

not want, and sowing what I did want, I have succeeded in making a wild into a valuable pasture; of course the land was drained of its surplus water.

There are so many similar pieces of land in the country lying useless, that I have been somewhat particular in my account of this, in order to encourage others to do likewise. I might say that a good tool to take out moderately young willows is a good steel spade (I used Ames's), ground sharp and whetted up like an axe; then strike below them, cutting the roots. Some draw them out with horses, but this cannot well be done where the roots are entangled with the roots of heavier timber.

F. M., Innerkip.

Hop Culture.

SIR,—Please let me know through your valuable paper if you think hop raising would be profitable in the county of Wellington; or can you recommend to me any person as well posted on the subject? Also, what is the right time to plant, spring or fall? and where can the roots be bought?

C. L. H., Stratford.

[Hop culture is an exceedingly profitable and at the same time uncertain business. The hop growers have been much troubled for some seasons with a bug or worm which destroys the vines. The county of Wellington would no doubt be a good field for hop growing. The Messrs. Jardent of Saltfleet are probably the largest growers of hops in Canada. They employed about 500 persons picking them this season, which has been a very good one. Go and see them, or consult "Hop Culture," by H. C. Collins and others, for full information.—Ed.]

Egyptian Wheat.

BY JOHN H. GARNIER, M. D.

The human family is more indebted to the Linnean order Triandrid for civilization than to any invention ever emanating from themselves. It was the cultivation of grains that gave them a settled home and brightened their minds. The pastoral tribes in their wandering life from station to station, seldom advanced beyond the amount of mental culture that has for thousands of years been possessed by the Nogay Tartars, or Bedouins of the desert, their hand against every man, and every man's hand against them. Egypt in the remotest ages was an agricultural country, and we hear of the patriarch Joseph storing grain for seven years. Is it not a remarkable circumstance that in some of the pots found entombed with the very oldest mummies, wheat was found, seemingly as fresh as the last harvest. We forget at the present moment the name of the person who sowed it, but think it was Sir Joseph Banks. It germinated, and a new and strange variety was obtained in which many heads rose in a tuft from one stalk, and it was considered a much finer variety than any in existence. The wheat seed from the mummy was computed to be over three thousand years old, and, as there is abundant reason to believe the age was nearly correct, the power of vitality in this grain must be enormous. How many thousands of plants exist whose seed will scarcely germinate if three years old? For some time after it was known that the original Egyptian wheat of the Nile could be obtained, it was eagerly sought by the farmers of England, Ireland and Scotland at very heavy prices, and, of course, thoroughly tested. We recollect seeing it over forty years ago in the vicinity of Belfast, and a few years later in the neighborhood of Edinburgh. It was considered to be very productive and gave crops that were quite remunerative, but still it had its disadvantages. One point we heard complained of was, that it was more easily laid by a heavy rain than other varieties, as the weight of the ear was greater, and that it raised afterwards with more difficulty. In a plate which lately appeared in the FARMERS' ADVOCATE, the head that was intended to represent Egyptian was too meagre. I have counted myself from three to six large ears, and from three to nine smaller ones, on the same tuft. Egypt is a

country with a very calm climate, and rain is said very rarely to fall, and in such a climate this variety of wheat would come to its full perfection, and the yield would be enormous. The destruction of the crops by the plague of the hail-storm would thus be far greater than if the variety with one head had been sown. In the year 1855 we saw some very fine heads of this wheat grown by Mr. Robert Hoggs, late of Turnberry Township, and he had about a quarter of an acre. We saw it after a heavy rain, and the patch was in a most deplorable state, and the future culture of the variety was then abandoned. In the article to which I refer, it is stated that Mr. Howland says it produces as much first-class flour as any other wheat. I have no right to contradict the gentleman's statement, but I have grave doubts on the matter; in fact, I dispute it if the kind referred to be Egyptian wheat at all. It is a well known fact that occasionally two or three ears are found on one stalk of many sorts of grain. I saw a few days ago two full ears and a little one on barley, and I think, and with some reason, judging from the engraving, that the variety at present given to the market is merely a sport and not the true Egyptian at all. This wheat in the British Islands has long been rejected by farmers, justly, on account of its liability to be laid, and inability to rise again, and secondly, to the great quantity of bran and seconds that it gives. In Canada, however, owing to the more arid or dry atmosphere, it might give a larger quantity of good flour, but from my own knowledge I am able to state the facts concerning its culture and manufacture in the old country. I think I can safely say the Egyptians, Hebrews, Greeks and Romans were very poor judges of "flour," as every person knows they had not mills to grind it like ours, and that hand-grinding, such as the ancients practised, could only give them what is now termed "cracked wheat." Two stones turned by "two women at a mill," or two slaves, gives no assurance of them producing "Howland's Extra" or "Superfine." Far be it from me to discourage farmers from trying their luck with a few bushels of Egyptian wheat, but through your columns I will certainly warn them to pay no extravagant price, as, from the facts I have stated, it behooves them to be wary and not to be victimized by any enterprising young man from the other side of the lines. Yet the drier climate of Canada, the hotter summer sun, and the earlier harvest may be the means of this wheat equalling any other, but for flour the white wheats, I can safely say, will always be superior. However, if fancy prices be foolishly paid for seed, the farming community will only have themselves to blame, if victimized. If, again, this new sort be merely "a sport" from some of our modern wheats, it may turn out to be a valuable addition and a great boon to the agriculturists in "this Canada of ours." Almost any farmer, if he takes the trouble to search, may get occasionally a head of wheat that has two or more ears on the stalk, or that is much thickened by an extra row of grain at the base of the ear. This should be kept and sown in a corner of his garden, and he would soon find out if it were worth future culture. It is by the more acute that the finer heads are thus secured, and new varieties obtained, and yet we take it as a rule that one is as good as another, and, as the trouble is nothing, it might well pay anyone to try for once. If we stand still and take no advancing step in the great world of agriculture, either as leaders or followers, we will be like the Nogay Tartars or the Bedouins of the Sahara, whose civilization has ceased for thousands of years.

SIR,—I have a piece of low-land, about two acres, which is covered with water in the spring from the overflow of a lake. It has been seeded

down for five or six years and now requires plowing up. My idea is to plow it this fall, cross-plow next year when dry (probably about June), and then re-seed it with some grass that will stand the moisture. I think either Kentucky Blue or Red Top would do. Please advise me in your next issue.

A. J. WRIGHT.

Lakefield, Ont., Aug. 31st, 1877.

[Kentucky Blue, Red Top, Italian and Perennial Rye grass would be the most suitable mixture of grasses for your purpose. You were perfectly correct in sowing thick, in order to have a good pasture it is necessary to do so.—Ed.]

SIR,—I am requested by some of your subscribers to ask what will kill the grub that is eating up the cabbage. Seemingly a fly breeds them, and they grow in the heart of the cabbage ere it closes, and eat it up. It grows an inch long, and is a pale green caterpillar.

J. G., Bayfield.

[Put salt and pepper on the cabbage.—Ed.]

SIR,—I left about one stalk of buckwheat in every two yards in the rows of my potatoes, and have not seen a bug on the buckwheat, but plenty of them on the potatoes. I had buckwheat on the same field last year.

A. F., Sherbrooke.

Canada Thistles.

Three years ago this fall I broke up a five-acre field of sod, the top end of which (the part most easy of access) was infested with several large patches of Canada thistles, making in the aggregate perhaps one fourth of an acre. The following season the portion of the field where the thistles were was planted with potatoes and kept thoroughly clean until the crop was taken off—remainder of ground sown with oats. A year ago this spring the whole field was planted into apple grafts, the thistles showing themselves as thickly as ever in the original patches. After the second hoeing of the grafts, each of which had been followed by a thorough loose cultivating, I applied a heavy dressing of refuse lime and ashes from the lime-kiln over the portion of ground where the thistles were—this I did with the intention of trying its effects upon the growth of the young apples and without any idea whatever of its having any effect upon the prickly intruders in the crop.

The lime was applied immediately after a hoeing when the thistles were apparently as thick and as robust as ever.

This season, so far, not a thistle has made its appearance, at any rate a careful examination of the ground only revealed one solitary specimen. Was it that the pests were cut at the time said to be efficacious in their destruction, or was it the lime that did the business? I have other patches of thistles among trees which have been treated for three years exactly similar to those above mentioned, except in not having been lime-dressed, and they are there to-day as plentiful as ever. Can any of your readers give any similar testimony?

ALEX. PONTNEY.

Westminster, Aug. 1st, 1877.

British Columbia.

SIR,—I have been passing through some portion of the country east of the Cascades, and will try to describe what it looks like. This portion of British Columbia differs greatly from the lower country in soil and climate, and has much the same sort of winter as with you. The surface of the country is mountainous, with here and there a small bench capable of cultivation, but owing to the almost total absence of rain in summer all crops require irrigation. When water can be brought upon the soil it produces crops of most splendid description. There is more or less alkali in all the mountain streams as well as in the soil, and the effect upon potatoes is astonishing. I have seen some as large potatoes as are found anywhere. The hills are covered with bunch grass and stunted pines, not thickly timbered like the lower country. The cattle are easily wintered, as the dry snow they have here does not hurt them much. With all these advantages the population increases very slowly, because the only market they have at present is slowly and steadily falling off. As the yield of gold in the Caribo mines is becoming smaller, and there are no new discoveries of importance to take its place, the prospects of the up-country farmers are not hopeful, unless the Government build the railroad. This country is full of minerals, and is more of a stock-raising and mining