

Vegetable Tips

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Michigan State University

Planning A Vegetable Garden

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So, you've decided to have a garden. Congratulations. Individuals in over half the households in Michigan are involved in gardening in one form or another. Some people garden for the fun of it, others because they enjoy harvesting fresh vegetables that aren't carried in local groceries or supermarkets. Many individuals garden to save money while others garden for the therapeutic benefits. For whatever reason, this bulletin will help get gardening activity underway. For additional information on home gardening, see Extension Bulletins E-529, Home Vegetable Gardening; E-760a, Home Vegetable Garden Variety Recommendations; E-760b, Home Vegetable Garden Disease, Insect and Weed Control; and the Family Vegetable Garden Series of leaflets E-824. These and other extension bulletins are available from your local county extension office.

After deciding to have a garden, decisions have to be made about varieties of vegetables to plant, how much, when, where and what to do with seeds left over from last year. With experience, many of these decisions will be much easier to make, so don't get discouraged.

What To Plant

This usually depends on available space, family preferences, and experience. The vegetables listed in the VEGETABLE PLANNING CHART (Table 1) are divided into five groups for both cool and warm season vegetables starting with the small or inexperienced gardener (left

column) and gradually expanding (both in size of garden and kinds of vegetables grown) to a large garden (right column). Actual size could vary from less than 20 square feet to more than 1,000 square feet. Inexperienced gardeners or gardeners with limited space usually grow salad-type vegetables. As they gain experience or acquire more space they grow the more popular vegetables. Most of the vegetables and herbs listed in the two right-hand columns aren't necessarily more difficult to grow, such as Chinese cabbage, parsley, rhubarb or Jerusalem artichoke, they just aren't as popular and some require considerable space.

When To Plant

Most vegetables are either cool or warm season crops. Cool season vegetables grow best during the cooler temperatures of spring or fall and can withstand some frost or freezing temperatures, particularly when young. Some, such as onions, peas and spinach, are very hardy and can be planted as soon as the ground can be worked in the spring. This is usually late March or early April in southern Michigan and 1-3 weeks later further north. Fall garden plantings should generally be made in July.

Warm season crops, such as cucumber, melons, squash, peppers and tomatoes are sensitive to cool temperatures and will be killed by

frost. They cannot be safely planted outdoors until the danger of frost is past unless they are placed under hot caps, tents or covers. Seeds of warm season crops germinate poorly in cool soil and may rot in wet soil if planted too early. Early varieties of sweet corn can usually be planted a couple of weeks ahead of other warm season vegetables since they aren't quite as tender and seedlings will have some protection by the surrounding soil until they emerge from the ground.

Follow directions in this bulletin or on seed packets for the proper time to plant and don't be afraid to gamble with a few seeds. If a few seedlings or plants aren't lost to frost in the spring, they probably weren't planted early enough.

The map showing average date of last temperature of 32°F or lower in the spring can be used to help determine planting dates for spring and summer gardens. The other map, average date of first temperature of 32°F or lower in the fall, can be used for planning late or fall gardens. The average dates refer to those dates when there is a 50% probability of temperature of 32°F or lower occurring on or after that date in spring (Table 2), or a 50% probability of temperature of 32°F or lower occurring on or before that date in fall (Table 3).

For an example, in Jackson County the last date for the temperature of 32°F in the spring is between April 30 and May 10. Table 2 shows that the actual date is May 8. Also from the table it can be determined when the last chance of 32°F or lower temperature is apt

TABLE 1. VEGETABLE PLANNING CHART

	Beginning or Patio Gardener	Small Gardener (add)	General Garden (add)	Serious Gardener (add)	Confirmed Gardener (add)
Cool Season Crops	Lettuce (leaf & bibb) Onions	Carrots Peas Radishes	Beets Broccoli Brussels Sprouts Cabbage Cauliflower Parsnips Spinach Swiss Chard Turnip	Celeriac Chinese Cabbage Chives Collards Dill Kale Kohlrabi Lettuce (head) Parsley Potato Rutabaga	Asparagus (perennial) Celery Garlic Horseradish Mustard Rhubarb (perennial) Salsify
Warm Season Crops	Cucumber (bush) Squash (summer) Tomato	Beans, snap Cucumber (vine) Peppers Tomatoes (cherry, paste)	Beans, lima Eggplant Muskmelons Okra Pumpkins (bush) Squash, winter Sweet Corn	Pumpkins Watermelons Tomatoes (yellow)	Jerusalem Artichoke Pop Corn Sweet Potato Soybeans

to occur as well as other probabilities. These probabilities and dates can be of use in determining when to plant warm season transplants such as tomatoes. For no chance of frost, set the plants in the garden on May 31 in Jackson County. To gamble a little and perhaps get ripe tomatoes up to 15 days earlier, transplant them on May 21 for a 10% chance of temperatures 32°F or lower or on May 15 for a 25% chance of temperature 32°F or lower. There are, of course, differences in sites, elevation and local weather conditions, but information in these maps and tables should help make planning easier.

Direct Seeding vs Transplanting

Although seeds of most vegetables are sown directly where they will grow and mature in a garden, it is usually desirable to transplant seedlings of some vegetables to the garden. Using trans-

plants will result in an earlier harvest, a longer harvesting period and will not tie up garden space as long (especially important if space is limited).

Seedlings of the following vegetables are commonly transplanted:

Warm Season Vegetables

(commonly transplanted after most danger of frost is past)

- Tomato
- Pepper
- Eggplant
- Melons

Cucumbers } Not as easily transplanted

Cool Season Vegetables

(can withstand some frost and freezing temperatures)

- Cabbage
- Broccoli
- Cauliflower
- Brussels Sprouts
- Head Lettuce

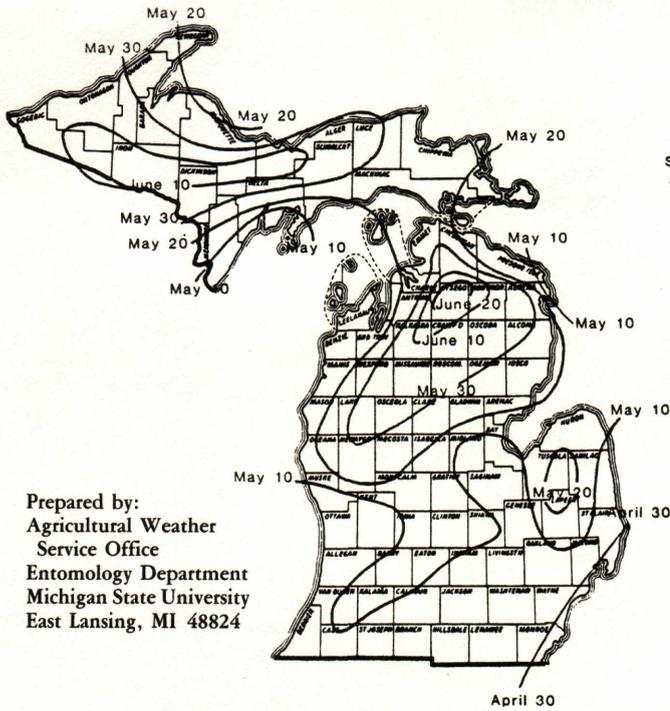
Even by using transplants, most gardeners find it difficult to get tomatoes to ripen much before early August in southern lower Michigan, except for early varieties. You can usually buy better quality transplants than you can grow yourself. The main advantage of producing your own is that you grow the varieties you want. Determine early

any transplants that will be purchased, since there will be no need to purchase seeds of those varieties.

For a fall or late garden, seeds of the cool season crops listed above may be sown in the garden in small seed beds and then transplanted to their final location where they will mature during the cool months of fall such as September, October, and perhaps November.

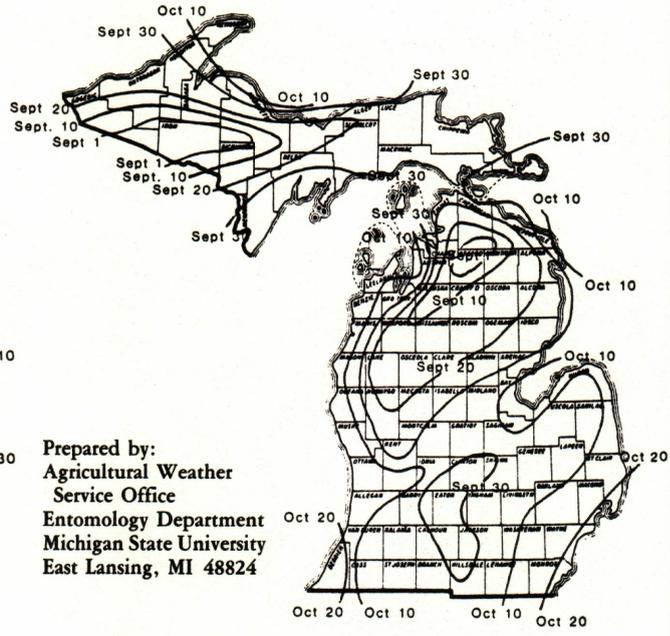
Where to Locate the Garden

Garden location is very important. It should be nearby to enjoy watching the plants grow. It should also be close to water, in full sunlight, and have good, well-drained soil. It does not have to be located in the backyard nor does it have to be all in one place. Many vegetables can be combined with or used in place of flowers in beds or for borders. Some that work well are bush and pole beans, beets, Swiss chard, cabbage, bush cucumbers and squash, eggplant, kale, lettuce, leeks, okra, parsley,



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Average Date of Last Temperature of 32°F or Lower in the Spring



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 East Lansing, MI 48824

Average Date of First Temperature of 32°F or Lower in the Fall

Maps showing last temperature of 32°F in spring and first expected days of 32°F in the fall.

peas, peppers, spinach and tomatoes. Perennial vegetables such as asparagus and rhubarb can be planted in the yard, especially the front or side, and be used for landscaping and eating.

The site should be satisfactory if a good crop of grass or weeds grows on it. It should not be close to trees since their roots may extend far beyond the outermost branches and will compete with garden plants for moisture and nutrients.

The garden can be broken into several small beds. It could also be in a container on a patio, balcony or porch. It could be located in a community garden plot at a church, school, park or other site. The garden may be split if space is limited and the smaller vegetables grown at home and the larger ones such as sweet corn and vine crops somewhere else such as a rented plot. In general, the further away from the residence that the garden is located, the less time for enjoying the plants and watching them grow

and mature. Vandalism is usually more of a problem when gardens are grouped together.

How Much to Plant

The amount of each vegetable to plant depends mainly on the number of individuals that the garden is to feed and whether or not vegetables will be eaten fresh, stored, canned, frozen or dried. How much to plant is also influenced by family preference, space available, vacation schedules and planting and tillage methods. Weeding, watering, pest control, harvesting and general garden chores take much more time than planting the seeds or transplants. Start small and enlarge the garden size as more is learned about cultural techniques and the time re-

quired to maintain a garden. The average garden size is between 500 and 1,000 square feet, but smaller gardens or a container garden can be very rewarding, both in enjoyment and productivity.

THE VEGETABLE PRODUCTION CHART (Table 4) is helpful in determining how much to plant of those vegetables that your family likes to eat and has space to grow. Gardeners with limited space should look at the last column which gives the approximate yield per 100 square feet and may be used to help determine the relative productivity of various vegetables. For example, snap beans are about seven times as productive as lima beans so if space is a problem, lima beans probably should not be grown.

Successive Plantings

Vegetables can be harvested over a longer period of time if successive

Table 2. Percent Probability of Temperature of 32°F or Lower Occurring On or After Date in Spring

Station	First	95%	90%	75%	50%	25%	10%	5%	Last
Adrian	Apr 16	Apr 18	Apr 21	Apr 27	May 3	May 9	May 15	May 19	May 23
Allegan	Apr 15	Apr 16	Apr 20	Apr 28	May 6	May 14	May 22	May 26	June 12
Alma	Apr 18	Apr 24	Apr 27	May 3	May 10	May 17	May 23	May 26	May 27
Alpena WSO	May 3	May 10	May 14	May 22	May 31	June 8	June 16	June 21	June 21
Alpena	Apr 18	Apr 20	Apr 24	May 1	May 8	May 15	May 22	May 26	May 29
Ann Arbor	Apr 10	Apr 12	Apr 16	Apr 22	Apr 29	May 6	May 12	May 16	May 27
Atlanta	May 2	May 11	May 16	May 24	June 2	June 11	June 19	June 24	July 6
Bad Axe	Apr 20	Apr 27	May 1	May 8	May 15	May 22	May 29	June 2	June 8
Battle Creek	Apr 16	Apr 19	Apr 22	Apr 28	May 5	May 11	May 17	May 21	May 27
Bay City	Apr 13	Apr 14	Apr 18	Apr 25	May 2	May 9	May 15	May 19	May 26
Big Rapids	May 2	May 4	May 8	May 13	May 20	May 26	June 1	June 4	June 12
Bloomington	Apr 17	Apr 19	Apr 24	May 1	May 10	May 19	May 26	May 31	June 12
Cadillac	May 9	May 4	May 11	May 21	June 1	June 12	June 23	June 29	July 11
Caro	Apr 23	May 4	May 8	May 15	May 23	May 31	June 7	June 12	June 22
Charlotte	Apr 17	Apr 24	Apr 28	May 5	May 13	May 21	May 29	June 2	June 12
Chatham	May 17	May 18	May 24	June 1	June 11	June 21	June 30	July 5	July 31
Cheboygan RR	Apr 26	Apr 30	May 4	May 10	May 17	May 24	May 31	June 4	June 21
Coldwater St. Hosp	Apr 16	Apr 18	Apr 22	Apr 29	May 7	May 14	May 21	May 25	May 27
Detroit City	Apr 7	Apr 10	Apr 13	Apr 18	Apr 24	Apr 30	May 5	May 8	May 12
Detroit Metro	Apr 12	Apr 14	Apr 18	Apr 25	May 3	May 11	May 18	May 23	May 29
East Jordan	May 10	May 11	May 15	May 22	May 30	June 6	June 13	June 17	June 22
East Tawas	Apr 29	May 3	May 7	May 14	May 22	May 30	June 7	June 11	June 14
Eau Claire	Apr 8	Apr 16	Apr 19	Apr 25	May 2	May 9	May 15	May 18	May 29
Escanaba	Apr 24	Apr 27	Apr 30	May 5	May 11	May 17	May 22	May 25	May 30
Fayette	Apr 26	Apr 29	May 3	May 9	May 16	May 23	May 29	June 2	June 8
Fife Lake	May 9	May 15	May 20	May 29	June 7	June 17	June 25	June 30	July 6
Flint	Apr 18	Apr 22	Apr 26	May 2	May 8	May 15	May 21	May 25	May 27
Frankfort	Apr 16	Apr 27	May 2	May 10	May 18	May 26	June 3	June 7	June 23
Gladwin	May 4	May 2	May 6	May 13	May 20	May 28	June 3	June 7	June 22
Grand Haven	Apr 7	Apr 16	Apr 19	Apr 25	May 1	May 8	May 14	May 17	May 18
Grand Marais	May 7	May 7	May 13	May 23	June 4	June 15	June 25	June 30	July 20
Grand Rapids	Apr 10	Apr 13	Apr 18	Apr 24	May 2	May 10	May 17	May 21	May 27
Grayling	May 2	May 7	May 12	May 21	May 31	June 10	June 19	June 24	July 21
Greenville	Apr 13	Apr 19	Apr 23	May 1	May 9	May 18	May 26	May 30	June 12
Gull Lake	Apr 20	Apr 22	Apr 25	May 1	May 7	May 13	May 19	May 22	May 29
Hale Loud Dam	May 3	May 6	May 10	May 16	May 23	May 30	June 6	June 9	June 20
Harbor Beach	Apr 8	Apr 21	Apr 25	May 2	May 9	May 16	May 23	May 26	May 26
Harrisville	Apr 27	May 1	May 6	May 14	May 23	June 1	June 9	June 14	June 25
Hart	Apr 24	May 2	May 6	May 12	May 20	May 27	June 3	June 7	June 13
Hastings	Apr 20	Apr 25	Apr 29	May 6	May 13	May 21	May 27	May 31	June 12
Hillsdale	Apr 20	Apr 22	Apr 27	May 4	May 12	May 20	May 28	June 1	June 12
Holland	Apr 15	Apr 16	Apr 12	Apr 29	May 8	May 17	May 25	May 30	June 12
Houghton	May 8	May 4	May 8	May 15	May 23	May 31	June 6	June 11	July 10
Houghton Lake	Apr 28	May 5	May 12	May 22	June 2	June 14	June 24	June 30	July 20
Iron Mountain	May 10	May 13	May 16	May 23	May 30	June 6	June 12	June 16	June 22
Ironwood	May 4	May 7	May 11	May 17	May 24	May 31	June 6	June 9	June 14
Ishpeming	May 11	May 11	May 15	May 21	May 28	June 4	June 10	June 14	June 18
Jackson	Apr 17	Apr 21	Apr 25	May 1	May 8	May 15	May 21	May 25	May 31
Kalamazoo St. Hosp	Apr 14	Apr 16	Apr 20	Apr 26	May 3	May 11	May 17	May 21	May 27
Lake City	May 7	May 4	May 10	May 19	May 29	June 8	June 17	June 23	July 11
Lansing	Apr 13	Apr 18	Apr 22	Apr 30	May 8	May 17	May 25	May 29	June 12
Lapeer	Apr 16	Apr 23	Apr 28	May 5	May 14	May 23	May 30	June 4	June 8
Ludington	Apr 17	Apr 21	Apr 26	May 4	May 13	May 22	May 30	June 4	June 14
Manistee	Apr 18	Apr 23	Apr 26	May 3	May 11	May 18	May 24	May 28	May 31
Marquette WSO	Apr 21	Apr 29	May 2	May 7	May 13	May 19	May 24	May 27	May 29
Midland	Apr 7	Apr 17	Apr 21	Apr 30	May 8	May 17	May 26	May 30	June 12
Milford	Apr 13	Apr 21	Apr 25	May 1	May 8	May 15	May 21	May 25	May 30
Mio	May 3	May 12	May 16	May 24	June 1	June 10	June 17	June 22	June 21
Monroe	Apr 8	Apr 10	Apr 13	Apr 19	Apr 26	May 2	May 8	May 12	May 13
Mt. Clemens	Apr 8	Apr 8	Apr 12	Apr 19	Apr 27	May 5	May 12	May 16	May 23
Mt. Pleasant	Apr 26	Apr 29	May 2	May 8	May 14	May 21	May 27	May 30	May 30
Munising	May 17	May 23	May 27	June 2	June 10	June 17	June 24	June 28	July 4
Muskegon	Apr 14	Apr 17	Apr 21	Apr 28	May 6	May 14	May 21	May 25	June 12
Newago	Apr 24	May 6	May 10	May 18	May 26	June 3	June 11	June 15	June 22
Newberry	May 5	May 9	May 13	May 19	May 26	June 2	June 9	June 12	June 18
Onaway	May 3	May 6	May 10	May 17	May 25	June 1	June 8	June 12	June 15
Owaso	Apr 19	Apr 25	Apr 29	May 5	May 12	May 19	May 25	May 29	May 30
Paw Paw	Apr 20	Apr 23	Apr 27	May 4	May 11	May 19	May 26	May 30	June 12
Pontiac	Apr 17	Apr 20	Apr 23	Apr 30	May 6	May 13	May 19	May 23	May 25
Port Huron	Apr 13	Apr 13	Apr 17	Apr 25	May 3	May 11	May 18	May 22	June 5
Saginaw FAA	Apr 10	Apr 16	Apr 20	Apr 27	May 4	May 11	May 18	May 21	May 28
Sault St. Marie	Apr 23	May 3	May 7	May 14	May 22	May 29	June 5	June 9	June 21
South Haven	Apr 15	Apr 17	Apr 21	Apr 26	May 3	May 9	May 14	May 18	May 23
Three Rivers	Apr 15	Apr 20	Apr 24	Apr 30	May 8	May 15	May 21	May 25	May 29
Traverse City	May 3	May 2	May 7	May 15	May 23	June 1	June 8	June 13	July 6
Vanderbilt II	May 22	May 26	May 31	June 10	June 20	June 30	July 10	July 16	July 31
West Branch	May 7	May 7	May 12	May 19	May 27	June 4	June 11	June 15	June 18
Willis	Apr 19	Apr 22	Apr 26	May 2	May 10	May 17	May 24	May 28	May 29

Table 3. Percent Probability of Temperature of 32°F or Lower Occurring On or Before Date in Fall

Station	Last	95%	90%	75%	50%	25%	10%	5%	First
Adrian	Oct 27	Oct 25	Oct 21	Oct 15	Oct 8	Oct 1	Sept 24	Sept 21	Sept 17
Allegan	Nov 1	Oct 26	Oct 22	Oct 16	Oct 8	Sept 30	Sept 24	Sept 19	Sept 20
Alma	Nov 1	Oct 24	Oct 20	Oct 13	Oct 6	Sept 28	Sept 21	Sept 17	Sept 17
Alpena WSO	Oct 7	Oct 7	Oct 2	Sept 25	Sept 17	Sept 9	Sept 2	Aug 28	Aug 22
Alpena	Nov 4	Oct 31	Oct 26	Oct 19	Oct 11	Oct 4	Sept 26	Sept 22	Sept 17
Ann Arbor	Nov 11	Nov 7	Nov 2	Oct 27	Oct 19	Oct 11	Oct 4	Sept 30	Sept 28
Atlanta	Oct 7	Oct 5	Sept 30	Sept 23	Sept 15	Sept 7	Aug 30	Aug 26	Aug 12
Bad Axe	Nov 7	Oct 30	Oct 25	Oct 16	Oct 6	Sept 27	Sept 18	Sept 17	Sept 8
Battle Creek	Nov 5	Oct 29	Oct 25	Oct 17	Oct 8	Sept 29	Sept 22	Sept 17	Sept 6
Bay City	Nov 9	Nov 6	Nov 1	Oct 25	Oct 16	Oct 8	Sept 30	Sept 25	Sept 20
Big Rapids	Oct 18	Oct 13	Oct 9	Oct 3	Sept 26	Sept 19	Sept 12	Sept 8	Sept 3
Bloomington	Oct 30	Oct 28	Oct 24	Oct 17	Oct 9	Oct 1	Sept 23	Sept 19	Sept 18
Cadillac	Oct 30	Oct 17	Oct 10	Sept 28	Sept 15	Sept 2	Aug 21	Aug 14	Aug 1
Caro	Oct 15	Oct 11	Oct 7	Oct 1	Sept 24	Sept 18	Sept 12	Sept 8	Sept 3
Charlotte	Oct 28	Oct 17	Oct 14	Oct 7	Sept 30	Sept 23	Sept 16	Sept 12	Sept 6
Chatham	Oct 16	Oct 6	Oct 1	Sept 23	Sept 14	Sept 5	Aug 27	Aug 22	Aug 4
Cheboygan	Nov 4	Nov 1	Oct 27	Oct 17	Oct 7	Sept 27	Sept 18	Sept 12	Aug 22
Coldwater St. Hosp	Oct 26	Oct 23	Oct 19	Oct 12	Oct 4	Sept 27	Sept 20	Sept 16	Sept 11
Detroit City	Nov 15	Nov 11	Nov 7	Oct 31	Oct 23	Oct 15	Oct 8	Oct 4	Sept 29
Detroit Metro	Nov 9	Oct 31	Oct 27	Oct 20	Oct 12	Oct 4	Sept 27	Sept 23	Sept 22
East Jordan	Oct 22	Oct 17	Oct 12	Oct 4	Sept 24	Sept 15	Sept 7	Sept 2	Aug 24
East Tawas	Oct 24	Oct 16	Oct 12	Oct 5	Sept 27	Sept 19	Sept 13	Sept 8	Aug 21
Eau Claire	Nov 13	Nov 10	Nov 5	Oct 29	Oct 21	Oct 12	Oct 5	Sept 30	Sept 25
Escanaba	Nov 8	Nov 1	Oct 27	Oct 18	Oct 8	Sept 28	Sept 19	Sept 14	Sept 15
Fayette	Nov 9	Oct 30	Oct 25	Oct 17	Oct 8	Sept 28	Sept 20	Sept 15	Sept 16
Fife Lake	Oct 6	Oct 5	Sept 29	Sept 20	Sept 10	Aug 30	Aug 21	Aug 16	Aug 1
Flint	Nov 6	Oct 26	Oct 22	Oct 16	Oct 8	Sept 30	Sept 24	Sept 20	Sept 17
Frankfort	Nov 8	Nov 3	Oct 29	Oct 20	Oct 10	Sept 30	Sept 20	Sept 15	Aug 29
Gladwin	Oct 14	Oct 13	Oct 9	Oct 2	Sept 24	Sept 16	Sept 9	Sept 5	Aug 21
Grand Haven	Nov 14	Nov 5	Oct 31	Oct 23	Oct 14	Oct 5	Sept 27	Sept 23	Sept 21
Grand Marais	Nov 25	Nov 11	Nov 2	Oct 18	Oct 2	Sept 15	Aug 31	Aug 23	Aug 3
Grand Rapids	Nov 29	Nov 12	Nov 6	Oct 28	Oct 17	Oct 6	Sept 27	Sept 21	Sept 21
Grayling	Oct 7	Oct 7	Oct 3	Sept 25	Sept 17	Sept 8	Sept 1	Aug 27	Aug 7
Greenville	Oct 19	Oct 18	Oct 15	Oct 9	Oct 3	Sept 27	Sept 22	Sept 19	Sept 13
Gull Lake	Nov 7	Oct 25	Oct 21	Oct 14	Oct 6	Sept 29	Sept 21	Sept 17	Sept 13
Hale Loud Dam	Oct 23	Oct 11	Oct 8	Oct 2	Sept 27	Sept 21	Sept 15	Sept 12	Sept 2
Harbor Beach	Nov 4	Nov 1	Oct 28	Oct 22	Oct 15	Oct 8	Oct 2	Sept 29	Sept 23
Harrisville	Nov 1	Oct 18	Oct 14	Oct 7	Sept 30	Sept 22	Sept 15	Sept 11	Sept 11
Hart	Nov 1	Oct 23	Oct 18	Oct 10	Oct 1	Sept 22	Sept 14	Sept 9	Sept 1
Hastings	Oct 23	Oct 16	Oct 13	Oct 7	Sept 30	Sept 24	Sept 18	Sept 14	Sept 11
Hillsdale	Oct 25	Oct 20	Oct 15	Oct 8	Sept 30	Sept 22	Sept 14	Sept 10	Sept 3
Holland	Nov 7	Nov 3	Oct 28	Oct 20	Oct 10	Sept 30	Sept 21	Sept 16	Sept 11
Houghton	Nov 2	Oct 24	Oct 18	Oct 10	Oct 1	Sept 21	Sept 13	Sept 8	Sept 6
Houghton Lake	Oct 23	Oct 14	Oct 7	Sept 26	Sept 13	Aug 31	Aug 20	Aug 13	Aug 1
Iron Mountain	Oct 13	Oct 5	Oct 1	Sept 25	Sept 18	Sept 11	Sept 4	Aug 31	Aug 26
Ironwood	Oct 12	Oct 9	Oct 5	Sept 29	Sept 22	Sept 15	Sept 9	Sept 5	Aug 23
Ishpeming	Oct 15	Oct 10	Oct 6	Sept 29	Sept 21	Sept 13	Sept 7	Sept 2	Aug 29
Jackson	Oct 30	Oct 25	Oct 20	Oct 14	Oct 6	Sept 28	Sept 22	Sept 18	Sept 17
Kalamazoo St.Hosp	Nov 5	Oct 31	Oct 26	Oct 19	Oct 10	Oct 2	Sept 24	Sept 20	Sept 20
Lake City	Oct 9	Oct 3	Sept 30	Sept 24	Sept 17	Sept 10	Sept 4	Sept 1	Aug 28
Lansing	Oct 27	Oct 22	Oct 19	Oct 12	Oct 5	Sept 28	Sept 22	Sept 18	Sept 13
Lapeer	Nov 6	Oct 22	Oct 17	Oct 10	Oct 1	Sept 22	Sept 15	Sept 10	Sept 3
Ludington	Nov 24	Nov 10	Nov 4	Oct 25	Oct 13	Oct 2	Sept 22	Sept 16	Sept 13
Manistee	Nov 10	Nov 6	Nov 1	Oct 23	Oct 14	Oct 4	Sept 26	Sept 21	Sept 3
Marquette WSO	Nov 8	Nov 7	Nov 3	Oct 26	Oct 19	Oct 11	Oct 3	Sept 29	Sept 26
Midland	Nov 5	Oct 24	Oct 20	Oct 14	Oct 6	Sept 29	Sept 22	Sept 18	Sept 17
Milford	Nov 3	Oct 30	Oct 26	Oct 19	Oct 11	Oct 3	Sept 26	Sept 21	Sept 20
Mio	Oct 6	Oct 1	Sept 28	Sept 21	Sept 15	Sept 8	Sept 1	Aug 29	Aug 21
Monroe	Nov 9	Nov 7	Nov 3	Oct 27	Oct 20	Oct 13	Oct 6	Oct 2	Sept 28
Mt. Clemens	Nov 12	Nov 8	Nov 4	Oct 28	Oct 19	Oct 11	Oct 4	Sept 29	Sept 24
Mt. Pleasant	Nov 1	Oct 19	Oct 15	Oct 9	Oct 2	Sept 25	Sept 19	Sept 15	Sept 14
Munising	Oct 21	Oct 9	Oct 4	Sept 27	Sept 18	Sept 10	Sept 2	Aug 29	Aug 21
Muskegon	Nov 25	Nov 8	Nov 3	Oct 25	Oct 15	Oct 4	Sept 25	Sept 20	Sept 8
Newago	Oct 14	Oct 10	Oct 6	Sept 30	Sept 23	Sept 16	Sept 10	Sept 6	Sept 3
Newberry	Nov 1	Oct 16	Oct 11	Oct 4	Sept 26	Sept 18	Sept 11	Sept 7	Sept 3
Onaway	Nov 1	Oct 15	Oct 10	Oct 2	Sept 24	Sept 15	Sept 7	Sept 3	Aug 22
Owosso	Nov 1	Oct 18	Oct 14	Oct 8	Oct 1	Sept 25	Sept 19	Sept 15	Sept 14
Paw Paw	Nov 5	Oct 24	Oct 20	Oct 12	Oct 4	Sept 26	Sept 19	Sept 14	Sept 13
Pontiac	Nov 5	Oct 31	Oct 27	Oct 20	Oct 13	Oct 6	Sept 29	Sept 25	Sept 23
Port Huron	Nov 9	Nov 8	Nov 3	Oct 26	Oct 17	Oct 7	Sept 29	Sept 24	Sept 12
Saginaw FAA	Nov 9	Nov 2	Oct 28	Oct 20	Oct 12	Oct 3	Sept 25	Sept 21	Sept 12
Sault St. Marie	Oct 28	Oct 19	Oct 14	Oct 7	Sept 29	Sept 21	Sept 13	Sept 9	Aug 22
South Haven	Nov 5	Nov 7	Nov 3	Oct 26	Oct 18	Oct 10	Oct 2	Sept 28	Sept 24
Three Rivers	Nov 1	Oct 25	Oct 20	Oct 13	Oct 5	Sept 26	Sept 19	Sept 15	Sept 13
Traverse City FAA	Nov 1	Oct 24	Oct 20	Oct 12	Oct 4	Sept 26	Sept 18	Sept 14	Sept 11
Vanderbilt II	Sept 18	Sept 14	Sept 9	Sept 1	Aug 23	Aug 14	Aug 5	Aug 1	Aug 1
West Branch	Oct 29	Oct 12	Oct 8	Sept 29	Sept 20	Sept 11	Sept 3	Aug 29	Aug 21
Willis	Oct 24	Oct 19	Oct 15	Oct 8	Oct 1	Sept 24	Sept 17	Sept 13	Sept 13

Table 4. VEGETABLE PRODUCTION CHART*

Vegetable	Amount Needed for One Adult (Fresh Use)		Amount Needed for a Family of Four (Fresh Use)		Amount Needed for One Adult (Processed/Storage)		Amount Needed for a Family of Four (Processed/Storage)		Spacing Between Rows	Yield Per 100 Feet of Row**	Yield Per 100 Square Feet**
	Pounds	Feet of Row	Pounds	Feet of Row	Pounds	Feet of Row	Pounds	Feet of Row			
Asparagus	1.5	10	5	35	5	35	15	100	36	15	5
Beans, Lima	3	40	10	125	3	40	10	125	21	8	5
Beans, Snap	15	25	50	85	18	30	55	90	21	60	34
Beets	3.5	4	10	10	7.5	8	25	25	21	100	57
Broccoli	8	20	25	60	12	30	35	90	30	40	16
Brussels Sprouts	6	20	20	65	8	25	25	85	30	30	12
Cabbage	15	13	45	40	15	13	45	40	30	120	48
Carrots	10	8	30	25	10	8	30	25	21	120	69
Cauliflower	9	10	25	30	12	15	35	40	33	90	33
Celeriac	.5	1	2	3	--	--	--	--	21	60	34
Celery	4	1	12	3	--	--	--	--	28	430	184
Chinese Cabbage	2	1	6	2	--	--	--	--	27	420	187
Collards	2	3	5	7	4	5	10	15	21	80	46
Cucumbers	8	4	25	12	10	5	30	15	48	200	50
Eggplant	4	3	10	9	--	--	--	--	30	115	46
Endive	4	7	10	18	--	--	--	--	15	55	44
Garlic	1	4	3	12	2	8	5	20	15	25	20
Jerusalem Arthichoke	1.5	2	5	3	1	2	3	2	48	150	38
Kale	1	1	3	3	2	2	6	6	21	100	57
Kohlrabi	1.5	2	5	7	--	--	--	--	21	75	43
Leeks	1	3	3	7	1	3	3	7	15	45	36
Lettuce	6	12	20	40	--	--	--	--	15	50	40
Muskmelon	10	9	30	27	2	3	6	6	48	110	28
Mustard	1	2	3	6	--	--	--	--	21	50	29
Okra	3	5	10	17	4	6	10	20	27	60	27
Onions (dry)	8	12	25	30	20	24	60	72	15	115	92
Onions (green)										50	40
Parsley	.25	1	1	4	.5	2	2	7	15	30	24
Parsnips	3	6	10	20	3	6	10	20	21	50	29
Peas, Shelled	4.5	15	15	50	7.5	25	25	85	15	30	24
Peas, Snap	1	3	3	8	1	3	3	8	15	40	32
Peppers	3	3	10	8	3.5	3	10	8	30	120	48
Pop Corn	--	--	--	--	4	15	15	55	33	28	10
Potatoes, Irish	25	21	75	50	75	50	225	150	30	150	60
Potatoes, Sweet	3	18	10	25	4	10	10	25	36	40	13
Pumpkins	10	4	30	10	8	3	25	8	60	300	60
Radishes	4	40	10	100	--	--	--	--	9	10	11
Rhubarb	4	4	10	10	4	4	10	10	48	100	25
Rutabaga	1.5	2	5	5	2	2	5	5	21	100	57
Salsify	.5	1	2	3	.5	1	2	3	21	80	46
Spinach	3	6	10	20	5	3	15	8	15	50	40
Squash, Summer	10	5	30	12	3	2	10	4	42	240	69
Squash, Winter	6	3	20	9	3	2	10	4	60	230	46
Sweet Corn	25 ears	25	80 ears	80	50 ears	50	160 ears	160	30	100 ears	36 (kernels)
Swiss Chard	3	4	10	12	4.5	6	15	20	21	85	49
Tomatoes	24	15	70	40	36	23	110	65	36	165	55
Turnips	5	5	15	15	7	7	20	20	21	100	57
Watermelons	12	12	35	35	--	--	--	--	72	100	17

*Assumptions: Amount per person is for individuals who like to eat that particular plant. If they don't, they won't plant any.

Amount for a family of 4 is generally about 3 times the amount needed by one adult. This is because a family of four would usually include some children who probably wouldn't eat as much as an adult, or the family might include one or more members who wouldn't care to eat that particular vegetable.

**Yields are based on standard row plantings. Wide row planting, trellising, and other intensive gardening techniques would probably yield more than the amounts listed above.

SEED COST COMPARISON									
Parsnips (one year longevity)					Lettuce (six years longevity)				
Amount	Cost	Feet Planted	Cost for 25 ft.	% Decrease in Cost Over Pkt. Price	Amount	Cost	Feet Planted	Cost for 20 ft.	% Decrease in Cost Over Pkt. Price
1 pkt.	\$.65	25	\$.65	--	1 pkt.	\$.85	20	\$.85	--
1 oz.	1.65	200	.21	68	½ oz.	1.75	200	.175	79
¼ lb.	3.25	800	.10	85	1 oz.	2.25	400	.11	87

plantings are made. For example, three or four small plantings of corn, beans and lettuce two weeks apart will be better than a single large planting. It is also important to use early, mid-season, and late-maturing varieties in conjunction with successive plantings to insure a continual harvest.

Amount of Seed to Buy

For most vegetables, a small packet of seeds will produce enough for a family of four. More than one packet will probably be needed for large-seeded crops such as beans, peas and sweet corn. Since the number of seeds in a packet varies greatly, the approximate number of seeds in an ounce are given in the SEED INVENTORY AND ORDERING CHART (Table 5). Some seed catalogs also provide information about how much a packet of seeds will plant. Purchase slightly more seeds than needed since 100% germination rarely will be obtained and often a significant number of seedlings will be lost to insects and diseases. Most gardeners plant excess seeds and then thin to a complete stand of healthy plants before the seedlings start to crowd each other.

Cost of Seeds

Seeds are relatively inexpensive when compared to other items. However, to save money combine

orders with friends or other individuals and buy seeds in larger quantities. In comparing the cost of parsnip seed by packet and ounce, a one ounce package will plant about eight times as much as a packet, but costs less than three times as much. The ounce packet would be a good buy if the seeds could be used during the year. It would be a poor buy, however, if only a small portion of the seeds were used since the longevity of parsnip seeds is only a year and they would germinate poorly the following year. Note that ¼ pound would plant 32 times as much as a packet, but costs only five times as much, an 85% decrease in price. It also would only be a good buy if most of the seeds could be used during the year.

Lettuce and other vegetable seeds cost considerably less when ordered in quantity, but are only a good buy if they can be used while still viable. In comparing a packet and an ounce of lettuce seed, an ounce will plant 20 times as much as one packet, but costs just less than three times as much. Both the half-ounce and one ounce quantities could be good buys if they are used in one year or can be stored properly from year to year and used before they lose their viability.

The main disadvantage of buying seeds in larger quantities is that it takes time and patience to divide large lots into smaller quantities and each person does not end up with nicely illustrated, labeled packets.

left-over seeds from the previous years can also be a challenging experience. Determining what seeds are on hand and still viable is part of the inventory process. THE SEED INVENTORY AND ORDERING CHART (Table 5) can serve as a checklist for determining which seeds are left-over, which varieties and quantities need to be ordered and where seeds can be obtained. See Extension Bulletin E760a, Home Vegetable Garden Variety Recommendations, for more information and a listing of mail order seed companies.

Storing Seeds

It is generally recommended that home gardeners buy fresh seeds each year. However, it is possible to use left-over seeds of most vegetables that are one or more years old, except onions, parsley, parsnip and salsify, with satisfactory results if the seeds have been stored properly.

The best conditions for storing most vegetable seeds are relatively cool temperatures, 32° to 40°F, a relative humidity of 40 to 50% or lower, and a low moisture content in the seeds, about 7 to 10%. Seeds held in moistureproof and vapor-proof containers store better than seeds exposed to the atmosphere, if packed at their optimum moisture content.

If seeds are collected and saved from non-hybrid varieties, let dry-

Inventorying Seeds

Reading about all the new varieties is very exciting to most gardeners. Finding and inventorying

TABLE 5. SEED INVENTORY AND ORDERING CHART

Vegetable	Suggested Min. No. of Varieties to Grow	No. of Seeds Per Ounce	Seeds/ 100 ft. (oz.)	Seed Long. (yrs.)	Seeds Left-over (Yes)	Varieties to Order and Quantity	Sources
Beans, Lima	1	25-75	8	3			
Beans, Snap	(green) 1 (yellow) 1 (other: 1 Romano, Purple Pod)	100-125	8	3			
Beets	1	1,600	½	4			
Broccoli	1	9,000	¼	3			
Brussels Sprouts	1	9,000	¼	4			
Cabbage	1	9,000	¼	4			
Carrots	1	23,000	¼	3			
Cauliflower	1	9,000	¼	4			
Celeriac	1	72,000	1/8	3			
Celery	1	72,000	1/8	3			
Chinese Cabbage	1	18,000	¼	3			
Collards	1	9,000	¼	5			
Cucumbers	(pickle) 1 (slicer) 1	1,100	¼	5			
Eggplant	1	6,500	1/8	4			
Endive	1	27,000	¼	5			
Kale	1	9,000	¼	4			
Kohlrabi	1	9,000	¼	3			
Leek	1	11,000	½	2			
Lettuce	(leaf) 1 (bibb/head) 1	25,000	¼	6			
Muskmelons	1	1,300	¼	5			
Mustard	1	18,000	¼	4			
Okra	1	500	½	2			
Onions	1	9,500	½	1			
Parsley	1	18,000	¼	1			
Parsnips	1	12,000	½	1			
Peas	(regular) 1 (snap) 1	90-175	16	3			
Peas, Southern	1	225	8	3			
Peppers	1	4,500	1/8	2			
Pop Corn	1	200-300	1	2			
Pumpkins	1	100-300	½	4			
Radish	(red) 1 (white) 1	2,000- 4,000	1	5			
Rutabaga	1	12,000	¼	4			
Salsify	1	1,900	½	1			
Spinach	1	2,800	½	3			
Squash	(summer yellow) 1 (summer green) 1 (round or scallop) 1 (winter) 1	200-400	½	4			
Sweet Corn	(early) 1 (midseason) 1 (late) 1 (main crop, processing) 1 (bicolor or sweeter type) 1	120-180	4	2			
Swiss Chard	1	1,600	½	4			
Tomatoes	(early) 1 (main season) 1 (cherry) 1 (paste) 1 (yellow) 1	11,500	1/8	4			
Turnips	1	15,000	¼	4			
Watermelons	1	200-300	½	4			

seeded types stay on the plant as long as possible, collecting the seeds, fruits or entire plants just before seeds are shed. Whole plants can be dried and the seeds threshed by flailing or beating. Spread the seeds in thin layers and air-dry them in a protected area such as on a table indoors for several days to a few weeks depending on the temperature and humidity. Seeds will dry quicker in a well-ventilated room or area where the air is warm and dry. Seeds are commonly saved from self-pollinated crops, not hybrid varieties, of snap and lima beans, endive, lettuce, pea and tomato.

Seeds contained in fleshy fruits such as tomatoes can be separated by hand. Squeeze the fruits to extract the seeds and wash them by placing on a fine screen and squirting with water. Rubbing fruit through a screen, mashing with a wooden block or rolling pin or using an electric mixer are all methods that can be used to separate seeds from fleshy fruits. After separation, seeds should be dried as described above.

Seed Longevity and Storage

The life span or longevity of seeds varies from a few weeks to over a thousand years depending

upon the kind of plant and storage conditions. Seeds of most cultivated crops rarely remain viable for over 20 years. The longevity of most common vegetable seeds is given in the SEED INVENTORY AND ORDERING CHART. Although seeds may still germinate beyond the listed times, the seedlings probably won't grow as vigorously as those from fresh seeds. Old seeds probably would need to be sown thicker than usual to get a satisfactory stand. If in doubt, test a few seeds to see how well they germinate.

Testing Seeds

Left-over seeds can easily be tested using a paper towel. Simply place one or more kinds of seeds in rows on a paper towel. Ten in a row is a good number to use since the germination percentage can be determined by multiplying by ten. Roll up carefully, dampen the towel and put it in a covered container. Keep the towel damp, but not saturated. Place the container in a warm location, 75° to 90°F, such as on top of a refrigerator. Most viable seeds should germinate within a few days to a couple of weeks. If over half the seeds of a particular variety germinate, that lot probably is satisfactory and fresh seeds won't have to be purchased. If germination is poor, it would probably be best to obtain fresh seeds since the seedlings may not be as vigorous as seedlings from fresh seeds.

Intercropping

The planting of quick, early-maturing crops between plants or rows of long-season crops is called "intercropping." This practice is especially useful when garden space is limited. Examples of early-maturing crops include peas, radishes, green onions, spinach and lettuce. These crops could be planted between rows where late-maturing crops such as tomatoes, peppers, egg plant and corn are to be grown.

Other Information

This bulletin is concerned primarily with getting your garden underway. Other garden bulletins should be of considerable help in actually planting and caring for a garden. Since about half of all households are involved in some form of gardening, you should also be able to get some help from more experienced gardeners.

A complete listing of other garden bulletins is included on the back of this bulletin. They should all be available from your local county extension office.

TABLE 6. VEGETABLE PLANTING CHART For a typical home garden for a family of four (fresh use only)

Vegetable	Field Planting Times*	Weeks from Seed to Transplanting	Days to Maturity	Days Between Flowering and Harvest	Depth to Plant (Inches)	Amount of Seed or Plants (Ounces)**	Row Length (feet)	Planting Distance In Rows After Thinning	Between Rows	Estimated Production (Pounds)
Asparagus	April		2 to 3 yrs.		8	12 plants	35	12 to 18	36 to 60	5
Beans, Lima	May 20-June 1		68 to 90	40-45	1 to 2	8 ounces	125	3 to 4	18 to 24	10 (shelled)
Beans, Snap	April 20-June 30		50 to 70	10-14	1 to 2	2 ounces	85	3 to 4	18 to 24	50
Beets	April 1-July 15		57 to 80		½ to 1	¼ ounce	10	2 to 3	18 to 24	10
Broccoli	April 20-July 15	4	60 to 75		(plants)	12 plants	60	12 to 15	30	25
Brussels Sprouts	April 20-May 15	4	90 to 95		(plants)	15 plants	65	18 to 24	30	20
Cabbage	April 1-July 15	4 to 6	65 to 100		(plants)	12 plants	40	12 to 15	24 to 36	45 (18 heads)
Carrots	April 1-July 1		85 to 110		½ to 1	1/8 ounce	25	1	18 to 24	30
Cauliflower	June 20-30	4	55 to 95		(plants)	5 plants	30	18 to 24	30 to 36	25 (10 heads)
Celery	April 1-20		110 to 120		½	1/32 ounce	3	4 to 6	18 to 24	2
Celery	April 1-May 30	8 to 10	85 to 100		(plants)	30 plants	3	6	24 to 32	12 (6 stalks)
Chinese Cabbage	June 20-July 30		47 to 80		½	1/32 ounce	2	12	24 to 30	8 (3 heads)
Collards	April 1-Aug. 1		75 to 80		½	1/16 ounce	7	6 to 8	18 to 24	5
Cucumbers	May 20-June 20	4	50 to 70	4-8 (pickles) 15-18 (slicers)	1 to 2	1/16 ounce	12	12	48 to 72	25
Eggplant	May 20-June 1	6 to 8	60 to 80	30-40	(plants)	3 plants	9	24 to 30	24 to 36	10 (10 fruits)
Endive	April 1-20		85 to 100		½	10 plants	18	8 to 12	12 to 18	10
Garlic	April 1-20		115		1 ½	4 cloves	12	3	12 to 18	3 (48 bulbs)
Jerusalem Artichoke	April-May		90 to 130		4	1 tuber	5	12 to 18	36 to 48	3
Kale	June 20-July 30		55 to 60		½ to 1	6 plants	3	8 to 15	18 to 24	3
Kohlrabi	Apr. 1-June 30		50 to 60		1 to 1 ½	24 plants	7	4 to 8	18 to 24	5
Leeks	April 20		130		½	1/16 ounce	7	2 to 3	12 to 18	3
Lettuce (head)	April 1-July 15	4 to 6	85 to 90		¼ to ½	18 plants	15	8 to 15	18 to 24	24 (21 heads)
Lettuce (leaf)	April 1-July 15		40 to 50		¼ to ½	1/64 ounce	25	6	12 to 18	11
Muskmelon	May 20-June 1	4	80 to 90	40-45	(plants)	6 plants	27	36 to 48	48 to 60	30 (5-6 fruits)
Mustard	April 1-Aug. 15		45 to 50		½	1/32 ounce	6	6 to 8	18 to 24	3
Okra	May 20-June 1		80 to 90	4-6	½	¼ ounce	17	12 to 15	24 to 30	10
Onion (sets)	April 1-May 1		45 to 90		1 to 2	4 ounces	15	2	12 to 18	11
Onion (transplants)	April 1-May 1	12	90 to 115		(plants)	120 plants	15	2 to 3	12 to 18	11
Onion (seeds)	April 1-May 1		105 to 130		½	¼ ounce	15	2 to 3	12 to 18	5
Parsley	April - July		76 to 85		¼	1/32 ounce	4	4	12 to 18	1
Parsnips	April 1-20		105 to 120		½	1/16 ounce	20	3 to 4	18 to 24	10
Peas	April 1-30		60 to 70	7-14 (edible podded)	1 to 2	16 ounces	58	2 to 3	12 to 18	18
Peppers	May 20-June 1		60 to 80	14-20 (hulled)	(plants)	6 plants	8	14 to 18	24 to 36	10
Pop Corn	May 20-June 1		90 to 120	45-55 (green stage)	2 to 2 ½	½ ounce	25x2r	10 to 12	30 to 36	14
Potatoes	April 20-June 1		100 to 120	60-70 (red stage)	4	5 pounds	50	10 to 12	24 to 36	75
Potatoes, Sweet	May 20-June 1		120	Until Frost	(plants)	25 plants	25	12 to 18	36	10
Pumpkins	May 20-June 15		100 to 120	80-110	½	1/8 ounce	10	36 to 48	60 to 72	30

Vegetable	Field Planting Times*	Weeks from Seed to Transplanting	Days to Maturity	Days Between Flowering and Harvest	Depth to Plant (Inches)	Amount of Seed or Plants (Ounces)**	Row Length (feet)	Planting Distance In Rows After Thinning	Between Rows	Estimated Production (Pounds)
Radishes	April 1-July 15		23 to 30		½	1/8 ounce	100	1 to 2	6 to 12	10
Rhubarb	April		1 to 2 yrs.		(plants)	3 plants	10	36 to 48	48	10
Rutabaga	June 1-20		90 to 95		½	1/8 ounce	5	4 to 6	18 to 24	5
Salsify	April 1-20		120		½	1/64 ounce	3	3 to 4	18 to 24	2
Spinach	April 1-July 15		40 to 50		¼ to ½	1/16 ounce	20	3 to 6	12 to 18	10
Squash (Summer)	May 20-June 1		45 to 55	4-7	1 to 1½	1/16 ounce	12	36 to 48	36 to 48	30 (60-120 fruits)
Squash (Winter)	May 20-June 1		80 to 110	60-70	1 to 1½	1/8 ounce	9	48 to 60	60 to 72	20 (5-10 fruits)
Sweet Corn	April 20-July 1		65 to 95	18-23 (from 50% silking)	2 to 2½	2 ounces	40x2row	10 to 12	30 to 36	24 (kernels) (80 ears)
Swiss Chard	April 1-20		50 to 60		½	1/16 ounce	12	6 to 8	18 to 24	10
Tomatoes	May 20-June 1	4 to 6	60 to 90	45-50 (red ripe)	(plants)	10 plants	40	36 to 48	36 to 48	70
Turnips	April 1-July 30		40 to 60		1 to 1½	1/8 ounce	15	18 to 24	18 to 24	15
Watermelons	May 20-June 1	4	85 to 95	45-50	(plants)	6 plants	35	72	72	35 (3-5 fruits)

*Earliest dates are for southern parts of the state; northern plantings should be 1 to 3 weeks later.

** One ounce = 28 grams

Gardening Bulletins Available from Your Cooperative Extension Service

The following is a complete list of gardening publications which should be available at your county Extension office.

Home Vegetable Garden,
E529 — 35¢

Home Vegetable Garden Variety
Recommendations, E760A

Home Vegetable Garden Disease,
Insect and Weed Control,
E-760B — 80¢

Family Vegetable Garden Series
(26 bulletins), E824 (1-26)

1. Use Winter Months to Plan Ahead
2. Start with Soil
3. Planting
4. Keep'em Growing
5. Herbs
6. Garden Beans
7. Root Crops
8. Greens

9. Melons, Cucumbers, Squash and Pumpkins
10. Salad Stuff
11. Drying and Storing Vegetables
12. Space Saving Ideas
13. Controlling Pests
14. Asparagus and Rhubarb, Garden Perennials
15. Starting Plants at Home
16. Peas
17. Onion Family
18. Tomatoes
19. When to Harvest Vegetables
20. Peppers and Eggplants
21. Sweet Corn
22. Lima Beans and Okra
23. Potatoes and Sweet Potatoes
24. Cabbage Family Vegetables
25. Organic Gardening
26. Dictionary of Terms

Single copies of these garden bulletins are free unless a price is listed.

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