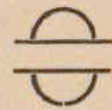


**VEGETABLE /
GARDENING
in
MINNEAPOLIS**



The Garden Club of Minneapolis

**Vegetable Gardening
in Minneapolis**



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THE MINNEAPOLIS GARDEN CLUB

1916

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This book has been revised and enlarged by A. W. Hasselberg, Superintendent of the Garden Club.

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The Minneapolis Garden Club

The Minneapolis Garden Club is a civic organization the object of which is to beautify the city, making it a more pleasing place to live—and a more desirable place to visit. The work of the club to a considerable degree is responsible for Minneapolis being one of the most beautiful cities in the United States. Cities and towns from all over the United States and Canada write to the Garden Club every year for information as to how such a movement is organized and conducted. Men from Minneapolis have been sent to every section of our country to organize and superintend clubs of similar nature.

The Garden Club is not a business organization. The operating expenses exceed the income every year, the amounts varying from a few hundreds to several thousand dollars. This is due to the great quantity of seeds, plants, literature, etc., that the club gives to its members without charge. The officers are public spirited men who devote their time to the work without pay. Any deficit incurred is always made up by business men and organizations in the city who feel that Minneapolis is so greatly benefited by the Garden Club, that they wish to do their share in supporting the movement.

The Minneapolis Garden Club was first organized in 1910 with a small newsboys' garden cultivated by 16 newsboys. In 1911 the membership was broadened to include anyone interested in gardening and the membership reached 320. Since then the membership has been increased to almost 3,000. The total membership in the club since 1910 has been over 7,000.

The membership prices have ranged from 50c to \$3.00, the variance in price being due to the amount of service given by the club. The highest fee was paid when the club did the plowing and distributed shrubbery to its members; the lowest when neither was done.

During its existence the Garden Club has distributed among its members 2,500 rhubarb roots, 5,000 seedling pines, 6,000 ornamental shrubs, 6,000 currant bushes, 10,000 fruit trees, 85,000 seedling plants such as tomato, cabbage and aster, 90,000 strawberry plants and 125,000 packages of seeds. If the shrubbery and trees given by the club to its members were planted at the regular distance apart they would encircle the city of Minneapolis and every lake within its limits, with a row on each side of the Mississippi river from the point it enters the city to the point it leaves. The total acreage plowed by Garden Club teamsters is close to 1,000 acres and the total value of the crops produced on Garden Club gardens is in excess of \$400,000.00

	PARSNIPS	SALSIFY
3'	LATE PEAS FOLLOWED BY SPINACH	
3'	LATE PEAS	
3'	EXTRA EARLY PEAS FOLLOWED BY CABBAGE	
3'	INTERMEDIATE PEAS FOLLOWED BY CAULIFLOWER	
3'	BUSH BEANS FOLLOWED BY RUTABAGA	
3'	BEANS	POLE LIMA BEANS
3'	LETTUCE and RADISHES SOWN TOGETHER	
3'	ONIONS	
3'	SWISS CHARD	BEETS
3'	CARROTS	TURNIPS
3'	EARLY CELERY	
3'	EARLY CABBAGE FOLLOWED BY CELERY	EARLY CAULIFLOWER
3'	TOMATOES	
4'	PEPPERS	EGG PLANTS
4'	SUMMER SQUASH	WINTER SQUASH
5'	CUCUMBERS	WINTER SQUASH
5'	CUCUMBERS	MUSH MELONS
5'	WATER MELONS	MUSH MELONS
5'	EXTRA EARLY SWEET CORN	
3'	EARLY SWEET CORN	
3'	EARLY SWEET CORN	
3'	MEDIUM SWEET CORN	
3'	LATE SWEET CORN	
3'	LATE SWEET CORN	

Plan for a garden 80 X 120 feet.

Introduction

In most books on gardening there is a common fault: the information relating to various details of planting is scattered, and it is necessary to read the whole book before a single step is taken. These defects are overcome in these instructions. They have been written for members of The Garden Club of Minneapolis, and are based on Minneapolis climate and experience. Numerous books relating to Minnesota gardening have been consulted, and all the information has been subjected to the scrutiny of experienced gardeners who live in this city.

SOIL

Any good corn land will grow vegetables and fruits in abundance. Of course, special crops require special conditions. For early crops it is preferable to use rich, sandy, quick-acting soil, sloping to the south. This is best also for plants such as vines and tomatoes, which need much warm weather to mature well. Late root crops, cabbage, etc., do best in slightly heavier soil, protected from the drying south winds by tipping to the north or east.

FERTILIZER

Minneapolis soil, for the most part, is of rich loam. Filled-in-ground may need fertilizer; the virgin soil does not. When fertilizer is applied, it should be well-rotted, or it will "burn" the plants. Street sweepings placed on the ground in the fall and plowed under will be pretty well rotted by spring. Commercial fertilizers are sold under a guaranteed analysis. No definite rule can be given for the kind or quantity of fertilizer to be applied, as this varies with the crop and the land. At first the only safe procedure is to use a good high-grade fertilizer at the rate of from 1,000 to 2,000 pounds to the acre and note the results.

PLAN

Much loss of time in planting a garden can be avoided by making a definite plan of the garden several weeks or even months before the planting is to begin. After measuring the area to be used for the garden, the next step is to decide what vegetables are to be grown. If space is ample, this will be determined primarily by the personal tastes of the gardener. However, if only a limited amount of time and attention can be given to the garden, it may be wise not to undertake the growing of some of the more exacting crops.

4	GRAPES		
6	BLACKBERRIES		GOOSEBERRIES
6	CURRANTS	RASPBERRIES	RED
4	BLACK		RHUBARB
4	ASPARAGUS		
4	TOMATOES		STRAWBERRIES
2	TOMATOES		STRAWBERRIES
2	TOMATOES		STRAWBERRIES
2	TOMATOES		STRAWBERRIES
3	SWEET CORN		
2	WINTER SQUASH	CUCUMBERS	SUMMER SQUASH
4	WINTER SQUASH	CUCUMBERS	SUMMER SQUASH
2		CABBAGE	
2		BEANS	
2		PEAS	
2	LETTUCE		RADISHES
2	ONIONS		TORNIPS
2	CARROTS		BEETS

Plans for garden 60 X 85 feet.

ROTATION

In planning the location of the various crops in the garden, due consideration should be given to the matter of rotation in order that the land may be occupied at all times. As a rule it would not be best to have a second planting of the same crop follow the first, but some such arrangement as early peas followed by celery, or early cabbage or potatoes followed by late beans or corn, and similar combinations, are more satisfactory.

SEEDS AND PLANTS

The supply of seeds for the garden should be secured some time in advance of the planting season. As early as possible obtain the catalogs of the Minneapolis seedsmen and make a selection. Garden seeds can better be secured of the local dealer than of one in another city. Seeds must be adapted to the climate. Many garden seeds lose their vitality after one year's time, and old seeds should, as a rule, not be relied upon.

TIME OF PLANTING.

The average date of the last killing frost in the spring in Minneapolis is April 27th. Many of the cool weather vegetables can be planted about this time, warm weather vegetables ten days later. The dates given in the following pages may be followed by every amateur gardener. If there should be an unusually late frost, some of the new plants will be destroyed. They can be immediately replanted, so really no time will be lost. If the last frost is early, those who follow the dates in this book will be that much ahead.

EARLINESS

All plants may be advanced by sowing the seeds in paper or pots in a kitchen and transplanting when the ground and weather is warm enough. Extra early potatoes are produced by sprouting the seeds. The average amateur gardener has neither time nor money to bother with cold frames or hotbeds. It is much easier and as cheap to buy cabbage, tomato, cauliflower, pepper, celery and egg-plants from the dealer.

PLANTING

If the soil is dry and mellow, firm the soil over seeds and about plants. This brings the soil particles into contact with the seeds and roots, and prevents them from drying out. The best way to firm the soil is to tread every inch of the row. When you have done this, rake gently with a short tooth rake to form an earth mulch. Do not firm the soil, however, if sticky or wet.

TRANSPLANTING

Success depends on several conditions: Good, healthy, stocky plants, which have been well "hardened off," must be used. The soil must be in good tilth, and moist enough for the plants. Before they are moved they should be thoroughly soaked with water; and, where possible, it is desirable to take some soil with the plant. It is also a good plan to shorten back the tops from one-third to one-half inch, especially in the case of plants like cabbage and celery, to prevent more evaporation taking place from the leaves than the roots can stand. See that the roots are put into fine, moist soil, and are well firmed, so that the small roots may at once take hold of the soil.

CULTIVATION

Frequent shallow cultivation should be employed for most garden crops, and during dry weather the depth should not exceed two inches. By keeping the surface soil well stirred, what is termed "dust mulch" is formed, and while this layer of finely divided soil will become quite dry it prevents the escape of moisture through the pores of the soil. A crust forming over the soil after a rain or watering is detrimental to plant growth and should be broken up as soon as the land can be worked. Sandy soil can be worked much sooner than clay soil. Too much importance cannot be placed upon the matter of thorough cultivation of the garden, and if the work is promptly and thoroughly done there will be little difficulty in controlling weeds.

IRRIGATION

In Minneapolis, where rains occur during the growing season, it should not be necessary to irrigate in order to produce the ordinary garden crops. Wherever irrigation is practiced, the water should not be applied until needed, and then the soil should be thoroughly soaked. After irrigation, the land should be cultivated as soon as the surface becomes sufficiently dry, and no more water should be applied until the plants begin to show the need of additional moisture. Constant or excessive watering is detrimental. Apply the water at any time of day that is most convenient and when the plants require it.

THINNING

When thinning plants, it should be the aim to remove the centers of the thick bunches, leaving the spaces as uniform as possible. Failure to thin plants properly will invariably result in the production of an inferior crop.

THE AUTUMN GARDEN

Gardening is looked upon essentially as a spring and summer operation, but it is possible by planting late in the season and

giving close attention to watering and cultivating to have a fall garden just as good as the first. Beans, beets, carrots and lettuce can be planted about August 15; endive and peas can be planted August 1; radish, spinach and turnip can be planted September 15, while sweet corn, cucumbers and kohlrabi, if planted between July 15 and August 1, will mature before frost. Lettuce and spinach may be protected against frost by covering with hay or straw.

GARDEN FRIENDS

Above all things, encourage birds in the garden. They destroy their weight in insects every week. The various poisons applied to plants do not affect the birds. Bees, dragon flies, tree crickets, lady bugs, wasps, hornets and garden spiders feed on various harmful insects and are useful to pollinize flowers. Lady bugs, wasps and hornets are especially beneficial. Frogs, toads and lizards thrive on small beetles, slugs and other insects. They should be encouraged.

MOTHS

Cabbage, tomato, pepper, cauliflower and other similar plants may be protected from all kinds of insect pests that do not come from the ground by this simple method: Nail 18-inch pieces of lath around four stakes 20 inches long, about 6 inches above the sharpened ends. Drive the stakes into the ground around the plants till the lath rests firmly on the soil all the way around. Spread mosquito netting around and over the stakes. The lath will hold it to the ground and no bugs or worms can get to the plant. This interferes a little with cultivation, but it is so simple an arrangement that in the average home garden it can be removed for cultivation and replaced. Be sure to remove the netting when blossoms come, for unless you allow friendly insects to pollenate there will be no fruit.

CUTWORMS.

The worst enemy of the garden is the cutworm. The best way to get rid of him is to prevent his coming. The moth of the cutworm lays eggs in broad-leaved plants and other rubbish in the fall. Clean the garden thoroughly in the fall. Make a "fence" around the garden of six-inch boards held in place by stakes; this keeps out marauders from neighboring sod. If you have been unable to take these precautions, so far as possible, plant vegetables in hills rather than in rows. Around each hill drive shingles sawed in two, four to five inches from the plant. When you set out the plants, surround them with shingles also. Shingles are better than paper collars. Inspect your garden thoroughly every morning. When you find a ruined plant, dig

with a sharpened stick and kill the cutworm that lies concealed at its root.

A bran mash sweetened with molasses and poisoned with paris green is a good remedy. Mix one-half pound paris green with 10 pounds bran and then add one quart cheap molasses. A little water may be added to stiffen the mash if needed. Place about a tablespoonful of this mash within 8-10 inches of the plants subject to attack in the evening. If placed closer, rain may wash the paris green against the roots and injure the plants. Chopped up clover poisoned with paris green will serve almost as well.

A slightly different formula has been used in Kansas that has been found very effective in combatting not only cut worms but grasshoppers, crickets and army worms. It is composed of one pound bran, one ounce paris green, three ounces syrup or molasses, one and one-half pints water, one-quarter lemon or orange. Mix the paris green and bran; squeeze the lemon or orange juice into the water, adding the grated peeling and pulp; dissolve the syrup or molasses in this mixture; mix the solid and liquid ingredients thoroughly. Scatter the mash around the plants subject to attack.

MAGGOTS

The cabbage and onion maggots are the only ones that need be considered by the city gardener in this locality. They are hatched from the eggs deposited by the adult flies, in the late spring or early summer, at the base of the young plants or in the soil just below the surface, near the plants. They attack cabbage, cauliflower, kohlrabi, radish and onion plants. If the beds containing these plants are small it is well to build a fence of 8-10-inch boards around them and cover this with mosquito netting. This will prevent the entrance of the flies and hence the maggots.

To combat the adult flies of the cabbage maggots the following remedy has been found effective by the Minnesota Experiment Station: Three ounces lead arsenate, two and one-half pounds brown sugar, four gallons water.

Make a paste of the lead arsenate, add the water and in this mixture dissolve the sugar. Apply with a spray, sprinkling can or whisk brook every week for five or six weeks in fair weather, or twice as often in rainy weather. The liquid attracts and poisons the flies.

To combat the flies of the onion maggot use one-fifth ounce sodium arsenate, one-half pint New Orleans molasses, one gallon water. Apply same as for cabbage maggot.

To combat the maggots the following remedy can be used: Steep two ounces white hellebore in one quart water for one

hour, then dilute to one gallon. Use about a cupful for each pint and apply every five days for the first two weeks and every week for the next four or six weeks. An ordinary sprinkling can with the sprinkler attachment removed can be used.

SPRAYING.

There are three kinds of sprays: First, poison insecticides; second, contact insecticides; third, fungicides.

Poison insecticides are used to combat leaf-eating or biting insects, such as the potato bug, cabbage worm, etc., which cause injury to the plants by eating the leaves. The spray when properly applied covers the leaves with a coating of poison. When these poisoned leaves are eaten the insect is killed.

Contact insecticides are used to combat sucking insects, such as plant lice or aphids and scale insects which do not eat the leaves but cause the plant injury by penetrating the surface with their beaks and sucking the juices from the leaves. A spray that kills the insect by coming into contact with its body must therefore be used. Most of the contact insecticides are of an oily or slimy substance which will form a film over the small breathing pores of the insect and cause suffocation.

Fungicides are used to combat or prevent fungous plant diseases.

Following will be found a list of the sprays in common use and the methods of preparing them. The quantity desired can be made by using more or less of the ingredients in the proportions herein stated.

POISON INSECTICIDES

One—Arsenate of lead. Does not injure foliage or wash off. Three pounds commercial paste or one and one-half pounds powder to 50 gallons water.

Two—Paris green. One pound to 25 or 50 gallons water; two or three pounds of stone lime may also be added to this. Make a paste first then add the water.

Three—Hellebore. Used dry or two or three ounces to one gallon water.

CONTACT INSECTICIDES

One—Kerosene emulsion. Dissolve one-half pound hard laundry soap in one gallon boiling water, then add two gallons kerosene, churning constantly until a creamy emulsion is obtained. Dilute one part of this emulsion with 10 or 12 parts of water for spraying.

Two—Tobacco extract. One pound tobacco stems or dust to two gallons water, or one pound tobacco leaves to four gallons water. Bring to a boil, then allow to simmer for one hour. The

dust or stems can be used dry to good effect. The commercial products are the most dependable forms in which to use tobacco, as a spray and should be diluted as per the instructions on the packages. The following can be recommended: Blackleaf, No. 40; Nicofume, Nicotocide, Nicotine Sulphate.

Three—Soap emulsion. Boil one pound good soap in five or six gallons of water until dissolved, then dilute with eight or nine gallons water.

Four—Miscible oils (oils which will mix with water). Dilute as per instructions on packages.

FUNGICIDES.

One—Lime sulphur (commercial). One gallon commercial solution to 30 gallons water.

Two—Lime sulphur (self-boiled). Eight pounds lime, eight pounds sulphur, 50 gallons water. Start lime slaking, sift in the sulphur, add enough water to prevent burning; allow to boil for 15 minutes then add balance of the water. Use good quality of lime and flowers of sulphur.

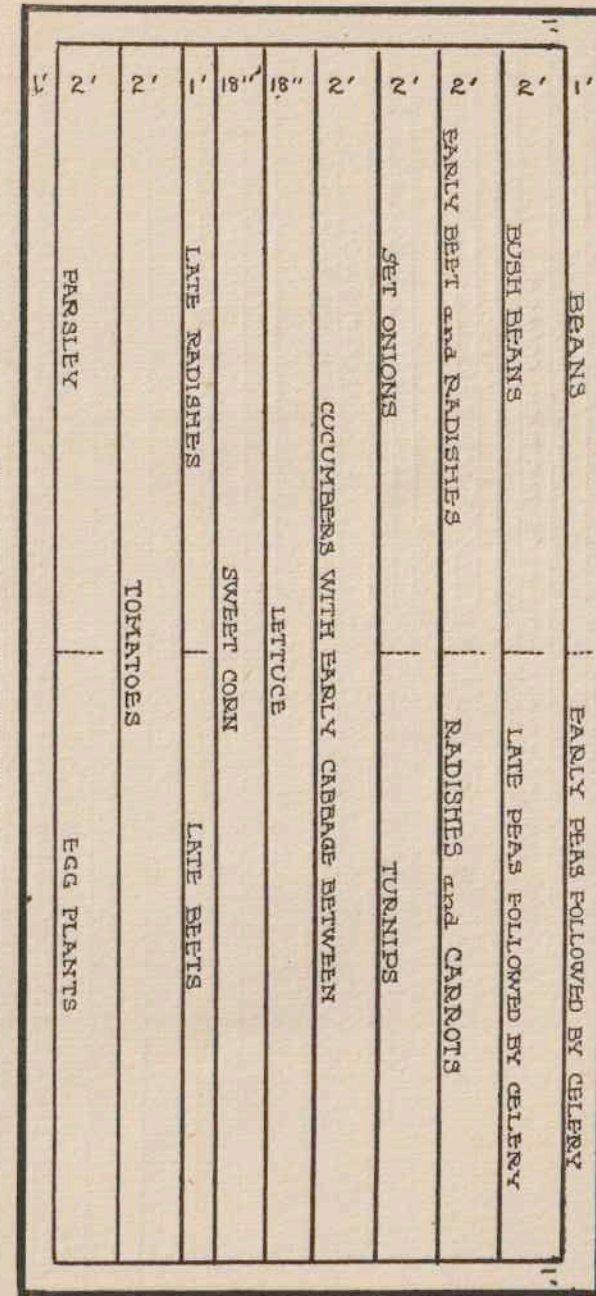
Three—Bordeaux mixture is composed of copper sulphate, quicklime and water in different strengths, indicated by the formula 4-4-50, 5-5-50, etc., meaning 4 or 5 parts of copper sulphate, 4 or 5 parts of quicklime and 50 gallons water. Use the 4-4-50 unless otherwise specified. Dissolve the copper sulphate and slake the lime in different receptacles, dilute each to 25 gallons then pour simultaneously into another receptacle of wood or earthenware, so that the two streams intermingle..

Four—Ammoniacal copper carbonate. Dissolve five ounces copper carbonate in three pints of ammonia, then add 50 gallons water.

Five—Potassium sulphide solution. Dissolve one ounce potassium sulphide in two gallons water.

Formaline solution for treating seed potatoes, etc.: Dissolve one pint or pound of formaline in 30 gallons water..

It is a good investment to buy a small hand spray, but if one does not care to do this an old whisk broom will do fairly well to scatter the poison over the plants. Whenever a bug or worm is found in the garden it should be hand-picked and killed. The above-mentioned sprays can be bought in any seed store. Always clean the sprayer after using.



ASPARAGUS	RADISHES
LETTUCE	SPINACH, FOLLOWED BY CUCUMBERS AND BUSH SQUASH
EARLY TURNIPS	ONION SETS
PARSLEY	MUSTARD
	EARLY BEETS FOLLOWED BY LATE CABBAGE
	ONIONS
	CARROTS
	PARSNIPS
	EARLY PEAS FOLLOWED BY STRING BEANS
	CABBAGE
	LETTUCE FOLLOWED BY CELERY
	CAULIFLOWER
	LATE PEAS
	STRING BEANS
	EARLY SWEET CORN FOLLOWED BY TURNIPS
	LATE SWEET CORN
	DWARF LIMA BEANS
	PEPPERS
	EGG PLANTS
	TOMATOES

Plan for a garden 30 X 60 feet.

Bean

Beans are of the leguminous family, to which also belong peas, clover, peanuts, etc. There are several classes of edible beans, including both climbing and bush sorts, but most of the beans in city gardens are of the "snap" variety and are eaten pod and all.

Soil preferred—Rather warm, sandy loam, not too rich in nitrogenous matter.

When to plant—May 5, and every two weeks till July 5; the seed germinates in five to ten days.

How to plant—In hills $1\frac{1}{2}$ feet apart each way, $\frac{1}{2}$ to 2 inches deep, 6 seeds per hill; if the soil is wet, the covering should be very slight.

Quantity to plant—20 hills per consumer; 1 pint per 100 hills.

Culture—When in the third leaf, thin to 3 per hill; cultivate frequently before blossoming; do not touch the leaves when they are wet.

Season—Should be ready seven weeks after planting, about July 1; gather just before the beans show on the outside of the pod.

ENEMIES.

Anthraxnose—Symptoms: Circular brown and black sunken spots on stems and pods. Leaf veins brownish and dead on under side.

To combat: Plant clean seed. Burn old vines. Don't cultivate when wet. Spray with bordeaux when third leaf appears and every two weeks for next two months.

Blight—Symptoms: Irregular reddish-brown, dead patches on leaves. Watery brown spots on pods.

To combat: Select seed from uninfected fields. Burn infected plants. Spray with bordeaux as for anthracnose.

Downy Mildew—Symptoms: White patches on pods, leaves and sometimes on stems.

To combat: Use clean seed. Burn old vines. Spray with bordeaux.

Powdery Mildew—Symptoms: Grayish patches of powdery nature on plant.

To combat: Dust with sulphur or spray with potassium sulphide.

Cut worms: Use paper collar, pick worms. See introduction on cut worms.

Beet

Beets belong to the goosefoot family, which includes also Swiss chard, spinach and that obnoxious weed, the Russian thistle. Late-sown beets are better than the early for storage, for,

not having completed their growth, they are more tender and of better quality for winter.

Soil preferred—A very rich, sandy, well-worked loam, manured year before.

When to plant—May 1, and every four weeks till July 15; the seed germinates in 7 to 10 days.

How to plant—In rows 1½ feet apart, 1 inch apart in row, 1 to 2 inches deep.

Quantity to plant—15 feet per consumer; 2 ounces of seed per 100 feet.

Culture—When 8 to 10 inches high, thin to 4 inches apart; cultivate thoroughly from the time the plants come up till they shade the ground.

Season—Should be ready eight weeks after planting, about June 20; gather just before maturity.

To store for winter—Dig October 1; cut off the tops, being careful not to cut the root; store in boxes or bins in a cool cellar, covering the tops slightly with sand.

ENEMIES.

Leaf Spot—Symptoms: Brown spots with gray center and purplish edge on leaves.

To combat: Spray with bordeaux when 6 weeks old and every 10 days for next month.

Scab—Symptoms: Scabby roots.

To combat: Plant in uninfected soil.

Leaf-eating insects: Use poison insecticide.

Cabbage

Cabbage is a member of the large mustard family, which also gives us cauliflower, kohlrabi, radish and turnip. There are three principal groups—the red-leaved cabbage, used principally for pickling and salads; the smooth-leaved cabbage, which is the ordinary garden type; and the wrinkled leaved or Savoy.

Soil preferred—A rich, alluvial or prairie loam, moist, yet well-drained and in fine condition.

When to transplant—April 25, and every month till June 25.

How to plant—In rows 2 feet apart, 2 feet apart in row; put the plant in the ground up to the first leaf.

Quantity to plant—10 plants per consumer.

Culture—Cultivate frequently till plants shade the ground.

Season—Should be ready eight weeks after transplanting, about June 20; gather soon as the heads are firm.

To store for winter—Gather October 1; do not remove the leaves or soil; stand upright in a cold cellar with roots in sand; slight freezing will not hurt.

ENEMIES.

Black Rot—Symptoms: Edges of leaves yellowish, veins black, leaves drop off. Heads cannot form.

To combat: Destroy infected heads. Plant in uninfected soil. Treat seed with formaline solution for 15 to 20 minutes, using one pound formaline to 30 gallons water.

Club Root—Symptoms: Large swellings on root. Plant fails to head.

To combat: Plant in uninfected soil. Lime soil before planting, using 8 or 10 bushels per lot, 50x150. Use no manure that may have come into contact with diseased plants.

Downey Mildew—Symptoms: Yellowish, sunken patches on leaves in seed bed.

To combat: Spray with bordeaux.

Soft Rot—Symptoms: Heads become watery and brown. Bad odor.

To combat: Destroy infected heads. (Flies spread disease.)

Cut Worms and Cabbage Maggots—See introduction.

Lice—Use contact insecticide.

Cabbage worm and other leaf-eating worms—Use poison insecticide.

Carrot

Carrots belong to the parsley family, which also includes parsnips and celery. Among the root crops of the garden, the carrot is one of the most highly prized. It is a biennial, probably a native of Europe. The roots are used at all times of the year, mostly in soups.

Soil preferred: A fine, mellow, rich, upland loam, manured the year before.

When to plant—May 1, and every two weeks till July 1.

How to plant—In rows 1½ feet apart, 1 inch apart in row, ½ inch deep; press the earth firmly over seeds; the seed germinates in 12 to 18 days.

Quantity to plant—10 feet per consumer; 1 ounce of seed per 100 feet.

Culture—When in third leaf, thin to four inches apart; cultivate occasionally till maturity.

Season—Should be ready 12 weeks after planting, about July 25; for soup, gather when two inches long.

To store for winter—Dig October 1 (late crop); cut off the tops; bury in dry sand in the cellar.

ENEMIES.

Soft Rot—Symptoms: Roots become soft.

To combat: No remedy.

Leaf-eating insects: Use poison insecticide.

Cauliflower

Cauliflower is grown in practically the same way as cabbage. The plants, however, are not so hardy in resisting cold. The tender heads are boiled and served with butter, or creamed, and are also used for pickling.

Soil preferred—A rich, warm, sandy loam, well pulverized.

When to transplant—May 1, and every month till July 1.

How to plant—In rows 2 feet apart, 2 feet apart in row.

Quantity to plant—10 plants to consumer.

Culture—Cultivate occasionally till the plants shade the ground; as soon as the heads form, tie the leaves over them to keep out the light.

Season—Should be ready 8 weeks after transplanting, about July 1; gather when the heads are half the size of a teacup.

ENEMIES.

Black Rot—Symptoms: Edges of leaves yellowish, veins black.

To combat: Destroy diseased plants. Plant in uninfected soil. Treat seed with formaline solution 15 to 20 minutes, using 1 pound formaline to 30 gallons water.

Club Root—Symptoms: Large swellings on roots. Plants cannot mature.

To combat: Plant in uninfected soil. Lime soil before planting, at the rate of 8 to 10 bushels per lot, 50 x150. Use no manure that may have come into contact with diseased plants.

Downy Mildew—Symptoms: Yellowish, sunken patches on leaves in seed bed.

To combat: Spray with bordeaux.

Soft Rot—Symptoms: Heads become watery and brown. Bad odor.

To combat: Destroy infected plants.

Cut Worms and Cabbage Maggot—See introduction.

Lice—Use contact insecticide.

Cabbage worm and other leaf-eating worms: Use poison insecticide.

Celery

Celery is a native of Europe. The plants are grown for the fleshy leaf-stalks, which are very tender and palatable when eaten in the raw state; both the stems and enlarged roots are stewed and creamed. Celery seed is used for flavoring soups and pickles.

Soil preferred—A deep, rich, black, moist loam, the nearer mud the better.

When to transplant—June 1; celery may follow some early crop such as radishes, peas or beets.

How to plant—In furrows 3 feet apart, 6 inches deep, 8 inches wide; 8 inches apart in the furrow; trim the roots to 3 inches; the plants in the earth up to the first leaf.

Quantity to plant—50 plants per consumer.

Culture—On Aug. 10, draw the earth around the plant nearly to the tips of the leaves, being careful not to let soil get into the heart; keep drawing earth around the plants till they are gathered.

Season—Should be ready 12 weeks after transplanting; about Aug. 25; gather when 10 inches high.

To store for winter—Gather Oct. 1; bury the roots in dry sand in a cool cellar, plants close together.

ENEMIES.

Early Blight (in early summer)—Symptoms: Yellowish, angular spots with raised borders on leaves. Centers of spots drop out and leaves die.

To combat: Spray in seed-bed and every two weeks with bordeaux, 5-5-50, or ammoniacal copper carbonate. Destroy diseased plants.

Late Blight (in late summer)—Symptoms: Yellowish spots later covered with black dots. Leaves rot in field and storage.

To combat: Spray as above throughout season. Destroy diseased parts. Store in well ventilated place and dip infected leaves in spray used.

Cucumber

Cucumbers are members of the large gourd family, first cousins of the pumpkin, squash, watermelon, muskmelon, etc. As cucumbers are subject to several diseases, the old vines and fruits should all be destroyed and the crop should not be planted two years in succession on the same land.

Soil preferred—A deep, rich, somewhat retentive loam, mixed with a shovelful of well-rotted manure per hill.

When to plant—May 15.

How to plant—In hills 5 feet apart each way, 3 inches apart in hill, 1 to 2 inches deep, 8 seeds per hill; the seed germinates in 6 to 10 days.

Quantity to plant—2 hills per consumer; 2 ounces of seed per 100 hills.

Culture—When in the third leaf, thin to 4 plants per hill; train the vines in different directions on the ground or poultry netting; remove the fruit when it matures to maintain the productiveness of the vines.

Season—Should be ready 9 weeks after planting, about July 15; gather when firm and brittle, before the color begins to fade.

ENEMIES.

Downy Mildew—Symptoms: Irregular yellow spots on leaves, causing them to fall off. Fruit cannot mature.

To combat: Spray with bordeaux when vines commence to run and every 10 days after. Burn infected plants.

Sclerotiniöse—Symptoms: In hot-bed. Stems soft and yellow. Dry up.

To combat: Spray with bordeaux. Burn infected plants.

Wilt—Symptoms: Vines droop and die.

To combat: Spray with bordeaux. Burn infected plants. Use clean soil. Destroy the striped cucumber beetle which spreads the disease.

Wart Disease—Symptoms: Knob-like protruderances which misshape fruit.

To combat: No remedy.

Scab—Symptoms: Brown sunken spots on fruit, leaves and stem.

To combat: Spray with bordeaux. Destroy infected parts.

Striped Cucumber Beetle—Adult: Apply mixture composed of 10 pounds air slaked lime and 1 pound paris green. Spray with arsenate of lead.

Larvae: Follow each other eating deep burrow in stalk, killing plant. As soon as they appear above the surface of the ground apply a 40 per cent nicotine solution on all sides of the stem.

Egg Plant

Egg plant is a member of the tobacco family, which also includes the tomato, the pepper and the potato. The Colorado beetle likes it almost as well as it does the potato, and it is necessary to keep a sharp watch or the bug will destroy the few plants set out.

Soil preferred—A fine, rich, sandy loam, well drained; fresh manure must be avoided.

When to transplant—June 1.

How to plant—In rows 2½ feet apart, 2½ feet apart in row.

Quantity to plant—3 plants per consumer.

Culture—Cultivate freely till the first fruit is ready; remove the lateral branches so as to produce fewer fruits per plant.

Season—Should be ready 12 weeks after transplanting, about Aug. 1; gather when the size of a large teacup.

ENEMIES.

Leaf Spot—Symptoms: Small, angular spots on leaves.

To combat: Spray with bordeaux 5-5-50, 10 days after planting

and every two weeks thereafter. Pick off lower leaves when setting out seedlings.

Point Rot—Symptoms: Sunken, brownish spots on flower end of fruit which later spread over entire fruit.

To combat: No remedy. Worst on light soils in hot, dry weather.

Ripe Rot—Symptoms: Common black rot on ripe fruit.

To combat: Spray with Bordeaux as for leaf spot. Have plants well tied up to permit air to circulate.

Kohl-Rabi

Kohl-Rabi belongs to the same class as cabbage and cauliflower, but presents a marked variation from either. It is, perhaps, half-way between the cabbage and turnip, in that its edible part consists of the swollen stem of the plant. Prepare for the table in the same manner as turnips.

Soil preferred—A light, rich loam, manured the year before.

When to plant—May 1 and every 2 weeks till July 1.

How to plant—In rows 1½ feet apart, ½ inch apart in row, ½ inch deep; the seed germinates in 6 to 10 days.

Quantity to plant—5 feet per consumer; ¼ ounce of seed per 100 feet.

Culture—When in the third leaf thin to 6 inches apart; little if any cultivation is needed, besides keeping the weeds down.

Season—Should be ready 9 weeks after planting; about July 1; gather just before maturity, when young and tender.

ENEMIES.

Black Rot—Symptoms: Edges of leaves yellowish, veins black.

To combat: Destroy diseased plants. Plant in uninfected soil. Treat seed with formaline solution 15 to 20 minutes, using 1 pound formaline to 30 gallons water.

Club Root—Symptoms: Large swellings on roots. Plants cannot mature.

To combat: Plant in uninfected soil. Lime soil before planting at rate of 8 to 10 bushels for lot 50x150. Use no manure that may have come into contact with diseased plants.

Downy Mildew—Symptoms: Yellowish, sunken patches on leaves in seed bed.

To combat: Spray with bordeaux.

Soft Rot—Symptoms: Heads become watery and brown. Bad odor.

To combat: Destroy infected plants.

Cut worms and cabbage maggot: See introduction.

Lice: Use contact insecticide.

Cabbage worm and other leaf-eating worms: Use poison insecticide.

Lettuce

Lettuce belongs to the dandelion family—a large family numerically, but very poor in edible plants. This is among the best relished of what are known as “leaf crops.” It thrives best in early spring or late autumn and will not withstand the heat of summer.

Soil preferred—A rich sandy loam, rich with organic matter.

When to plant—April 25 and every 2 weeks till June 1.

How to plant—In rows 1½ feet apart, 2 inches apart in row; ½ inch deep; press the soil firmly over the seeds; the seed germinates in 6 to 8 days.

Quantity to plant—10 feet per consumer; ¾ ounce of seed per 100 feet.

Culture—When the plants are 3 inches high, thin to 6 inches apart, and remove the leaves as fast as they are large enough; it is best to provide natural shading.

Season—Should be ready 9 weeks after planting, about June 25.

ENEMIES.

Mostly greenhouse diseases.

Gray Mold—Symptoms: Wilted edges on leaves causing them to die.

To combat: Use uninfected soil. Good ventilation.

Wilt—Symptoms: Leaves wilt.

To combat: Use uninfected soil. Good ventilation. Destroy infected parts.

Lice—Use contact insecticide.

Muskmelon

The muskmelon requires a long season to develop and is easily injured by frost or even by cool weather. When the plants are quite young they are subject to all the cucumber diseases and the precautionary measures recommended in their case should be observed.

Soil preferred—A moderately rich, light, warm, mellow loam.

When to plant—May 15.

How to plant—In hills 5 feet apart each way, 3 inches apart in hill, 1 inch deep; 8 seeds per hill; the seed germinates in 6 to 10 days.

Quantity to plant—3 hills per consumer; 2 ounces of seed per 100 hills.

Culture—When in the third leaf, thin to 4 plants per hill; train the vines in different directions; cultivate till the vines prevent.

Season—Should be ready 18 weeks after planting, about Sept. 20.

ENEMIES.

Downy Mildew—Symptoms: Irregular yellow spots on leaves, causing them to fall off. Fruit cannot mature.

To combat: Spray with bordeaux when vines commence to run and every 10 days after. Burn infected plants.

Sclerotiniase—Symptoms: In hot-bed. Stems soft and yellow. Dry up.

To combat: Spray with bordeaux. Burn infected plants.

Wilt—Symptoms: Vines droop and die.

To combat: Spray with bordeaux. Burn infected plants. Use clean soil. Destroy the striped cucumber beetle which spreads the disease.

Wart Disease—Symptoms: Knob-like protuberances which misshape fruit.

To combat: No remedy.

Scab—Symptoms: Brown sunken spots on fruit, leaves and stem.

To combat: Spray with bordeaux. Destroy infected parts.

Striped Cucumber Beetle—Adult: Apply mixture composed of 10 pounds air-slaked lime and 1 pound paris green. Spray with arsenate of lead.

Larvae: Follow each other eating deep burrow in stalk, killing plant. As soon as they appear above the surface of the ground apply a 40 per cent nicotine solution on all sides of the stem.

Onion

The onion belongs to the lily family. It is a biennial—some varieties are perennial—coming from western Asia. “Onion sets” is a term applied to small onions, from one-half to three-fourths inch in diameter. They are planted at the same time as seed onions.

Soil preferred—Old land, fertile and free from weeds, fall-plowed and thoroughly pulverized.

When to plant—April 25.

How to plant—In rows 1½ feet apart; ½ inch apart in row; ½ inch deep; the seed germinates in 7 to 10 days.

Quantity to plant—25 feet per consumer; 1 ounce of seed per 100 feet.

Culture—When 3 inches high, thin to 2 inches apart; thin thereafter as green onions are required to 5 inches apart; hand-weed and cultivate every 2 weeks; do not “hill up” onions.

Season—Should be ready 20 weeks after planting, about Sept. 20.

To store for winter—Pull Sept. 20 and leave above the ground 3 days to cure; store on shelves in a dry, cool, frost-proof room.

ENEMIES.

Downy Mildew—Symptoms: Tips first wilted, later whole plant. Fuzzy growth.

To combat: Spray with bordeaux. Plant in clean soil.

Smut—Symptoms: Black dusty pustules on seedlings.

To combat: Lime the soil. Use clean soil. Treat seed with formaline, 1 pound formaline to 30 gallons water.

Maggot: See introduction.

Parsley

The leaves of parsley are used for garnishings around meats and for flavoring soups. The plants will live over the winter, or they may be transplanted to pots and kept all winter in the kitchen window.

Soil preferred—A rich, mellow loam.

When to plant—April 25.

How to plant—In rows 1½ feet apart, 2 inches apart in row, ¼ inch deep; press the earth firmly over seeds; soak the seeds in warm water over night, before planting; the seed germinates 10 to 20 days.

Quantity to plant—5 feet per consumer; ¼ ounce of seed per 100 feet.

Culture—When in the third leaf, thin to 4 inches apart.

Season—Should be ready 14 weeks after planting, about Aug. 5.

ENEMIES.

Parsley Worm—Use poison insecticide.

Parsnip

The parsnip is a biennial, a native of Europe, and is cultivated for its long succulent root. It is grown in much the same manner as the carrot; although the soil should be, if anything, in moister and better condition.

Soil preferred—A rich loam, thoroughly pulverized, worked very deep.

When to plant—May 1.

How to plant—In rows 1½ feet apart, 1 inch apart in row, ¾ inch deep; press the earth firmly over seeds; the seed germinates in 10 to 20 days.

Quantity to plant—5 feet per consumer; ½ ounce of seed per 100 feet.

Culture—When 3 inches high, thin to 3 inches apart; keep the soil loose throughout the season.

Season—Should be ready 20 weeks after planting, about Sept. 25; for soup, gather when 2 inches long.

To store for winter—Dig after a killing frost; cut off the tops;

bury in dry sand; freezing improves the flavor and the plants may be left in the ground over winter; as soon as the roots begin to grow, however, they are unfit for use.

ENEMIES.

Parsnip Leaf Miner—Use poison insecticide.

Pea

One of the easiest to grow and best garden vegetables is the pea—an annual, probably a native of central Europe. There are three classes of peas,—smooth-seeded, wrinkle-seeded, and edible-pod. The wrinkled varieties are the most tender.

Soil preferred—A rich loam, free from weeds, well drained, not too well supplied with nitrogenous matter.

When to plant—April 25 and every 2 weeks till July 1.

How to plant—In double rows (6 inches apart, 3 feet apart. 2 inches apart in row, 2 inches deep; soak the seeds in water over night before planting; the seed germinates in 6 to 10 days.

Quantity to plant—20 feet of double row, per consumer; 3 pints of seed per 100 feet of double row.

Culture—Train the vines on 3-inch mesh 24-inch poultry netting between double rows, fastened to posts at each end.

Season—Should be ready 6 weeks after planting, about June 15; gather when the pods are round and firm, and the peas begin to show through.

ENEMIES.

Leaf Spots—Symptoms: Brown and yellowish sunken spots on stems and pods. Leaf veins brownish and dead on under side.

To combat: Plant clean seed. Burn old vines. Don't cultivate when wet. Spray with bordeaux when third leaf appears and every 2 weeks for next 2 months.

Downy Mildew—Symptoms: White patches on pods, leaves and sometimes on stems.

To combat: Use clean seed. Burn old vines. Spray with bordeaux.

Powdery Mildew—Symptoms: Grayish patches of powdery nature on plants.

To combat: Dust with sulphur or spray with potassium sulphide.

Cut Worms—See paragraph on cut worms in introduction.

Potato

Soil preferred—Rich sandy loam, well drained and containing plenty of organic matter.

When to plant—May 10th to June 20th, dependent on season and whether early or late potatoes are used.

How to plant—In rows 2 to 3 feet apart, 1 to 1½ feet apart in

rows. In hills 2 to 3 feet apart each way. 3 to 5 inches deep.
Culture—Cultivate freely, seeing that the dirt is well up around the stems.

Season—Should be ready in 3 months.

ENEMIES.

Early Blight (early in summer)—Symptoms: Gray dry spots with concentric circles on leaves.

To combat: Spray with bordeaux when plants 6 inches high to end of season.

Late Blight (late summer)—Symptoms: Leaves appear brownish purple, water-soaked. Bad odor. Dry blackened edges on leaves. Dry rot on tubers.

To combat: Spray as for early blight. Select clean seed potatoes

Scab—Symptoms: Scabby potatoes, reddish brown corky patches.

To combat: Soak seed potatoes 2 hours in formaline solution. 1 pound formaline to 30 gallons water. Don't plant on infected soil for three years. Don't lime land.

Internal Brown Rot—Symptoms: Vines wilt and when pulled roots break off. When stored in warm, moist place, entire potato may become dry and shriveled.

To combat: Use clean seed. Plant in uninfected soil. Burn old vines. Store in cold, dry place.

Leaf-Eating Worms—Use poison insecticide.

Radish

The radish is probably a native of Asia and is grown for the root. Radishes require to be grown on a quick, rich soil. If they grow slowly, they will have a pungent flavor and will not be fit for table use. The roots lose their crispness and delicate flavor if allowed to remain long in the open ground.

Soil preferred—A light, sandy loam, very fertile.

When to plant—April 25, and every 2 weeks till July 1.

How to plant—In rows 1½ feet apart, 1 inch apart in row, ½ inch deep; the seed germinates in 3 to 6 days.

Quantity to plant—10 feet per consumer; 1 ounce of seed per 100 feet.

Culture—When in the third leaf, thin to 3 inches apart; keep moist by frequent cultivation.

Season—Should be ready 3 weeks after planting, about May 20; gather before full maturity.

ENEMIES—Maggots—See introduction on maggots.

Spinach

Spinach thrives best in a cool climate, and therefore it is not well to attempt to raise it during the summer months. It is

sometimes planted in the fall, and protected over winter; but usually, in this section, is planted among the first crops in the spring.

Soil preferred—A sandy loam, rich with organic matter.

When to plant—April 25, and every two weeks all summer.

How to plant—In rows 1½ feet apart, 1 inch apart in row, 1½ inches deep, press the soil firmly over the seeds; the seed germinates in 6 to 10 days.

Quantity to plant—5 feet per consumer; 1 ounce of seed per 100 feet.

Culture—When 3 inches high, thin to 6 inches apart.

Season—Should be ready 5 weeks after planting, about June 5.

ENEMIES.

Leaf Spot—Symptoms: Brown spots with gray center and purplish edge on leaves.

To combat: Spray with bordeaux when 6 weeks old and every 10 days for next month.

Scab—Symptoms: Scabby roots.

To combat: Plant in uninfected soil.

Leaf-eating insects: Use poison insecticide.

Squash

There are two types of the squash, the bush varieties, and the running varieties. They require practically the same soil and cultural methods as the muskmelon. A number of varieties are used during the summer in the same manner as vegetable marrow.

Soil preferred—A rich, sandy loam, mixed with a shovelful of manure per hill.

When to plant—May 10.

How to plant—In hills 7½ feet apart each way, 3 inches apart in hill, 1 inch deep, 8 seeds per hill; the seed germinates in 6 to 10 days.

Quantity to plant—2 hills per consumer; 2 ounces of seed per 100 hills.

Culture—When in the third leaf, thin to 4 plants per hill; train the vines in different directions; cover every fourth joint with earth, so they will take root and help feed the fruits.

Season—Should be ready 9 weeks after planting, about July 15

ENEMIES.

Downy Mildew—Symptoms: Irregular yellow spots on leaves, causing them to fall off. Fruit cannot mature.

To combat: Spray with bordeaux when vines commence to run and every 10 days after. Burn infected plants.

Sclerotiniöse—Symptoms: In hot-bed. Stems soft and yellow. Dry up.

To combat: Spray with bordeaux. Burn infected plants.

Wilt—Symptoms: Vines droop and die.

To combat: Spray with bordeaux. Burn infected plants. Use clean soil. Destroy the striped cucumber beetle which spreads the disease.

Wart Disease—Symptoms: Knob-like protuberances which misshape fruit.

To combat: No remedy.

Scab—Symptoms: Brown sunken spots on fruit, leaves and stem.

To combat: Spray with bordeaux. Destroy infected parts.

Striped Cucumber Beetle—Adult: Apply mixture composed of 10 pounds air-slaked lime and 1 pound paris green. Spray with arsenate of lead.

Larvae: Follow each other eating deep burrow in stalk, killing plant. As soon as they appear above the surface of the ground apply a 40 per cent nicotine solution on all sides of the stem.

Sweet Corn

Corn is a member of the grass family. Nothing is gained by too early planting, as the wet, cold weather of early spring and the frosts are apt to destroy the planting. It is desirable, however, to make one or two plantings reasonably early, so as to harvest a crop as early as possible.

Soil preferred—A light loam, manured the year before.

When to plant—May 5, and every 2 weeks till July 5.

How to plant—In hills $2\frac{1}{2}$ feet apart each way, 1 to 2 inches deep, 6 seeds per hill; the seed germinates in 5 to 8 days.

Quantity to plant—20 hills per consumer; 1 pint of seed per 100 hills.

Culture—When 6 inches high, thin to 3 plants per hill; keep the "suckers" down by breaking them off; cultivation should be shallow.

Season—Should be ready 9 weeks after planting, about July 10; gather when the silk begins to dry and turn brown.

ENEMIES.

Smut—Symptoms: Heads and plant become smutty.

To combat: Burn infected plants. Plant in uninfected soil. (This is the worst disease effecting corn and the only one that will cause any serious damage.)

Cut Worms—See introduction.

Tomato

The tomato is a perennial plant, but ordinarily is treated as an annual. It is one of the American vegetables that have come

into general use during the past half century, and it now is one of the most important of our garden crops.

Soil preferred—A sandy loam, well pulverized.

When to transplant—May 15.

How to plant—In rows 3 feet apart, 3 feet apart in row.

Quantity to plant—5 plants per consumer.

Culture—Cultivate freely till the plants shade the ground; train the plants to the 2 strongest branches by breaking off all others; tie to stakes or use ready-made supports; gather the fruit as it ripens to preserve the productiveness of the vine.

Season—Should be ready 9 weeks after transplanting, about Aug. 1; green, 7 weeks, about July 15.

ENEMIES.

Leaf Spot—Symptoms: Small angular spots on leaves.

To combat: Spray with bordeaux 5-5-50, 10 days after planting and every 2 weeks. Pick off lower leaves when setting out seedlings.

Point Rot—Symptoms: Sunken brownish spot on flower end of fruit, which later spreads over entire fruit.

To combat: No remedy. Worst on light soils in hot dry weather.

Ripe Rot—Symptoms: Common black rot on ripe fruit.

To combat: Spray with bordeaux as for leaf spot. Have plants well tied up to permit air to circulate.

Cut Worms—See introduction.

Turnip

The varieties of turnip and rutabaga vary much in form, size, and color. It is essentially a cold weather plant, and does best when most of its growth is made in autumn or in early spring. Like the radish, it must be grown rapidly.

Soil preferred—A light loam, manured the year before.

When to plant—April 25 and Aug. 15.

How to plant—In rows $1\frac{1}{2}$ feet apart; $\frac{1}{2}$ inch apart in row; $\frac{1}{2}$ inch deep; the seed germinates in 4 to 8 days.

Quantity to plant—15 feet per consumer; $\frac{3}{4}$ ounce of seed per 100 feet.

Culture—When in the third leaf, thin to 6 inches apart.

Season—Should be ready 9 weeks after planting, about July 1 and Oct. 1.

To store for winter—Dig Oct. 1; cut off tops; bury in dry sand in the cellar.

ENEMIES.

Soft Rot—Symptoms: Soft, slimy rot on roots.

To combat: Plant in uninfected soil. Use resistant varieties. Yellow turnip most resistive.

Black Rot—Symptoms: Leaves become yellowish, blackened and drop off.

To combat: Destroy infected plants. Plant in uninfected soil. Treat seed with formaline, as with cabbage.

Club Root—Symptoms: Plants stunted and roots deformed.

To combat: Same as for club root of cabbage.

Scab—Symptoms: Scabby roots.

To combat: Do not lime land. Plant in uninfected soil.

Maggots—See introduction.

REFERENCES.

Books on Gardening:

- Green's Vegetable Gardening Samuel B. Green
- Garden Farming L. C. Corbett
- Productive Vegetable Growing..... John W. Lloyd
- Vegetable Gardening R. L. Watts
- Principles of Vegetable Gardening..... L. H. Bailey

Magazines on Gardening:

- Garden Magazine.
- Market Growers Journal.
- Minnesota Horticulturist.

Bulletins:

- Minnesota Extension Bulletin No. 17. The Farm Vegetable Garden.
- Minnesota Extension Bulletin No. 16. Strawberries and Bush Fruits.
- Minnesota Extension Bulletin No. 38. Potato Growing in Minnesota.

Write to Extension Division, University Farm, St. Paul, Minn., for these bulletins and request that your name be put on the mailing list for the Minnesota Farmers' Library.

Farmers' Bulletins. U. S. Department of Agriculture.

- No. 35—Potato Culture.
- No. 61—Asparagus Culture.
- No. 154—The Home Fruit Garden.
- No. 157—The Propagation of Plants.
- No. 213—Raspberries.
- No. 220—Tomatoes.
- No. 254—Cucumbers.
- No. 255—The Home Vegetable Garden.
- No. 282—Celery.
- No. 289—Beans.
- No. 354—Onion Culture.
- No. 433—Cabbage.

1	PARSLEY	2	ASPARAGUS	3	SPINACH	4	ONIONS	5	PEPPERS	6	ONIONS
7	LETTUCE	8	EARLY BEETS	9	TURNIPS	10	WHITE ONIONS	11	SPINACH	12	
13		14	ONION SETS	15	BUSH BEANS FOLLOWED BY STRING BEANS	16		17		18	
19		20		21	EARLY POTATOES FOLLOWED BY TURNIPS	22		23		24	
25	EARLY CABBAGE	26	CUCUMBERS	27	CAULIFLOWER	28	PEAS	29	STRING BEANS	30	BEETS
31	SUMMER CABBAGE	32		33	EARLY SWEET CORN	34	LETTUCE	35	STRING BEANS	36	
37		38	LIMA BEANS	39	IMATOES	40		41	STRING BEANS	42	PEPPERS
43		44		45	LATE CABBAGE	46		47	WATER	48	MELONS
49		50	SUMMER SQUASH	51	SQUASH	52		53	MELONS	54	MUSK
55		56		57		58		59		60	MELONS

Plan for Garden 70x240 Feet.

1	BUSH BEANS FOLLOWED BY CELERY	2	BUSH BEANS	3	EARLY RADISHES
4	CARROTS	5	EARLY PEAS	6	EARLY PEAS FOLLOWED BY CABBAGE
7		8	LATE PEAS	9	
10		11	EARLY SWEET CORN	12	
13		14	MEDIUM SWEET CORN	15	
16		17	CUCUMBERS	18	
19	PUMPKINS	20		21	SQUASH
22		23	BEETS AND RADISHES SOWN TOGETHER	24	
25		26	ONIONS AND RADISHES SOWN TOGETHER	27	
28		29	TOMATOES	30	
31		32	TURNIPS	33	
34		35	LETTUCE	36	
37		38	ONION SETS	39	
40	KOHL RABI	41		42	CARROTS

Plan for Garden 40x120 Feet.

1'		EARLY DWARF PEAS	
2'		MEDIUM EARLY PEAS FOLLOWED BY CELERY	
2'		LATE PEAS	
2'		EARLY SWEET CORN FOLLOWED BY ENDIVE	
2'		LATE SWEET CORN	
2'		BUSH BEANS	
2'		BEETS AND EARLY RADISHES	EARLY CARROTS AND EARLY RADISHES
2'		BUSH LIMA BEANS	TURNIPS
18"		LETTUCE	
18"		CUCUMBERS	
18"		SET ONIONS	
18"		SEED ONIONS	
3'		SQUASH AND PUMPKINS	
3'		TOMATOES	
2'		PARSNIPS	
2'		ENDIVE	PARSLEY
		PATH	

Plan for Garden 30x50 Feet.