

pounds per annum, and in 1903, eight years after the organization of the cow-testing associations, it had increased to 212 pounds per cow, or an increase of over 100 per cent. The increase will show the second year in a cow-testing association if the poor cows are turned off at the end of the first year; but it will show better later on when heifers have been reared from the most profitable cows bred to good dairy sires.

Cow-testing associations place dairying on a business basis. The dairyman knows exactly what he is doing. He sees the effect of proper rations, proper care, and judicious selection and breeding upon his herd, and acts accordingly. As an inevitable result, there will be a material decrease in the cost of production which will place dairy farming on a much more profitable basis.

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### MAINE COOPERATIVE BREEDERS' ASSOCIATIONS.

B. WALKER MCKEEN, *Fryburg, Me.*

Maine has become the leading dairy State of the East. This has been brought about largely through cooperative effort. The latest development in this direction is the formation of cooperative breeders' associations for the purpose of encouraging and facilitating the growing of thoroughbred and high-grade dairy stock.

The general plan of these associations is as follows:

A community of farmers covering as large an area as can be conveniently reached from a central point, interested in the improvement of some one breed of cattle, bind themselves by an agreement to do everything possible to advance the interests of that breed, and to use only registered sires. A preliminary meeting is called, an association formed with capital stock sufficient to purchase the number of sires necessary for the number of cows represented, with a balance for current expenses. Officers consisting of president, secretary, treasurer, agent, auditor, and executive committee are elected and the necessary incorporations effected. The breeding males are then purchased from among the best herds of the breed represented, and become the property of the association.

They are then placed at convenient distances, in order to have each animal within as easy reach as possible of his proportion of the cows. These males are used on the herds of the members of the association, regardless of whether the cows are thoroughbreds or

grades, until such time as inbreeding would result. A general shift is then made, and each member has a new male without any additional expense, and the usefulness of each one is prolonged to the fullest possible limit. In this way the most prepotent animal becomes known, as the value of his get attests his power, and no good animal need ever be sacrificed as long as he is useful.

These associations represent a maximum amount of results from a minimum amount of labor and capital. They bind the people together in a community of interest and lead directly to closer study and observation of the requisites for successful breeding. They stimulate better breeding and lead to larger net results while the herds are growing in value.

If there is a sufficient number of thoroughbred herds in an association to warrant the selling of stock for breeding purposes, the advertising of the stock is done through the association and the sales made by its agent, who is in a position to bring trade as he knows every animal, and is prepared to guarantee its capacity, breeding, and health. The same rules hold good in the collecting and selling of high grades. In addition to the advantages already named, these associations are highly educational. Monthly meetings are held, the members compare notes, discuss questions of general interest, and all get the benefits of the experience of each. The State Department of Agriculture sends speakers of prominence in dairy matters to these meetings on request.

The Holstein-Friesian and the Jersey breeders have several such associations and other breeders will soon follow their example. These associations will be permanent and will form one of the most potent factors in the further advance of Maine dairying, the improvement of her herds, and the betterment of her farms.

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### COOPERATIVE BREEDING OF MILKING SHORTHORNS IN MINNESOTA.

W. F. HANDSCHIN, *St. Anthony Park, Minn.*

The cooperative breeding of milking Shorthorns by the United States Department of Agriculture and the Minnesota Experiment Station was taken up in 1907. This work had been under consideration for some years previously by the Assistant Secretary of Agricul-