

Calf Feeding.

The secret of success in hand-feeding of young calves lies in giving them for the first two or three weeks, little and often, of their mother's milk fresh and warm from the fountain. For the first three or four days it is best for the calf and its dam to let it help itself at will, or, at least, three times a day, of the colostrum or first milk which nature designs for moving its bowels and giving it a proper start in life. It is a mistake to be in a hurry to teach the calf to drink milk by the mouthful. The good old plan of giving it the fingers to suck while it is drinking is all right, and the longer this is continued, in reason, the better for the calf. It is nature's way to give the milk slowly to the calf, it having to work for it, and thus call into use the glands of the mouth, which secrete saliva to be mixed with the milk and to aid digestion. The next best thing to nature's way would be the use of a rubber nipple, through which the calf should take its milk, but care would be necessary to keep this scrupulously clean. Warm milk from the cow should be fed in small quantity three times a day, for the first two weeks at least, and if for a month all the better for the calf. After the second week, one-half the feed may be of warmed skim milk, and the feeding twice a day, gradually getting down to skim milk as the full feeding.

Calves will learn to eat whole oats or a mixture of ground oats and bran generally at three to four weeks old, and they can be early taught to eat by placing some of the feed in their mouths with the hand and by hanging a bundle of sweet hay in their stall, which they soon learn to pick at. Feeding cold milk is almost sure to cause indigestion and diarrhoea, which, if not checked, may become chronic, undermining the constitution of the calf and making it a scrub for life. In warming the milk, care should be observed that it is not boiled, as this will cause constipation, and it should not be fed hot, but lukewarm. When the calf has learned to feed, it may be grown satisfactorily, even if the supply of milk is short, by diluting it with warm water by degrees, and giving a fresh supply of bran and oat chop every day, and a little coarse ground oil-cake in the mixture will materially improve it. There is less danger of derangement of the stomach and bowels if these supplementary feeds are given in the dry state, since they are taken slowly, the process of chewing inducing the flow of saliva which is so essential to perfect digestion, but with care, and the exercise of good judgment, boiled flax-seed and meal porridge may be, and are, by some people, successfully used to supply the lack of fat in skim milk. There is no better substitute than flax-seed, and if boiled by a slow process and fed in moderation, say a half-pint to a pint of the jelly in warm milk, it is an excellent adjunct to the feeding, and serves a capital purpose in laying the foundation for a good constitution and a thrifty animal.

The vessel from which the calves drink should be cleaned daily by the use of hot water, and their pens kept clean and sweet and well bedded. If, from improper feeding or mismanagement, a calf contracts diarrhoea, the best remedy is a moderate dose of castor oil and a reduction of the supply of milk for a day or two, to be increased gradually when the trouble has subsided. A little lime water given in the milk will tend to correct acidity of the stomach and restore its healthy tone.

Dairying in Egypt.

Since the pacification of Egypt, a few years ago, that country has been making good progress along agricultural lines. With the influx of foreigners came new industries and the establishment of more modern methods and customs generally. Dairying, although yet in its infancy, is improving rapidly. For ages the Egyptians have taken a great interest in cattle, and it is said their dairy cows give a good quantity of milk. The climate, too, is favorable, and since irrigation was introduced, green pastures are to be had throughout the entire year. Cheese and butter factories are very scarce, but expert makers are sure to find good positions in a short time. In Upper Egypt the Greeks are erecting small butter factories and supplying a fair quality of butter, which ranges, retail, from 35 to 40 cents per pound. Cheese is also made, but not to any great extent. Every morning and evening in the city of Cairo, natives may be seen driving their cows along the streets, and milking fresh each time, according as a sale is made. This method should satisfy those who are continually in dread of adulterated milk.

When the reader considers what he receives in the "Farmer's Advocate" for the modest subscription price, it is the cheapest agricultural paper available for the Canadian farmer.

The Care of Cream.

Prof. Farrington, at the National Creamery Buttermakers' Association, Milwaukee, spoke of the larger use of hand separators, and said there was no insurmountable reason why butter from hand separator cream should not be as good as that from the cream skimmed in the factories. It was a matter of educating dairymen to take proper care of the milk on the farm and educating haulers to give it proper care when it is in their charge, and providing haulers with means to give cream the right care. He praised pasteurized cream butter as the standard for buttermaking. At some length he gave details of making pasteurized butter at the Madison station, and its comparison with sweet and raw cream butter, the points of good butter being in favor of the pasteurized.

GARDEN AND ORCHARD.

Winter Pruning.

In pruning trees, the general opinion now is that it makes but little difference at what season the operation is performed. The two principal factors to be considered are, the healing of the wounds and the time required in doing the work. Investigations at various experiment stations have shown that wounds made in winter, even when the trees are frozen, heal quite as well as those made in the spring or summer.

With the average farmer or fruit-grower, there is more spare time in winter than at any other season, and hence it is then the pruning should be done. There are many fine days from December to April, when a saw and clippers may be handled to good effect in many of the orchards in this country. If you do not understand how to do it yourself, employ someone whom you are sure does. The main thing is to have it done. If properly performed, it will, eventually, mean more and better fruit.



HARVESTING POTATOES' SPRING LAKE FARM, MICHIGAN.

Flowers in the Home.

That a home is not a home without a few flowering plants must be admitted by all who have any taste for the beautiful. True, there are those who have no use for anything that does not mean an accumulation of the mighty dollar, but they are fortunately in the great minority. In summer it is easy to have flowering plants in and around the ordinary farmhouse, but in winter it is often somewhat more difficult. Considerable space is sometimes required, and the temperature in which they are to be kept must, at least, be above freezing. All dwellings are not constructed to keep out frost in severe weather, so it becomes necessary to provide extra protection, especially for the night. Under these conditions, some use a box or case, nicely painted or papered, on which the plants may be kept in the daytime, and in which they may be placed when danger of severe frost is anticipated at night.

When the keeping of flowers in winter entails much labor, it is better to discard the less beautiful and useful plants and give all attention to a few. Better have some that will command attention and help to make the home cheerful and attractive than a number that would be no ornament anywhere. By all means have a few, and let them be good ones.

Apples for Home Use.

A few months ago, Prof. Reynolds, of the Ontario Agricultural College, published a bulletin showing the advantages of wrapping fruit in paper that was intended to be kept for a length of time. Few, perhaps, may have tried this method, but it is not yet too late. The winter fruit which has been placed in barrels or boxes, may be easily gone over now when the rush of farm work is not quite so great as it was at picking time. Try a few cases which you intend for your own use next spring. It will cost but little. Good newspaper will do about as well as anything. The time will be well spent.

Guard Against Mice.

Scarcely a winter passes but complaints are heard that ground mice have girdled or wounded large numbers of fruit and shade trees. The principal or only damage, appears to be done where the trunk has been encircled with long grass, weeds, strawy manure or other covering of a similar character, in which these little pests find a hiding place. If, therefore, materials of this kind be not allowed to accumulate at or near the point of danger, little loss will be suffered.

While protection to the roots of trees is always desirable, in winter nothing should be heaped against the trunk. Farmyard manure is often so placed, apparently with the idea that the only roots were situated within a foot or two of the stem. In these piles mice find a favorite resort for winter, and in mild weather they come forth to do their work of destruction. Where they are feared, under ordinary conditions, it is advisable to go through the trees after the first snowfall, tramping firmly around the base of each one, and thus making it impossible for them to reach the bark without coming on top, something they are not likely to do.

Spraying with Lime in Winter.

Although spraying fruit trees with lime in winter, as a means of protection against severe climatic changes, is as yet in its infancy, wherever tried it has proved beneficial, and its more general use is looked for in future. The common belief is that the principal damage suffered by the more tender varieties is not so much through severe frost in winter as frequent freezing and thawing in springtime. When the weather becomes bright and warm for several days during the last of March, the sap circulates and the buds swell. This is often followed by a period of cold weather in which the trees again become frozen, and thus suffer a severe check.

Where lime has been used, it has the effect of delaying the progress of bud development from four to five days, and in most cases this is sufficient to insure against danger. The value of the lime for this work lies principally in its color, as it is well known that light colors attract less heat than darker ones, and in this way the tree sprayed with any white material will not become so warm nor be so quickly affected by the sun.

There is in many quarters a mistaken idea that the budding and leafing of trees in spring is dependent upon the warming of the soil. To settle this point, Prof. Bailey, of Cornell, several years ago had a limb of a peach tree, which grew close to his office window, turned into the room. There, in mid-winter, it was subjected to a summer temperature, and, although in perfect connection with the stem and roots, which were frozen outside, it leafed out and blossomed.

The lime wash may be prepared at the rate of $\frac{1}{2}$ to 2 pecks to 40 gals. water; the thicker the better, but the more difficult to apply. It can be sprayed on fine days, from three to four applications being made between now and springtime. It will, at least, pay fruit-growers' to give lime a trial this year; the cost will be but little, and the benefits to be derived even in cleaning the trees and checking fungous diseases during the first days of growth will be helpful.

Apple Pomace as Manure.

"Of what value is apple pomace from cider-making as a fertilizer, and how would it do to spread on the orchard?"

Ans.—Apple pomace contains approximately one-third the amount of fertilizing constituents found in farmyard manure, and in about as available form. Because, by fermentation, acid is formed in the pomace from the sugar that is in it, it should not be applied to soils containing a large amount of humus, or on those which are naturally sour. For the same reasons, it should not be applied on any soil in large quantities.

I do not think it would give as good results on an orchard as out in an open field where there is more sunshine.

R. HARCOURT.
Ontario Agricultural College.

Pleased with the Watch.

I received the watch, and was very much pleased with it. I think it was well worth my trouble of getting the five subscribers. I will try to get more subscribers for you.

FLORA INGRAM.
Algoma, Ont.