Autumn in Oxford County.

Autumn everywhere appeared to have a contented countenance. The trees that all summer gave shade to the languid animals and tired people have burst forth in a profusion of colors that defies reproduction by the most skillful of artists. Then the leaves fall to protect the roots of the parent tree, which gave them birth, and nourish them through another year. In the towns the children are romping through the rustling leaves or making bonfires of them, while the old tree stands unconcerned and confident that another year it will be young and green again and even live to see the little ones grow old and gray while it still is clothed with verdure.

Harvest is now completed on the farm. Those belated with silo-filling are watching it settle in the silo, while the cattle are cleaning up the fragmentary remains on the stubble. Dry as it has been after-tillage has been practiced and some fall plowing has commenced. Fall wheat, a patchy stand in the western counties of Ontario, is tolerably good in Oxford county.

A striking scene which meets the eye is the number of individuals driving their milk to the creameries or factories. Many people refrain from going too heavily into dairying on account of the improvement required in their buildings, but Oxford farmers have the improvements and apparently a surplus to the good. Milking machines are being installed in some few stables to save the family from what is considered the arduous task of milking twenty or thirty cows. These machines are operated with gasolene engines or electric power, and are giving satisfaction. The farmers of Oxford county consider it profitable to have the cows freshen in the fall. They can, with silage, roots and clover, maintain a good flow of milk throughout the winter, and when the cows go on fresh pasture they increase their flow again. Beginning the month of November the condensers will pay $1.60 per hundred for good milk, but in summer months it diminishes considerably. This circumstance adds much to the profit of the winter's heavy flow. Further from the towns the customary route handling is still in vogue, but what impresses one most is the up-to-date appearance of the farms and buildings where a herd of milkers in the fields show their owners to be dairymen. In the vicinity of Ingersoll and Woodstock "hydro" is being thoroughly tested this fall. Threshing, filling silos, grinding and operations requiring less power have been done with electricity. The labor problem has been serious here, but from the inventions and improvements that are making their appearance in rural and farm operations the solution will eventually come and conditions will be alleviated.

Autumn and Winter Care of Cows.

Just now, when cows are about to begin their long season in the stable, the advice on autumn and winter care, as given in the new bulletin, "Milk Production in Canada," is timely. Prof. Grisdale points out that cows are fed in the stable during one-half of the year or more, and feeding during this period may through ignorance or on account of using unsuitable forage, voluntarily, be made very expensive. The profits from the herd will of course, depend to a large extent on the economy of the methods of winter feeding followed. Economical feeding does not mean scant supplies, but the using of the kinds of feeds and feed combinations that will be likely to produce the best results at the lowest cost.

As the milk produced depends upon the quantity and quality of the food consumed, every effort should be made to supply the cow with all she will eat of a ration combining palatability, easy digestibility, and suitability in composition for the milk flow.

Observation and experimental work at the Central Experimental Farm, Ottawa, during the past twelve or thirteen years lead Prof. Grisdale to consider succulence, variety, and regularity in hours of feeding as the most important factors making for palatability and high digestibility of a ration.

By succulence is meant juiciness or a high percentage of water in the feed. Giving an abundant supply of water for use along with a dry feed will not have the same effect as causing the cow to take the water as a part of her food. To illustrate: 100 lbs. of fresh pasture grass may include as much as 85 lbs. or more of water and only 15 lbs. or less of dry matter. This 100 lbs. of pasture grass fed green is, however, as proven by experiment, worth considerably more than the same 15 lbs. dry matter fed in the shape of 15 lbs. dry grass and the cow allowed to drink all she will of water along with the dry grass. Further, the cow will take considerably more of almost any kind of dry matter, and digest it more readily and more completely when fed as a succulent than when fed as a dry food.

Succulence in the winter ration may be secured in several ways. The most common, and the most advantageous from the standpoints of low cost of ration and convenience of handling, is the use of ensilage. Roots of various kinds are, however, largely used, and are very valuable for the purpose. Where both the above are lacking, succulence may be secured by cutting the straw or hay and sprinkling freely with water a few hours or even a couple of days before feeding. Adding about 20 per cent. of feed molasses to the water used for sprinkling improves the palatability and effectiveness of such a ration very greatly. Where ensilage is available, it is well to mix from 8 to 12 lbs. chaff with each 100 lbs. ensilage. This should be done some little time before feeding to insure the chaff being moistened.

Variety in the ration fed the dairy cow adds greatly to its effectiveness by rendering it more palatable. Variety in this connection, however, must not be taken to mean feeding one kind of feed to-day, a different feed or combination of feeds to-morrow and still another ration the next day. Variety in feeding the dairy cow must be secured by combining in the ration, which should be the same or practically the same from day to day, as many different kinds of roughage and meals or concentrates as it is found convenient or possible to include. Feeding a meal mixture made up of oats, barley, bran, oil-cake meal and corn is likely to give better results than a meal mixture of similar feeding value from a chemical standpoint including, say, only bran and barley and much better results than feeding bran alone. The mixture of meals improves the flavor thus rendering the meal more palatable and hence more digestible. Palatability in a ration adds greatly to digestibility. Improved digestibility means increased effectiveness. The value of variety in the feed is thus apparent.

These remarks must not be taken to mean, however, that a mixture of roughages or a meal mixture once compounded, no other may be fed. It is possible to have two or three quite different mixtures on the go at the same time, provided always that the same feed be fed at the same hour each day. That is, one might feed silage, straw and meal in the morning, and roots, straw, hay and bran in the evening or vice versa. It will not do, however, to feed ensilage in the morning one day and in the evening of the next. It or any other feed should always be fed at the same hour.

The stage at which the various forage crops are harvested has much to do with their flavor and aroma. Early-cut hay is not only superior in composition to the late-cut article, but is much more pleasant in aroma and more acceptable in flavor. The same may be said of most forage crops, the early-cut, well-cured forage plant of practically every description is much superior to the late-cut badly-cured plant of the same species.

Freshly-ground grain is always more palatable than long-ground material, and will give better results.

Feed the best feeds, that is, the most palatable feeds, in the morning. Give less acceptable feeds at night or outside in racks or in some such way as will leave the eating of the same a matter of amusement or a pastime, as it were, rather than a duty or a necessity. The cow eats such things best when she really does not need to eat them, and what is more, shows results for the extra feed consumed even though it be inferior in quality.

Some feeders claim it to be necessary to feed several times each day. A common practice is to feed morning, noon, and night. A satisfactory method as tried at Ottawa has been to feed as follows: Succulent roughage mixture and meal mixture first thing in the morning, hay after that is cleaned up. This is repeated for the ensilage and meal mixture about 3 p.m. The hay is fed after the cows are all milked about 5.30 p. m.

Experiments extending over some years to determine the relative merits of dividing the ration into two or into three or more portions seemed to indicate that when the same amount of the same kinds of feed was fed in two portions it gave just as good results as when fed in three or more portions.

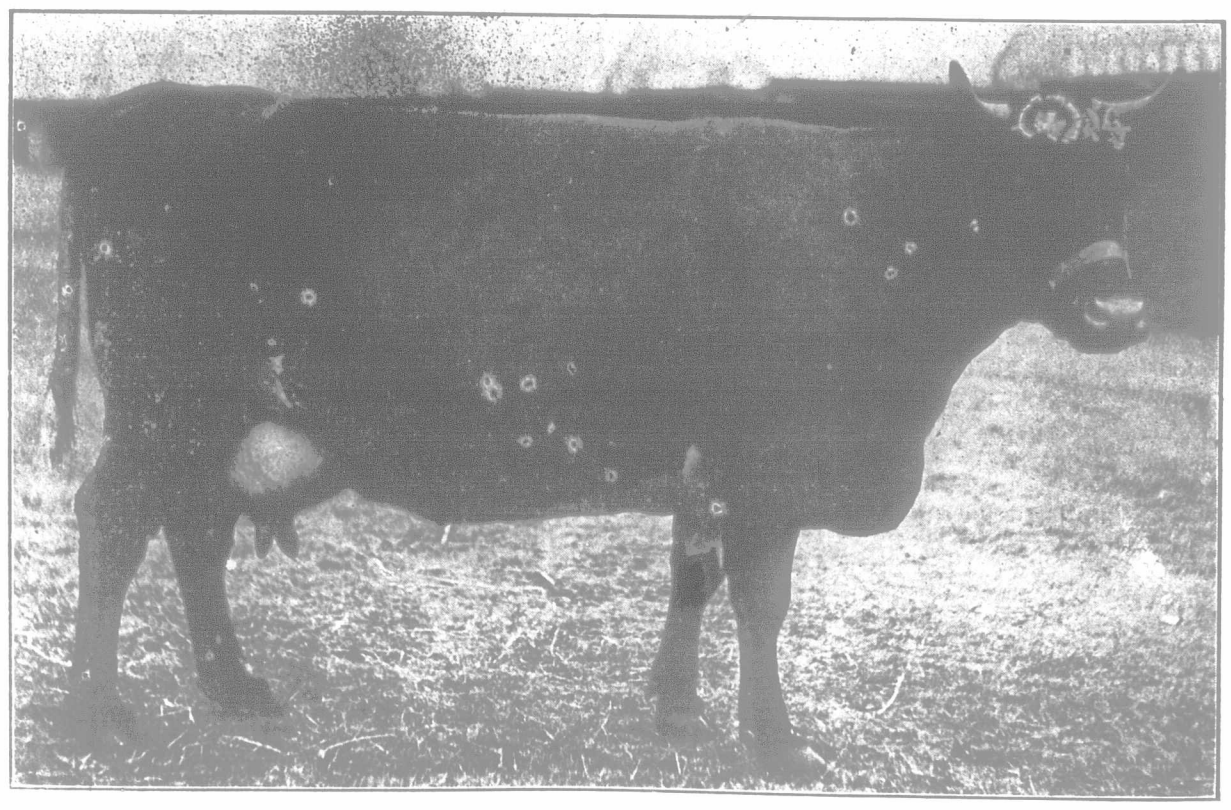
A certain hour should be chosen as the time to feed each portion, and that hour should be adhered to most strictly. Any temporary variation is sure to result in a falling off in milk. Anything likely to irritate the cow or render her uneasy is almost certain to injuriously affect the milk flow.

The requirements of the milch cow in the way of water are very considerable. The more milk produced and the more feed consumed, the greater is likely to be the amount of water required. This amount may vary from, say, 75 pounds up to even 300 pounds water in a single 24-hour period. The problems of how to water, when to water and how much water to give, can best be solved by allowing the cow free access to water at all times. The water had better be warmed in winter, but, if it is not convenient to store it in a warm place, it will not pay to warm it artificially.

The individual drinking fountain is probably the best method, but the trough filled periodically and washed out frequently has many advocates. The using of the manger for watering purposes after feeding is practiced in some stables, but our experience would lead us to condemn the system as troublesome and less satisfactory from the standpoint of comfort to the animals than the individual bucket. But of one thing care should be taken, no matter what the system adopted, that is, to keep the cups or troughs or water supply clean and sweet.

Salt is necessary to the comfort and health of the dairy cow. The quantity to feed will vary from an ounce to three or four ounces a day. It might, as in the case of the calf, be given in the form of rock salt in the manger, but had better be fed daily in the food. It adds to the palatability of a food, hence is valuable as an appetizer, as a food and as a stomachic.

Exercise when taken by the dairy cow is not immediately conducive to milk production. On the contrary, anything that might be called exertion is practically certain to lower the milk flow temporarily. It would, however, be unwise to say that the dairy cow should have no exercise while producing milk. It is probable that the allowing of a moderate amount of exercise will have a beneficial effect upon the health of the animal, and almost certain that such exercise will advantageously effect the offspring. Turning the cow out in cold winter weather, however, to shiver, if only for half an hour a day, in the winter winds, is likely to prove anything but healthful to the cow, economical to the farmer or advantageous to the breeder.



Ringlet 9th.

Champion Shorthorn dairy cow, at the Royal. Owned by Captain A. Willis.