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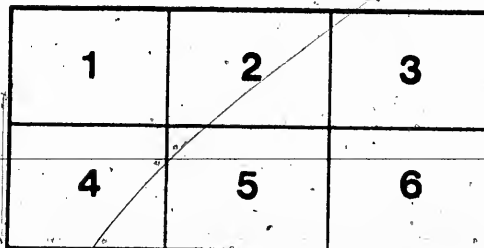
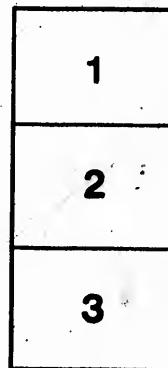
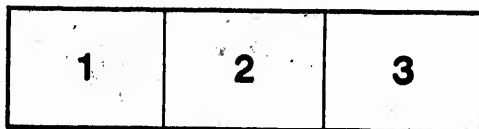
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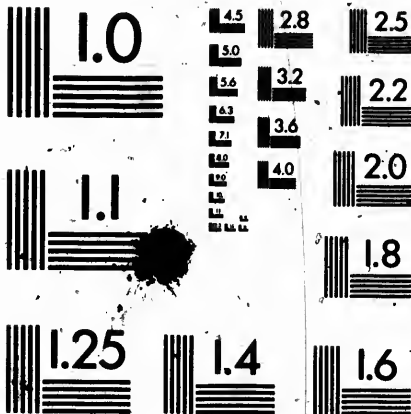
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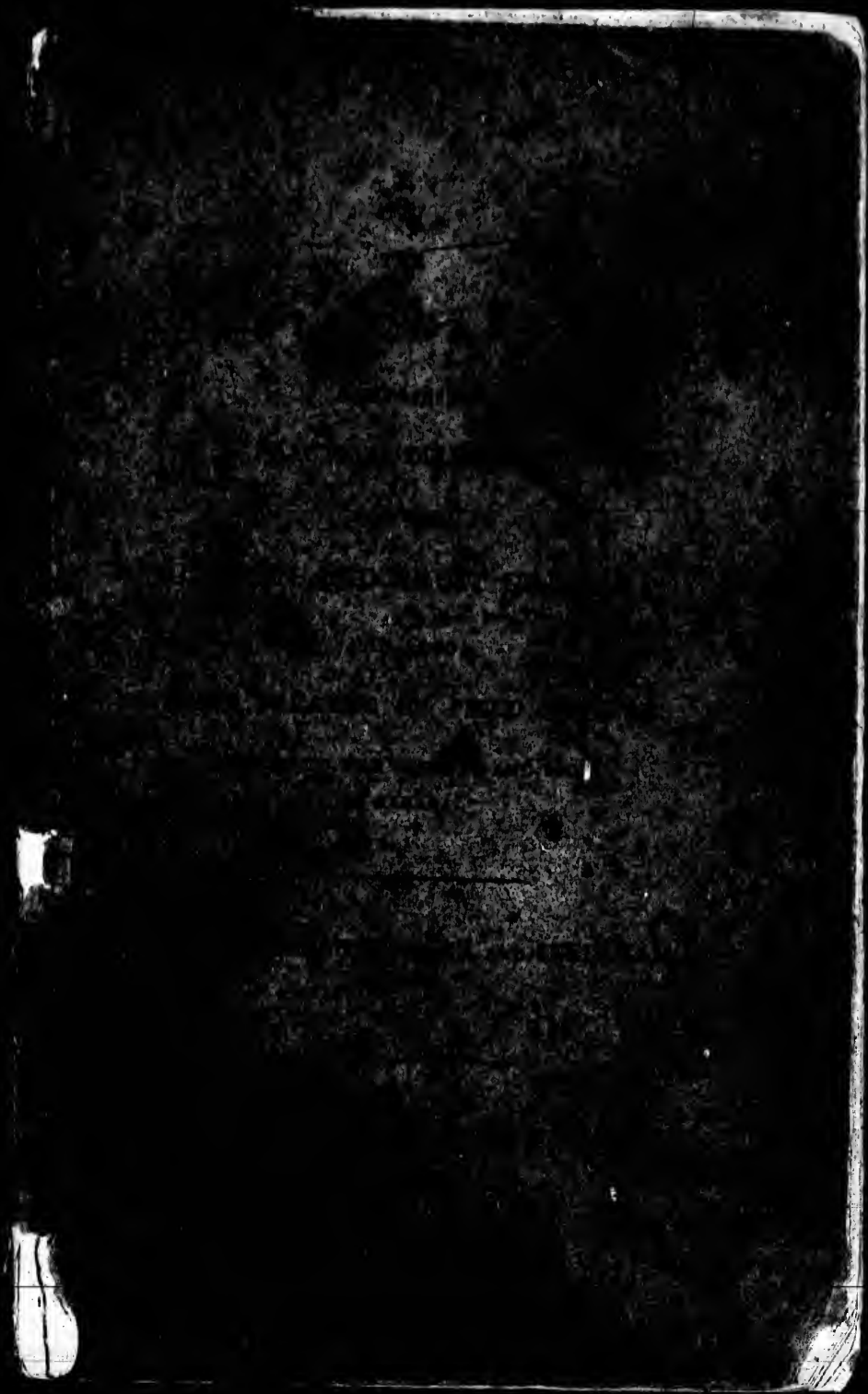
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William Patton

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*William Patton*

THE  
CANADIAN GARDENER;

CONTAINING  
PRACTICAL DIRECTIONS  
FOR THE  
KITCHEN AND FRUIT GARDEN;  
AND ALSO  
A BRIEF TREATISE ON FIELD CULTURE;  
ADAPTED TO THE CLIMATE AND SOIL  
OF CANADA.

---

By ASA PARKER, GARDENER AND SEEDSMAN,  
OF AYLMER.

---

"I went by his garden, and saw the wild brier;  
The thorn and the thistle grow broader and higher;  
The clothes that hang o'er him are turning to rags,—  
Forgetting his garden he starves or he begs."

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AYLMER; PRINTED BY THOMAS WATSON.

1851.

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## INTRODUCTION.

THE compiler will not claim to be the sole author of the following pages ; his object is to extract, from the best authority, such parts of Kitchen Gardening as may be properly managed in this northern latitude ; whilst at the same time a great part of the work will contain his own views on situation, soil, fencing, trenching, laying out of the garden, management of the hot-bed, and the propagation and cultivation of vegetables, fruits and herbs.

In presenting the '*Canadian Gardener*' in a cheap and condensed form, the writer will find it necessary to omit giving instructions on such articles as cannot be raised successfully in Canada ; but will confine himself to that part of gardening,

which those ought to know, who have a rod of land to cultivate ;—a desire to add to their own knowledge, or a wish to ornament a country which can boast of one of the richest soils inhabited by a civilized and enlightened people.

The compiler, in following his horticultural pursuits for the last ten years, has formed acquaintance with many gentlemen inhabiting the valley of the Ottawa and vicinity, who have shown a disposition and expressed a desire, that he would undertake a work of this kind ; and in compliance with their request he now offers this small treatise on the management of the kitchen garden, and such fruits as can be easily propagated in a new country ; together with many medicinal and culinary herbs of which every family should be in possession.

To give a complete treatise on fruit &c., would be extending this work beyond its

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intended limit; the writer will neverthe-  
less after a sufficient course of experiments,  
offer to the public another work on fruit  
and ornamental trees, &c. It would indeed  
be absurd to attempt at this period, a task  
of the kind, as many desirable fruits and  
ornamental trees have not yet been suffi-  
ciently tested, in this northern country, to  
warrant success.

## CONTENTS.

This work, though small, will be divided into three parts, viz:—

1st. Part. On the Kitchen Garden, Soil, Preparation, Trenching, Clay Subsoil, Fencing, Laying out, Manure, Sandy Soil, Clay Soil, Hot-bed, Sowing on open ground and Rotation of Crops.

2nd. On the propagation and cultivation of Vegetables and Fruits. *See Index.*

3rd, On the propagation and cultivation of Medicinal and Pot Herbs. *See Index.*

## PART I.

*On the Kitchen Garden, Soil, Preparation, Trenching, Clay Subsoil, Fencing, Laying out, Manure, Sandy Soil, Clay Soil, Hot-bed, Sowing on open ground and Rotation of Crops.*

## KITCHEN GARDEN.

**SITUATION.** Those who have only land enough to cultivate for a garden, must be content with its situation; but to those who are in possession of a farm, I would advise, (as it is generally admitted,) that the garden be situated, on a gentle declivity to the south and east,—yet it is admitted that a northern situation will suit some vegetables best; such as the Cauliflower, Cabbage, English Bean, Spinach, Lettuce and other salads. Gooseberries will also ripen best when excluded from the mid-day sun. As earliness of production is an important object to the gardener, I would advise the former situation, viz.,—a south east situation, as many vegetables can be raised under the north side of the south fence.

As to form, it should be either square or oblong. If oblong, the longest side may be situated east and west,—I would recommend the latter form, as it would tend to raise a larger quantity of garden produce at an early period, under its northern fence. As to declivity of situation, a descent of one foot in twenty is recommended. Should the

soil, however, be light and sandy, I would recommend a perfect level situation, as in this case, heavy spring rains would have no tendency to wash away the seeds from their beds, destroy young plants, or carry off the best of the soil.

It is an old adage, "out of sight out of mind." Lest this may be the case, I would advise that the garden be not far distant from the dwelling-house, nor directly in front of it. It is recommended to have water convenient, although Mr. Cobbett states that "watering with a watering-pot is of little use, and that it is better to trust to judicious tillage, and to the dews and rains, and that a man can raise more moisture with a hoe or spade in one day than he can pour out of a watering-pot in a month." Mr. Cobbett, as a good writer must be admired, although his views on this subject may not on all occasions of this kind be relied upon. Let his views on the subject be however as they may, I would advise every gardener and farmer, to stir their grounds as much as possible, in dry weather, as it will add greatly to the crops.

**Soil.** The best kind of soil for a vegetable garden, is a deep rich loam rather inclining to sand. A strong stubborn clay should be avoided. These selections are intended for garden vegetables generally, yet some of the same may do best in soil of a clayey nature, whilst others do best in a very sandy soil — these will be treated upon separately as we proceed.

**PREPARATION.** Having recommended a situation for the kitchen garden, the next process is to prepare the ground—which is to be done in the following manner: Firstly, by ploughing and harrowing until the surface be perfectly smooth and clean. Secondly, by a good coat of well-rotted manure and a double ploughing; that is two furrows deep with a good sized plough — this should move the ground to the depth of fourteen or sixteen inches, which consequently will throw up a considerable quantity of the subsoil.

I would recommend that another dressing of compost or manure be added, and a single ploughing after. For the purpose of making the surface even, the latter ploughing should be back furrowed, by commencing where the former ploughing was finished, and turning the team on the opposite side. Should your garden be wide enough, I recommend cross-ploughing; or what is much better, good trenching two spades deep, that is, the length of two garden spade blades, which will at least be two feet deep. This depth is not unreasonable should your soil admit of it, but if inadmissible, let the trench be as near to the measure as possible.

**TRENCHING.** This is done in the following manner: — Begin at one end of the piece of ground, and shovel out two feet deep and two feet wide. Cast the soil, dug up, on ground which you do not intend to trench; shovel out the bottom clean, and make the sides of your trench as near perpendicular as possible; thus you have

a clean open trench, running all along one end of your garden ground: You will, as a matter of course, observe the necessity of using a wheel or other barrow, in conveying the soil dug out, into the last trench. Lest this might not be understood, after completing your first trench, you will then take another piece all along two feet wide, and put the earth that this new piece contains into the trench, taking off the top of the new two feet wide, and turning that top down into the bottom of the trench, and then taking the remainder of the earth of the new two feet wide and placing it on the top of the earth just turned into the bottom of the trench. Thus when you have again shovelled out the bottom, you have another clean trench two feet wide and two feet deep.— You will thus proceed till the whole of your garden ground be trenched, and then it will have been cleanly turned over to the depth of two feet. This should be done in the fall, and in consequence of the subsoil being on the top, it should have a dressing of manure in the spring, and well mixed by digging.

**CLAY SUBSOIL.** Should your subsoil be stiff clay it should not be cast upon the surface at once, but should be loosened up with the subsoil plough or spade, as per example, see trenching. Observe that the bottom or clay part should be well broken up and not cast out. This indeed, is not all that should be performed as the underground drainings must be well attended to—these may be under the garden walks. Finally, the



above mentioned soil is not to be preferred; should however clayey soil be well manured, nearly all kinds of vegetables will thrive in the same. I cannot pass this subject without reminding the Farmer, of the great benefit to be derived from the use of the subsoil plough, especially on clay bottom land.

**FENCING.** A good fence is essentially necessary, although too often neglected. How often do we see garden crops destroyed for the want of proper or good fences. Should the farmer not have time to perform the work necessary for a good garden, it is to be hoped, that he will not neglect making a substantial fence, so that he may enjoy the fruits of his industry, from a garden which he has perhaps but partially cultivated. As to the material of the fence, I will leave it to the judgment of the owner; but were I to command the means of making an ornamental fence, as a matter of course, I would make or plant a hedge. As few however command the means of making a brick or stone wall, I would recommend the north side to consist of boards, as on the south side of the same, grape-vines and other useful and ornamental shrubs could be reared.

**LAYING-OUT.** The laying-out of a garden consists in the division of it into several parts and in the allotting of those several parts to the several purposes for which a garden is made. — These parts consist of *Walks, Paths, Plats, Bor-*

*ders, and a Hot-bed Ground.* "As to the art of laying-out, it would be to insult the understanding of the American or Canadian Farmer, to suppose him to stand in need of any instructions. A chain or a line and pole, are all he can want for the purpose, and those he has always in hand. To form the walks and paths is in fact to lay-out the Garden;" but the walks and paths must be made not only visible, but must be dug out, that is, if the ground be wet; and for the sake of brevity, I shall conclude that a border be made all round the garden from four to eight feet in breadth, that is, according to its size, and the remainder divided and formed into squares.

**MANURES.** A great deal has been said and written by the scientific farmer, and professional gentlemen on chemical manures, and some valuable information has been derived from their works;—but as soils differ so materially, it would be impossible to suit all soils with the same manure.

To give a full treatise on this alone, (if the writer were capable;) would require a larger work than the present. Many persons whom this little work is intended to benefit, would find it an impossibility to procure the sort of manure required. I hope, however, that the period may not be far distant, when Lord Kames's views on the subject will be realized. His (Lord Kames's) belief, one hundred years ago was, "that the period would arrive when the coat pocket of a man might contain as much matter as to manure one

acre of land." Whether we attain to such a degree of chemical knowledge or not, we should not cease trying experiments on a small scale. When the proper manures are once discovered, we should use them with caution, as an indiscreet use of them will destroy the seed or plants and thus defeat the cultivators object.

As some cultivators, by their method of using manure shew that they have very erroneous ideas as to its real object or utility, I would remind such that manure should be applied with a view to renovate and strengthen the natural soil, and not as a receptacle for seed. In order that manure may have a salutary effect, it should be thoroughly incorporated with the earth, by the operation of digging or ploughing. When it is used in hills or on a given spot, it should be well pulverized and mixed with the earth, so as to form a compost. These remarks apply especially to strong animal manures, the excrement of fowls, as also to soapers, tanners, and glue manufacturer's manure, rags, &c. Lime ashes, bone-dust poudrate, urate, salt, sulphur, gypsum, nitrate of potash and other portable manures, may be sown over the land previous to harrowing or raking it, or such manures may be formed into a compost when used in hills or drills. They should in every case be used with caution.

Many gardeners can corroborate these facts, from having used strong compost as a mould for their hot-beds, thereby poisoning the germs of the seed and causing the plants to die off prematurely; and it is notorious that a great propor-

tion of failing crops is occasioned by an injudicious mode of using manure.

"Clay or any earth burnt is excellent manure for a garden, it has no seeds of weeds in it. A compost made of such ashes, some wood ashes, a small portion of horse dung, rotten leaves and mould shovelled up under trees and round buildings, or on the side of roads,—all these together put into a heap and turned over several times, make the best manure for a garden."

I find by experiment that sorrel is destroyed by sprinkling them with quick lime; it not only kills the sorrel, but the combination formed by the alkali and acid enriches the soil. It is admitted that lime is injurious to animal manure, but very beneficial to a collection of vegetable matter, as it causes a quick decomposition, and will destroy in a great degree, the seeds of weeds and larvae of insects, which may be in the collection.

It is well known, that manure will lose its most valuable properties by exposure to the air and consequent evaporation. To prevent this, the manure must be ploughed or dug in immediately after the same be drawn on the ground.

**STABLE AND HOG-YARDS.** I find many persons in this northern section of Canada, who neglect stable and hog-yards, and who by such neglect, lose, an article, which to the agriculturalist is deemed of the highest importance; and which, if husbanded and properly applied, might at no distant period, place the individual so doing, in

easy circumstances:— I have reference to manures.

A good hog-yard would also keep the hogs within their proper limits, and save both man and dog the trouble of the wonted punishment so often inflicted on them, for their repeated encroachments on the fruits of industry.

The barn or stable yard, should be dishing, so as to retain all the liquid manure, and unless already on an imperviable soil should be paved with clay,—and should be so located as to be secure from wash no more than the quantity of water which must necessarily fall to the ground. A supply of litter, such as worthless vegetables, straw, brakes, turf, mud, and rich earth from the way side should be provided to absorb all juices of the yard and the gasses evolved by fermentation.

The hog-yard should be tightly enclosed and furnished with an abundant supply of material, which the occupants will convert into the best of manure, and *ask you nothing for it*. Lazy as they are, they may be made to work out half their living without ever mistrusting it. Thus much for the preservation of manures.

**LIGHT SANDY SOIL:— TREATMENT.** This kind of soil should be dressed with some alluvial compost, clay, marl, or some such substance as will give a body or strength to it — cow or hog dung with salt might be added. Clay alone would improve it—this should be drawn in the fall or winter, and spread so that the frost may set upon

it. In the spring, when the clay is ready to pulverize, harrow it well before ploughing.

The abovementioned quality of soil may be much improved by working it when in a moist state; but ploughing or digging sandy land in the fall is not considered beneficial.

**CLAY SOIL: — TREATMENT.** This sort of soil should have a dressing, composed of horse dung, ashes, sand, and whatever tends to separate the particles and open the pores of the clay.

It is generally known that such land is greatly improved by fall ploughing—if level or in a low situation, it should be ploughed into ridges, in such manner that water may run off.

Gardens should be rough dug and thrown into ridges in the fall.

**HOT - BED.** The prevalent opinion amongst farmers respecting hot-beds is, that they are expensive articles, requiring the skill of professed gardeners to manage them, and almost entirely beyond the range of farming economy. Both suppositions are decidedly erroneous, and we hope that every-one who reads this will arrive at the same conclusion. We do not propose that every farmer should go into the regular routine of forcing vegetables at extraordinary seasons, but that every farmer, however humble his circumstances may be, should at least have a hot-bed to forward such plants as he may want to cultivate in his garden.

In preparing a frame and lights for a hot-bed, some previous instructions on the subject will be necessary, ( unless it be well understood by the person who is to make the bed. ) The sash should be made of good two-inch plank, without cross bars, in which there are to be four rows of panes of small glass. The sash is to be well painted; and in glazing, begin at the bottom and overlap each light about one-fourth of an inch, so that the rain water may run off. The length of the sash is to be in proportion to the extent of the bed; but by no means over six feet, and no more than four sashes to each frame, and the latter to be made of plank, which is to fit the sash. The back part of the frame to be nearly three feet high, and the front about half the same in height.

The site should be a dry place open to the sun and sheltered from the northerly and easterly winds. Previous to making the bed, manure should be prepared, which may be unfermented stable dung. The preparation is simply this:— Throw it into a heap, and when a smart fermentation occurs, turn it over.

In making a bed, the European system is to build above ground three or four feet high; but in this country of sharp wind and dry atmosphere, I should deem it best to dig about eighteen inches below the surface, if the ground be not too wet; in this way two feet of dung, when settled, is sufficient. The former method is however preferable, should you want your plants to have an early start, as it gives a chance for lining

( that is to place hot manure all round the frame to the top of the latter, which will keep up the heat, and can be renewed when necessary. )  
 In making the bed, shake the manure with a fork evenly over the whole bed, which should be the size of your frame.

If your dung be dry, apply water to the same ; on this set your frame, and in it also put six inches of good rich soil, with a mixture of sand. Put on your lights, and when the heat rises, move off your glass and stir the soil. Should the heat be very strong, wait a few days before sowing, and admit plenty of air both before and after this period ; in fact, the more air the better, provided there be heat enough to encourage vegetation—the sowing should be neatly done. After the plants appear, thin them out if needed, and give them plenty of water and air. I find the last of March or first of April, are periods early enough to sow for transplanting.



## REMARKS ON SOWING IN THE OPEN GROUND.

It may here be mentioned that the exact depth will not always be given, because some soils are of a heavy and moist nature; in this kind of soil, it will not answer to sow the seed so deep as in light ground. The same may also be observed in rolling or settling the ground after sowing. It may also be remarked, that when any particular distance is mentioned, it is intended for a medium garden soil. In a very rich soil, the plants may require more room, whilst in a very poor soil, they may do perhaps with a little less.

**TIME OF SOWING.** With regard to the period of sowing the various kinds of seeds, the adage "there is a time for everything," must be admitted; but, however, as the seasons in this northern latitude, are so various, it is not in the power of man to point out the particular days that each kind of seed ought to be sown. I will nevertheless, make *some* mention, when most kinds may be sown. As a general rule, no seeds should ever be sown till the ground pulverizes, and works fine, as it is indispensably necessary,

that the earth should come in contact with the seed; which may be done by pressing the former, with a roller or any other convenient implement, after the latter be sown. If this be done when the ground is in a wet state, the same will become hard and crusty when dry; prevent the seed from rising, and also prevent the benefit of air and rain, which are so essentially necessary towards vegetation.

Should the ground be very light and sandy, the above remarks may not so closely be observed, (with the exception of pressing the ground after sowing, which ought at all times to be attended to.) Chaptel, in his celebrated remarks on agriculture, states that leached ashes is a powerful manure, particularly on wet soils.

For further information, see the conclusion of the second part.

**ROTATION OF CROPS.** Every well-informed agriculturalist is aware that a rotation of crops is highly beneficial.

Without entering minutely into the subject, it may be well to remark that root crops should succeed dry crops, and *vice versa*, but this rule will not apply so well to the garden; as dry crops are seldom cultivated there.

In the culture of esculents, even on a small scale, a sort of rotation, though not very complete, might be aimed at, and would be very con-

siderably furthered by classing certain vegetables, as the Brassica or Cabbage kinds, the leguminous or pea kinds, the bulbous or onion kinds, and the light crops or salad kinds.

The following Letter is a literal copy, and is here introduced to the notice of the Canadian Farmer, in order to shew him what benefit may be derived from a small piece of ground; and, as experimental knowledge is our principal object, it ought to be deemed a matter of some importance, to publish in this small work, the practical and theoretical ideas of others; particularly those emanating from so creditable a source as that of the author of this letter. The hope is therefore indulged that it may stimulate others to "go and do likewise," as it is much to be lamented that the "root crop" is too much neglected in these provinces.

Hawkesbury, Sept., 1849.

Dear Sir,

In reply to your letter of the 20th. August, I beg to state, that in the year 1845, I raised on seven acres of land, 12 tons of hay, 15 bushels oats, 17½ bushels wheat, 20 bushels corn, 20 bushels potatoes, and 4 bushels onions, besides 400 bushels carrots, beets and turnips, mixed. The kinds of beet which I am in the habit of cultivating are the white beet, the blood beet, and the Bassano beet; and I find that for feeding cattle, they are superior to the Swedish turnip by one-fourth. Milch cows that have been

fed on beets give rich and well tasted milk, and the butter is plentiful, and equal in flavor to that of June. I am of opinion that beans should be harvested before they are thoroughly ripe, and dried under cover. When saved in this way, the straw makes excellent feed for cows and sheep, and is as eagerly sought after as the best hay. I have never used any other manure than that from my barn yard, with the exception of a small quantity of gypsum, which I used in 1845, principally on my hay land. I have during the last three years planted out beets, carrots and turnips with great success. The seed which I have raised has been found to be fully equal to any imported from a foreign market; and I feel justified in saying that seed raised in this country is superior to any brought from a more southern one. This year I have raised at the rate of 60 bushels of the small eight-rowed corn to the acre. This corn is equally productive, and one decided advantage it has over others is, its ripening two weeks earlier. This year I planted my corn on the 20th of May, and harvested it on the 1st and 3rd September, it being sufficiently ripe. My beets, notwithstanding the dry weather, will yield from 800 to 1000 bushels per acre. My hay is a light crop this season. Oats are short in the straw, but the grain is good. I had no wheat sown this year.

I am, Sir, your obedient servant,

SAMUEL STEVENS.

C. P. Treadwell, Esq.

L'Original.

## P A R T II.

*On the propagation and cultivation of Vegetables and Fruits.* See Index.

## APPLE TREE.

*Pyrus Malus.* It was not my intention to treat upon the culture of the Apple-tree, but as many are desirous of raising the apple in their gardens, I deem it not too irrelevant to make a few remarks.

No method of propagation can be injurious to the health or longevity of a tree which produces the plant perfect in all its parts, a fact which is abundantly proved by time and trial. The apple is one, to the culture and improvement of which, the soil and climate of this country seem particularly congenial. A large variety have been produced, rivalling those of the eastern hemisphere; and the gardens and nurseries of Europe, send annually to this country for great numbers of trees of our esteemed varieties, which are there classed in the first rank.

For this fruit, rich, strong loamy lands are the most appropriate, and as the roots are more hori-

zontal than perpendicular, it does not require so deep a soil as the pear. In fact, the apple will succeed in any soil except a quick-sand or a cold clay, if the ground is kept under cultivation and manured. Those soils that possess a very considerable degree of humidity, but are not absolutely wet, suit the apple very well, whilst they would be destructive to the pear.

In transplanting the apple or any other tree of large growth, a hole should be made large enough for the expansion of the roots, that is, not less than four feet in diameter, and from fifteen to twenty-four inches deep. - Select the richest and best earth for the bottom of the hole and about the roots. All the bruised or injured parts of the roots must be cut off and the limbs shortened, after which, it is advisable to wet the roots so as to make as much earth adhere to the same as possible. The tree should then be placed in an upright position, and to stand about one or two inches deeper than it did in the nursery. Be careful that all the roots are perfectly straight and natural in the ground. Stake them up strongly and tie with a soft string.

*Future Treatment.* In pruning the Apple-tree, and all other standard trees, the points of the external branches should be everywhere rendered thin and pervious to light, so that the internal parts of the tree may not be wholly shaded by the external parts. When the pruner has judiciously executed his work, every part of the tree, internal as well as external, will be produc-

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tive of fruit, and the internal part, in unfavourable seasons, will rather receive protection than injury from the external. The most preferable season for transplanting is the Spring, the winters being so long and severe, that those transplanted in the Fall may be materially injured—at the same time, I have known many to succeed well after a Fall transplanting. My reason for stating that those transplanted in the Fall may be materially injured is, because the root of the young tree being so limited in extent, if planted in tenacious soil, is liable to be lifted by the frost.

Should your trees be laid by in the Fall for spring transplantation, they are to be laid in a slanting position with the roots well covered.—Mulching is a good practice, that is, place a few bushels of coarse dung or litter about each tree after it is transplanted.

## ASPARAGUS.

*Officinalis.* This should occupy the best ground in the garden. [ See Article on soil and preparation. ]

The following directions for cultivating Asparagus, are from the second volume of the Memoirs of the New York Board of Agriculture — they were furnished by Richard Treat, the oldest

gardener at the Shaker Village, in New Lebanon, Columbia County, State of New York.

"Beds should be made as soon as the ground may admit, — that is, when cleared from frost. The ground must be well worked, to the depth of a spade blade, and intimately mixed with rotten horse manure; the seeds should then be sown in rows or drills, twenty inches apart and one inch deep, the rows crosswise of the beds — they should be raked in lengthwise of the rows. Asparagus will be large enough to begin to cut, the third spring after it is sown. It may be cut until the 20th. of June, every year afterwards. As soon as the cutting season is over, hoe it lightly, so as to loosen the soil and make the surface even. Every other year, spread on each bed an inch layer of good yard manure before hoeing. The tops will now grow to a great size and generally seed well. Early in the spring, cut the dry tops close to the ground, lay them evenly on the beds and burn them there; then hoe the beds over and rake them again — they are then prepared for a new growth."

i/ almost agree with the old Shaker in the above directions, but would at the same time, prefer to have the ground dug deeper than one spade blade. He ought to have directed that the plants should be thinned in the drills to one foot. Where the above remarks were written, vegetation commences earlier than in many parts of Canada, and there, perhaps, the 20th. of June is late enough to continue cutting. Here, we may cut in the month of July, without any injury to the



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plants. Abercromby recommends renewing the plantation in ten or twelve years; but in this country, the season of vegetation is so short, I am of opinion that the plants may remain twenty years or more, ere they get too compact.

I should highly recommend that a sprinkling of salt and wood ashes, be added at the spring dressing. In cutting the crop for use, insert your knife down in a slanting direction, so that you may not cut the buds which have not yet made their appearance.

## ARTICHOKE.

( GLOBE. )

*Cynara Scalyms.* A plant little cultivated in America, and in my opinion unworthy of cultivation. My reason for stating so is, that it is of so delicate a nature, particular attendance must be devoted towards its cultivation; and perhaps with small profit.

## JERUSALEM ARTICHOKE.

*Helianthus Tuberosus*. This plant is a hardy perennial, and is of the same genus as the sunflower. It is said to be a native of Brazil, and in use long before the potatoe was known in Europe. It is propagated and cultivated as the potatoe, and is generally considered a garden vegetable. Its cultivation is not desirable in a small garden, as the tubers stand the hardest frost, and is of so prolific a nature, that it occupies too much space. Its tenacity to the soil is so great, that it often bids defiance to the spade in its endeavors to uproot it. As it has lately been shewn by experiment, that this vegetable is one of the most profitable productions of the soil, I take the liberty of *bounding over the garden fence*, on purpose to give the farmer, a few hints which I have gleaned from the "British American Cultivator," and also from other works, together with my own experience relative to this vegetable. I have, it is true, never cultivated it to any extent, nevertheless I believe in its utility.

One man in one of the middle States, raised on one acre of good land, 1200 bushels of the *Helianthus Tuberosus*. Another man states that two acres of his land produced the enormous quantity of 1500 bushels; these were all dug in the spring of the year, and the greater part given as food to the sheep. The latter quantity was raised on land of an ordinary quality. This kind of food increased the milk of the ewes and growth of the lambs.

Part of the above was given to the horses, horned cattle, and hogs; in fact, all of his domestic animals fed on them with apparent satisfaction. The tops were cut and dried before the commencement of frost, and retained for winter fodder; the stock preferred them to corn fodder. Should the latter intimation not be attended to, I would advise that they be added to the manure heap, as I am confident they would be a valuable acquisition to the same. If their culture be extensive, (and I think the period not far distant,) part of the land which they occupy, should be allotted to the hogs in the fall of the year, as they feed and improve better on this vegetable, than on any other with which I am acquainted. The hogs should be allowed to feed on them till the ground freezes, and they will improve rapidly while feeding, by the use of salt during this period. After they have done feeding on this root, corn should be given to them so as to harden their flesh. If you have allowed your hogs more space than they can turn up, your store hogs may finish the remainder in the spring. There is not the least necessity of digging at any period in the fall, as they will stand the severest frost in the ground, through the winter. I am not prepared to state, that they will at any period, supply the place of the potatoe, but there are many now who relish them well, and deem them a wholesome and nutritious food. It is said they will grow tolerably well on poor land without manure, but I would advise deep plowing and good manuring for their more extensive culture. As to

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distance, writers on this subject seem to disagree as they vary from  $2\frac{1}{2}$  to  $4\frac{1}{2}$  feet between the rows. I would, however, advise drill planting,— three feet apart, and eighteen inches apart in the drill. As an implement, I would choose the cultivator, the same to be drawn through so as to keep down the weeds, until they are eighteen or twenty-four inches high, and then they will take possession of the soil, and will need no further attendance.

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B E A N .  
( ENGLISH . )

*Vicia Faba.* There are two distinct species of the bean, which are often confounded by writers on agricultural subjects, to wit, *vicia faba*, garden bean or horse bean, and *phaseolus vulgaris*, or kidney bean. The want of distinguishing between these two different genera or sorts of plants, may lead to erroneous practices, and consequent detriment to the cultivator.

The *vicia faba* or garden bean, ( often called the *English Bean*, ) is an annual plant, rising from two to four feet in height, with a thick angular stem, the leaves divided and without tendrils, the flowers white, with a black spot in the middle of the wing; seed pods thick, woolly within and enclosing the large ovate flattened seeds, for the sake of which the plant is cultivated.

**METHOD OF SOWING.** Plant all the sorts in rows two feet and a half apart for the smaller or very early or very late kinds; and three feet for the larger; the smaller beans two inches deep, and three inches distant in the row.

**SUBSEQUENT CULTURE.** As the plants come up and advance from four to six inches high, hoe up some earth to the stems on both sides of each row, cutting down all weeds. Repeat the hoeing, as future weeds arise, both to keep the ground about the plants clean and to loosen the earth to encourage their growth. In earthing up, great care must be taken that the earth does not fall on the centre of the plant so as to bury it, for this occasions it to rot or fail. After earthing up, stir between the rows with a three-pronged fork.

### KIDNEY BEAN.

*Phaseolus Vulgaris.* Endless is the variety of sorts. Some are dwarfs, some climbers; but the mode of cultivating and propagating is nearly the same in all, except that the dwarfs require smaller distances than the climbers, and that the latter are grown with poles, which the former are not. In this fine country, (Canada,) the seed is so good, the soil and climate so favorable to the plant, the use of the vegetable so general, the propagation and cultivation so easy, and so

well understood, that little in detail need be said about them. I prefer sowing the dwarfs in rows to sowing them in bunches or clumps. It is a great object to have them early, and they may be had much earlier than they usually are, with a little pains. It is useless to sow them while the ground is cold, for they will not grow till it be warm.

As to the main crop, it is by no means advisable to sow very early; if you do, the seed lies long in the ground, which is always injurious to this plant, causing them to come up feebly; the cold weather frequently makes them look yellow, and they then never produce a good crop. Of the various sorts of pole beans, one sowing will be enough; for if you gather as the beans become summer; especially the Lima bean, which does fit for use, they continue bearing all through the lights in heat; and for which no weather can be too dry, and which should never be sown until the ground be *right warm*.

As these sorts of beans differ so materially, it is advisable that the former bean, viz., *fabia* or English bean, be sown in a stiff, moist loam, with a considerable portion of clay, and sufficient hints have already been given relative to the latter bean, *Phisotolus vulgaris*.

## B E E T .

*Beta.* There are varieties of this vegetable, the best of which for the table, are the early blood-turnip-rooted and long blood-red. The soil in which it delights, is a deep rich loamy kind. Should a few for early use be desired, I would advise sowing as early in the spring as the ground may admit. If for a general crop, let the sowing be delayed until May, as the roots will be much larger and better than those from early planting, which from being frequently stunted in growth by the various changes of weather, become tough, stringy, and of unhandsome shape. In case of the failure of crops, or of unfavorable weather in May, Beet seed planted the first week in June, will sometimes produce large handsome roots, which may be preserved for winter use.

I recommend that the seed be soaked in soft luke-warm water for at least twenty-four hours; to be sown in drills from one to two inches deep, and fifteen inches apart, if in beds. When they establish their vegetation, they may be thinned to about eight inches apart. In all cases the soil should be pressed down immediately after sowing, particularly that of a light quality.

MANGEL WURTZELL BEET,  
AND THE  
SUGAR OR FRENCH BEET.

These Beets are chiefly intended for field culture, and their mode of cultivation may be followed thus:— After the land is prepared, it may be furrowed two and a half feet, or of sufficient space to admit a plough or cultivator to pass between the drills. The manure to be put into the furrows and covered with a double mould board plough. After this process, a roller may be passed on the top of the ridge, and the seed prepared and put in, as you would that of the other beets. These vegetables are peculiarly calculated for being raised in large quantities as food for cattle, &c., “and, according to the analysis of Sir Humphry Davy, they contain much more nourishment than the carrot; and experiments since made, have confirmed his statement.”

BROCOLI.

*Brassica Oleracea.* There are several varieties of brocoli, which are merely late heading varieties of the cauliflower; the early kinds only, are the ones which may be cultivated with success in this country. For preparation and cultivation, (see “Cauliflower.”)



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## BRUSSEL SPROUTS.

*Botanic name as above.* This plant is of the cabbage tribe, rising from three to four feet high, with heads issuing from the base of the leaves, like small cabbages, an inch or two in diameter; these are very tender and delicate when boiled after being ameliorated by frosts. In the spring, they yield abundance of fine sprouts. Sow in May, and cultivate them like cabbages, protect- ing them in the winter.

## B O R E C O L E .

*Botanic name as above.* This also is of the Kale or Cabbage tribe. Loudon says it has an open head with wrinkled or curled leaves, and is of a peculiar and hardy constitution; the crown or centre, after being duly ameliorated by frost, is cut and boiled; it is extremely sweet and delicate. I would recommend them to be preserv- ed through the winter, in the same way as the cabbage. In the spring, plant out the stems, which send forth delicious sprouts. Sow the seed at the same period as that of the cabbage.

## C A U L I F L O W E R .

*Brassica Oleracea, var Botrytis.* The cauliflower is raised from seed, of which half an ounce is sufficient for a seed-bed four feet and a half wide, by ten in length. The soil for the seed-bed may be light, but, for final transplanting, it cannot be too rich, the cauliflower, like the vine, being reputed a rough feeder.

These vegetables are treated generally like cabbages; they may be transplanted about 2 $\frac{1}{2}$  feet apart, in a very rich and rather moist loam. A rich soil is indispensable for their successful culture.

This delicious vegetable, as well as the brocoli, is deserving of more general cultivation, than (I am sorry to find) it has in Canada. It is a great favorite in Europe, and Doctor Johnson once said, "of all the flowers of the garden, give me the cauliflower."

To raise the cauliflower for use in the spring, or early part of the summer, they ought to be sown in the Fall, and preserved in health through the winter, which I must acknowledge, is not a trifling task. Our Canadian springs also, are so short, that they would not probably come to perfection before the commencement of the hot season, and would consequently thwart our expectations of their successful culture. By my experience, however, I am confident that the

early French cauliflower, will arrive to perfection at a later period by sowing in the spring, even in the open ground, and the treatment the same as that of the cabbage. I would, however, recommend that some of the seeds be sown in a hot-bed.

Should any of them not arrive at their proper growth in the Fall, they may be uprooted with a ball of earth attached to the roots, and transplanted in a cellar, in which a considerable ray of light is admitted; in this condition they will improve.

## C A B B A G E .

*Brassica Oleracea Capitata.* Varieties of this plant have often been introduced to our attention, and many more than are necessary for our present purpose. At this period, however, I will not introduce to your notice a greater number than what may be profitable and useful to you, and these are the large and small early york and green savoy to be used in the summer, the quintal and drum-head for winter, and the red dutch for pickling. There are other varieties which are indeed very good; but as the propagation of the plant is my principal object, I shall make no mention of them, as they all require the same mode of treatment,—distance alone excepted, and this should be left to the seedman.

**TIME OF SOWING.** Much has been said and written by divers authors relative to the sowing of cabbage seed in the fall, for transplanting in the spring; but they spoke and wrote for other countries and not for Canada. For early use, I recommend sowing in a hot-bed, towards the last of March or the first of April. Should this advice be followed, you will find your plants strong and healthy when the period arrives for transplanting them; provided light and air enough may have been admitted during their confinement in the hot-bed. The best plants are produced by "pricking out" when quite small into a well prepared bed, in drills six inches apart and three inches in the drill,—there to remain fifteen or twenty days. What may answer equally well as this process, is to sow in drills, and "thinned out" as above. A knife may be inserted under the drills in a slanting position, and deep enough to cut off their tap roots, about two inches below the surface; this will cause new roots to germinate, and will have the same effect as "pricking out." In case the above directions be not attended to, the plants may be "*thinned out*" when young, so that they may be straight and strong for transplanting.

The state of the weather when these operations are performed, is not a matter of indifference, and has been a subject of controversy; some recommending dry weather, others, wet. As in many cases of disputation the truth lies between them, that is, moist weather is neither dry nor wet, and precisely that which is best for setting

out cabbages or any other vegetables. We ought not, however, wait long for even this state of the atmosphere, since with a little labor we have the means of making up for its absence.

**TRANSPLANTING.** The small early-york, and others of the same size, which are not enumerated here, are to be put in rows of course. As to distances, they must be proportioned to the size which the cabbages usually come to. For the small early-york plant, a foot apart in all directions is enough; and the large york,—from eighteen to twenty inches will be sufficient space. For savoys and red-dutch, two feet apart in all directions will suffice, and for the large drum-head three feet may be sufficient. One particular, I wish you to observe, and this is, that in transplanting, the earth must be caused to come in contact with the point or lower part of the root—*this is an important object.* The ground should be plowed or dug up previous to planting.

Every variety of cabbage grows best in a strong rich, substantial soil, rather inclining to clay than sand, but will at the same time grow in any kind of soil, if it be well worked and abundantly manured with well rotted dung, and the after culture well attended to. I would recommend to hoe them while the dew is on, at least once a week.

Should your early cabbage have an inclination to burst ere you are prepared to use them, you may lift them sufficiently to start or disengage

the roots, (partly,) and this will retard their growth.

It is well known that the turnip fly will destroy young cabbage plants &c., soon after they crack the ground, and often it is laid to the imperfection of the seed.

To guard, therefore, against this fly, sow your cabbage on top of your root-house, or in a box or mound which may be elevated several feet above the level of the ground, as in their flight, they attain but to a trifling elevation.

**PRESERVATION.** To preserve cabbage through the winter in this country, is a task of no small difficulty; as others however, have tried with success the following method, I will do myself the pleasure of introducing it to your notice. —

“Immediately previous to the setting in of the hard frost, take up your cabbages for winter and spring use, in a dry day; turn their tops downward and let them remain so for a few days to drain off any water that may be lodged between their leaves; then make choice of a ridge of dry earth, in a well sheltered warm exposure, and plant them down to their heads therein, close to one another, having previously taken off their leaves. Immediately over them, erect a low temporary shed of any kind, that will keep them perfectly free from wet, which is to be open at both ends to admit a current of air; this is to be done in dry weather, and the ends are to be closed with straw, whenever the weather is very

severe." In this situation your cabbages will, it is said, keep in a high state of preservation till spring; for, being kept perfectly free from wet, as well as from the action of the sun, the frost will have little or no effect upon them. In addition to the foregoing, I would recommend that a quantity of earth or other matter be placed upon the shed or other covering, so as to make it nearly impenetrable to frost.



### CARROT.

*Daucus Carota.* The early "Horn or Long Orange" are the best for culinary purposes, and the Altringham and White Belgium for field culture. The last named varieties require the same soil, treatment, and distance as the beet, with the exception alone of being left six inches apart in the drills.

The Early-horn variety, will do well by having the drills one foot apart and four inches in the drill. They may be thinned to this distance, and by all means kept clean, as it is a well-known fact that no garden vegetable will succeed well in its growth, if not kept clear of weeds. As the carrot is so valuable an article of food for cattle and horses,—particularly for the latter, and so prolific withal, I earnestly recommend its field culture to the Canadian farmer.

## CUCUMBER.

*Cucumis sativus.* To give minute rules for the propagation and cultivation of this plant, to the Canadian farmer, would be superfluous. To be brief, however, I should recommend for culture, the short-prickly, early-cluster, and long-prickly, as they are in my opinion the best. There are others of a larger growth, such as the prize-fighter and others which grow to a very large size. The latter are not very agreeable to the palate, and not prolific.

**TIME OF PLANTING.** The cucumber should not be sown in the open ground too early, lest the seeds may rot. If, however, they should come up, they will have a sickly appearance. Those who have the means to force this vegetable, may commence sowing a month earlier. Gardeners formerly used small pots to cucumbers, melons, &c.; this was on purpose for the convenience of turning out the "ball," (that is the plant and soil together,) into the fruit ground, at the commencement of good weather. Recently it has been discovered that a mellow piece of sod, six inches square and two or three thick, laid evenly over your bed, the grassy side down, and about half an inch apart. Next, cover them about one and a-half inches with the richest gar-



den soil, sow six or eight seeds on each sod, and add one inch more of the same soil as above-mentioned on the top of your seeds—for the management of your bed—see *Hot-bed*. As soon as two rough leaves of the plant will have made their appearance, or even when the season has become warm and settled, you may prepare the hills where the plant is to grow, after which you will lift the sods by placing your hands beneath them, and the plants are then to be placed in their destined spot; you will be careful at the same time not to injure the roots. After this process, you may dress the hills, and be careful to water and shade them for a few days after.

## CELERY.

*Apium Graviolens.* There are several sorts of this plant, but the propagation and cultivation are the same. The whole of that part of the year during which the frost is out of the ground, is not at all too long for getting fine celery; it should be started in a hot-bed, and *pricked out* into a bed made very fine, and this should be done with care; it should afterwards be watered gently—once will answer, and then they may be shaded for a few days. In this bed they may stand till the last of June, or about that period, and then may be transplanted in the trenches; make the latter about four feet apart, one foot

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wide and one foot deep; throwing out the earth equally on both sides of the trench; the ground in which you make the trenches may be in a solid state. Along the trenches put some good compost manure, consisting partly of wood ashes, not fresh dung; dig in the manure and make all very fine. Take your plants and trim them of the long roots; shorten the tops, pick off all the side shoots or off-sets, and plant them six inches apart. You may hoe them with a small hoe, and as they advance in growth earth them up, but not too much at one period, lest you smother them. In going through this process, hold up the leaves, that the earth may not get between the outer and inner ones.

**PRESERVATION.** To keep this vegetable good through the winter, they are to be taken up, and placed in an upright position in your cellar or root-house, imbedded in sandy or loamy soil, to the upper part of the blanched or eatable portion.

## CITRON.

*Cucurbita citrullus.* This fruit is cultivated like the water-melon. It is used only for preserving in sugar, for which purpose it is esteemed in Canada.

## C H E R R Y .

*Prunus carassus.* This tree being ornamental, and its fruit delicious, — being also one of the hardy kind, I recommend it for the garden, should the same be large enough, so as not to interfere with the vegetable department.

It should be impressed on the mind, that all trees ought to be planted in the northerly and western parts, and some distance from the part in which you wish to raise vegetables. It often happens, that when a garden is limited in extent, too many trees are introduced therein; and this should be strictly guarded against.

As to its culture, it is equally easy as that of the Apple-tree.

## C A R A W A Y .

*Carum caruo.* The caraway is a biennial plant, and is cultivated chiefly for its seed, which is used in confectionary and medicina; it is raised from seed sown in the fall of the year, as soon as the seed is ripe. It will soon make its appearance, when it is to be thinned to the distance of one foot each way. If the sowing be delayed till spring, it will not flower till the following year.

## CORN.

(INDIAN.)

*Zea mays.* I will not now undertake to state the various methods employed for the field culture of this valuable vegetable, with which it is presumed my readers are generally acquainted; but however, as it is used when green, as a culinary vegetable, and introduced into gardens, I shall take the liberty of treating a little on its culture. It likes a dry soil open to the rays of the sun. The small early yellow Canadian corn, may be planted for early use, when the ground becomes dry; the distance, three feet each way. After the plants make their appearance, they are to be reduced to four in each hill.

For a general crop, (field crop,) it should not be planted too early. It has been observed by farmers, in days long past, that the most seasonable time for planting corn is, "when the leaves of the white oak attain the size of a mouse's ear." This period may be from the tenth to the twentieth of May. The sweet or sugar corn should be planted four feet apart, but not till the ground becomes warm, lest the seed may rot.

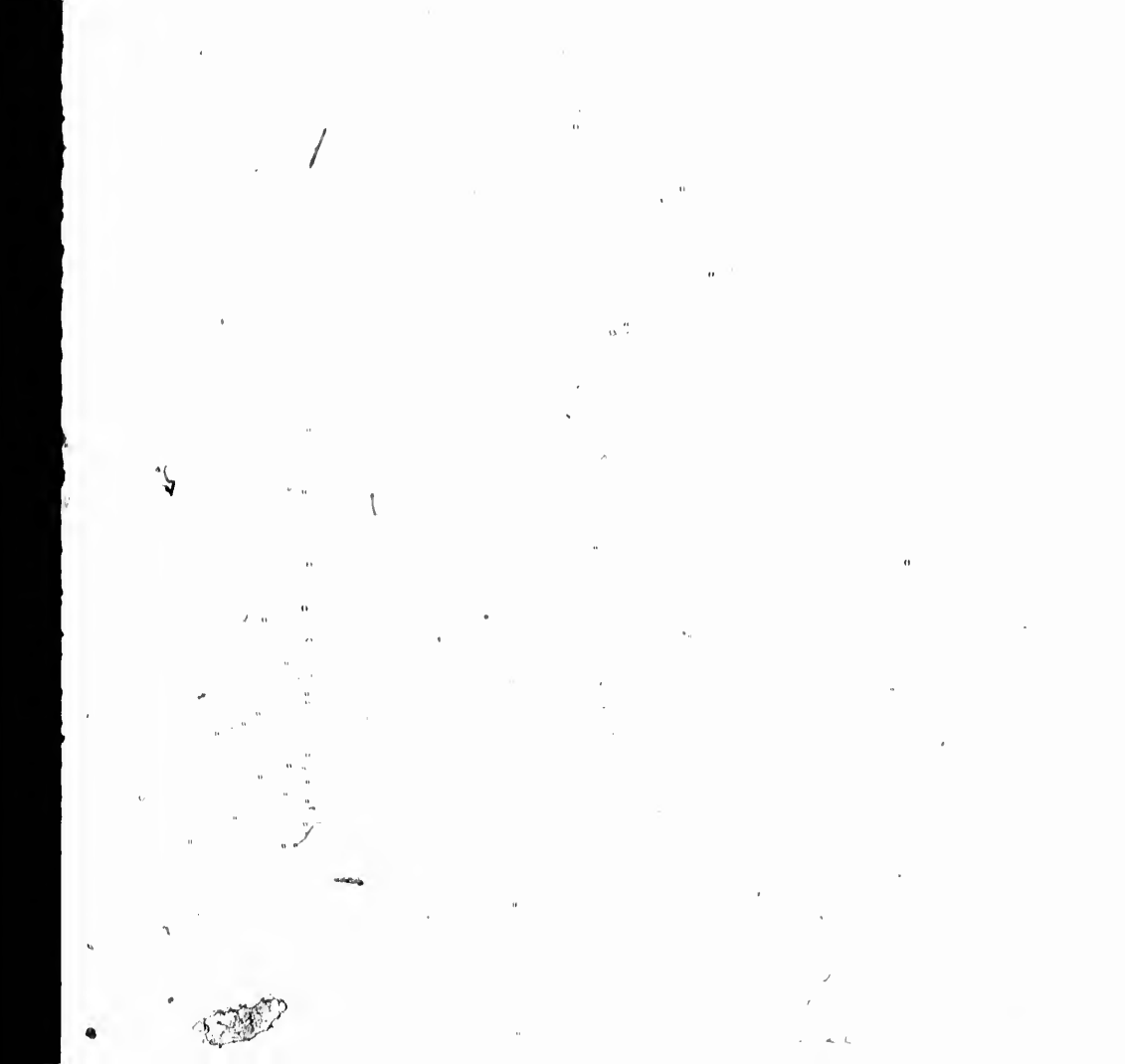
The latter kind is useful only for boiling when green, for which it is highly esteemed. A large quantity of rotten manure will be essentially necessary towards its cultivation.

## C O R N . ( B R O O M . )

*Zea.* This not being a culinary vegetable, its mode of cultivation is in a great measure omitted in works on gardening. As Canadian enterprise is on the advance, I have often been asked by some of the enterprising characters, what I thought of its culture on a large scale in Canada; my answer has been, that nothing in my view, can hinder its cultivation and propagation, as it has already come here to perfection. As to the way of raising it, I would advise the drill culture as preferable.

Some of our enterprising farmers may please to observe, that as the Broom Manufactory is attended with profit, and with a trifling capital,—besides the seed being useful for domestic animals, its culture may well be attended to.

“It is said that the seed of this plant is excellent for sheep. Albert Hibbard, of North Hadley, tells us he makes use of the seed of his broom corn to fatten sheep, that they are very fond of it, and will fatten better on this than on Indian corn. Broom corn is raised in great quantities in the river towns, where the brooms are made up and distributed to all parts of the country.” Mr. Hibbard thinks the broom corn more valuable for sheep than oats or any grain pound for pound.



## C R E S S . ( P E P P E R - G R A S S . )

*Lepidium sativum.* This plant is very easy of culture, and will grow in almost any kind of soil. It is very good in salads. It may be sown in narrow drills, rather thick, and cut for use while in a tender state. A small quantity in the salad season may be sown every week.

## C O F F E E . ( C A N A D I A N . )

The culture of this plant has not as yet been tested by me. Nearly twelve months past, I wrote for the seed, but such was its demand and quick sale, that not one grain could have been forwarded. I expect this winter to get a supply of the seed; and should it succeed, with me, as well as it has with Mr. William March of Canada West, whose report on the subject of its culture has been laid before the Directors of the Agricultural Society, (C. W.) I shall feel a pleasure by introducing to your notice my mode of cultivating a plant, which, if report be correct, equals in flavor that of the imported coffee of the tropics.

## CHIVES or CIVES.

*Allium schoenoprasum.* This is a small species of onion, and grows in tufts. It is propagated by offsets from the roots, and may be planted in the spring or autumn. It is frequently used as edgings for borders.

## C H E R V I L .

*Choerophyllum.* This is an annual plant, with leaves resembling double parsley; it is used in soups and salads.

## C U R R A N T .

*Ribes.* The currant will grow in almost any soil, but best in that which is rich and loamy. There are many species, but the common red-dutch is the kind generally cultivated, although the white and black, (*ribes nigrum*,) are not altogether neglected. The latter variety bear the largest berry, and its cultivation should be more attended to, on account of its extraordinary medicinal qualities.

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Another species called the Missouri currant, bears a bright purple berry, and is not of an unpleasant taste. It is of clean growth, and owing to its profusion of fragrant flowers or blossoms, it is ranked as one of the ornamental garden shrubs.

### EGG - PLANT.

*Solanus Melongena.* There are two varieties of this plant, the white fruit and the purple, both of which are used for culinary purposes, particularly the latter; some deem them delicious. They are natives of a warm climate, and are raised here more for ornament than use; they are a delicate annual and require to be raised in a hot-bed, then transplanted into warm and rich ground.

### ENDIVE.

*Cichorium endiva.* This is an annual plant which is used in soups, salads and stews. Sow from May to July, in fine rich ground; the plants to be thinned to one foot each way. When they attain to a good size, they may be blanched, if wanted as a salad, which is done in the follow-

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ing manner:— Gather up the leaves when dry, in a careful manner, with your hands; the form you will gather them into may be that of a cone. Around this you may wind gently, some matting or soft string sufficient to keep them in their position, and in this form they are to remain at least one fortnight, when they are fit for use.

### GARLICK.

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*Allium sativum.* Garlick is a hardy perennial plant with a bulbous root. The bulb is composed of twelve or fifteen subordinate bulbs, and prefers a light dry soil, rich but not recently dunged. It is propagated by planting the cloves or subdivision of the bulbs; set them from four to six inches asunder, and about two or three inches deep, in drills.

### GOURD.

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*Cucurbita.* On this plant, Mr. Cobbett makes the following remarks: "I do not know of any use that it is of."

So far is it of no use as a culinary vegetable, I will admit with Mr. Cobbett, but there are nevertheless, some varieties of this plant which

may be made use of, such as the large bottle gourds, (*Cucurbita lagenaria*.) This grows from ten to fifteen inches in length, and the shells will hold from one to three quarts; they are light and make good dippers, and with good usage will last for years. The bicoloured gourd, (*cucurbita bicolor*,) is a small beautiful plant, quite round, one part of a deep green and the other a deep yellow; this is only ornamental. Cultivation should be grown at a good distance from squashes, melons &c., to prevent intermixing, and being also climbers, will require strong bushy sticks.

### GOOSEBERRY.

*Rubus grossularia*. This is to be cultivated in the following manner. "First select your soil, which is to be neither a stiff clay nor a loose sand, but of good rich deep mould, in a position where the mid-day sun will never reach. Plant your bushes three feet apart, train them into heads at least two feet from the ground, let the heads be formed nearly round and open. After the head is once formed, attend to the bush from the time the blossom shows until the fruit is ripe, and whenever a branch is pushing forward to make wood, nip the end with the fingers, thus throwing all the juices into the formation of the fruit, besides keeping the bush more open to the

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air. With the hoe dig well among the roots, be-  
ing careful not to break them, but yet to keep  
the earth loose and moist. As often as once a  
week, from the time the fruit sets until ripe, wa-  
ter with liquid manure upon the soil and use the  
hoe directly after it. In pruning, let it be borne  
in mind that the gooseberry produces fruit on  
the wood, not only of the preceding summer's  
growth, but also on spurs from old wood. Should  
any appearance of mildew become visible, sprin-  
kle the bushes with weak lime water, and scatter  
lime and sulphur underneath upon the ground.

HORSE - RADISH.

*Cochlearia armoracia.* This is best propagated  
by cutting bits of the roots into lengths of about  
two inches, and putting them spring or fall  
into the ground about a foot deep with a setting-  
stick; they will find their way up the first year,  
and the second they will be fine large roots if the  
ground be trenched deeply and made pretty good.  
Though a very valuable and wholesome diet, it  
is a most pernicious weed.

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## H O P.

*Humulus lupulus.* Although the hop is not a culinary vegetable, yet as it is more ordess used in every part of our country it might be unjust, were I not to treat a little relative to its culture. The hop thrives best in a deep loamy soil on a dry bottom, which requires to be well pulverized and manured previous to planting.

Any part of the root to which a joint is attached, will grow and become a plant. If planted in hills, three or four are not too many in a hill. The first year small poles only will be necessary, and these must be placed in an upright position near the plant, up which the latter may creep.

## L E E K.

*Allium porum.* This is a vegetable which for certain purposes is preferred to onions. The time for sowing is as early in the spring as the weather and the ground will permit. Sow in drills of fine earth eight inches asunder, and thin the plants to three inches apart in the row. Keep the ground clean till about the first day of July; then take the plants up, cut the roots off to an inch long and cut off the tops of the leaves, but not too low down; make deep drills with a hoe

at two feet apart, plant the leeks in these drills with a setting-stick, fastening them well in the ground and leaving the drill open. As the plants grow, put to their sides the earth that came out of the drill; after that draw more up to them on each side from the interval, and if your ground be really good, each leek will have attained a sufficient size for use.

## LETTUCE.

*Lactula sativa.* All kinds of lettuce will have arrived at greater perfection by being transplanted in good ground. The tennisball and other small kinds will grow within six inches of each other, but the royal cape, grand admiral, and the large cabbage kinds should be set one foot apart each way. In transplanting, you will be careful to allow some of the original earth to adhere to the roots of your plant when you detach the same from the seed bed.

## MELON.

*Cucumis melo.* (Musk Melon.) There are many varieties of the melon highly esteemed in Europe which do not succeed in this country;

the gardener should therefore only plant such as have been tested and found to produce good fruit here, or superior sorts may become degenerate. After a judicious selection is made, it caution be not used to plant the different sorts remote from each other, also from cucumbers, squashes and gourds degeneracy will be the consequence.

The following are Mr. Bridgeman's remarks relative to the propagation and cultivation of this melon:—

“ For the varieties of the Musk or Canteloupe Melons, prepare a piece of rich ground early in May, manure it and give it a good digging, then mark it out into squares of six feet each way. At the angle of each square dig a hole twelve inches deep and eighteen inches over, into which put about six inches deep of old rotten dung, throw thereon about four inches of earth, and mix the dung and earth well with the spade; after which draw more earth over the mixture so as to form a circular hill about one foot broad at top. When your hills are all prepared, plant on each six or eight seeds, distant two inches, from each other, and cover them about half an inch deep.

When the plants are in a state of forwardness produce their rough leaves, they must be thinned to two or three in each hill; draw earth from the top to time round the hills and about the roots of the plants. As soon as the plants have spread into branches, stop them by pinching off the top of the first runner bud, this will strength-

on the plant and promote the perfection of the fruit early; after which, keep the ground perfectly free from weeds by frequent hoeing.

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### WATER-MELON.

*Cucurbita citrullus.* In order to have water-melons in perfection, you must fix upon a piece of very rich, light soil. Prepare, plant, and manage in every respect as directed for the Muskmelon, only let the hills be seven or eight feet distant every way. One ounce of such seed will plant from forty to fifty hills.

I recommend, that when melons be sown in the open ground, the period may be when the ground is warm, or about the planting corn season. Should hot-bed culture be preferred, the treatment may be the same as that of the cucumber.

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### M U S T A R D .

*Sinapis.* The *Alba* or White Mustard grows spontaneously in the fields of England; it is also cultivated as a small salad as well as for seed. The seed yields from every one hundred pounds, from thirty-three to thirty-six pounds of oil, which is sweet and mild.



White mustard seed is much used as a medicine, and persons subject to disordered stomachs, often derive great benefit by taking a spoonful of dry seed two or three times a day. Some use it in pickles, to which it imparts an agreeable flavor, and renders cucumbers in particular more salutary.

The *Nigra* or common mustard is also a native of England. The condiment called Mustard, and in daily use at our tables is prepared from the seed of this species. Although the article raised and manufactured in England, is much used in this country, some writers, such as Cobbett, &c. state that a spurious article, under the name of mustard, imported here, is a thing fabricated, and is as false, as the glazed and pasted goods sent out by fraudulent fabricators of Manchester. "It is nothing else but a composition of baked bones reduced to powder, some wheat flour, some colouring and a drug which gives the pungent taste. Whoever uses that "mustard" freely, will find a burning inside long after he has swallowed it.

As however the plant can be raised to perfection in Canada, I beg leave to recommend to your attention the following mode of cultivation. If the mustard be intended as a salad, sow early in the spring, in drills eight inches apart and half an inch deep; but if intended for seed, sow in drills two feet apart, and thinned out to six inches.

## MARTINIA.

This is an annual plant and may be ranked as a vegetable. As the young tender pods make a good pickle, and as it is besides highly ornamental, it often gets a place in the flower garden.

## NASTURTIUM OR STURTION.

*Trapacolum.* This is an annual plant, a beautiful flower and worthy of cultivating even as a vegetable. It is used for salads and garnishing, and the green pods for pickling. Sow early and not very thick; it should have bushy sticks to climb upon.

## O K R A .

*Hebiscus hesculentus.* This plant being a native of a more southern latitude than that of any part of Canada, its sure culture here may be doubtful; I shall not therefore recommend it to the attention of the Canadian gardener.

Any person however, who may be inclined to try its culture, and should succeed in the same,

will find it excellent in cookery as a sauce. It is said that its ripe seed burned and used as coffee can scarcely be distinguished from the latter. It should be planted about an inch deep and hoed two or three times like peas.

## O N I O N .

*Allium cepa.* Of the several kinds of onions, the red and yellow are the most profitable as a general crop; and of all the varieties, (potato onion excepted,) these will keep best through the winter. The New England White is a mild, pleasant onion, but not good for keeping. All the varieties propagated by seed require the same culture.

The onion will grow best in a moist and loamy soil, although they will grow well in soil partially sandy, if well rolled after sowing. Previous to sowing onion seed for a general crop, the ground should be well prepared by digging in some of the oldest and strongest manure that can be got. The earlier this be done in the spring the better, and the planting should not be delayed longer than the middle of April, if the season will permit. The seeds may be sown moderately thick in drills, from half an inch to one inch deep, and twelve inches apart.

When the plants are up strong they should be hoed. Those beds that are to stand for ripening,

should be thinned out while young, to the distance of two or three inches from each other. If a few should be required for use after this, those can be taken which more incline to tops than roots, and if the beds be frequently looked over, and the small and stalky taken away where they stand thickest, the remaining bulbs will grow to a larger size.

The plants should be hoed at least three times in the early part of their growth; but if the season prove damp and weeds vegetate luxuriantly, they must be removed by the hand, because after the onions have begun to bulb, it would injure them to stir them with a hoe. When the greenness is gone from the top of the onions it is time to take them up, as from this time the fibrous roots decay. After they are pulled they should be laid out to dry, and when dry removed to a place of shelter. The small onions may be planted in the spring. Even an onion which is partly rotten will produce good bulbs, if the seed stems be taken off as soon as they appear.

### TREE - ONION.

*Allium proleferum.* It is propagated by planting the bulbs in spring or autumn, either the root bulbs or those produced on the top of the stalks; the latter, if planted in the spring, will produce fine onions. These may be planted in rows with a dibble, the same as shalots.

## POTATO - ONION.

*Allium tuberosum.* - This does not produce seed as other onions, but increases by the root. One single onion, slightly covered, will produce six or seven in a clump partly under ground. The bulbs are generally planted in the spring, from twelve to eighteen inches apart; but they will yield better when planted in the autumn, as they will survive the winter if slightly covered with dung, litter, or leaves of trees &c.

## P A R S L E Y .

*Apium petroselinum.* Parsley is a hardy biennial plant, and grows wild in moist climates, but has been greatly improved by cultivation. The leaves of the common parsley are used as a pot-herb, and those of the extra curled kinds make a fine garnish.

These may be sown in the fall or spring in a cool situation, a quarter of an inch deep, with the earth pressed hard upon it; this process is indispensably necessary in dry weather. In addition to its utility as a culinary plant, it is highly ornamental in its first year's growth, as an edging for walks.

## P E P P E R .

*Capsicum.* This plant is a native of the East and West Indies ; it is much used for pickling, and should be gathered for that purpose before fully ripe. The seeds of the different kinds of capsicums should be sown in a hot-bed on the first of April, or on a warm border in the month of May. To be transplanted in very rich warm ground, open to the sun, at a distance of fifteen inches apart from each other.

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## P A R S N I P .

*Pastinaca.* As the seed of this vegetable is so long sown ere it vegetates, it is recommended to sow as early in the spring as possible ; drill culture is preferred ; the seeds to be sown in the drills, fifteen inches apart, and thinned out to four inches. Soil and preparation the same as the beet. That part of your crop of parsnips that you may not want until spring, may be left in the ground, and those dug in the fall, may be packed in dry sand or sandy earth.

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## P E A S .

*Pisum sativum.* These should be sown, if for an early crop, as soon as the ground is clear of frost. Drill culture is the best; for the low dwarf kinds, the drills may be three feet apart. Those peas of a medium growth may have their drills four feet apart; and for the largest kinds the distance may be about five feet. The space taken up by them in the drills is as follows:— If for the small kind, three to an inch; for the medium kind, two to an inch; and if for the last sort, they may be sown one to an inch.

**SOIL AND SITUATION.** The soil should be moderately rich, and the deeper and stronger for the lofty growers.

Peas are not assisted, but hurt, by unreduced dung recently turned in. A fresh sandy loam or road stuff, and a little decomposed vegetable matter is the best manure. The soil for early crops should be very dry and rendered so where the ground is moist, by mixing sand with the earth of the drills.

As the plants increase in growth earth them up, and keep them clear of all weeds. In garden culture, they must have sticks stuck upright near to them; so that they may climb up the same.

## P O T A T O .

*Solanum Tuberosum.* This vegetable is so well known to the Canadian farmer and gardener, that to treat here at any length on the subject of its culture would in my view appear rather superfluous; but, however, as I have been as successful in raising as early a crop of potatoes as any person with whom I am acquainted in the valley of the Ottawa, I feel a pleasure in recommending my garden mode of culture, which is simple and perhaps no way novel to you.

I plant in hills, because I consider that the seeds therein derive more benefit from the sun's heat, than if planted in drills. Prepare the sets with two good eyes in each set, and this should be done about two days before planting. Prepare the ground by manuring, ploughing and harrowing. Mark out your hills by drawing a chain three feet distant each way, (that is cross-wise.) Drop only two sets in each hill; this limited number of sets may appear rather strange, but the following are my reasons for doing so. The fewer the number of sets in each the greater will be the quantity of nutriment to each set, and consequently the quicker and larger will be the vegetation, but this is for early use. For a general crop, I would recommend a greater number of sets to each hill. Should your ground be of a cold nature, I recommend that a small quantity of manure be put in each hill.



A good mode of raising early potatoes is to sprout the tubers in warm horse dung. They may be placed in layers with the manure, either on the ground or in a box or crate. If the potatoes, when packed for sprouting, are laid on small pieces of tough sods, the grass side downwards, they may be planted with the sods without breaking the sprouts or roots, which will greatly facilitate their growth. They should not be started too much before planting, as it is difficult to prevent the sprouts from being bruised or injured, if they are much more than an inch long. If planted very early, they should be put in a warm and rather dry soil, to avoid the liability of their rotting if the weather is moist and cool.

### PLUM TREE.

*Prunus domestica*. This tree is indigenous to this country. It should have a middling soil, neither too wet and heavy, nor over light and dry.

Armstrong recommends argillacious soils, not very cold, wet, nor very dry. "Where, from previous culture or accidental causes the earth becomes either very rich or very poor, the tree does not succeed. In one case its vigour is only directed to the production of wood and foliage; and in the other its growth is feeble and its life short." The following compositions have been known to protect fruit trees from the attacks of

numerous insects by being used as a wash to the trees immediately after pruning. The constitution of some trees will bear a much stronger mixture of ingredients than others; but the proportions as hereafter described will not be injurious to any, but will be effectual in the destruction of the larvae of insects:—

“To four gallons of water add one pound of soft soap, two pounds of common sulphur, two ounces of tobacco, and one ounce of black pepper. All these ingredients must be boiled together for twenty minutes at least, and when in a luke-warm state applied to the bark of the trees with a suitable brush.

## PEAR - TREE.

*Pyrus communis.* This tree I am sorry to find is not much attended to in this part of Canada, and I question if the soil and climate of the same are genial to its culture; should any however be desirous of cultivating it, let its soil and mode of cultivation be the same as that of the plum, with the single exception that the former will require a deeper soil, as the roots grow downwards.

Grafting or budding the pear on Quince stocks is a process resorted to for the purpose of dwarfing the growth, and causing early fruitfulness. Its advantages are now, I am happy to find, bringing it into favor in some parts of Canada.

## PUMPKIN.

*Cucurbita pepo.* Persons who have small gardens will not find room to introduce the pumpkin therein, as it requires a large space of ground, and also might be a source of the ailments by its proximity to the latter. Its manner of growth is like that of the cucumber, but rather stronger. It is often raised in corn fields, but not without some injury to the corn, as its broad spreading leaves exclude from the same the benefit of the sun.

## QUINCE.

*Cydonia.* This tree is of low growth, much branched and generally crooked. It likes a soft, moist soil, and a shady situation.

## RADISH.

*Raphanus sativus.* This vegetable may be sown every fortnight for summer use. Radish requires a soil about two parts of sand, one part garden

loam, and a small quantity of stable manure well pulverized; this will afford them semi-transparent, brittle, and free from the attacks of the wire-worm which infests rich garden soils. The early garden or scarlet short-top is the most esteemed.

### R A S P B E R R Y .

*Rubus.* These require the shelter afforded by a hedge or fence to protect them from the too powerful rays of the sun. The soil should be a light sandy loam, perfectly friable and well-manured. They should be planted in double rows twelve inches asunder, and running from east to west, as in that case each row will serve in a measure to shelter them from the rays of the sun.

### R H U B A R B .

*Rheum.* This is a hardy perennial; a valuable article and deserves a more general cultivation, particularly in Canada, where the apple has not as yet been generally cultivated.

It stands the hardest frost, if planted in a dry soil, and may be propagated by seed, or by parting the roots; if by seeds, they may stand in the

seed bed for one summer, at the distance of eight or nine inches apart. When the roots are divided, care must be taken to retain a bud on the crown of each section. Plant in the fall or early in the spring. In taking off the stalks for use, a knife must not be used; they are to be bent down by the hand and broken off by the same.

## SEA-KALE.

*Crambe maritima.* This plant being found on the shores of Great Britain, forcing its vegetation through gravel and sand, has led a great many to believe that such a soil as the latter would be the best for its culture; but it is now found by experiment, that the soil suitable for the Asparagus, will suit this vegetable also. It is a hardy perennial of long duration, and may be raised from the seed or pieces of the root.

Its earliness makes it more valuable, and when blanched, it is highly estimated as a culinary vegetable.

## SPINACH.

*Spinacia oleracea.* To have Spinach (or spinach) very early in the spring, sow on or about

the first week in September in drills one foot apart, and when the plants are well up thin them to six inches; they will be fine and strong by the time the winter sets in, and as soon as that comes, cover them over well with straw, or with leaves of trees which are better, and keep them on till the breaking up of the frost. Sow more when the frost is out of the ground, and this will be in perfection in the month of June following. This is one of the choicest greens that can be raised here or perhaps anywhere else.

### SHALLOT.

*Allium ascalonicum.* The true Shallot is a native of Palestine, and is considered to possess the most agreeable flavor of any of the *Allium* genus. It is consequently highly deserving of cultivation. It is propagated by planting bulbs or offsets in the fall; which may be set out with a dibble in rows twelve inches apart, and from four to six inches distant in the rows; or they may be placed in drills two or three inches deep and covered up with a trowel or hoe.

## SALSIFY or VEGETABLE OYSTER.

*Tragopogon pterisfolium.* This is a biennial plant and cultivated principally for its root, of which some persons are very fond. For cultivation, see *Parasit.*

## SQUASH.

*Cucurbita melo-pepo.* The Squash is a species of the *cucurbita*; and seems to be the link which connects the melon and pumpkin; they differ so much in form and size, that some kinds are not larger than a small orange, while others grow to an enormous size; in justice to this I have now in my possession, one that has been raised in my garden this season weighing nearly two hundred pounds. They vary also in quality; the kinds called summer squashes, are not eatable when ripe, and the autumn and winter squashes are not fit for use till they are ripe. Cultivation should be the same as that of the cucumber, distance excepted. The Bush kinds should be planted three or four feet apart; but this may be regulated in accordance with their natural growth as the vines of some will run further than others.

The running kinds may be sown from six to ten feet apart.

## STRAWBERRY.

*Fragaria.* The varieties of this fruit are so great, that I will not here enumerate them.

Many people have become discouraged from cultivating the strawberry, because their plants have proved barren notwithstanding good and useful culture. The cause was this — their plantation had become too old, or else they had taken their plants from some old degenerated stock. In either case, a crop of fine fruit need not be expected; plants must be selected from young fruitful plantations, well rooted runners of the present summer's growth.

As fine a crop as I have ever seen was raised upon soil only moderately rich, ploughed to the depth of only a few inches at the time of planting, and no manure applied; but it retained moisture admirably, and although lying rather low was not wet. The soil consisted of a mixture of clay and gravel.

Strawberries should be planted in rows about two and a half inches apart, and the space between should be hoed and kept clear of weeds. All the runners to be taken off, until the third year; then they may be allowed to fill up the space between, and the old rows demolished.

If the above method be complied with, no transplanting will be necessary in renewing the beds. Where new plantations are required, the last of August is a good period, as it gives the plants time enough to become well rooted in the ground ere the commencement of winter, and gives chance for a fruit crop the ensuing season.



## T O M A T O . ( L O V E A P P L E . )

*Solanum Lycopersicum.* This plant is annual, and for the sake of early fruit, it should be started in a hot-bed and afterwards planted out—about four feet apart.

They will grow in rather poor soil, in which they may be transplanted near each other, giving them an open place to the sun.

To have the fruit ripen early, the latter situation will be essentially necessary, as it will be to shorten the tops of the plants at the same time.

## T U R N I P .

*Brassica rapa.* This being a wholesome and useful plant, both for man and beast, and highly deserving of cultivation, I shall endeavor to stimulate those of our Canadian yeomanry who have hitherto neglected the culture of this field as well as useful garden production, to exertion and diligence, by inserting one or two extracts from one or two authors as well as a remark on the subject, from myself.

“For an early crop, the month of May is a favorable time for sowing turnip seed, and by the latter end of July they will be sufficiently large for the kitchen, and continue in good condition for a considerable length of time.”

Among the many enemies that the turnip has to encounter, the turnip-fly seems to be the most

formidable, which often totally destroys the plant immediately after the latter cracks the ground. A writer in the *Leeds Journal*, an English publication of much merit, under date of May 10th. 1847, says "that after trying various remedies to arrest the ravages of the turnip-fly, he ascertained by means of a lens, that there was on every leaf of the plant a number of white, flattish substances. The same appearances were also noticeable on the seed." He made a strong solution of salt and soaked the seed previous to sowing, and the plants from the seeds thus prepared were not infested by the fly. The same method he has adopted with the cabbage, and with the same success.

It is a well-known fact that it is the heat of the sun which gives strength and animation to the turnip fly; this may be easily proved by the following observation. If there be dark and cloudy weather when the plant first appears, and continues till the leaf of the same assumes a rough appearance, then will it escape the ravages of the fly; this may be said of all the Brassica genus. In sowing the seed for transplanting, a spot should be selected where the rays of the sun may not reach till towards sun set. Plants raised in this situation may be well thinned out or they will grow tall and weak, which is not desirable.

As there are many methods and means devised for the destruction of this insect, I would recommend the foregoing as the most successful. As the swedish turnip is the best for a late crop, and will bear transplanting well, I recommend

the following mode, which I have followed with no small success. Keep in readiness good strong plants for the early part of the month of July, or until the earliest of your potatoes are dug and cleared from the ground. All the vacant places that your early potatoes had occupied are now to be filled by your turnip plants, and this process you may continue for one month. I have this season raised from my early potato ground a considerable quantity of swedish turnips of a medium size; and such is my satisfaction relative thereto, that I once more recommend it as a successful mode of culture.

Field culture the same as that of the Beet, for which see *Mangell Wurtzell*.

## T O B A C C O .

This is not a culinary plant, although often introduced into the kitchen garden, to the no small distaste of the virgins of that department. The use of the tobacco plant is so well known, that a description of it here would in my opinion be deemed superfluous; and for the sake of brevity, I shall confine myself only to a few remarks on its propagation and cultivation. As it is a plant, when manufactured and imported to this colony, placed under a duty to no small amount, which necessarily raises it in price, I should consequently recommend its culture in Canada. It is also well known that it has been and can be raised to

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perfection in many parts of British North America; and in justification of the same, the plant raised in Canada is now offered as an article of sale in many stores and shops in the eastern and western United Provinces; and if fault has been found with it as not bearing comparison with the article; the growth and manufacture of the southern and south-western States, that is in my opinion owing to the inexperience and unskilfulness of the Canadian manufacturers.

Should any person be desirous of raising the tobacco plant to any extent, I should recommend the propriety of engaging an adequate number of our coloured brethren, now in the Canadas, but formerly slave cultivators and manufacturers of the plant in the south and south-western states.

**PROPAGATION.** Sow early in the spring, as the vegetation is rather slow. Select a warm dry spot, and collect some dry brush or other inflammable rubbish, which you will burn on the same, and after it becomes nearly cool spread the ashes. Should too much ashes appear on one place, you will spread the same evenly over the ground, after which you will sow your seed, rake it in, and tread it hard.

When the leaves attain to the size of a copper, (halfpenny,) they may be transplanted, which should be done on a cloudy day, or else covered from the rays of the sun. They require a southern exposure, and a strong rich soil. Distance between the plants, about three feet.

**CULTIVATION.** Its after culture to be the same as that of the cabbage, with the exception that

the flower buds are to be pinched off as they make their appearance, and the same is to be done not only on the top of the plant, but at the foot of every leaf. When the leaf becomes ripe, it proves to be so by its spotted appearance.

### V I N E : ( Grape. )

*Vitis vinifera vulpina.* Having given some personal attention to this fruit for several years past, I am satisfied that it can be raised in great perfection and with little trouble to the cultivator, if he sets out right in the first instance, and follows up my system with care and attention.

As this fruit should not be confined to the gardens of gentlemen alone, but to every man's garden if possible, I therefore recommend that it may be planted on the southern side of your wall or building, open to the sun. Any kind of deep soil on a dry bottom, well manured and trenched, will so far answer. In selecting your vines for planting, make choice of the earliest kinds, not more than two years old, and in a healthy state. Should you not be able to procure these, cuttings will answer, as they often bring forth fruit in three, and sometimes in two years. If the cuttings be of one eye each, they should be from the last year's growth, and a small piece of the branch an inch long, should be left attached to the bud, and extending half an inch on each side of it.

Should your ground be prepared, your cuttings may be planted in their destined spot; and if the ground be not prepared, they may be planted in a seed bed for one year. All outtings will strike better if partly shaded from the rays of the mid-day sun.

If the cuttings are of several eyes, they should be laid on the ground, sloping, leaving one eye level with or only just above the surface; they should be kept moist but not wet as this will rot them.

As the system of cultivating the vine in its different stages of growth is so extensive and particular, that to follow it here, would be taking up too much space, in a work intended to be as brief as possible.

In this country, the transitions of the weather, that is from heat to cold, are so great, that it is advisable to lay the vines on the ground in the fall of the year, and cover them with earth or manure, (the unripe wood should be cut off ere this process,) and to lay covered till the termination of the severe frosts. This advice is given, because the vines are often killed by being frozen, during the circulation of the sap; and the same may be applied to other trees and plants. As to the system of training to the wall or trellis, I shall leave it in accordance with the space the plants may occupy and to the skill and experience of the cultivator.

## EXPLANATION OF THE ANNUALS, BIENNIALS AND PERENNIALS.

It may be necessary to explain as we go along, that there are three principal descriptive names given to plants, namely, Annuals, Biennials and Perennials. The annuals, being of one season's duration, are raised every year from seeds. The biennials are raised from seed one year, continue till the second, then perfect their seed and soon after die. Some of these should also be raised every year from seed, but when once raised, they will continue on the same roots many years.

**TREATMENT OF SMALL SEEDS.** In the third part, containing medicinal and other plants, the depths and distances to sow the seed and raise the plants are not mentioned, as most of them are propagated by parting the roots, and will generally be raised in small patches. There are, however, several kinds that I would recommend to be sown in drills about six or eight inches apart, and those are the Sweet Basil, Dill, Sweet Marjoram, Rue, Saffron, Sage, Savory and Thyme. As to the depth, from one-fourth to one inch will suffice; this will be regulated according to the size of the seed. Any seeds that lie near the surface will vegetate quicker and better, by laying over them some straw, or a worn-out rug or mat, until they appear.

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**PRESERVING HERBS.** The following information for drying and putting away Pot and Sweet Herbs, we think will be acceptable to many of our Canadian friends.

All vegetables are in the highest state of perfection and fullest of juice and flavor, just before they begin to flower; the first and last crop having neither the fine flavor nor the perfume of those which are gathered in the height of the season, that is, when the greater part of the crop of each species is ripe. Take care that they are gathered in a dry day, by which means they will have a better colour when dried. Cleanse your herbs well from dirt and dust; cut off the roots, separate the bunches into smaller ones, and dry them by the heat of the stove. There can be no doubt of the propriety of drying herbs, &c. hastily by the means of artificial heat, rather than by the heat of the sun. In the application of artificial heat, the only caution requisite is to avoid burning; and of this a sufficient test is afforded by the preservation of the colour. The common custom is when they are perfectly dried, to put them into bags and lay them in a dry place; but the best way to preserve the flavor of the aromatic plants, is to pick off the leaves as soon as they are dried, and to pulverize and pass them through a sieve and keep them in well stopped bottles.



## P A R T I I I .

PLANTS TO BE CULTIVATED FOR MEDICINAL  
AND OTHER PURPOSES.

*Balm.* This plant is a hardy perennial; it is readily propagated by parting the roots. A strong infusion of the young shoots drank as tea for some time, has proved of service to nervous and hypochondriacal patients of a lax and debilitated habit. It is also good in fevers.

*Basil.* (*Sweet.*) "Is a very sweet annual pot-herb. A very little of it is sufficient for a garden. It is propagated by seed or from offsets.

*Burnet.* (*Garden.*) This plant is perennial, and propagated by seed; is a good medicinal herb, and often used in salad.

*Chamomile.* "This plant is perennial and propagated by parting the roots and also by seed. It is a stimulant and tonic — useful in febrile attacks, debility, and in all cases same as Mayweed.

*Comfrey.* This is perennial and mucilaginous, valuable in coughs and consumptive complaints. May be propagated by parting the roots."

*Coriander.* Is an annual plant and is good in soups and salads. The seed is also used as a medicine. A small patch, probably two square yards, will be enough. Propagated by seed.

*Catnip.* This plant is perennial and propagated by seed and parting the roots. Valuable for infections. In fevers it promotes perspiration without raising the heat of the body.

*Celandine.* This is a perennial and propagated by seed and offsets. It is used for colds and coughs.

*Dill.* This plant is biennial and propagated by seed. The seeds and leaves are used for giving a flavor to pickles, and also occasionally in soups and sauces. It is also used in medicinal preparations.

*Feverfew.* This plant is biennial and as a matter of course propagated by seed. It is a good medicinal plant.

*Hearhound.* This plant is biennial and consequently propagated by seed. It is stimulant and tonic, — useful in coughs and colds, also in asthmatic affections and in pulmonary diseases. It may be prepared with honey and molasses.

*Hysop.* This is a perennial and propagated by seed or dividing the roots. It is recommended for coughs and colds.

*House-leek.* This plant is perennial, propagated by offsets. Is used in making ointments for wounds, sores, &c.. It is also used in deafness.

*Ground Ivy.* This plant is perennial. It is good for rheumatism, gout and other diseases. Propagated by parting the roots.

*Sweet Marjoram.* This plant is propagated by seed, and the Winter Marjoram is propagated by parting the roots. Both kinds are used for culinary purposes, but the former is most esteemed.

*Marigold.* An annual plant. The flowers of the single kind are used in broths, stews & soups.

*Mint.* This is a genus of plants comprising twenty-four species. Those cultivated in gar-

dens are peppermint, spearmint, pennyroyal. All the species are raised by the same method, viz:— by parting the roots, by offsets and by cutting young stalks. *Peppermint* is a pleasant stimulant, promotes perspiration, and may be administered in all cases of colds, pain in the stomach and bowels, flatulency, headache, nausea, &c. *Spearmint* is a tonic and stimulant, and is employed to stop vomiting and allay nausea. It is an excellent carminative, induces perspiration, warms and invigorates the system and quiets pain in the stomach and bowels. *Pennyroyal* is an agreeable stimulant and if convenient should always be used in giving an emetic. It promotes perspiration and facilitates the operation of lobelia. It is also a valuable carminative, and may be used in all slight attacks of disease.

*Poppy.* (*Opium.*) This plant is annual from which opium is extracted; its use is so well known that it would be superfluous here to mention anything further about it.

*Rue.* This plant is perennial and succeeds best by being propagated from seed. It is efficacious in destroying worms and for strengthening the stomach.

*Saffron.* This is annual, consequently propagated from seed. It makes a valuable tea for children afflicted with measles, chicken-pox and all eruptive diseases.

*Sage.* There are varieties of this genus, but the small green-leaved or sage of virtue, is recommended as the best. It is a perennial and is propagated by seeds or suckers and by portions of

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old roots, and grows well in any soil not very wet. The leaves are used in fevers and for worms in children. It is a good substitute for tea, and is used in various culinary ways.

*Savory.* This is a hardy annual, and will grow almost in any soil. It has long been cultivated for medicinal and other purposes.

*Scurvy-grass.* This plant is perennial but best propagated by seed. It is used with success in most scorbutic diseases, and for cleansing the blood. It is often used as an early spring salad.

*Southernwood.* This is a perennial and may be propagated by cuttings. It is used for so many medicinal purposes, that it would be too tedious to mention them here. The most effectual of all is I believe, its application for worm diseases in children. In Germany, where it is called *stabswort*, it is often applied to wounds with success.

*Thyme.* There are two kinds of this plant, both of which are perennial; they may be propagated from seeds sown early in the spring — they are used for culinary purposes.

*Wormwood.* A perennial, and may be propagated from seed or parting the roots. It is used for the worm disease, for sprains and swellings.

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