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VICTORY GARDEN

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Insure and Enrich

YOUR HOME FOOD SUPPLY

BUCKET ROOM
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VICTORY GARDEN

A. E. Hutchins and E. M. Hunt



FOR SUMMER USE

Tomatoes
Greens—lettuce, chard, beet greens,
spinach, cabbage, asparagus
Carrots, beans, peas, corn, beets, onions,
radishes

FOR CANNING

Tomatoes
Greens—chard, beet
greens, spinach
Green beans
Corn
Peas

FOR STORAGE

Cabbage
Roots—carrots, beets,
rutabagas, parsnips
Potatoes
Squash
Dry—beans, peas, corn

UNIVERSITY OF MINNESOTA
Agricultural Extension Service
U. S. DEPARTMENT OF AGRICULTURE

EVERY FAMILY NEEDS

A HOME GARDEN

Why . . . In wartime food is as important as ammunition. In peacetime the garden can contribute immeasurably to the health and happiness of the family. Nutrition in most families is still below the desirable level. Fresh fruits and vegetables from the garden have an appeal which cannot be duplicated in preserved or canned foods. Home garden products liven up the menu and encourage larger use of the foods that build up health. Furthermore, gardening can be fun. Few other projects are so ideally suited for the whole family.

Who . . . Every farm family should have a garden large enough to insure an adequate supply of vegetables throughout the year. Many town families can grow at least part of the year's supply.

Before starting a garden, the following requirements should be considered: (1) a sunny, fertile plot of ground; (2) time to give sufficient and regular attention; (3) determination to see the job through.

What . . . Tomatoes, carrots, and some green vegetables can be grown efficiently in small gardens. Larger gardens should contain these also, plus others desired for variety and to supply additional amounts for preservation.

For best health and greatest savings, home-grown fruits and vegetables should be used generously in the diet every day. Plan to grow, or obtain from a local source, sufficient quantities to maintain this standard. Provide for winter as well as summer by storing, canning, freezing, and other forms of preservation.

When . . . Gardening is a year-round project for the whole family. Much pleasure and benefit can be derived from beginning in the middle of the winter to acquire supplies and get set for an early start when the growing season opens. Many of the choicest crops, such as asparagus, rhubarb, and fruits, call for planning over several years. The family garden should be planned so that it can contribute fresh foods from May to October, and stored and canned foods in abundance for the winter months.

Plan Before You Plant . . . Consult This Table

CROPS (20) (Numbers in parentheses refer to footnotes below the table)	VARIETIES	Seed to (15) plant per 100-foot row	DISTANCE APART IN INCHES		(17) Plants in row	Depth to plant in inches (Field)	APPROXIMATE PLANTING DATE (13)				Yield per 100-foot row (21)
			Horse cultivated rows	Hand cultivated rows			in the open field (Seed)	In the seed box, hotbed, or greenhouse (Seed)	Trans- plant to the field		
Beans, Bush (4, 5, 6, 14, 19)	Giant Stringless Green Pod,* Stringless Green Pod,* Stringless Black Valentine, Unrivaled Wax, Improved Golden Wax, Pencil Pod Black Wax*	1/2 lb.	30-36	24	2-3	1-1 1/2	May 15				2-3 bu.
Beans, Bush Lima	Henderson's Bush,* Burpee's Improved Bush*	1/2 lb.	30-36	24	3-4	1-1 1/2	May 15				20-30 lb.
Beets (4, 5, 6, 9, 18, 19)	Early Wonder, Detroit Dark Red,* Crosby's Egyptian,* Edmand's Blood Red Turnip	1/2 oz.	24-36	12-18	2-3	1	April 15 - July 1				2-3 bu.
Cabbage, Early (1, 4, 5, 7)	Golden Acre, Copenhagen Market, Allhead Early, Early Jersey Wakefield	1 pkt.	24-36	24-30	18	1/2		March 1	April 15	June 1	50-65 head
Cabbage, Late (1, 5, 7)	Danish Ballhead	1 pkt.	36	24-30	24	1/2	May 1	May 1	June 1		45-50 head
Carrots (4, 5, 6, 9, 18, 19)	Chantenay,* Danvers Half-Long	1/2 oz.	24-30	12-18	2-3	1/2	April 15				2-3 bu.
Chard, Swiss (3, 9, 10)	Dark Green, Fordhook Giant, Giant Lucullus*	1/4 oz.	24-30	18-24	6-8	1	May 1				150-200 lb.
Corn, Sweet (2, 4, 5, 7, 12)	Golden Bantam,* Hybrid 8-Row Blend, Stowell's Evergreen*	1/4 lb.	36-42	24-30	18-36	1-2	May 1-15				125-200 ears
Corn, Pop (2, 3)	Minihybrid 250, White Hulless, White Rice	1/4 lb.	36-42	24-30	18-36	1-2	May 15				5-8 lb.
Cucumber (2, 3, 7, 11, 12)	Early Fortune, Long Green, White Spine, Chicago Pickling, Boston Pickling	1/4 oz.	48-60	36-60	48-60	1	May 15				3-4 bu.
Kohlrabi (4, 5, 6, 8, 16)	Early White Vienna	1/4 oz.	24-30	18-24	6-12	1/2	April 15 - Aug. 1	March 15	April 15		2-3 bu.
Lettuce, Leaf (4, 5, 6, 8, 19)	Grand Rapids, Black Seeded Simpson	1/4 oz.	24-30	12-18	4-8	1/2	April 15				40-50 lb.
Onion, Seed (3, 9)	Yellow Globe Varieties	1/2 oz.	24-30	12-18	2-3	1/2-1	April 15	Feb. 15	April 15		1-2 bu.
Onion, Sets (4, 6)	Ebenezer, Yellow Bottom	2 lb.	24-30	12-18	2-3	2			April 15		2-3 bu.
Parsnips (3, 9)	Hollow Crown	1/2 oz.	30-36	18-24	3	1/2-1	April 15				3-4 bu.
Peas (Dry Storage) (4, 6)	Alaska	1 lb.	30-36	24	2-3	1-2	April 15				4-5 lb.
Peas (4, 6)	Little Marvel,* Laxton's Progress,* Thomas Laxton,* American Wonder, Little Gem, Alderman,* Everbearing	1 lb.	30-36	24	2-3	1-2	April 15				1-2 bu.
Potatoes, Early (2, 5)	Warba, Irish Cobbler, Red Warba, Mesaba, Triumph	8-10 lb.	30-36	24-30	12-18	4-6	April 15				1-2 bu.
Potatoes, Late (2, 3)	Chippewa, Rural New Yorker, Sebago, Katahdin	8-10 lb.	30-36	30-36	12-18	4-6	June 1				1-2 bu.
Radish (4, 5, 6, 8, 18, 19)	Scarlet Globe, Sparkler, Crimson Giant, White Icicle	1/2 oz.	24-36	12-18	1	1/2-1	April 15				900-1200
Rutabaga (4, 5)	American Purple Top, Canadian Gem	1/4 oz.	30-36	18-24	6-8	1/2-1	April 15				2-3 bu.
Spinach (4, 5, 6, 8)	Bloomsdale or Savoy Leaved, Bloomsdale Long Standing,* King of Denmark,* Round Thick Leaved	1/2 oz.	30-36	12-18	3	1	April 15				2-3 bu.
Spinach (2, 3, 7, 9, 10)	New Zealand	1/2 oz.	30-36	30-36	12-18	1	May 1				4-6 bu.
Squash, Winter (2, 3, 7, 11, 12)	Buttercup, Table Queen, Greengold, Hubbard	1/2 oz.	60-96	60-96	84	1-2	May 15				50-80 fruits
Tomatoes (1, 3, 7, 11, 12)	Bounty (Early), Bonny Best, John Baer, Pritchard, Marglobe, Rutgers, Mingold (Yellow)	1 pkt.	36-60	36-48	36-48	1/4-1/2		March 15	June 1		6-8 bu.
Turnips (4, 5, 6, 8, 18)	Purple Top White Globe,* White Milan, Purple Top Strap Leaved	1/4 oz.	24-36	18-24	3-4	1/2	April 15 - July 15				2-3 bu.

* Tested and found suitable for freezing.

- Transplanted in this region.
- Grown in hills.
- Crops occupying ground all of growing season.
- Crops occupying ground part of season. May be followed by others.
- Crops which may follow others on the same ground.
- Narrow-spaced crops quickly reaching edible stage. May be interplanted with crops numbered 7.
- Wide-spaced or slow-growing crops.
- Quick-germinating, quick-maturing crops.
- Slower-germinating, slower-maturing crops. (One crop of group 8 may be seeded in the same row with one of group 9.)
- Crops which can be cut more than once during the season.
- Crops which can be staked or trellised.
- Sun-loving plants.
- Latitude at St. Paul. Spring planting earlier in South. Later in North. Plant cool season crops in Spring as soon as ground is workable.
- Most mature snap beans are fairly satisfactory for use as dry beans.
- Designated amount is liberal in most cases. Plant only amount needed. Do not waste.
- Early crop often transplanted. Late crop sown in field.
- Thin as soon as plants are well established, using suggested spacings.
- Summer plantings recommended for fall table use and storage.
- Successive plantings in spring every two weeks are advisable.
- Plant small gardens to vegetables that will give the largest returns. Large gardens should provide enough for canning, freezing, storage.
- Approximate. Varies widely with variety and growing conditions.

CONSERVE SEED

DO NOT waste seed. For each plant wanted, not more than two or three seeds need be planted. Consult the table for plant spacing in the row. Increase germination by sowing in a thoroughly pulverized, smooth seedbed immediately after preparing seedbed.

Plant deeper in light sandy soil than in moist heavy soil. Firm the soil over seed unless rather wet. Do not sow in soil that is extremely wet or extremely dry. Save leftover seeds for next year. With the possible exception of onions and parsnips, these should give good germination the second year. Germination of old seed should be tested; if low, increase the planting rate accordingly.

If certain varieties listed in the table are unobtainable, consult your seed dealer for other suitable varieties.

Good Gardens Need Good Care

SOIL AND PREPARATION

A warm sandy loam which is fertile, well drained but holds moisture, and well supplied with organic matter is an ideal garden soil, but good crops can be produced on other types if given the proper cultural attention. A heavy, sticky soil is difficult to work. A too-sandy soil is likely to be short of moisture in midsummer. The addition of organic material helps in both cases. Well-worked peat, if properly fertilized, often is very efficient in the production of potatoes, leaf crops, and root crops.

Fall plowing usually is desirable on heavy soils and sod land. Spade or plow 8 to 12 inches deep, working in 10 to 15 tons of well-rotted manure per acre on mineral soils. Leave the soil rough over winter.

Do not work the soil in the spring until it is dry enough to crumble readily after being compressed in the hand.

A deep, smooth, thoroughly pulverized seedbed is very important. The small garden may be worked satisfactorily with the iron rake. In larger gardens, thoroughly disk, harrow, and drag just before planting. A plank drag or meeker harrow is an ideal tool for final smoothing.

Plant as soon as the seedbed is prepared.

Avoid furrows or rows that may promote washing.

FERTILIZER FOR VICTORY GARDENS

The term "Victory Garden" for the purpose of this paragraph means any garden planted primarily for the noncommercial production of vegetables and small fruits. A special Victory Garden fertilizer will be on the market. This fertilizer will contain 4 per cent of nitrogen, 12 per cent of available phosphate, and 4 per cent of water-soluble potash. Apply at the rate of 1,000 pounds per acre for Minnesota gardens or about 2½ pounds for every 100 square feet (10 ft. x 10 ft.). Barnyard manure is an excellent garden fertilizer and is recommended where available. Apply 2 to 4 bushels for every 100 square feet.

ARRANGEMENT OF CROPS

Make rows long and straight, particularly when horse or tractor cultivation is to be used.

Place tall-growing plants so that they do not shade sun-loving plants.

Group crops according to maturity. This makes succession cropping easier, facilitates rotation, or permits growing green manure crops after early crops.

Group perennial crops at one side of the garden.

Do not crowd the plants. Plants of each crop need a certain minimum space in which to grow. If spaced closer than this, yields are likely to be reduced.

Plan for a succession of each crop, or at least for a large variety of crops throughout the season. If the available area is small or the land value high, some of the things suggested below may be done to utilize the land most efficiently.

Succession planting—the following of a quick-maturing crop, such as lettuce, by a late or fall crop, such as cabbage, on the same land.

Intercropping—planting of a quick-maturing crop requiring narrow spacing, such as spinach or peas, between rows of crops requiring wide spacing, such as melons and squash.

Staking or trellising of such crops as tomatoes, pole beans, vine crops, etc.

Use cutting crops—The number of plants needed can be reduced by utilizing crops which can be cut several times. Examples—chard, New Zealand spinach, asparagus, rhubarb, cress.

Combine quick and slow crops—Sow quick-maturing (thinly) and slow-germinating crops in the same row. This also facilitates early cultivation of the slow-germinating crop. Examples—radish and parsnip; lettuce and New Zealand spinach.

Plant herbs sparingly—Two or three plants of such crops as sage, chives, horse-radish, mint, caraway, and other similar herbs and condiments usually are enough to supply the needs of the average family.

TRANSPLANTING TO THE FIELD

If possible, transplant in cool, cloudy weather or in the afternoon.

It often is advisable to harden the plants to some extent by exposing them to outdoor conditions in good weather, during the day, for several days before transplanting them to the field or by reducing the water given to them to just enough to prevent wilting.

Water plants well before disturbing them.

Do not allow roots to dry out. Keep a ball of dirt about them or immerse them in muddy water. Don't injure the root system any more than necessary.

Remove plants from the seedling bed and transplant them into the field as rapidly as possible. If the soil is dry, water before and after setting the plants. Pack the soil firmly about the roots after setting.

Shading plants for a few days with shingles or small boards gives them a quicker and better start.

If cutworms are present in the soil, put a paper collar about the base of the stem or scatter poison bran mash about the plant.

MORE GARDEN INFORMATION

The following EXTENSION publications may be obtained from your county agent or by writing the Bulletin Room, University Farm, St. Paul 8.

Bulletin 174—Vegetable Gardening.

Bulletin 206—Growing Raspberries for Home Use.

Bulletin 226—Home Vegetable Storage.

Bulletin 244—Freezing Foods.

Folder 86—Control Vegetable Insects.

Folder 100—Home Canning.

Folder 123—Growing Currants and Gooseberries.

Folder 124—Growing Grapes.

Folder 125—Growing Potatoes.

Pamphlet 132—Improving Victory Garden Fertility.

THINNING

Crowding stunts plants and reduces yield. Thin when rather small and as soon as there is reasonable assurance that the plants left will not be killed by unfavorable weather or by insects and diseases to which the young plants are particularly susceptible. In thinning, discard the weakest plants.

ATTACK WEEDS EARLY

Weeds are the first trouble that beset the gardener. An early start is half the battle.

Start cultivation just before planting. Kill the weeds when they are very small. At that time, thorough stirring of the soil surface with a garden rake will kill many of them. Cultivate often enough to keep the garden free of weeds. Cultivate shallow, particularly after the plants have passed the small seedling stage. Cultivate after each rain or irrigation but not before the soil is dry enough to work well.

WATERING

Water only when the plants actually need it. Do not allow the plants to wilt. When watering, soak the soil thoroughly and apply water less frequently. Too frequent watering, either light or heavy, may do more harm than good. Apply water as a spray or as a slowly moving stream.

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