

THE MILKING MACHINE AS A PROFITABLE INVESTMENT

By CHESTER L. MARSH, '26

The Milking Machine as an Aid for Greater Profits—Valuable in the Production of Clean Milk—Its Place Upon the Small Farm and Large Dairy

There are a lot of conflicting opinions as to whether a milking machine is a worth while and profitable part of dairy cattle management. This article comes from a man who graduated from Arizona University last year and since that time has been in the employ of the Crescent Creamery ranch at Calexico, California. It is based on scientific knowledge along with actual experience with cows, and is worthy of your attention.—Editor's Note.

a milking machine?" This question must be answered by the one asking it, but the experiences of others will determine to a large extent, the answer.

There are a few farmers who still laugh at the idea of milking cows with "new fangled machinery." "It's too unnatural and the cows will not hold up production when milked with

to follow when the milking is done in an open corral. On labor expense, however, the installation of a milking machine will have an effect, and since the chief saving derived from using a milking machine is in labor, the amount saved varies with the cost of labor and the speed of the operator. Some operators will milk three times as fast with a machine as they could



The economics of the dairy industry starts in the pasture.

THE good price received for butterfat during the past few months and the probability that the price will be good for some time to come has brought about an increased interest in dairying. Many farmers who have not had cows are adding a dairy unit to their farms. Those who are now in the dairy business are enlarging their herds, weeding out the poor producers, making modern improvements and in every way preparing to establish a paying enterprise.

In attempting to establish a paying dairy there is one question that arises, or should arise, in the minds of not only those who are just entering the field but those who are already engaged in the business, and that is, "Shall I milk by hand or with

a machine." These few will not even listen to milking machine talk, and perhaps it's just as well that they won't. On the other hand it is hard for some farmers to see how machine milking is much more unlike the calf method than is hand milking, and would not hesitate to change over to mechanical milking if they could be shown that their returns would be increased by doing so.

It is a well known fact that feed and labor are the two most important operating costs of a dairy. The installation of a milking machine would have no effect on feed expense. However, it might improve the feeding system by providing stantions, and thereby making it possible to feed concentrates according to production, a practice which is almost impossible

by hand, others save very little time in milking but justify the use of a machine because it is much easier to operate than it is to milk by hand. It is obvious that the actual saving which may be attributed to the use of a machine will vary greatly, but some idea of the saving that might be expected can be obtained from the following two surveys. A study made by the University of Illinois on sixty-six dairy farms, of which half used mechanical milkers and half milked by hand, showed an average yearly saving of \$10.96 in labor expense per cow (labor figured at \$0.40 per hour) on the farms which used milking machines. For herds of over twenty-five cows there was an average annual saving of \$16.48 per cow. A similar survey by the Michigan Station of

93 herds showed an average saving of 29.16 hours per cow in milking and cleaning utensils, in the machine-milked herds. At \$0.40 per hour this represents a saving of \$11.66 a year for each cow in the herd. It is evident then, that there is a saving of time in the machine-milked herds, in spite of the extra time required to clean and care for the machine. This saving may not sound very large, but, if after deducting depreciation, repairs, interest, insurance, and operating costs one can have a net annual saving of from \$10.00 to \$15.00 per cow, and at the same time make the work easier, it is worth going after. Remember that these are average figures and if one is a fast operator the saving in labor due to the use of the machine will be even greater than this.

Assuming that there was a saving in labor expense in the machine-milked herds, were the net profits larger? In other words, did these cows which were milked mechanically produce as much milk of as good a quality as they would have had they been milked by hand? It is a rather common opinion that cows will not hold up in production as well when milked mechanically. There are many cases where this is true, but is it the fault of the machine or the operator? There are many more cases where the installation of a milking machine has had no apparent affect on production, and some claim an increase. F. W. Woll of the California Station in his publication, "Investigations with Milking Machines," concludes that "the special method of milking practiced



A herd of good cows waiting to be turned in for milking.

does not, on the whole, affect appreciably the milk production of the cows, provided the milking is done with equal care in either case. Wisconsin and Geneva (N. Y.) Stations agree with Mr. Woll's statement. According to the latter, "The only conclusion possible to draw, from trials extending over five years and including a large number of lactation periods, is that machine-milking, if properly done, does not influence the flow of milk to any extent capable of measurement."

Now for the question of quality. In a good many instances the installation of a milking machine has caused a material increase in the bacterial count of the milk. This, however, is no fault of the machine but due to improper cleaning and care. Quoting the Geneva Station again, "It is possible for any dairyman by the intelligent use of simple and practicable means of cleaning and caring for the machines to secure results as satisfactory as are those obtained where clean hand milking is practiced."

Thousands of whole-milk producers who use milking machines will confirm this statement. More than 85% of all the certified milk distributed in the city of Chicago, and 100% of all the certified milk distributed in the cities of Milwaukee, Racine, Kenosha and Madison, Wisconsin, is milked by one make of machine.

It seems then, judging from these two surveys, that a milking machine properly operated and cared for will have no appreciable effect upon production or quality of milk produced and will reduce labor costs sufficient to make the machine a profitable investment. But this conclusion need not rely solely upon the two reports mentioned above. In Australia and New Zealand milking machines have been more generally adopted than in this country. Practically all dairies of over thirty cows, and many of the smaller ones, are users of machines. In this country there are no less than a dozen makes of milking machines on the market today. While some of these are more widely distributed than others, the fact that one make of machine is milking in the neighborhood of three-quarters of a million cows, and that the sales of this machine, on the Pacific Coast at least, are practically doubled every two years, would seem to indicate that the milking machine is being accepted by the practical dairyman. No doubt that in a few years machine milking will be the rule rather than the exception. At least, no one in the dairy business should continue milking by hand without first investigating the possibilities of improving their organization and increasing their profits by installing a milking machine.

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