

First year.....	Roots,	100 acres
Second year....	Barley,	100 aore.
Third year.....	Red clover,	33 $\frac{1}{2}$ acres
" "	Hop clover or Trefoil,	33 $\frac{1}{2}$ acres
" "	Beans,	33 $\frac{1}{2}$ acres
Fourth year....	Wheat,	100 acres
		400 acres

This avoids the too frequent repetition of the red-clover crop, and when tail-wheat, barley, and clovers are consumed on the farm, as is almost invariably the case except in the neighbourhood of towns, it will be seen that, only the best of wheat and barley being exported, the farm must be in a state of gradual improvement.

Here the bean will, of course, follow the grain crop where there are no grass seeds sown. Cross-ploughing, or cross-grubbing, being finished as early as possible—I would never sow beans after the 8th May—the drills drawn, and the dung spread, I would sow the beans on the dung, and cover with a shallow splitting. In Scotland, I have seen them covered with the harrows, but I prefer splitting the drills, as beans will soon come up through five or six inches of moved earth, and the land gets more justice done to it. Just before the plants appear use the chain harrow as before, or, if you have none, a common pair of light harrows will do. Horse- and hand-hoe as usual, and don't be afraid of going too deep. If the "Nigger," or black-fly, makes its appearance, cut off the tops of the plants with a smooth reaping-hook—what we call a *bagging-hook* in England; the nigger is a bad hand at climbing, and though he has wing he can't fly much, so he perishes miserably on the ground when he has finished eating the leaves of the detached top.

In Scotland they sow beans and pease together, and bind the beans into sheaves with the pease-straw. Economical enough, if pease and beans would ripen together; but they don't, and I have many a time seen the pease shelling out while waiting for the maturing of the beans.

Quantity of Seed.—At 26 inches between the drills, about 3 bushels of seed will be required per acre; that is, of beans as usually grown on the Island of Montreal. They should stand pretty thick in the rows, or else a wind-storm when they are full-grown sorawls them about terribly. We generally at home sow rape between the rows for sheep feed, and it would do here very well: the seed, about one pound to the acre, is drilled in after the last horse-hoeing, and, if the land is in fair heart, will give a lot of feed after the beans are harvested.

One thing must be observed: when cut or pulled, beans must be tied up into sheaves and set up at once. If they are allowed to lie and receive the dews, they shell out very quickly. Owing to their thick straw, beans will take a great deal of "field room," as we call it: that is, they take a long time to dry enough to carry.

Threshing beans is a dirtier job than threshing pease, and that is saying a good deal. Just try it if you don't believe me. Don't forget plaster.

Advance Report—The Ontario Experimental Farm—Midsummer 1885.

It is utterly needless to say that this report is a painstaking piece of work, as every one knows that nothing negligent or slovenly ever leaves the hands of Professor Brown. I do not know which to envy him most: his energy or his patience. I have seen a good deal of the carping spirit in which anything out of the ordinary routine is regarded, and I well know the amount of patience required to bear with the constant repetition of the sneer it is so fond of displaying. And as for energy, it takes a pretty resolute man to cope with one hun-

dred and fifty students; most of them drawn from a very insubordinate class of young men, too, unless the Upper Canadian youths have very much improved since I had the pleasure of knowing them.

The work involved in the dairy experiments alone conducted at the Experimental Farm amounts to 2,700 separate tests, and in order to arrive at due conclusions, the yield of no less than eighteen cows, embracing twelve different breeds, has been kept under constant supervision. The breeds are: Aberdeen Poll, Ayrshire, Devon, Galloway, Guernsey, Hereford, Holstein, Jersey, Shorthorn—thoroughbreds; Ontario Grade, Quebec Grade, and Shorthorn Grade—cross-breeds. Five of these cows, unfortunately, slipped their calves before the full time of pregnancy expired.

In the trial of winter milking, the class of prominent dairy breeds stood this:

BREED.		
Ayrshire, daily mean.....	20 lbs.
Holstein " "	22 lbs.
Jersey " "	18 lbs.

But in the examination of milk products, the following results were arrived at:

BREED.	Cream % Deep setting at 40° F.	Butter from 100 lbs. cream. lbs.	Cheese curd from 100 lbs. milk, less 10 %.
Ayrshire	12.81	37 $\frac{1}{2}$	13 $\frac{1}{2}$
Holstein	11.68	30 $\frac{1}{2}$	10 $\frac{1}{2}$
Jersey.....	18.52	43 $\frac{1}{2}$	14

As to summer work, the return (condensed) was:

BREED.	Milk average per day lbs.	p. ct. cream	Butter from 100 lbs. cream.	Cheese as above.
Ayrshire	15	14.2	49.3	15.7
Holstein	21	8.8	31.0	12.3
Jersey.....	22	14.2	61.0	17.3

It is evident, then, from these trials that winter milk is not richer than summer milk, though showing nearly two 0/10 more cream by bulk. Why the Guernsey, described by Mr. Brown as "actually yellow from hoof to horn, with all the surface-mirroring" (whatever that may mean) "and irregular outline that delights the dairyman," was not tested among the "prominent dairy breeds," I do not quite see.

The comparison of milk products from ensilage and from turnips gives almost equal results. Ensilage, during an experiment lasting during the four winter months of November, December, January, and February, gives an average of 23 pounds of milk a day, and 41 pounds of butter per 100 pounds of cream; turnips give 29 pounds of milk and 39 $\frac{1}{2}$ pounds of butter. But the quantities of both roots and ensilage were small—30 pounds of each, with 9 pounds of hay and 13 pounds of bran. The strangest result of this experiment, to me at least, is the following:

**WEIGHT OF COWS UNDER THE EXPERIMENT
ROOTS VS. ENSILAGE.**

	Average weight on Entry.	Average weight at Finis.	Difference
Ensilage.	1187	1207	20
Roots.	1185	1192	7