learn about customs in their home lands. You may enter college with the idea that you know a good deal, but the more you study the more you see there is to know and by the time you reach your junior or senior year you will begin to think that after all you are quite insignificant in this big world. Education opens the eyes to the vastness of things and to the great possibilities in life. If you have an opportunity to attend college, seize it but don't be content with just getting a smattering of knowledge about the various subjects. Delve deep; get at the bottom of things. If you do not grasp certain things in the lectures, have a talk with the professors. They are ever ready to help you. To only half know a thing may lead to many complications, as Pope has said:

"A little learning is a dangerous thing;
Drink deep or taste not the Pierian Spring;
Their shallow draughts intoxicate the brain,
And drinking largely sobers us again."

THE DAIRY.

Occasionally a cow goes lame at this season of the year. In many cases this trouble could have been avoided if a little attention had been paid to the feet. The hoofs become too long and break, causing much pain to the animal. Prevention is in trimming the feet early in the season.

If concentrates must be purchased for winter feeding, get quotations now. Prices are generally lower during the summer and early fall than during winter and spring. If you do not require a carload yourself call up a neighbor or two and buy co-operatively. Better prices are quoted for car lots than for single tons.

Some dairymen stable their cows during the day and find that it pays. The cows are not bothered so much with flies and are out of the hot rays of the sun. Hay, silage or green feed can be given in the stable, and will give the pastures a chance to pick up a little. This system helps to maintain the milk flow at a time when it usually drops below normal.

The extent of the profits is largely regulated by the milk flow. Many have been content with only a fairly good average yield, and have not exerted themselves to increase production by use of better sires or weeding out the poor milkers. Now when feed prices are high they find it difficult to make ends meet. The cow that gives 8,000 pounds of milk in a year brings in nearly twice the net revenue from the 4,000-pound cow. Set a high standard and aim at reaching it.

During July twenty-eight Holstein cows and heifers qualified for enrolment in the Record of Performance. Canary Queen De Kol was first in the aged class with a record of 19,867 pounds of milk and 737 pounds of fat. Plus Pontiac Artis with 20,911 pounds of milk and 816 pounds of fat to her credit headed the four-year-old class. In a class of nine three-year-olds, Desta 2nd was first, having produced 16,231 pounds of milk and 537 pounds of fat. The two-year-old class was headed by Molly Rue Rattler 2nd. Her record is 9,133 pounds of milk and 361 pounds of fat.

Between June 21 and July 25 twenty-two Ayrshire cows and heifers qualified in the Record of Performance. The average test was around 4 per cent. butter-fat. In the mature class Chief's Buttercup of Fernbrook 2nd was first having given 13,453 pounds of milk and 438 pounds of fat. Grace of Fernbrook was first in the four-year-old class with a record of 12,940 pounds of milk and 503 pounds of fat. Bud's Minnie 2nd headed the three-year-old class with 9,853 pounds of milk and 386 pounds of butter-fat. In the two-year-old class Violet of Gladden Hill was first with 9,015 pounds of milk and 376 pounds of fat.

The leading Holstein cows and heifers in the yearly test in the United States are: aged cows, Duchess Skylark Ormsby, 27,761 pounds of milk and 1,205.09 pounds of fat; senior four-year-olds, Keystone Beauty Plum Johanna, 25,787.5 pounds of milk and 1,035.77 pounds of fat; junior four-year-olds, Queen Piede Mercedes, 30,230.2 pounds of milk and 1,111.56 pounds of fat. Senior three-year-olds, Duchess Hengerveld Korndyke, 22,897 pounds of milk and 903.38 pounds of fat. Junior three-year-olds, Finderne Holingen Fayne, 24,612.8 pounds of milk and 1,116.05 pounds of fat. Senior two-year-olds, K. P. Manor Kate, 22,106.4 pounds of milk and 818.73 pounds of fat. Junior two-year-olds, Finderne Mutual Fayne, 22,150.4 pounds of milk and 960.51 pounds of fat.

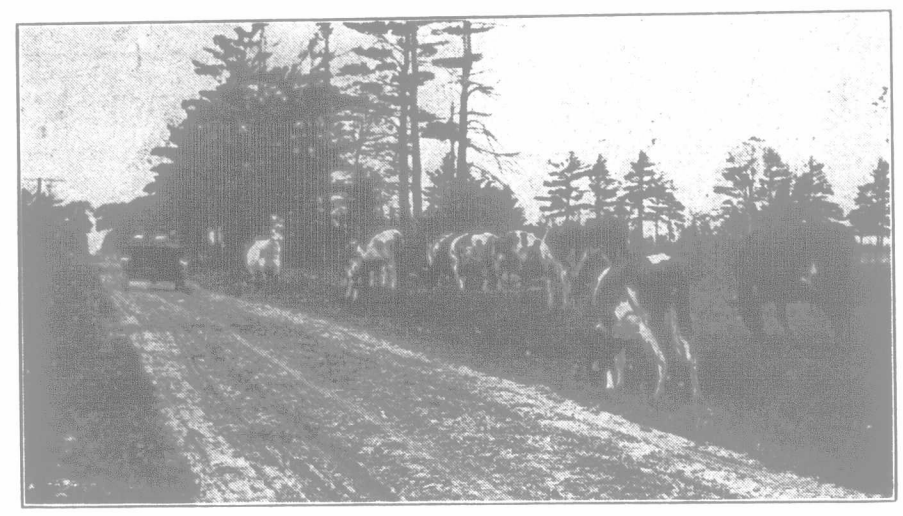
Dairymen report a marked falling off in the milk flow. This year was no exception for pastures drying. Millfeeds are so high in price that many find it unprofitable feeding them. Milk has not increased in price in accordance with concentrate feeds. Some cheaper feed must be found to substitute the pastures during July and August in order to allow the dairyman to secure living wages for himself and family. Silage, green feed, as alfalfa, red clover or oats and peas, cut and fed in stable, spring-sown pasture crops consisting of oats, wheat and barley, or hay have been fed during the drought with gratifying results. Plan to plant a few acres more corn or sow a soiling crop next spring. It is a safe guess that the pastures will dry next year the same as they have in the past. A little hay fed night and morning may save the situation this year. Corn may soon be fed. As yet it contains little of nutritive value.

There were twenty-four Holstein cows and heifers received and accepted for entry in the Record of Merit during the month of July. The mature class was led by Lady Waldorf Pietje, with a record of 772 pounds of milk and 28.31 pounds of fat. In thirty days this same cow produced 3,265.6 pounds of milk and 117.48 pounds of fat. Jemima Johanna of Llenroc was first in the Junior four-year-old class with 501 pounds of milk and 18.47 pounds of fat. Countess Walker Segis was the only senior three-year-old qualifying. Her record was 524.4 pounds of milk and 21 pounds of fat. In the junior three-year-old class Colony Wadmantje Newman was first, with 587.9 pounds of milk and 20.08 pounds of fat to her credit. The senior two-year-old class was headed by Toitilla Pontiac Tot; in the seven days she gave 410.5 pounds of milk and 17.12 pounds of fat. The junior two-year-old Het Loo Pietertje made a sensational showing which brings her into the world's championship class for butter in the seven, thirty and sixty-day divisions for heifers of this age. Her seven-day record was 578 pounds of milk and 26.25 pounds of fat.

Economical Feeding of Dairy Cows.

The feeder of dairy cows for profit is confronted with a difficult problem, which has been gradually becoming more serious with the higher prices prevailing. All classes and varieties of feeding stuffs used by dairymen have increased from 25 to 75 per cent. in value and in some instances, notably corn and bran, the increase has been even greater. During the same period—within the last year—there has been a very small, relatively speaking, increase in the price of butter and other dairy products, which amounts in most localities to less than ten per cent. This situation requires that the dairyman must either be content with smaller profits and even losses, feed more economically, or increase the average production of his herd to insure profitable dairying.

Not only are all feeds abnormally high priced, but the so-called carbohydrate feeds—cornmeal and barley, are also higher priced than many of our protein feeds. Corn, ordinarily worth less than a cent and a half per pound, is now selling for over three cents per pound. Other carbohydrate feeds, while perhaps showing a smaller relative increase in price, are very costly. This suggests, then, that one may well feed less corn in the ration than would otherwise be true; a practice recommended by many of our best feeders when prices are normal.



In a Newly Settled District.

While roughages are much more expensive than formerly, they are still our cheapest sources of food nutrients. The largest possible use of silage, hays, and all forms of roughage is, therefore, doubly important; since it is both an economical policy and one admirably suited to the present emergency. It is likely, also, that the feeding of grains and concentrates capable of being utilized for human food consumption, should be avoided wherever practical. In the case of cows which are being kept for the production of economical dairy products without attempting advanced registry work, the more limited use of concentrates is not only more economical but also a better public policy to pursue; this in spite of the urgent necessity of keeping production at a maximum. This can not be done unless the dairyman receives a reasonable return for his services.

The serious effects of the winter upon the clover and alfalfa indicate that a more extended use of silage will be of considerable importance. While some farmers may have prepared to meet the emergency through the use of oat and pea hay, soybean, or sudan grass hay, the larger number will probably need to depend upon fodder and silage. Silage is a cheaper source of energy for dairy cows than alfalfa, and no dairyman with even a small herd can afford to be without it, because of its succulence, palatability, and economy.

Regarding economical and efficient rations for dairy cows, that will necessarily depend upon local conditions in so far as they effect feed prices. I do not believe that Distillers' Dried Grains, cottonseed meal or oil meal have increased in price nearly as much as corn. Peanut meal is another cheap source of protein at present prices. In fact, protein feeds are relatively cheap, and since it is thought they may stimulate milk production, a ration with a narrow nutritive ratio may profitably be supplied. The following ration may be criticized for being too narrow:

Distillers' Dried Grains	100 pounds
Cottonseed meal, oil meal, or peanut meal	75 "
Brewers' Dried Grains or gluten feed	75 "
Corn and cob meal, or Hominy feed.	50 "

But I believe by using the cheaper feeds where a choice is indicated, it would be economical from the standpoint of results. Ground oats and bran, costing $40 to $50 per ton, while recognized as very good dairy feeds, are not included because of their excessive cost.

This problem of economy must be handled by every dairyman, and the ration most admirably suited for one may be entirely unsatisfactory to another. Many are handicapped by not being in a position to secure a large variety of feeds, and must fix up their ration as best they can with the feeds available. By duly considering the relative economy of the different feeds, a fairly satisfactory ration can be secured, although it will be considerably more expensive than formerly.—Prof. L. S. Gillette, in the Ayrshire Quarterly.

Dairy Progress in the Prairie Provinces.

During recent years the dairy business has gone ahead by leaps and bounds in Manitoba. A few years ago that Province was looked upon by Easterners as solely a grain-growing district, but at the Provincial Fair recently held at Brandon the dairy division had a display which emphasized the improvement in quality and quantity of dairy produce. In 1912 the output of creamery butter was 2,936,138 pounds, while in 1916 it was 6,574,510 pounds. During the same period the output of cheese increased about 210 per cent. These figures convey some idea of the change in methods of farming which is taking place. The practice in the Province of buying cream on grade and selling butter on grade has resulted in a marked improvement in the quality of the manufactured product.

In Alberta there has also been a marked increase in the output of dairy products. On large placards in the Dairy Department, at the Edmonton Exhibition, the following information was brought to the attention of visitors. In 1914 creamery butter to the extent of 5,450,000 pounds was manufactured in Alberta, but in 1916 the output reached 8,521,784 pounds. The cheese output increased from 70,591 pounds in 1914 to 600,000 pounds in 1916. The dairy cow is gradually proving her value in the Prairie Provinces. The results of experiments conducted at the Lacombe Experiment Station were also set forth on large cards. On one it was shown that the cost of producing butter could be reduced 20 per cent. by the use of oat and pea silage. With timothy hay it cost 31 cents to produce a pound of butter, with green sheaves 20 cents, and with the silage 16 cents. This shows the value of silage for dairy cows. Ontario dairymen can grow corn for silage, which is generally considered to be more economical feed than the oats and peas. However, in districts where corn cannot be grown successfully the two grains mentioned could be ensiled for they make very satisfactory feed, as evidenced by the results in Alberta and elsewhere. Profits from the dairy herd are influenced in no small degree by the system of feeding followed and the quality of the individuals comprising the herd.

A Clean Yard.

In the spring and early summer when there were frequent rains, many barnyards had the appearance of a quagmire, and the cows were forced to wallow through it going to and from the stable. Not only did the udders become dirty, but in many cases the filth caused thrush or a festering to start where the hoof is cloven. Lameness set in, causing a falling off in milk. Now, when the weather is fine the yard is reasonably dry, but there is likely to be another wet spell this fall. If possible put the manure on the land either for wheat, roots or meadow. This will not only make it better for the cows, but it will stop waste by leaching. When the cows' udders become soiled just previous to milking it increases the difficulty of producing clean, sanitary milk. Owing to having to wash the udder, it takes longer to do the milking. In many instances the manure pile could be placed on the opposite side of the barn from which the cows enter the yard without increasing the labor of cleaning the stables. Possibly it only requires the cutting of a door in the shed wall or adding a few feet more to the litter carrier track. Look over the situation and see if you cannot arrange things so that the cows will not have to tramp through slush up to their knees this fall and next spring. It will pay to have at least a high and dry pathway leading to the stable if the entire yard cannot be kept dry.