

MANITOBA DEPARTMENT OF AGRICULTURE

War-Time Gardens in Manitoba

Paper Read at the 1918 Convention of the Manitoba Horticultural
and Forestry Association by

Mr. H. C. Whellams, R.R. No. 4, Winnipeg

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LEADING POINTS

1. To utilize home grounds for gardening is an important measure of thrift.
2. Dress garden soils liberally with well rotted manure.
3. Fall plowing of the garden is better than spring plowing.
4. After sowing, press the soil closely about the seeds.
5. Frequent cultivation should be given after the plants have appeared above ground.
6. Varieties lists of which are given herein, should be suited to this latitude and climate.
7. Each garden crop should be treated according to its special requirements.
8. Neighboring gardeners can profitably co-operate in different ways.

By Authority of Hon. V. Winkler, Minister of Agriculture and Immigration

War-Time Gardens in Manitoba

Prior to 1917, one noticeable feature of the surroundings of both city and country homes was the small number of gardens cultivated. This was regrettable. Every family in the Province should raise not only sufficient vegetables for its own use, but in many cases some to spare or to sell. We do not derive many benefits from war, but if the national need has caused men, women, boys and girls to take an interest in growing some of the necessities of life, we must admit that in this respect at least we shall have been benefitted.

War gardens should be made permanent, for it must not be forgotten that war merely gave the impetus to the movement.

Plowing

Citizens of Winnipeg are very fortunate in having business men and public officials who are doing their utmost to co-operate with those who are willing to undertake this work. One of the greatest factors in making this garden movement successful in Winnipeg is the opportunity citizens have of using the city's teams to plow and harrow their ground. Do not use the old fashioned fork and spade if you can avoid it. Take every advantage of this splendid offer, and if you have neglected having your garden plowed last fall, do not miss that opportunity in the fall of 1918.

Winnipeg Garden Show

We are indebted also to the business men of Winnipeg for the Garden Show, inaugurated last year for the express purpose of instructing and encouraging us to greater effort. A show of this kind is the greatest educator to amateur and professional alike, and while not all can win prizes, still, if the exhibitor will display a spirit of friendly rivalry, reasoning out with the judges and other competitors why he has not been successful, the time given in making the exhibit will be well repaid, and in the coming year you will find yourself determined to do your utmost to beat the other fellow. Bear in mind that the articles awarded the prizes are those that are in best condition **for your own use**; and this is the ultimate goal of the successful gardener. Therefore, I would ask you to support the Garden Show both for your own benefit and for the benefit of others, encouraging these men who have taken such a timely interest in your welfare and incidentally helping your neighbors, who will be encouraged by your example and success.

To Avoid Failure

Last year a large number of war gardens were planted. In many cases, quote unavoidably, the work of preparation was done too late. It was not to be expected that all those engaged in this work would succeed, considering their inexperience, unpreparedness of land, the want of knowledge in the selection of varieties and the fact that 1917 was one of the worst seasons for gardening experienced by Manitoba for twenty years.

I shall endeavor to give you the benefit of my own practical experience, outlining methods that have proven successful and naming varieties that I know you will find reliable, consideration being given to quality,

productiveness and certainty to ripen in this locality, hoping thereby to bring a measure of success to all who are interested in the home garden.

Do Work in Season

At the outset I wish to emphasize the necessity of doing the season's work in seasonable time. The importance of this is not sufficiently realized by many, and especially those who came from more temperate climates. In Manitoba we have but a short season and if you want results it is absolutely imperative that every advantage be taken to get the benefits of a full season's growth. "Never put off till tomorrow what should be done today," is particularly applicable to gardening in Manitoba.

The Soil and Its Preparation

As it is not possible for the home gardener to select his soil, he must do the best work possible with what he has at his disposal, which means a great variety of soils to deal with. The most difficult of all to handle successfully is the clay that has been thrown up from cellars. However, even this can be made to produce admirable results if a systematic course of manuring and fall plowing is adopted. To ensure success, all garden land should receive a dressing of well rotted manure three inches deep, to be **dug or plowed in, in the fall**. The frost reduces the roughest ground to almost perfect condition for a good seed bed, lessening the labor of cultivation, conserving moisture and inducing freer germination of the seeds. Still another advantage of fall plowing is the opportunity given for destroying a crop of weeds before the land is sown in the spring.

In dealing with spring worked land the following method is adopted: In order that the land may not become dried out and lumpy, as soon as the land is dug or plowed it should be raked or harrowed the same day and seeded if possible. If the harrowing is deferred, it means a loss of time—often weeks—before the coming of a rain heavy enough to saturate and dissolve the lumps and place the land in the required condition for the sowing of small seeds. Care must be taken not to work the land when it is at all wet, and a good guide in this respect is to make it a rule not to work the land when the soil clings to implements used.

Unless it is necessary for drainage purposes, do not raise the beds. Sow and cultivate on the level, thereby saving labor and conserving moisture.

Sowing the Seed

Successful germination, no matter how carefully the sowing may be done, must depend largely on the condition of the ground, but we must bear in mind the fact that unless the seed is carefully and judiciously placed in the ground, and properly covered, the crop cannot get a good start, no matter how well the land is prepared nor how good the seed is. Always put seed in freshly prepared soil. Sow your seed as soon as the land is dry enough to work after a rain, as the crust which begins to form on most soils after a rain will partly shut out the air and prevent free germination.

In case of heavy rains after sowing, it is a good plan to go over the ground lightly with a rake and break the crust, loosening the surface soil, increasing the stand of the plant, and at the same time killing a large number of weeds.

Firming the Soil

Many seeds are lost from the failure to properly firm the soil, especially

over those sown during dry weather. To meet this condition, after sowing and covering the seed, thoroughly firm the soil with your feet by going over each row and pressing down every inch of soil where the seed is sown. In sowing stiff clay soils use rather more seed than would be needed in the more porous ones, because while a few plants could not force their way through the crust, the many may do so.

Depth of Sowing Seed

This requires the exercise of considerable judgment. Seeds sown in early spring, when the ground is cold and moist, must not be placed as deep as those planted in hot, dry weather. This being a most important matter of detail, it will be dealt with again under the head of varieties.

Cultivation

As soon as the plants have come up frequent stirrings of the soil will prove beneficial; following a rain and after the land has dried sufficiently to be in good working condition is the best possible time for giving the soil a thorough stirring. During a dry season or a period of extended drought, the more frequently the soil is stirred around a growing crop the better. The constant moving of the soil forms a dust blanket or mulch, thus preventing undue evaporation.

Thinning the Plants

More often than not this is done too late. As soon as the plants are making a rough leaf and danger from cutworms is past, all surplus plants should be removed, leaving the standard plants the required distance for the full development of the crop.

Individual Varieties and Their Treatment

The varieties herein mentioned are those that have proved to be the most dependable. They will be mentioned in order of choice, the first named taking first place, the second the second place and so on. That there are others just as good I am well aware; but I have personally found those named herein to be the most satisfactory.

Beans—Honey Pod, Prolific, Golden Wax, Black Wax, Broad Windsor and Stringless Green Pod. Sow from May 20th to June 15th, setting seeds four inches apart and an inch and a half in depth, leaving two feet between the rows. The Broad Bean should be sown May 1st to the 10th, four inches apart, two feet between the rows and two inches deep.

Beets—Early Model, Crosby's Egyptian, Flat Egyptian, Three X Globe. Sow seed $\frac{3}{4}$ to 1 inch deep, one foot between the rows. Use the top for greens and make a late planting in June, the smaller bulbs making delicious pickles. If the crop comes uneven, transplant in moist weather.

Brussels Sprouts—Dalkeith Dwarf. Start the plants in hot beds April 10th and plant in the garden on May 20th. Set two feet apart in rows thirty inches wide. Break down side leaves at the end of August to allow the sprouts to form.

Cabbage—Select Wakefield, Copenhagen, Enkhuizen for early kinds. For main crop Copenhagen, Enkhuizen Danish Roundhead and Danish Ball. Sow in hot bed April 9th. Plant in open ground May 15th. The Copenhagen and Enkhuizen can be sown in the open ground for late crop the middle of May. Sow seeds half an inch deep; set the plants two feet apart and thirty inches between the rows.

Cauliflower—Early Snowball, Whitehead, Gilt Edge. Cultivate the same as cabbage. Tie up the leaves around the top as soon as the flower is commencing to form. This facilitates blanching and ensures white heads.

Carrots—Half Long Chantenay, Danvers and Scarlet Nantes. Sow the seed in clean ground half an inch deep in rows one foot apart from about the 5th of May up until the 10th of June. Thin the first time, as soon as large enough to handle, to two inches apart, second time taking out every other one. In this way you utilize the thinnings for home use.

Celery—Paris Golden, White Plume, Giant White and New Rose. Sow in hot beds March 25th to April 1st, covering seeds an eighth of an inch deep. Keep moist. Thin out or transplant into boxes, two by two and a half inches apart. Transplant into open ground 24th of May. Care should be taken to set the plants just so deep as not to cover the crown. When planting, the earth should be well firmed around the roots. Set the rows three feet apart and bleach by placing boards ten or twelve inches wide on each side. By using the boards this crop can be grown closer than where earth is used for banking.

Corn—Golden Bantam, Extra Early White Cob Cory, Early Malcolm and Improved Squaw. Sow 15th of May to June 1st. For early planting the seed should not be covered more than one inch deep, while the latest sowings may be sown at a depth of from two to three inches according to the ground and weather conditions. The rows should be three feet apart for the first and last named and four feet for the "Cory," placing six to eight seeds every two feet, and thinning to four plants in the hill. Hoe the soil slightly up to the plant.

Citrons—Red Seeded, Colorado Preserving. Sow May 15th one and one half inches deep in rows of three feet apart. This seed takes a long time in germinating. It is more hardy and requires to be sown earlier than other members of the melon family. Sow seeds six inches apart and when rough leaf appears thin to two feet in the row.

Cucumbers—Davis Perfect, Improved White Spine, Extra Early Long Green. Sow in the open ground May 24th to June 10th in rows three and a half feet apart, one inch to one and one half inches deep. Drop seeds every two inches and thin to half a foot.

Lettuce—(Leaf), Grand Rapids, Black Seeded Simpson; (Head) Toronto Gem, Big Boston, Nonpareil, Three X Solid Head. Sow in hot bed, 10th April, or in open ground as soon as land can be worked. Sowings can be made or plants set between cabbage and cauliflower rows, the crop being cut and out of the way before the land between the rows of the latter crops is required. Sow seed half an inch deep in rows one foot apart. Thin early and leave plants eight inches to one foot apart in the row.

Onions—Extra Early Flat Red, Yellow Globe Danvers, Early Flat Danvers. For transplanting Prizetaker and Southport Globe—red, white, and yellow. As soon as the land is in fit condition to work sow one inch deep in rows twelve inches apart, after giving the ground a thorough raking, and if the land is weedy wait a few days before sowing after the first stirring. Then rake it again and sow. This will kill the weeds which have started and give the seed a better chance. As soon as the plants commence to break the ground, run the rake very lightly across the rows. Hoe close up to the row as soon as you can see the plants. Pull all weeds as soon as possible. Where the land is dirty and there is danger of weeds smothering the crop, you can use the new

method of transplanting. About March 25th to April 1st take a box three inches deep, put in half an inch of rotted manure for drainage, fill with good loam, sow three-quarters of an inch deep in drills two and a half inches apart, using any of the last four varieties mentioned, placing four seeds to the inch. Keep moist and place in a warm window or a cold frame. Plant seedlings in the open ground about May 1st, or as soon after as the weather is favorable, in rows fourteen inches apart and six inches between the plants. Care must be taken not to force them too rapidly while in the boxes, as the plants do not thrive under too high a temperature.

Parsley—Triple Curled and Moss Curled. Sow in hot bed about 1st of April and transplant into open ground in rows fourteen inches apart and one foot apart in the row, as soon as the land can be worked in the spring. Sow the seed one inch deep. The seed having a hard covering, soaking it for twelve hours will hasten germination.

Parsnips—Hollow Crown. Use clean ground and sow in the spring as early as the ground can be worked, as the seed takes a long time to germinate. Have rows twelve inches apart and set seed three-quarters of an inch deep; thin early to six inches apart.

Potatoes—Bovee, Early Ohio, Snowdrop, Puritan, Hamilton. Select medium sized tubers that have not sprouted. Cut the sets to one or two eyes, leaving a good body of flesh with each set. When tubers are scarce small potatoes planted whole may be used, although it is not advisable to continue this practice; but where the parent stock is of known quality and size the small tubers may be used with success. Cultivation of young plants should commence as soon as they are well above the ground and be continued until the appearance of the blossoms. At each successive hoeing bring up earth against the plants. Examine the plants for potato bugs, and if there are but a few pick them off and burn them. If there are too many to deal with this way, fill a pail three-quarters full of water, add a dessert-spoonful of Paris Green; keep this stirred and apply to each plant with an ordinary corn whisk. Two applications should be sufficient, but if young bugs appear, further applications should be made at once. Spray in dry weather. To get the full benefit of the season's growth all potatoes should be sown not later than May 24th. Sow twelve inches apart, thirty inches between the rows, setting seed three to four inches deep.

Radish—Extra Early Turnip, White Tipped, Rosy Gem, French Breakfast. Can be sown for early crop between the rows of wider planted crops from May 5th, making successive sowings to August 1st.

Rhubarb—Strawberry, Victoria and Johnston St. Martin. Procure plants with three to four eyes. Dig the hole two feet deep; fill two-thirds with rotten manure. Plant in the middle of May, firming well the soil around the roots, which are planted with the eyes just below the surface of the soil. During the first season do not pull the stalks until such time in the fall as there is danger of hard frost.

Spinach—Long Season, Victoria. Sow as soon as the ground can be worked, covering three-quarters to one inch deep in rows one foot apart. In view of seed shortage, it is well to remember that young beet tops will take the place of and are equally as nice for the table, as this vegetable.

Squash—Bush Marrow, Warty Hubbard and Golden Hubbard. The first named variety should be planted in rows three feet apart each way. As the name implies, this variety is of bushy growth and does not run. Hubbards should be planted in hills on the outer edge of the garden,

where they can run without smothering the other crop. Plant from May 24th to June 1st, covering one and a half inches, preparing the ground as for rhubarb.

Turnips—Early White Milan, Hazzard Sweet, Improved Purple Top. Sow the first variety May 10th, in drills eighteen inches apart and half an inch deep. The later varieties are more useful and of better quality than the early sort. They should be sown any time from the middle of May to the middle of June in drills thirty inches apart, half an inch deep.

Tomatoes—Spark's Earliana, Atlantic Prize. Sow in hot bed April 10th, covering the seeds half an inch, in rows three inches apart, and transplant into boxes when the plants are making the third leaf. This should be done before the plants are becoming drawn through overcrowding. As soon as the plants fill the boxes, transplant into pots or old strawberry boxes and plant in the open ground from the 12th to 15th of June. Keep them well shortened by pinching off all side shoots and train to two stems. Drive two stakes firmly in the ground on the side of each plant and tie the plant every eight inches. Those without hot beds should purchase stocky plants about the middle to the 24th of May, disturbing the earth on the roots as little as possible, and, instead of planting in the open ground and losing them by frost, they should plant them in pots or boxes as above described and place in a sheltered and sunny corner, keeping them moist and covering them at night to protect from late frost. Follow the plan outlined above as to shortening and pinching. If the plants have been properly grown, the fruit will have already set on the first trusses while others will be in bloom. In setting out the plants a hole large enough to receive the soil and roots must be made. They should be planted at least two inches deeper than when set in the pots. Before putting in the last two inches of soil, give the plants a good watering and cover with dry earth. Plants grown in this way can be planted in the hottest weather without receiving any set back. The season also is advanced three weeks, and ripe tomatoes, instead of green ones, are the result.

Opportunities for Co-operation

In the making of hotbeds I would suggest a little co-operation. Two sashes 3x6 feet would provide enough cabbage, cauliflower and tomato plants for a dozen small gardens. So I would suggest that you organize amongst yourselves for this purpose.

You can also help each other under the club system by purchasing a Number 4 Planet Junior Combined Seeder and Wheel Hoe. Too much cannot be said for this useful implement. It will sow any seed from turnip to beans. In experienced hands it would sow from one to two acres of small seeds in a day, and when operated as a wheel hoe will cover as much ground as five men with single hoes. It is easy of adjustment and operation.

Caution

Should your land not be in condition for the sowing of small seeds, that is it is too rough or too weedy, you will get a greater return for the expense and labor expended by planting the whole in a rough crop, such as Potatoes, Cabbages, Corn, Cauliflower, Celery or Tomatoes, at the same time getting it into good condition for the next season.

