

The Farm.

WINTER DAIRYING.—No change in husbandry calculated to grapple with agricultural depression and make farming pay has recommended itself more to those whose business it has been to investigate the subject most thoroughly, than that of extending the dairy department of the farm, and producing increased quantities of milk and butter. In olden times the milk-pail stood almost next to the plough itself as a necessary farm article of regular use; but the progressive era, commencing very nearly with the reign of Queen Victoria, caused dairy farming very much to decline, while stock-breeding, grazing, arable culture, and almost every other kind of husbandry advanced. There were various reasons for this, chiefly arising from a general want of knowledge at that time how to improve grass lands. For a lengthy period the desire to convert all poor pastures to arable very generally prevailed. Then, when labour became scarce and dear in rural districts, and dairymaids seemed as difficult to be secured as in the United States or any of the colonies, those who had previously followed butter-making as one out of several resources found it convenient and less worrying to substitute for it cattle-grazing, or sheep husbandry. Thus it happens that, until within the past decade, dairy farming in England got almost restricted to those extensive districts of permanent pasture where cheese-making prevails. The increased demand for milk has been the principal lever in reviving dairy husbandry in England somewhat during the past eight or ten years. Farmers have no objection to keep cows purely for the production of milk, if they can get rid of it readily and at satisfactory prices as milk; consequently it has been a great temptation to those residing not too far distant from railway stations or near large towns to keep dairy cows, and take advantage of the urgent and increasing demand for fresh milk which even now seems to grow more and more, very possibly because the millions have altered their taste in preferring sweet milk to sour beer. It would be idle to affirm just yet that dairy farming has taken a new start in the butter-making, at least on an extensive scale, although the mechanical genius of the age has provided, in Laval's cream separator, and various other improved contrivances for rendering butter-making easier and less costly, every inducement. But the demand for fresh butter in England is met chiefly by the farmers of the Continent in Normandy, Brittany, Holland, and Scandinavia. They have the wit to employ cream separators and every other improved form of churn and butter-worker in order to secure the very good prices current on our markets, for a commodity which might be produced very remuneratively here at home if our farmers would but take up with the business in the proper way. To do this, the very key of the position appears to be adoption of the cream separator, because, in the first place, the butter thereby might be made perfectly sweet, and sent to market without the slightest dash of salt; and in the next, all those tedious labours arising out of milk-setting would be dispensed with, which, in the scarcity of dairymaids, caused so many farmers to abandon butter-making not so many years since. To make dairy farming most remunerative, old lines must be abandoned in still another direction. Cows ought to be made calve in the autumn, instead of in the spring, so that they would yield a full supply of milk all through the winter. This should be the case irrespective of whether the dairy were intended to meet the object of direct milk supply or butter-making. In either case, the commodities supplied by the farmer realise by far their best prices in the winter season. No doubt, if everybody took up with winter dairying the market would be likely to alter in this respect; but, as there is no probability of the change advocated taking the world by storm, for a few years to come at all events, those capable of acting on the dictates of a sound judgment combined with reason and common sense ought not to hesitate in the course to be pursued. With the farming community there is a great difficulty in the feeding question, which, properly met, should not be one at all. The dairy farmer has but to grow some increased breadths of mangold wurzel, and chop up his straw, to be employed as food instead of litter; and very little hay indeed would be required to feed a large herd of dairy cows yielding milk throughout the winter. The mangolds should be pulped and the straw reduced to chaff, that the two substances may be intermixed daily. But this intermixing should take place a day in advance of the employment of the amalgamated substance, which is considered to be improved very much by being allowed to ferment several hours before use. The addition of a little salt at the time of mixing would also be likely to cause an improvement in the food. Of course no cows in full profit ought to be dieted on mangold pulp and straw chaff alone; that should form the basis or bulk of the daily feeding. But it would be found economical to add from 3lb. to 5lb. of decorticated cotton cake per cow per day, with a trifle of bean meal, or malt besides. The farmer might prefer to use the meal of barley, maize, beans, or peas as the artificial food, instead of cotton cake. In all cases, however, a little malt, to the extent of about 1lb a day for each animal, would provide a valuable addition. Nor does it at all follow that hay should be absolutely abandoned because found so very costly when made the sole food of cows in winter. The cattle feeder should study variety in the management of dairy cows, just as much as that in grazing beasts; consequently, if a mode of feeding were adopted, I should strongly advise that the racks of the cows should be filled with hay when the farmer or his herdsman leaves them for the night. The success of the silo system will probably cause ensilage to be produced henceforth to some extent in England. This substance will, of course, be likely to prove a much better winter food for milch cows than either hay or the mingled root pulp and chaff previously alluded to. There is also gorse or furze, which recommends itself as worthy of cultivation to meet the special object of providing a green, succulent, welcome dish to the cows, either in the depth of winter or in the spring. Those cows which calved early in autumn might be fed

partly on cabbages up to well-nigh Christmas, and on some farms it might be found desirable to assist the feeding in the early winter by the means of Thousand-Headed Kale. The inquirer may be assured, however, that autumn is the best of all periods for the calving to take place at, as other reasons combine to make it so apart from any of those before mentioned. If cows can be kept in full profit or up to the maximum of yielding in winter, when grass time arrives they would already have nearly fulfilled the season's ordinary returns; but the fresh stimulus of the spring grass would no doubt have its effect in causing the animals to sustain their milk yield, and thus fill many more pails than they would have done if the calving had taken place in the spring; and, after seven or eight months precarious feeding on hay and grass, not always abundant or good, short commons in autumn made them go off their milk rapidly. Nor has the dairyman often to wait until autumn for this untoward result, there being droughts in the midst of summer frequently, to occasion a similar loss; and, indeed, nothing can be more uncertain than a dairy farmer's business when he has to depend chiefly for his milk returns on the quality and quantity of the grass produced by his pastures. By autumn calving the season of full profit is lengthened out very considerably, in addition to which the major part of the animals might be made to get dry in the months of August and September, when the face of nature is usually scorched and bare. While at that season they would find, as a rule, insufficient succulent herbage to sustain an abundant milk yield if in full profit; it would still be sufficient to enable them to pick up a livelihood and hold their own as regards condition, if very nearly or quite dry. The bane of dairy farming, when conducted on the old lines, always has been the time-honoured custom of exclusive dependence on grass and hay, which are not only extremely precarious in their yields but also in quality. This is why as much as three acres of even good pasture and has usually been allowed for the keep of a dairy cow, winter and summer exclusive of a run in the straw for perhaps six weeks, and not unfrequently longer. In poor grass districts five acres per cow have frequently been allotted to the herd; consequently it requires little argument to prove that the old way of doing things, although so generally followed, is radically defective. Even without bringing the cows to calve before winter, it would pay well to adopt both artificial feeding and the employment of roots and green forage from arable land to some extent, both that a larger number of animals might be kept on the same area of space, and that the frequent failings of milk-yield, now so commonly experienced under the exigencies of seasons, might be avoided. The farmer might always fall back on cotton cake as a sheet anchor when pastures either got defective in produce or yield immature herbage, which, according to rural verbiage, "has little heart in it." They could also do the same thing in spring, instead of feeding solely on hay; or, better still, give to each cow after calving from 20lb. to 40lb. of roots per day. These would alone prove valuable improvements on the old mode of keeping dairy cows; but to obtain the maximum supply from their udders throughout the year, and have it of richest quality, calving should take place in October and November, and artificial food to some extent be habitually resorted to throughout the winter. Old-fashioned farmers might be deterred through apprehended large expenditure; but the cake bill would be partly met in the ability to make use of straw extensively as a substitute for hay; and, when the balance-sheet had to be made up, it would be discovered that, owing to the magnificent yield of milk and cream, and the ability through incorporating arable dairying so largely to sustain a big herd on a small acreage, the expenditure, although great, would prove entirely out of proportion to the magnitude of the returns. There are a large number of medium-sized and small farms in vale districts at present partly arable and partly pasture, on which this husbandry ought to be made a leading feature. The occupiers of such have been accustomed to run from pillar to post in the stock-feeding, generally resorting to sheep grazing very much; but, having nearly always to buy in their stores at high rates, the business seldom pays much. Those who attempt to breed their own grazing sheep sometimes fare worse, owing to the liability of their flocks being swept off by liver-rot. However valuable sheep may be, they are not perfectly well adapted to meet the exigencies of wet seasons in English vale districts. On the contrary, dairying taken up on the lines advocated above would not only prove remunerative, but afford something absolutely reliable and stable in results. Nor need the vale farmer with a mixed arable and pasture farm rely on it solely, as closely dovetailing into the system would be his ability to rear the calves from his dairy herd, with the object of feeding them, so that the returns of his business might be largely increased by the sale of two-year-old beef. Autumn calving and winter-dairying would prove far more convenient for carrying out this modern system of early beef production than spring calving.—"Agricola" in the *Field*.

We understand that the success of the Irish Colony in Greeley County, Nebraska, has encouraged Mr. Lane of Cork, Ireland, to form a syndicate of capitalists, with the view of establishing a similar Irish colony in that State.—*Pilot*.

After seventy hours' unceasing labour on the part of several large gangs of workmen, the passenger train among the Welsh Mountains, between Bala and Festiniog, has been dug out of the great snow-drift. The disinterment was a work of great difficulty. Five miles of snow, which in some parts had attained a height of 18 feet, were cut through from the Bala side of the train, and a passage of four miles was effected through a similar thickness from the Festiniog end. The rescued passengers and railway officials are recovering favourably from the effects of their thirty hours' imprisonment and exposure. A number of cottages in the deep Welsh valleys and ravines have been completely snowed up, the inmates having been imprisoned for three days. Some of the families are suffering greatly from fatigue and cold. An old man, named Jones, at Llanuchllyn, has perished in the snow, and other lives are despaired of.