

possibly over stock the market, as the English market is quite open to colonial oils, there being only a nominal duty of ten shillings per tun on colonial oil, whereas there is a heavy duty on all foreign oils, equal to *four pounds ten shillings* per tun. If Canadians were wise they would look to this matter. We trust every Agricultural Society in the province will look to it, and give that encouragement to the cultivation of flax, and the manufacturing of oils, as the subject justly deserves.

CULTIVATION OF HEMP.

In a late number of this Journal, the cultivation of hemp, as well as flax, was discussed, and a few general directions were given, which were noticed very favourably by a number of our most respectable contemporaries, and intimation was made by some that it would be advisable for us to continue the subject by giving general directions for the guidance of farmers, respecting the culture of these plants; the preparation of the soil, the method of sowing, reaping, and after preparation for the market.

Hemp might be made one of the most profitable articles that the soil of Canada could produce. We could point out sections in almost every District of Canada that would grow this plant to admiration. Probably the most extensive tracts in Western Canada that are naturally adapted for its growth are on the borders of the Thames in the Western District. The hemp which this soil would produce would be of a remarkably strong texture, and consequently well adapted for cables, cordage, and strong canvass for sails. Machinery might be erected for about twenty pounds, which would prepare it for market, in a most perfect manner and with much dispatch, and a market might be established at Quebec and Montreal, for the manufacturing of these articles, which would form a very profitable business both for producer and manufacturer, and be a saving of thousands of pounds to the country. A gentleman, of extensive capital, has lately arrived in this city, who intends to manufacture all kinds of cordage and twine, and intends to import the raw material of both hemp and flax from the Western States, as he cannot procure a sufficient quantity for a week's supply, of Canadian growth. Our readers, we think, will join with us in pronouncing this too bad. The gold and silver which this gentleman has brought with him from Britain should go to enrich this country, instead of that it will be sent in a few days to the Illinois market, to purchase an article which our own country could produce in any desired quantity if public attention could only be directed to it as a source of both an individual and public wealth.

The soil on which hemp is intended to be sown should be ploughed in autumn, and at least twice in spring. It should be manured in the autumn before the land be ploughed at the rate of about twenty waggon loads of barn-yard rotten dung per acre. If the hemp be desired for heavy cable ropes, a half-a-bushel of seed per acre would be found quite an abundant seeding, but if it be intended for finer work, from one to two bushels of seed would be required. When the blossoms begin to fall, which is from the 1st to the 10th of August, it should then be cut. The instrument for cutting, as we formerly remarked, is like a sharpening hook, used for reaping. It should be cut as close to the ground as possible, and the tops of the seed ends might be cut off, as they produce but a small portion of fibre, which is almost useless.

Hemp, less than five feet long, would be considered too short for the British market.

As there are no hemp growers in Canada, we

will reserve further direction on the management of this crop for the March number of the next volume of our Journal. In the meantime, we trust that the attention of the intelligent portion of Canadian farmers will be drawn to the business of growing hemp, as well as the other mentioned plants, which we conceive might be successfully cultivated in this country.

CULTIVATION OF HOPS.

The cultivation of this plant is latterly much esteemed by those who have engaged in the business, and it is even thought by many to be the most profitable branch of farming that is practiced in this country. Let this be as it may,—we have not heard of any who have ceased cultivating this plant, in consequence of it not paying them for the capital and time expended in the business.

The quantity of hops used in the country is not so great but that the market might in a very few years be over stocked, with an article, the growth of the country. It is, however, very clear that some years must transpire before the attention of the Canadian farmers will be sufficiently directed to the growth of this article, to supply the demand which the home consumption will give for it.

If we anticipated that no other demand but that given by the amount consumed in the country would be presented to the notice of the Canadian hop grower, we would unquestionably be very cautious in recommending too highly the cultivation of this plant, as we might, by so doing, lead our readers into a very serious error, by inducing them to engage too largely in a business, that was subject to serious fluctuations. But the case is otherwise—we are confident that if a proper and respectful representation were made by the Canadian Government to the Imperial Parliament for the introduction of Canadian hops, into the British markets, subjected to the same scale of duties as are levied on hops grown in the British Isles, that such a request would be granted.

In recommending the hop culture, it is necessary to premise, that the object above alluded to, will be attended to, at the proper time, by judicious representations, being made to the British Parliament by the authority aforesaid. We shall therefore recommend the business most strongly, and shall embrace every fit opportunity of treating the subject in a manner calculated to benefit those who may be engaged in its culture.

The soils best suited for hop plantations, are those of a deep, rich, loamy surface, with a subsoil of a loaming chocolate-coloured brick-earth. This sort of soil produces an article which has a remarkably strong aromatic bitter flavour, which renders it in the greatest request by the porter and beer brewers. Hops can be propagated by seeds, but they are more usually grown from slips taken from the stem, or from old roots, or from young nursery plants grown in beds. The duration of a hop plantation depends wholly on the nature of the land, and chiefly on its substrata, or subsoil, which should be of a rich calcareous nature. From eight to twelve profitable crops are all that might be calculated upon, unless the soil and base be of a remarkably rich and friable nature, in which case, it might remain unimpaired by careful cultivation and management for even half a century.

The preparation of land for the formation of a hop ground should be commenced either with a naked summer fallow, or with a well cultivated crop of potatoes. It should be very heavily manured with rotten dung, from the

barn-yard, which should equal, at least, thirty-two horse waggon loads per acre. The soil must be cultivated to the depth of at least twelve inches, which may be performed by trenching, or by the frequent use of the subsoil plough.

When the ground is got into perfect order, the general plan is to draw parallel lines each way across the grounds at about six feet square, to ascertain the precise position of the hills, in which the sets are to be planted. From eight hundred to a thousand hills are usual for an acre.

The usual time for planting is about the last of April or beginning of May. If sets be preferred from the stem to those taken from the crown of the root, they should be cut off the preceding spring from the lower part of the stem. The usual length of these cuttings is four or five inches, with three or four buds to each, they should be then planted by themselves in a nursery, and the strongest of them chosen the next year, for setting in the regular hop plantation. The most usual method, however, is to take the setts from the crown of the hill, at the period in the spring when the old hop is undergoing its dressing. If these setts be planted among potatoes, by reserving about one row in four for the young hop plant, the loss sustained by unoccupied ground will not be equal to the trouble of transplanting in nursery beds, and subsequently into hills.

When the spots for the intended hills have been marked out, the earth should be dug out of each to the depth of about two feet, and nearly the same width, and these should be filled up nearly even to the surface, with a compost of well rotted dung and fine mould. From two to three plants should then be planted on each hill, to the depth of about three inches below the surface, and covered about six inches deep with the fine surface soil.

The only object in the first year's management is to keep the intervals clean, and to furnish the young plant with an abundance of pulverized mould. As the strength of the plant will much depend upon the growth of the vine, it would be well to set up a short pole of about ten feet in length to each hill, and when the vines rise to about two feet, they should be twisted around each other. This trouble, however, is seldom taken in this country, and the short vines are most generally allowed to run over the ground—a system which should be discontinued, as the leaves of the plant fill the functions of lungs to the plant, and consequently a strong growth of leaves will invariably be accompanied with an healthy and vigorous plant.

The management for the second year consists in careful cultivation with a horse and hand hoe, in cutting the main vine and all the suckers to within an inch or two of the ground, and poling with poles about fifteen feet long, as soon as the vines shoot in the spring.

In the spring of the third year, the earth which had been mounded about the hills the year previous should be carefully removed, and the young suckers of the main vines pruned in the same manner as in the former year. The latter part of April, or the first of May, the whole plantation should be heavily manured at the rate of about thirty-two horse loads per acre. A shovel-plough is one of the most efficient implements that we have seen used in cultivating this plant. This should be used frequently during the summer months to prevent the growth of weeds. In every successive year, the process of pruning the crown of the plants should be practised, as already directed.

The length of the poles should be governed by the probable length that the vine will grow, and if any should exceed the length of the poles, an auxiliary pole may be added to prevent the vines from dropping down. The