pasture, is not to be despised. This means that numbers of farmers are making a big mistake when this year they felt they could not pay 25c. to 28c. per pound for good red clover seed to seed down their meadows with. Apart from its value in the production of seed, does it not pay to sow high-priced clover seed for the value the plant is to the soil in gathering plant food and improving the soil mechanically? No farmer can afford to disorganize his rotation, at least, even considering the risk of getting a catch or its possible failure through dry weather. Five cents more on the price per pound of clover seed does not loom up very high, when the cost of seeding down an acre is considered. Of course, this argument may be too late to do any good this year, but those farmers who already have good pieces of clover will make a mistake if they do not keep part of it, at least, for the production of seed. With the market practically bare of both alsike and red clover; with the area of meadow greatly reduced last year in many of the seed-producing districts, owing to the very dry weather during the summer; with similar conditions prevailing in the United States, and with foreign supplies even at normal conditions, does it not look bright for good prices prevailing for clover seed this year? In view of all this, those farmers who are fortunate enough to have good meadows should be careful to furnish a clean supply of seed, by destroying those weeds which are likely to contaminate the crop while they are growing in the field. Other conditions being right, it will greatly enhance the value of the seed to both the producer and user of it.

The bumblebee should not be forgotten this year. Waste wool or rags could be used to good advantage in locating nests along the seed fields, out of reach of field mice.

The clover-seed midge, too, should be avoided as far as possible, by either pasturing the first crop or cutting it for hay as early as possible.

T. G. RAYNOR.

BUCKWHEAT AND ITS USES.

Editor "The Farmer's Advocate".

In your issue of May 21st, J. E. M., of Lanark Co., Ont., gives his experience with buckwheat as a nurse crop. I may say that I have used it in that way, and found it a good crop for the purpose. There is always the element of uncertainty about getting a good crop of grain, and, as a rule, the straw is valueless, except for litter.

However, one great advantage of the buckwheat crop is that you can partly summer-fallow a field and still stand a chance of getting a crop that will pay. It supplements very satisfactorily the work of killing weeds. Herein lies one of its strong points in my opinion. One can cultivate the ground thoroughly until as late as July 15th, and, after the annual weed seeds have sprouted and the plants been killed, many of the perennials are very much weakened, so that a good crop of buckwheat seems to pretty well finish the job. It is a useful crop to plow under to loosen a heavy soil, and it will add humus to light soil. Sometimes it makes the soil somewhat acid to plow in the crops, but a winter's frost will again sweeten the soil. It would be well if more farmers used buckwheat as a cleaning crop to supplement the work that is usually done now with hoe crops. It is a good crop to help keep twitch or scutch grass in check.

Still another good use that can be made of buckwheat, which is not very common, is to sow it on land from which an early crop has been removed, both for weed destruction and soil improvement. In fact, it could be used as fall pasture, and in some cases has produced seed. From its nature of growth, one would think it would make a very poor nurse crop for grass and clover seed, as it shades the ground and smothers everything so completely. In some cases there is danger of this, but if about three pecks are sown per acre it seems that it is not too thick, and the plants branch out more, and do not crowd the small plants too much. Then, it is a very rapid grower, and it soon matures sufficiently to let sun and light in to the grass and clover plants, which usually get a sufficient supply of moisture when associated with buckwheat. The small plants are in this way tided over a period of summer drought, and are able to catch and use the autumn rains to good advantage. Buckwheat, as a nurse crop, may not work well on all classes of soils, but it is worth giving a trial in a small way. It fitted in well in a season like last year, when so much new seeding was injured by the summer drought.

Last summer, while driving in the County of Peterboro, during barley harvest, I saw a crop of buckwheat cut. I got out and examined it, and found it to be well loaded. I asked the farmer when he sowed it, and he said some time in May. This was so unusual that I made a mental note of it, and it may be worthy of further test by farmers who take some stock in a buckwheat crop.

Buckwheat is a grain which is hard to keep in quantity, as it heats and gets musty easily. In small quantities, it can be handled, and, while not a good feed alone when fed to stock, it is good when ground and fed with other meals. It proves to be a very satisfactory winter grain feed for fowls, and also makes good meal for fattening poultry, in conjunction with other foods.

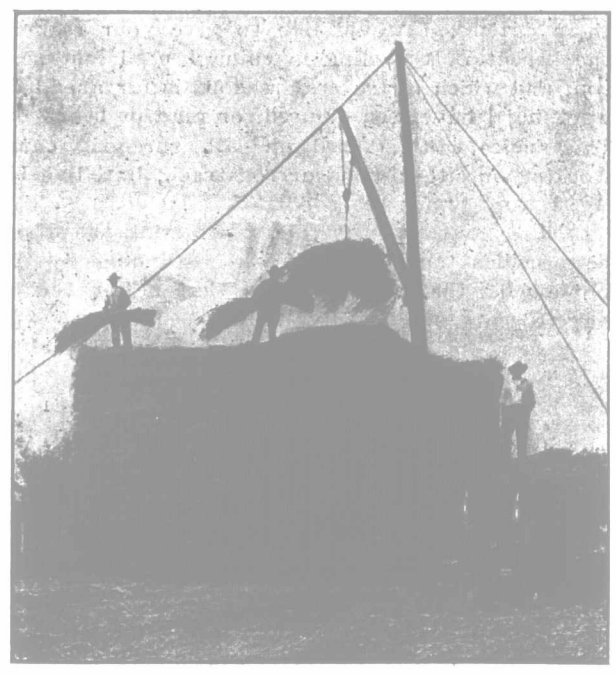
T. G. RAYNOR.

THE DAIRY.

THE CARE OF FACTORY MILK.

The conspicuous success achieved by New Zealand dairy products in the matter of quality is largely due to the care taken of the milk in that colony. The remarks of Dairy Commissioner D. Cuddie are, therefore, of special interest to Canadian dairymen at this season. In his annual report he says:

That there is urgent need for a cleaner and purer milk supply at a great many of the cheese and butter factories, is freely admitted by all whose duties bring them into close touch with the dairy industry. A great deal has already been written and said on this subject, but very little progress has been made towards improving the condition of the milk, even in the older dairying districts. The dairymen who are careless or neglectful in the handling of the milk on their farms would appear to be quite oblivious to their responsibilities in this connection, or to the bad effect which ill-flavored milk has on the finished article. While many of the dairy farmers take every care to do their utmost to deliver the milk in a



Stacking Corn in New Zealand.

SOUND AND CLEAN CONDITION,

their efforts are to some extent nullified by the way in which others of a less-progressive nature treat the milk while it is under their control. Provided the good and bad milk could be made up into butter and cheese separately, the position would be entirely different, for the losses would then fall on those directly responsible for them, and that, in itself, would soon bring about the needed reform. This is impossible, however, from a practical point of view, as the milk received at the factories and creameries has to be mixed with that from the other dairy farms in the neighborhood. Consequently, the standard of purity is lowered according to the amount or kind of inferior milk received. Of course, milk that is sour or badly tainted is generally rejected altogether and returned, the loss being borne by the individual supplier concerned; at the same time, it is found absolutely necessary to take in large quantities of milk of a more or less indifferent character, and in many cases the defects are not discovered until the process of manufacture is well under way. It is in dealing with this class of milk that the most serious difficulties arise.

Although we can never expect to reach the stage when it can be said that the whole of the milk delivered to the factories is in perfect condition, I am thoroughly satisfied that great improvement can be obtained by using more care in the handling of the milk, and by reducing its temperature as much as possible immediately after it is drawn from the cows. If the suppliers could only be induced to cool the night's milk to as low a temperature as possible, and as quickly as possible, and to keep it in clean utensils, we would not only have better butter and cheese, but we would have a larger quantity of both for sale at higher prices. Further, more cheese and butter can be made from good milk than from that which is bad or inferior, owing to the fact that the losses in manufacture are less in proportion if the milk is delivered in first-class condition. Then, again, a more uniform sample of milk can be taken for testing, and this would help to remove some of the causes of variation in the percentage of fat credited to the suppliers. It is almost impossible to take an accurate sample from milk that has been carelessly handled and delivered to the factory in bad order.

REJECTED MILK.

During the past season, large quantities of milk were rejected and returned to many of the suppliers in every dairying district in the colony, the amount reaching to 6,000 pounds to 7,000 pounds in a single day at a single factory. The quantity of milk rejected, which came under my notice, at one factory, amounted to 15,000 lbs. in three consecutive days. First of all, this is a serious loss to the owners of the milk; and, secondly, it is a loss to the dairy company, because the output of the factory is reduced accordingly, to say nothing of the loss to the industry generally. The amount of milk mentioned would represent over a quarter of a ton of butter, so it will be seen that the loss entailed is a very heavy one. It is safe to say that thousands of pounds sterling are annually being lost to the producers owing to the rejection of milk alone, and which, in most cases, could be avoided simply by cooling the milk on the farms. The argument that dairy farmers cannot afford to provide a sufficient supply of water and the necessary cooling appliances does not, in my opinion, hold good. My contention is that, viewed in the proper light, dairymen cannot afford to be without these facilities for carrying on their business. Of course, there are some farms in certain dairy districts where it is very difficult to obtain a permanent supply of cold water for cooling purposes, and perhaps a few where the only available supply within reach is that collected from the roofs of the farm buildings; but such places are of very limited number only. At a very large majority of the farms a plentiful supply of water is available, or procurable, at a moderate cost, but it is seldom brought into use for cooling the milk, notwithstanding the immense advantages to be derived from this practice.

COOLING MILK.

In order to cool the milk properly, it is necessary to draw a supply of water from a well, spring or creek, and to force it up to an overhead tank, so that it may run through the cooler by gravitation, while the milk is allowed to run over the cooler direct into the cans in which it is to be carried to the factory. Well or spring water will usually give the best results, because it is cooler than that drawn from streams which are exposed to the sun's rays. The erection of windmills will save time and labor in pumping the water. The water can also be used for the stock, and for the washing of the floors of the milking sheds, etc.

The setting of the cans of milk in a trough of cold water is strongly recommended to those who cannot see their way to adopt the use of coolers, as this system is much better than no cooling at all, more especially if the water is changed once or twice, and the milk stirred several times daily.

Every effort should be made to reduce the temperature of the night's milk to 60 or 65 degrees, and the lower the better. Dairymen will find that the systematic and efficient cooling of the milk will greatly enhance the value of the butter and cheese made from it, prevent losses by having the milk returned, and help to improve the good name of our dairy products generally. This is a matter of £. s., d. in favor of the producers, and, if adopted, the profit will, in one season, more than compensate for the outlay involved.

THE ERA OF MILK RECORDS.

The advent of the twentieth century will be marked by the inauguration of the system of co-operative and officially supervised milk records of individual cows and of herds on a more comprehensive scale than had hitherto been adopted. That the system is commending itself to dairy farmers and breed societies as the only reliable method of determining the capability of the cow for profitable production is evidenced by the progress made in its extension in the last two or three years, and by the expressed desire of dairymen to have the system conducted in connection with the Government Department of Agriculture.

At the annual meeting of the American Jersey Cattle Club, held in New York in May, the Club adopted a series of resolutions agreeing to co-operate in the proposed National Dairy Register of Merit, as outlined by the representatives of the associations of breeders of dairy cattle and others at the conference held in Chicago October 14th, 1907, requesting the Secretary of the United States Department of Agriculture to co-operate in the conduct of the proposed National Dairy Register of Merit, to provide for the necessary correspondence and office work involved therein, and to publish the Register from time to time in bulletins or otherwise as may be required. This