

were ploughed narrow and rounded, the plants growing on the lower parts of the ridges next the open furrows would be much shorter than the plants on the crowns, and it would give no end of trouble to obtain anything like uniformity of length in pulling the crop.

SEED.—A great deal depends upon the seed: the best we used to think was Riga seed; sown one season in Belgium. It should be heavy, plump, and bright. We have seen very good linseed at Sorel, but more care must be taken in cleaning it than the farmers there seemed to think worth while.

As for quantity, if rather fine fibre is wanted, $2\frac{1}{2}$ bushels an imperial acre will not be too much, but for both seed and moderate fibre, 2 bushels may do. What you want is to prevent branching: it gives seed, but also coarse fibre.

SEASON. When the maize is sown is about the time for sowing flax: the land should be warmed first.

SOWING.—Flax requires a firm seed-bed; after the last grubbing, harrow till the land is pulverised all over; no holes or rough places must be left; roll when the harrowing is finished, and then sow: but here comes the trouble. Linseed is, as every one knows, the most slippery of all grains; it must be mixed with something that the hand can catch hold of, and the best thing, we think, is road-dust well sifted. The seed should be slightly moistened before mixing with the dust; it must be sown broadcast at any rate—never drilled—, and perhaps the ordinary broadcast sowing machine will do, but as we never tried one of them for this purpose we cannot say. At all events, the hind grubber teeth of this machine, if it is used, must be taken off, as the seed must not be buried deeply.

When sown on the freshly harrowed surface a pair of light seed harrows will bury the seed deep enough, and a good heavy roller finishes the job.

HARVESTING.—When the straw, next the ground, "begins" to turn yellow, and the seeds to change to a pale brown colour, the flax is ready to "pull". In pulling, the same lengths of straw should be kept as nearly as possible together, and the sheaves should be made small, say, about six inches through, as it makes the after-process of "rippling," i. e., pulling off the seed-bolls, more easy, the small sheaves not requiring to be opened out for that purpose. The sheaves should now be put into shocks, like wheat, to dry.

In England, we used our ordinary machines to thresh the flax; but, there, the mouth of the feeding place is made 5 feet 6 inches wide, so the straw to be threshed is fed in at full length side ways, and is delivered utterly unbroken and as straight as an arrow. Here, our machines would smash it up into tow, and make it worthless for any fine manufacture. We must "ripple it" thus: the small sheaves are repeatedly pulled through an upright iron comb with round teeth, about a foot high and $\frac{3}{4}$ of an inch apart, with blunt, tapering points. The "ripper," seated, spreads the small sheaves, draws the ends through the comb, as his assistant hands them to him, and the bolls falling to the ground or into a box arranged handily, can afterwards be threshed, and the seed put away after being winnowed. The flax itself is now be considered ready for the after process of "retting," beetling, and scutching, though it would be much improved by being kept in stack

till the warm weather of the next season arrives.

Where the "linseed" is consumed at home, as it ought invariably to be, there is not use in threshing out the bolls, as if mixed with a fair amount of oats and pease, they will grind up famously, and help to prevent any of the oil from escaping. About 2 bushels of pease, 4 bushels of oats, and 2 bushels of the bolls, make a good mixture, which, after turning up with chaffed straw, dumped, will make good milk, or fat, tender beef and mutton.

In our time, we sold the flax in the sheaf to a London Company that had a factory fitted up after the plan of the Chevalier Claussen, a Belgian. Here, the flax was "retted" in warm water, beetled, scutched and finished off by machinery. If we remember, the price was \$15.00 a ton, and seed and straw brought us in about \$45.00 an acre; but it is a long time ago—1854—and we have no notes on the subject. Here we should think, at first, what is called "dew-retting" would be the easiest plan; the flax spread out thinly on the grass, and turned frequently, until the fibre parts readily from the woody stem, when it is ready for the beetle. It takes at least a month. If, however, flax should be grown to any extent and enterprising farmers should show that they are capable of turning out samples of really fine fibre, no doubt a market will soon exist for the straw in its natural condition. We saw in the papers, two years ago, that, at Dundee, Scotland, the straw was treated mechanically by a machine then recently invented for the purpose, and that fully three-fourths of the crop grown in Fifeshire was disposed of to the factory at prices which left a better result than any other crop on the farm. There must be plenty of firms here which would introduce it into the province as soon as it can be shown to be worth their while.

This article could have been spread out to ten times its length, but we think we have said enough to show any one who cares to embark in flax-culture how to set about it. Note:

- 1.—Pull flax, do not mow it;
- 2.—Knock the dirt off the roots by a kick, or by striking it against the ground;
- 3.—Before tying, lay the two handfuls across one another.
- 4.—Never sell the linseed, but use it for your stock.

SALTPETRE.—ED. HOARD'S DAIRYMAN:—In the "Dairyman" of Dec. 5th, F. H., of Peekskill, N. Y., asks: "Can turnips be fed without spoiling the butter? If so, how?" My experience with cream that has become tainted, caused by the cows eating weeds, is that adding one teaspoonful powdered saltpetre to three gallons of cream just before churning improves it.

One day last winter, a gentleman who has had some experience in feeding turnips paid me a visit. Our conversation drifted on to the art of butter making. I then told him of the trouble I had with tainted milk and butter during the spring and summer of that year. He said, "Have you tried saltpetre?" Yes, I replied. I use it in the cream when I churn. "Why, that is not the way to use it!" he said. He told me to take a piece the size of a large pea, for each bucket of milk, and put it in the bucket while milking, this would take the taint out entirely. I have not tried it yet, but will when I think it necessary.

I feed the skimmed milk to the cows,

but I do it in this wise. I keep it till it is just turning sour, then I stir in a little wheat bran and feed it. The cows are very fond of it and will drink it the year round.

Deer Lodge, Mont. A READER.

It is now about 45 years since we first used saltpetre (nitrate of potash) for the removal from milk of the flavour of turnips given to milk-cows, and as long as we had a dairy and fed cows on turnips or swedes, we never gave up its use. We recommend the following practice: for each cow giving an average yield of milk, take a piece of saltpetre about the size of a Barcelona nut—the top of the little finger is about the size—; dissolve it in hot water, and divide the solution equally among the cows, putting it into the pail before milking. The old plan used to be, as in the quotation, to put the piece undissolved into the pail, but the one just described is, we think, more likely to be equal. When "Devonshire cream" is used for butter-making, and the saltpetre is added, no fear need be felt of the least turnip-flavour being perceptible in the product; in fact, we once tried the experiment of feeding a cow on half-rotten cabbages—from an outside heap in winter, that had, unfortunately, been topped with straw,—and the heat and saltpetre together carried off the bad flavour entirely, so that the butter was perfectly free from it, though the milk before heating was, not to mince matters, nasty.

As to giving cows the skimmed milk, we did so once, again for experiment sake.

She, for we had only one cow at the time and no pigs, drank it freely from the first, it being quite fresh, as all skimmed milk is when treated Devonshire fashion, and her yield was largely increased. But, the milk was very poor indeed; so poor, that the plan was hardly worth pursuing.

THE "THISTLE MILKING MACHINE," we gather from "Hoard's Dairyman," has been successfully worked at "The Hospital," Illinois, and is much liked by both men and cows. The milk, in the improved machine, now passes through a glass jar into the can; so the man knows when to stop. It averages six or seven minutes to each cow: never more than the latter number, which is about four minutes less than the time usually taken by a fairly good milker of the old style to empty an ordinary udder, though many of our Gloucestershire Eng. people milk ten cows an hour—at least they say so.

TOO MUCH MILK.—Very few farmers have milk enough, but still fewer have such a supply that they can afford to give any of their stock too much for their health. A very trite sentence, our readers will say, but it is elicited by a passage in an exchange, which runs as follows:

"Milk is undoubtedly the best food for young stock of all kinds. When taken in the natural way, i. e., from the teat, the milk is always warm, comes very slowly, and is always mixed with some saliva in the mouth and this aids digestion—don't give a whole pailful of cold milk to a young calf at once: it is almost sure to cause scouring. Milk should never be the sole food of any except of the youngest animals on account of its indigestibility."

This is all right, as far as it goes, but, practically, there is no fear of any dairyman knowing so little about his business as to scour his calves by giving them, when under four months

old, a pailful of cold milk, and the older animals may be left to take care of themselves. Four feeds of milk a day, is about the right treatment for calves under a month old, which may be reduced to three feeds a day after that age, and at three months, twice a day milk, with lots of different kinds of fodder, such as crushed linseed, clover-hay chaffed, pease-meal, etc., until the grass is ready.

Agricultural Societies and Farmers' Clubs.

Farmers' Club of St. Cuthbert. (Berthier).

COMPETITION IN LIMING LAND

(Taken from the report, (in French) of the judges of the competition at St. Cuthbert on the 23rd of September, 1896.)

In our judgment, all the competitors have fulfilled the conditions laid down in the programme, but either owing to the drought, or for other reasons, the result is not entirely satisfactory.

The most favourable results were obtained by: 1st Pierre Gervais; 2nd Jos. Lamoureux.

PAUL LAVALLÉE,
REV. A. BOURGEOIS.

REPORT OF M. PIERRE GERVAIS.

I will give the results of half an acre of land dressed with lime as compared with the same area not so treated.

The ground experimented upon is composed of black soil or bog-earth with a clay bottom.

No manures of any kind were used on either of the two plots entered for the competition.

The condition of the land during the three years previous to my experiments was as follows: During 1893 and 1894, these fields were used as pasture, and the following year, that is to say, in the spring of 1895, I ploughed and sowed them to oats. You will observe, therefore, that the liming was done on oat stubble.

Here is my method of preparing the soil and spreading the lime:

I ploughed the land to a depth of six or seven inches, and then spread the lime in the following manner. It was spread in three different ways. When the snow was disappearing, about the 20th of April, I took five bushels of lime, which I brought to the field to be limed, putting it in a hole in the ground, and then covering it with earth. At seeding time, about the 20th of May, I mixed the earth and lime together, put it into a cart, and spread it with a shovel; but as the quantity of lime I had prepared was not sufficient to cover all the ground, I took quick-lime, and after slaking it with water, put it in a cart and also spread it with the shovel.

As this way of spreading with the shovel required much time, making the cost of the 'mendment rather costly, I discontinued spreading it by shovel, and instead, scattered the remainder by hand; this method required twelve bushels of lime, which at twenty-five cents a bushel, amounted in all to \$2.40. After preparing the soil as above I sowed oats, with a seeder, using about a bushel and a half to the acre. I then worked the ground, mixing the lime and grain together, with an iron harrow.

I could perceive no difference in the crops resulting from either of these