 1946 a number of growers in the Lindsay area applied the standard lead arsenate treatment to cut at least a portion of their planting. No injury whatever was reported and the program will be further tested on a commercial scale in 1947.

Vitamin A Content

Similar In Yeast

Vitamin A content of the white butterfat of the Holstein A. W. Bogan and the Guernsey bulls at the head of their herd. Other dairymen, finding it difficult to maintain two breeds on the farm, out and resorted to cross-breeding.

The roller powder is well suited for bread making.

Effects Of Plant Growth Regulators

On Orange Drop

W. S. Stewart, L. J. Klose, and R. Z. Field

In citrus, fruit drop may be considered a continuous process from the time of flowering to fruit maturation.

Superimposed on this background of continuous fruit drop are three periods during which drop is most intense. These are treated in June, drop, and preharvest drop.

Preharvest Drop Reduced

The field results and laboratory reports noted here, using water sprays of 100 ppm to reduce mature fruit drop in citrus were established in Valencia orange orchards in May, 1941.

Concentrations of 2-4-D, tested, ranged from five pounds of 2-4-D in one million pounds of water, to 40 pounds of 2-4-D in one million pounds. In numerous subsequent tests, a reduction in drop of mature fruit was found even when the spray was applied two weeks after a heavy drop had been in progress.

In this respect the data are very consistent from the time of flowering to fruit maturation. The results were considered that some plots were harvested before severe drop from the infested trees occurred.

This was to be expected, considering the variation in drop observed among different individual orchards and considering that some plots were harvested before severe drop from the infested trees occurred.

Similarly fruit drop reductions, ranging from 21 to 26 per cent were obtained in 28 plots of oranges treated using 2-4-D sprays of 25 per cent., or less.

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New Vegetables For California Farms

Result Of Research

Glenn A. Davis

A number of varieties of vegetables have been developed in recent years, either individually or jointly by all California Agricultural Experiment Stations and the United States Department of Agriculture. Some of the vegetables investigated are not commercially available for several years. Others are of minor commercial importance.

Cantaloupes

Powdered Mildew Resistant No. 45 is resistant to the powdery mildew but is not resistant to the fruit fly. It has been recommended as a resistant type. Cantaloupe No. 5 is resistant to both forms of the powdery mildew. Under good cultural conditions it has proved over 50 per cent. to 60 per cent. immune from mildew. If the melons are not harvested in the first indication of the “slip” they tend to be very small and well shaped. It has a larger seed cavity than No. 45 and the buds have less tendency to fly. It has a small oblate melon and in comparison with No. 5 and No. 6 is somewhat later in maturity. The seed cavity and flesh are comparable to No. 4 and No. 6.

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New Vegetables For California Farms

Result Of Research

(Continued from page 1)

Baby Persimmon is noted for its unique fruit type and size. The mature fruit is 1 to 1½ inches in diameter and is typically red to black. The texture is soft and juicy, and the flavor is sweet and refreshing.

California Hybrid Red No. 1 is the first true F1 hybrid onion ever released. It produces a uniform, medium-sized bulb with a rich, sweet flavor. The skin color is a dark green which is uniform throughout the entire bulb. The flesh is white and firm, with a high sugar content. It is resistant to Fusarium wilt.

Family Selection And Progeny

Testing Of Poultry Worthwhile For Higher Egg Production

As abstract of a talk delivered at the Annual Convention of the California Poultry Federation at Santa Barbara, January 21, 1947.

The 1947 production index of the University's production-bred Leghorn flock averaged 220 eggs per hen per year.

The question arises as to which flock would be the best for producing eggs. The answer requires one of two things: (1) an actually performed long-range experiment of a breed or breeds of laying hens or (2) some exceedingly elaborate computation.

A partial answer is found in an analysis of how much each of the selection bases contributes to the gain observed in the University flock during the 12-year period studied.

The progeny test increases by about 1 per cent. At the same time, progeny testing accounted for approximately 1 per cent of the gain in egg production.

The oil spray as weed killer test confirmed the oil spray as weed killer test made at the University of California Agricultural Experiment Station, Davis.

Oil Spray As Weed Killer Test

The best treatment for controlling weeds is to use the oil spray as weed killer test. The oil spray is a non-selective herbicide that kills weeds by disrupting the phloem and xylem tissues.

The best combination of oil and water is 1% to 2% of the total volume of the oil spray. The oil should be applied in the morning, when the temperature is cooler.

The oil spray is not effective against all weeds. It is most effective against broadleaf weeds, such as dandelions, pigweeds, and lambsquarters.

Selective Oils

The selective oils are those that contain active ingredients that kill the weeds but leave the crop unharmed. The majority of these oils are derived from plant oils, such as those from the soybean, linseed, and mustard.

The selective oils are used in conjunction with the oil spray as weed killer test. They are applied in the morning, when the temperature is cooler.

The selective oils are most effective against small, broadleaf weeds, such as dandelions, pigweeds, and lambsquarters.

WEED CONTROL

Selective oils for spraying carrots and related crops are discussed elsewhere in this issue of the Calfornia Agriculture. The selective oils are used in conjunction with the oil spray as weed killer test. They are applied in the morning, when the temperature is cooler.

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