

Dairy Conditions in the Salt River Valley of Arizona

THE OUTSTANDING ADVANTAGES for dairymen in the Salt River Valley of Arizona are the climate, the availability of dairy feeds, the markets and the low expense for equipment.

There are, at the present time, about 25,000 dairy cows in the Salt River Valley, and conservative estimates indicate that this number can be greatly increased,—that is to say that markets are practically unlimited.

The average price of butter-fat as paid to farmers for cream manufactured into butter was 47.6 cents for 1927 and 50 $\frac{1}{3}$ cents for 1928.

There is an active State Dairy Commission, who assists and co-operates with county and city health officials, milk inspectors, etc. This State Commission is working constantly for the improvement of dairy conditions in the State.

While climatic conditions are particularly favorable for vigorous, healthy cattle, the State of Arizona, ever mindful of its National responsibility in the preservation and restoration of human health, wisely adopted the Federal Aid-Co-operative-Tuberculosis Eradication Program, whereby all dairy cattle are periodically tested for tuberculosis under Federal supervision. By this plan reactors are promptly condemned and killed, and approximately two-thirds of their sound value is paid to owners as indemnity, this loss being borne equally by the State and Government. That this program has been splendidly carried out is shown by the fact that many sections of Arizona are now free of bovine tuberculosis, and that the average for the entire State is now less than 1 per cent Reaction.

Rigid quarantine regulations prevent the importation of dairy stock unless it has been

thoroughly tested and proved to be tuberculosis free.

The basic feed is alfalfa. Alfalfa remains green through the entire year; it grows luxuriantly, and if cut for hay, yields of 6 to 8 tons to the acre in four to six cuttings are not at all uncommon.

A rather common practice is to divide the farm into fields and pasture the crop, cutting the surplus during the most rapid growing months, which are from April to June and September and October. When land is handled in this way there is a minimum damage to alfalfa from pasturing and it is possible to support one cow to the acre. Supplemental feeds are largely cotton-seed meal, rolled barley and the grain sorghums.

Some farmers grow silage but many do not—depending upon year around pasture. A quite common practice is to sow grain in the alfalfa fields in the fall of the year, utilizing this through the winter as pasture, cutting a combined alfalfa and grain hay in April. The alfalfa is renovated by the incidental cultivation of seeding the grain and this system is approved and is considered good farm practice.

Paved roads throughout the valley facilitate the marketing of dairy products, making it possible to deliver milk several miles distant twice daily if necessary. This enables the dairy farmer to receive the maximum price for his product.

The extension of electric power lines throughout the valley, which is now being done by the Water Users Association (the organization of farmers which own the irrigation water supply and the power projects) enables dairy farmers to put in refrigeration plants which greatly facilitate the production of high-grade milk.

There are creameries, retail dairies and condensed milk factories that are in the market for sweet milk, and both sweet and churn cream. Trucks operated by the creameries gather the milk or cream from farmers' doors over a great portion of the valley.

Practically all the larger towns of the

state, including Phoenix, Tucson, Nogales, Prescott, Miami, Douglas, Morenci, Jerome, Flagstaff, and many others have now passed the STANDARD MILK ORDINANCE of the U. S. BUREAU OF PUBLIC HEALTH; and authorities believe this regulation of the public milk supply will be generally in operation throughout Arizona this fall. Since there appears to be ample foundation for the statement that the STANDARD MILK ORDINANCE materially increases the demand and sale of market milk, because of the consumer confidence it inspires, and since outside communities look largely to the Salt River Valley for fresh dairy products, this would seem to presage an increased future demand for market milk from this, the principal dairy section of the State.

While the Holstein-Friesian cows are more popular, there are many excellent herds of Jersey, Guernsey and other dairy breeds. There are many pure bred herds and the tendency is to improve the quality of the dairy cattle by breeding up and by culling out the unprofitable cows. It is said that Arizona leads the nation in the percentage of dairy herds headed by pure bred sires.

As a side line the breeding of many dairy cows for sale to dairymen of California and other states has proved profitable. There is considerable demand for dairy cows at good prices.

While there is a constant advance in land prices, it is still possible to obtain land at a cost which enables the progressive, up-to-date dairyman to realize handsome profits on his investment.

Clyde F. Rowe, Extension Dairyman of the University of Arizona Experiment Station says:

“Dairying has held a key position in the agricultural scheme of the Salt River Valley for a great number of years due, first, to favorable climatic conditions both for dairying and for the production of dairy feeds; second, because dairying has been a profitable pursuit; third, because of favorable market conditions for dairy stock and dairy

products; and fourth, because dairying provides one of the most profitable means for maintaining soil fertility.

“Taking up these questions, let us study the figures to see what the conditions actually are. Cost of production is dependant upon first, actual feed cost, second, equipment and labor cost, and third, the ability of the individual to produce large quantities of milk and butterfat.

“There is possibly no section in the United States that is more adapted to the production of dairy feeds than is the Salt River Valley. The average yield of alfalfa hay during the past ten years has been about six tons per acre. Many dairymen through careful attention to soil fertility have increased this yield to the extent of seven to eight tons.

“It was found in a recent survey that an average of 1.4 acres of land is required to produce hay and pasture for maintaining one cow per year. This average, however, varies considerably among individual dairymen. In some instances as much as 2.5 acres are required, while in others only one acre is required. This variation depends almost entirely upon the fertility of the soil and the management of the pasture.

“Concentrate feeds are also produced in large quantities in all sections of the valley. Grain sorghums yield about 3000 pounds per acre, barley about 2000 pounds per acre, and cottonseed meal is produced in large quantities by local cotton oil companies. The average length of the pasture season is about 320 days; however, many dairymen are supplying a liberal amount of pasture throughout the entire year. The long growing season in this valley gives the dairymen a decided advantage over many dairy sections where it is necessary to have the cows in expensive barns and stall feed throughout a greater part of the year.

“Cow Testing Association figures show that during the past seven years the average feed cost per pound butterfat has decreased from about 27c per pound to 22.2c. This re-

duction in cost per pound has been brought about by better breeding, better and more liberal feeding, and rigid culling of non-producers. The average feed cost per cow during the past year, including hay, pasture, and concentrates, was \$62.16. The average butterfat production per cow has likewise increased from 245 pounds to 280.6 pounds during the past year. Equipment cost is reduced to a minimum because of the mild climate which prevails throughout the year.

“It was found that the average building cost per cow amounted to \$27.20. This included milking shed, hay barns, milking houses and shade sheds. The average cost per cow for water system amounted to \$11.80, while the average cost of dairy equipment per cow including such items as milking machines, milk cans, milk buckets, coolers, etc., amounted to \$5.60. This average equipment cost per cow will vary considerably on various farms, as we find that many dairymen from the middle west are still of the opinion that expensive barns and equipment are necessary for successful dairying.

“Labor is employed as cheaply on dairy farms in the Salt River Valley as in any dairy section to be found. It was found in this survey that an average of 145.1 hours are required to care for each dairy cow per year, this including management of necessary young stock to replace the herd.

“The average value of land on the dairy farms in the Salt River Valley was found to be \$271 per cow. This, of course, will vary considerably, depending upon the location. Many of the farms included on this survey were located in the citrus areas where land is considerably higher than in other sections.

“It will be seen from the above figures that the dairy industry in the Salt River Valley has a very promising future so long as we do not run into over-production. During the three-year period ending January 1, 1928, there is a very slight increase in the number of dairy cows being kept for milk in the United States. Estimated census figures during the same period of time show that the increase in population and per capita con-

sumption of dairy products is surpassing the increase in the number of cows being kept for milk, as well as the increase in average production per cow.

“With the rapid increase in population within the boundaries of this state, there is very little probability that we will be able to supply necessary dairy products for our own consumption for a considerable number of years to come. This assurance, connected with the national outlook, is indeed very gratifying to those desiring to establish themselves in the dairy farming business.”



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