

THE DAIRY.

FRENCH DAIRYING.

The London *Field*, through a correspondent, gives the following, which will be interesting to Western dairymen, in relation to how dairy matters are conducted in France: The first dairy visited was that of Mme. Lequesne, approached through the French style of kitchen, with the copper for boiling the utensils and the stove for heating the milk room. The temperature was fifty-nine degrees Fahrenheit. The cream pans were placed within a sort of brick troughs into which water was continually flowing, and allowed to run over on to the floor of the dairy and away down a hole in the centre. In most dairies the milk pans or "peans" are set anyhow all over the floor; here order prevailed, and they were round the walls only, in single file. There is something strange in this cold water system; for while it cannot be commended too highly, it seems to be spoiled by the system of heating the dairy in order to assist in curdling the milk—a process begun by the addition of a little sour cream, and carried out because it is believed more cream is the result. The milk is skimmed twice: first, while the milk is sweet; and next, when it has curdled, the sour curd and whey being then given to the calves to fatten. The churn is one of the same Norman barrel type, and in churning the temperature is guessed at; indeed, it is accurately managed by constant practice.

Some of the best cows—and most of the animals on this farm are useful-looking Jerseys—give twenty litres a day, or twelve quarts. The average price obtained for the butter last year—and it takes the top price on almost all occasions in the market—was thirty-five sous, or cents, per pound. The butter goes to St. Lo, where some three to four tons of butter are sold every market day by the farmers in the neighbourhood. The cows were averging about eight pounds per cow per week.

The other place visited was the large dairy farm of M. Dupre. His system includes butter making, calf breeding and fattening, and pig keeping. The rent of his farm is 20,000 francs a year, and, to make his way, he says he has to work very hard; but making way means more than most people would interpret it to mean. The huge churn, used twice a week, holds 600 litres, and even then it is not large enough for the work. M. Dupre makes 100 kilos of butter per churning, or some 440 pounds per week. This butter is sent to the merchant direct, and brings top price. The skim and buttermilk goes to the pigs and calves, the former getting cut cabbage with it, and the latter absolutely nothing. The arrangement under the churn is also good. The buttermilk, instead of being carried, is drained directly away, and run across the farm-yard into a reservoir near the piggeries. The pigs are very numerous, and are of the Norman breed. They were on flags, slightly littered with straw, they are large, and fatten easily. The calves (uncut) are all stalled, and get nothing from meal to meal. Their houses are lengthy and roomy, and they are sent to Paris for veal.

The cows, a large number, some sixty or more, were all at grass, and were chiefly of the Norman breed, giving at their best twenty-eight litres a day, the best score running from twenty to twenty-four litres during the finest weather. In summer they get nothing but grass, but in winter mangels and carrots are largely used in addition to hay, and M. Dupre spoke highly of carrots. His buildings, like most of those on these farms, are not much to look at, but are strong, warm, and exceedingly nice inside. The milk room, contain-

ing sixty pans, was identical with those described, and plenty of water was used, the same brass cans and butter stools forming the entire furniture. Asked if he liked the cooling system, he admitted there was something good in it; but he should never depart from his own, which, he said, costs a good deal less. Butter workers he has no faith in, and machinery of all kinds appeared to be his abomination.

SUBSTITUTES FOR MILK.

Ingenious and partially successful attempts have been made to supply substitutes for milk. Some of the most interesting of these attempts were made in Paris during the time it was besieged by the Germans during the late war between France and Germany. An enterprising Englishman, Mr. T. Bowick, has patented a milk substitute which he calls Lactina, and of which, it is said, large sales are made, to be used in rearing calves. The exact composition is not made known, but malt, pea and bean meal, lentils, sugar and slippery elm bark are understood to be used. These substances are thoroughly cooked and finely ground. The prepared article is simply mixed with water without cooking. A good number of reports from those who have used it give it high praise, even when used as exclusive food for quite young calves.

While natural and unadulterated milk is unquestionably the best food for young animals, there seems no good reason why fairly satisfactory substitutes, in whole or in part, should not come into much more general use. We can readily have an abundance of water, and a reasonably satisfactory imitation of the solids ought to be possible. Many good calves are annually reared on skimmed milk, with some substitute for the fat removed in the cream. Oilmeal has most frequently been used and serves a good purpose, although not free from objections. A practical difficulty is in getting it satisfactorily mixed with the milk. Sometimes, too, it irritates the stomach and alimentary canal. It would be worth while to try a mixture of some such substance as slippery elm bark with it, as a correction of this last tendency.

For butter-makers a substitute for the fats of milk is all that is needed. But we have an increasing demand for milk for human consumption, and the question is an important one whether we cannot find a substitute for all the solids of milk, on which dairymen who supply milk to cities, as well as those who supply milk to cheese factories, can rear calves healthfully and with fair profit.—*Breeders' Gazette*.

FOOD FOR DAIRY COWS.

Rich old grass is the most natural and best of all cattle foods for producing milk of good quality. It is a grave mistake, practised by many intelligent farmers, to keep cows on poor, bare pasture, without any assistance in the way of house feeding. Many seem to imagine that land which has been tilled for many years without recuperation, until it has become useless for grain growing, is quite good enough for pasture purposes, and therefore stint their cows of a proper quantity of nourishment. Nothing could be more shortsighted and unprofitable. It requires, in the first place, a large proportion of food to keep the animal in a strong, healthy condition, and it is the surplus assimilated after making good the natural wastes that goes to increase the animal or for the production of milk. An animal of sound constitution, healthy digestion and well-developed lacteal organs will prove a good milker.

Those who wish proper returns from their

cows should therefore see that they are properly supplied with healthy food and plenty of good, pure water. The quality of milk varies with the different breeds of cattle, their age, the food eaten, and at different periods of the year. The milk of old cows is much thinner than that of young ones of the same breed.—*Dairyman*.

THE "COMMON COW."

Let us say a good word for the much-abused "common cow." The family is a very large one, and, as is the case in most large families, there is much difference in character among the members. It is also hard to draw the family line. There are many common, or so-called native cows, which have but few good qualities, but there are also many that are of very good quality—especially for the dairy. There are large numbers of cattle with some slight crosses of some one or more of the improved breeds, but which are not recognized as belonging to any breed, and must be classed as "common stock." Among these there are some of more than ordinary good quality.

We have seen, in some of the dairies of the country, cows which could not be recognized as belonging to any distinct breed, but which would compare favourably with good cows of any breed in actual merit. As foundation stock on which to make crosses of the improved breeds, the cattle of the farmers of many sections of our country are well adapted, whether meat or milk be the point desired. There are good and poor common cattle, as there are good and poor specimens of any of the improved breeds. Where they have been long bred, with fair care and some wisdom in selection, the common cattle often have acquired an adaptation to their surroundings which no one of the improved breeds have on their first introduction.—*Breeder's Gazette*.

CREAM VS. WHEAT.

When at Algona, Kossuth county, a short time ago, we looked in upon the creameries there and learned these facts: The two factories there make and sell about \$1,000 worth of butter a day. This fact alone gave us food for thought. One thousand dollars per day in clear cash is taken in and paid out for labour, and to farmers who contribute cream to these factories. Not a farmer has to leave his farm, or a single team is taken from the corn field. Some of this cream is hauled twenty miles. Now, suppose, instead of cream, the same farmers who furnish the cream should bring \$1,000 worth of grain into Algona daily. Think of the time, teams and labour it would take to do this, especially such a season as this has been for bad roads. The mere mention of this carries with it its own conclusions for the thinking farmer.—*Fort Dodge Messenger*.

ADULTERATED BUTTER.

Among articles which are now freely adulterated is that of butter. For a long time this article was not known to be adulterated, but, of late, New York dealers who handle large quantities of butter have noticed that the tubs of butter from the West weigh six or eight pounds heavier than the usual fifty-pound tubs. This increase of weight to the same bulk baffled investigation for some time, but it has at last been found due to an adulteration with powdered soapstone. A firm in Cincinnati, known as the Cincinnati Facing Company, manufactures powdered soapstone, for legitimate purposes as well as for the adulteration of butter. Housekeepers have been for a long time accustomed to soapstone mantels, but to look for soapstone among their food will be an undesirable search.