

fertility; if dairying is profitable; also whether cheese or butter making pays best; and about stall feeding. And it is with the view of answering these questions, that I have written the foregoing. There is no speculation in this report of farming. All has been done as state continuously ten or twelve years. It would be difficult to use our land worse than we do in Canada. We are in the same state that Scotland was in 150 years ago. I was acquainted with the state of farming in Scotland from Stirling to Arbroath in 1810, and it was much better farmed than Canada is at present from Montreal to Kingston. And the grain as sold in market was very clean. Grain is very far from being clean, especially oats, in this district. And we have far better and cheaper tools to do the work with. All kinds of manure can be got at moderate prices, and better still, there is much information given by papers and other publications daily and monthly, to all, if they would only use it. I have seen more sound information in one number of the CANADA FARMER than I saw the first forty years of my life. The evil may cure itself, as many farmers must leave their farms unless they raise and sell more than is done at present.

JOHN ROBERTSON.

Bell's Corners, Ont.

The Prickly Comfrey.

To the information already given respecting this promising forage-plant, we have more to add. According to the *Agricultural Economist*, Mr. D. R. Scratton, one of the council of the Agricultural and Horticultural Association, has had the leaves and root of this plant analysed by Professor Sibson. The following is the analysis and report.

Water	81.21
*Nitrogenous compounds	2.3
Digestible Carbonaceous principles	4.15
Woody Fibre	2.63
Mineral matters	2.09
	100.00
*Containing nitrogen	0.37
Containing phosphate of lime	0.40
" carbonate of lime	0.63
" potash	0.74
General composition of root :-	
Water	82.20
Dry substance (organic)	16.02
Mineral matter	1.78
	100.00

I have the pleasure of reporting on the results of my examination of the samples of Prickly Comfrey received from you a few days since. The water was determined from the fresh plant marked "Association plant," and the analysis made of the leaves sent by Mr. Scratton, after drying. A general examination of the root appeared to me sufficient. You will notice that the percentage of mineral matter is large, and it would therefore be likely to be an exhaustive crop; hence a proportionately rich manure would be required for it. Judged by this sample, it would appear to be a forage-plant of fair feeding value, but I should doubt whether our average summers are sufficiently moist for its successful cultivation. (Signed)

ALFRED SIBSON.

Mr. Scratton has received the subjoined two letters from gentlemen growing the plant, the first in Essex, the second in Cornwall :-

COGESHALL, March 20th, 1876.

RESPECTED FRIEND, -I have paid considerable attention to *Symphlytum Asperitimum* for the last four years. My experience is that it bears cutting well four times a year without any injury to the plant. The crowns are not easily injured even if a wheel passes over them; but as we have the rows three feet apart this can be avoided, and cultivation is most easy. It will bear folding with sheep well, but as the plant will be about three feet high when coming into bloom (the proper time for feeding or cutting) they are apt to trample some of it down. If it could be arranged for them to feed through the hurdles they bite it off close without waste. I have generally cut it. Most animals take to it at once. I bought a few hinds last year to try it; they took to it at once, and did well with a little corn. Pigs also fat well with it, with bean meal or peas, they are extremely fond of it. I always manure mine well when planting with farm yard manure. I will not want any more for some years. I shall be quite pleased to show thee what I have growing at the time of the Agricultural Show. But I have so many customers for my roots amongst my friends that my stock is becoming small. -Thine sincerely,

WADESBOROUGH, CORNWALL, March 24th, 1876.

SIR, -In answer to yours of the 18th inst. respecting the *Symphlytum Asperitimum* I have grown for it for some time, and am so much pleased with it that I have increased my tillage. It is an excellent food for cattle. I give it to my horses, cows, and pigs. They are excessively fond of it, and if the wheels are broad, no great injury is done to the root in removing the crop from the ground. Last year the plant was cut five times, and I believe I had nearer 100 tons than 50 to the acre. This year I have ordered my men not to cut but to pluck the largest leaves, and I believe it will yield nearly 20 tons an acre more. The roots will pay for being well dressed. It is very gelatinous, and my horses do their journeys better on it than on any other green food. Yours, &c.

D R SCRATTON, Esq

Lieut.-Col. Chichester, of Runnamoat Co., Roscommon, says that he has grown Comfrey for some years past on

deep but well-drained peat soil, where it grows with great luxuriance. He now contemplates growing it extensively both on peat and clay soil.

The *Banffshire Journal* says:—"In passing through Grange the other day, we called at the farm of Floors. Mr. Gray has a garden always well worth a visit, and specially so this season, as many rare and beautiful flowers are being yearly added to it; but the feature of all others which struck us most in the way of rarities was a plant that, while being a rarity in our quarter, will, we have no doubt, soon be a favourite for its utility. We refer to a vegetable known as Prickly Comfrey. Mr. Gray has had a long strip of his garden laid out with this plant during the past season, and it is repaying his trouble well. The vegetable is used entirely for feeding purposes, and is greedily devoured by horses, cattle, sheep, or pigs; but its principal value lies in the fact that, during one season you may have twenty crops. The enterprising farmer who has introduced it has already this season had five crops, and expects as much before the season is out. The plants, being young, have not come to grow so rapidly as they will do. The blade, which is nearly the size of an ordinary cabbage, when taken into the mouth, has an oily taste not unlike oilcake, and from its nature must be very fattening and any farmer having a few acres of this crop growing would find it a great addition to his means of feeding any kind of stock."

It will be observed that the principal objections to the *Symphlytum* are that it is probably an exhaustive crop. We are inclined to think this is not a serious objection. As the plant would not be allowed to mature its seeds, it would not remove much of the mineral salts from the soil. Its broad leaves would have drawn their principal sustenance from the air. The second objection is that it is doubted if it will stand a hot, dry summer. Of course, experience only could settle this point. We should judge from the appearance presented by the roots that the *Symphlytum* could stand a drouth reasonably well.

The Wheat Midge.

At a late meeting of the Farmers' Club of the American Institute, a letter from a wheat grower of Niagara county, New York, was read as follows:

The question is frequently asked, what is the reason that the wheat midge has destroyed a smaller proportion of the wheat crop during a few years past than they did a number of years ago? The usual answer to this question is that farmers put it in well and in good seasons. This is all true so far as it goes, but, in my opinion, it does not cover the whole ground. One of the principal reasons why the midge has destroyed but little wheat during the last two years may be found in the fact that we have had early seasons; that not only wheat, but, as a general thing, all other crops have been much earlier than they have been for some years before, so that wheat, by heading out some two weeks or more earlier than for some years before, got the start of the midge, and, where other things were favorable, made a fine crop. The influence of different seasons in favoring or preventing the operation of the midge may, perhaps, be better understood by referring to the manner in which they first made their appearance and commenced the destruction of wheat in this vicinity. They were first found in a few late heads near the fences, but not early enough, nor enough of them to do much damage. The next year they were a little earlier and more of them, and so continuing to make their appearance earlier and to destroy more and more each year, until there was but very little wheat that escaped their ravages, and the prevailing opinion in this section seemed to be that we would have to stop raising wheat. But what now seems to be generally forgotten is the fact that while the midge was the most destructive, we had very late seasons; that wheat was not ready to harvest until nearly or quite the first of August, and that we were able to raise but very little wheat until the season changed, and wheat headed out some two weeks or more earlier than it had for several years before. Nor does the fact seem to be very generally considered and understood that the change two years ago was a gradual one. Instead of a moderate change of a few days each year, which the hedge would be likely to keep pace with, the season in 1858 was some two weeks or more earlier than it had been

for some years before, and that this, together with the fact that last season was a little earlier than the previous year, and that this season has been a few days earlier than the last, accounts for the continued good crops of wheat that have been grown, notwithstanding the midge has made its appearance a few days earlier each year. It will be well for wheat growers in midge-infested sections to remember that no one can tell how soon a change in the seasons may expose their wheat to destruction. My judgment is that it is better policy for the farmer not to sow wheat very extensively, but by giving a good chance, and cultivating and manuring well what he does sow, raise heavy crops. Another advantage in this course is, that good, heavy wheat is almost always earlier and less liable to be injured by the midge than a poor crop. Should we, sooner or later, as most likely we shall, have late adverse seasons in which the midge may be destructive, there will be a great deal less loss in labor, seed, and the use of the land, than there would be were farmers to return to their old practice of making wheat their main dependence.

J. W. Chambers said: During a number of years past the wheat midge has scarcely made an appearance in the wheat producing regions of our country. The conjecture is that the ravages of this pest were prevented by some ichneumon fly. Should the midge ever again attack the growing wheat, the most effectual way to battle with this enemy is to discontinue raising wheat for a few seasons.

A Farm Fence.

A correspondent of the *Detroit Tribune* gives the following information in regard to a cheap farm fence. He writes: "I have to day completed 100 rods of post and board fence, which I am so well satisfied with that I venture to tell your readers how I proceeded. It is rather an experiment with me but so far I am of the opinion that I shall erect all my fences on the same plan hereafter.

I should not have built this fence now if I had not been obliged to wait for the corn to harden sufficiently to enable me to crib it safely, and while waiting concluded to put up this strip of fence, which was put down for next spring. The late rains favored setting the posts by making the ground moist. I had secured split oak posts at a cost of ten cents, delivered. These were sharpened, and I calculate that the chips and hewings pay for this work. After the posts were sharpened and placed on the line of the proposed fence, stakes were set firmly on the line, fifty feet apart, and two lines drawn, one at the bottom and the other at the top of the posts. With a nine-foot measure we proceeded to lay off the places for the posts, sticking down pegs a foot long. With a sharp spade a hand followed and took off the sod, and also removed the earth one spade deep. I followed with an iron bar, round and sharp at the lower end, but enlarged upward until, fifteen inches from the point, it is four inches in diameter. With this instrument a man may make the holes very rapidly. After making the holes for five or six rods we set the posts. A strong bench was made about the height of a common table, having a cleat nailed to the legs on each side for a step. Armed with a beetle one man mounted this bench while the other held the post, and it was sent to its abiding place quicker than I can describe the operation. The driver dropped his beetle on to the bench, stepped to the ground, and in a twinkling he was ready at the next place. The posts are set in this way very rapidly and very firmly in the ground. After diving them the earth is replaced, or the space dug out with a spade and filled in with small stones, which is a better plan, and trampled firm. We then proceeded to nail on the boards which are eighteen feet long. The first board is nailed on a foot from the ground, the second six inches above, the third ten inches above that, and the fourth twelve inches above the third. This makes a fence four feet four inches high. After the boards were all on, the posts were sawed off at the top of the last board, and two furrows on each side turned to the fence, which closes up the space below the bottom board. I cannot give you the exact cost of this fence, for it was put up at odd spells and by parts of days - in the way a good deal of the work on a farm is done; but I consider it a cheap fence and a good one. I prefer it to hedges."

The Wire-Worm.

Edward Mason writes in the *Germantown Telegraph*. -As the wire-worm works beneath the surface of the soil, and is seldom seen unless when the soil is disturbed by the plough, &c., its destructive work is often attributed to the cut-worm or some other insect. Wire-worms are the larvæ of that tribe of insects known as *Cleridae*, or click-beetles, from a noise they make when springing into the air, in an attempt to recover their natural position, when they happen to fall on their backs, which they frequently do when dropping from plants to the ground. Upwards of sixty different varieties of these insects have been discovered by naturalists, several of which feed on our valuable cultivated crops. They do not confine themselves to any particular kind of food, but attack indiscriminately the