

OKLAHOMA
AGRICULTURAL AND MECHANICAL COLLEGE AND
AGRICULTURAL EXPERIMENT STATION

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EXTENSION DIVISION

IN COOPERATION WITH

UNITED STATES DEPARTMENT OF AGRICULTURE

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HOME VEGETABLE GARDEN

BY D. C. MOORING AND LEONARD G. HERRON

An early garden is the cheapest and quickest way of supplying the vegetables needed on the farmer's table.

Locate the garden where it will be convenient to the house. If there is any choice of soil or slope, the lighter, sandier soils and southern slopes will be found preferable. The land should, of course, be well drained and if good natural drainage does not exist, some artificial drainage should be provided. Plowing the land in the fall in narrow "lands" with deep dead furrows running down hill, will probably be the easiest method of doing this. Be careful not to have the garden too large. A comparatively small area, well cared for, will produce more and better vegetables than will the larger area with the care it usually receives. The shape of the garden should be oblong rather than square on account of the greater ease of plowing and cultivating.

Land intended for garden should always be plowed quite deep in the fall. In the spring it should receive another, but more shallow, plowing. If the section, or character of the ground is such that blowing of the soil particles is anticipated, the ground should be left rough after the fall plowing. After the spring plowing only so much should be harrowed as is to be planted at once.

Barnyard manure may, with benefit, be applied to a home garden in almost unlimited quantities. On the lighter soils, and particularly in the drier parts of the State, care must be taken that this manure is well rotted before seeding time in the spring. This is sometimes difficult to accomplish if the winter be dry. On the clay soils in the more humid portions of the State coarse, strawy manure will give most excellent results and there is no likelihood of its being applied in too great quantities.

Seed, in order to be satisfactory, must be germinable, free from foreign seed or trash, true to the variety, and up to standard. Seed may be readily tested as to its germinating power, either in damp sand or between moist

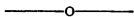
blotters. This should be done in the kitchen or some other place that is reasonably warm. While this is a common practice among commercial growers, it hardly pays for small plantings. For the farm garden, it is usually best to buy seed from some reliable nearby seed house, and then rely on the integrity of this seed house for the quality of the seeds.

Arrange the plants in the garden according to the time they will occupy the ground. If small fruits such as blackberries, strawberries, etc., are to be in the garden, place them in rows to one side. Such vegetables as asparagus, rhubarb, horseradish, etc., should be similarly located. The plants with the longer growing season, such as okra, beets, parsnips, sweet potatoes, etc., should be by themselves. Lettuce, radishes, mustard and other short-lived plants, should be similarly grouped. Frequently, where space is limited, the longer maturing plants may be set between the shorter lived ones. By the time the long maturing plants need the room, the others will be harvested.

There are several ways of prolonging the harvest season of a garden. Make several plantings of the same variety about two weeks apart. Plant early and late varieties. Certain vegetables as string beans, peas, okra, etc., must be kept picked as fast as they mature. Otherwise the plants will quit bearing.

The distance apart to plant vegetables in a garden depends on two things: First, the size and nature of the plant and the amount of room needed by the plant above ground and the roots below; Second, the manner of cultivation. For horse cultivation rows should run from three to three and one-half feet apart. Rows to be cultivated with hand tools should be kept twelve to twenty-four inches apart.

One of the essentials to successful planting is to press the soil firmly around the seed. One of the common methods of market gardeners is to step on the hill or row after the seed is planted and then sift a little soil on the footprint to prevent a crust being formed. Where seed are planted with a drill with a press wheel attachment this firming will be unnecessary.



APPROXIMATE TIME REQUIRED TO RAISE VEGETABLES

(Taken from Farmers' Bulletin No. 255, U. S. D. A.)

Kind of Vegetables	Ready for Table
Asparagus, from seed.....	3 to 4 years
Asparagus, from plants.....	1 to 3 years
Beans, bush.....	40 to 65 days
Beans, pole.....	50 to 80 days
Beets.....	60 to 80 days
Cabbage, early.....	90 to 130 days
Carrot.....	75 to 110 days
Cauliflower.....	100 to 130 days
Celery.....	120 to 150 days
Collards.....	100 to 120 days
Corn, sweet.....	60 to 100 days

Cucumber	60 to 80 days
Egg Plant.....	100 to 140 days
Endive	90 to 180 days
Horse-radish	1 to 2 years
Kale or Borecole.....	90 to 120 days
Kohl-rabi	60 to 80 days
Lettuce	60 to 90 days
Melon, musk.....	120 to 150 days
Melon, water.....	100 to 120 days
Mustard	60 to 90 days
Okra or Gumbo.....	90 to 140 days
Onion, from seed.....	130 to 150 days
Onion, from sets.....	90 to 120 days
Parsley	90 to 120 days
Parsnips	125 to 160 days
Peas	40 to 80 days
Pepper	100 to 140 days
Potato, Irish.....	80 to 140 days
Potato, sweet.....	140 to 160 days
Pumpkin	100 to 140 days
Radish	20 to 40 days
Rhubarb, from plants.....	1 to 3 years
Ruta-baga	60 to 80 days
Salsify	120 to 180 days
Spinach	30 to 60 days
Squash, bush.....	60 to 80 days
Squash, late.....	120 to 160 days
Tomato	100 to 140 days
Turnip	60 to 80 days

Cultivate the soil as often as is necessary to keep a three or four inch dust mulch on the surface at all times. The number of cultivations will depend wholly on the amount and frequency of the rainfall. In wet weather cultivation is only to keep down weeds, and it is frequently better to let the weeds grow than to run any risk of injuring the soil by cultivating when too wet. When the weather turns dry, break the crust and pulverize the surface soil as soon as possible.

Straw is sometimes profitably placed around vegetables during the growing season, as a mulch to keep the soil from drying out. Where straw can be secured cheaply enough this is a commendable practice.

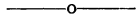
Use horse power cultivating tools as far as possible. The garden should be planted with this end in view, for it lessens very materially the labor of cultivation. The regular farm tools, with a few additions, are all that are required for garden purposes. A good hoe and rake will be found absolutely necessary. In addition one of the five tooth cultivators such as Planet Jr., Iron Age, or any other standard make will be found highly desirable. The single horse double shovel, frequently found on Oklahoma farms, is not a satisfactory garden implement. It goes too deep and does not cover enough surface. If any considerable area of onions or similar crops demanding a certain amount of hand weeding and thinning are to be raised, it will be almost necessary to secure a hand wheel drill and cultivator. The Planet Jr. type is probably the best known of these and is quite satisfactory.

FLATS.

In the case of many plants, seeds are ordinarily planted inside and later transplanted to the open ground. For planting indoors there is nothing more serviceable than a "flat." A flat is a box three or four inches deep, sixteen to eighteen inches wide and twenty-four to thirty inches long. Any box may be used, but one of approximately these dimensions has been found the most convenient. A very common method of making these boxes is to saw up soap boxes lengthwise, nailing on additional bottoms when necessary. Fill the box with good garden loam, pressing it in firmly, particularly around the sides and in the corners. After planting, put in a light, warm place and when the plants appear, turn the box from day to day to prevent them from drawing toward the light. Frequently a frame is built just outside a south window. On the warm days the box is slid out on this frame and the plants thus have a chance to gradually get accustomed to outside conditions.

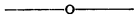
Thoroughly soak the soil of the flat several hours before transplanting. Do not expose the plants any more than is necessary in removing to the field. Have the ground prepared in advance and transplant as rapidly as possible. Unless the plants are very stocky they should be set somewhat deeper than they stood in the flat.

Seeds should be planted in flats about six to eight weeks before the time when it is desired to remove them to the open ground.



COLD FRAMES AND HOTBEDS

For gardening on a large scale the cold frame and the hot bed are necessary, but not for the ordinary home garden. Plants for a whole neighborhood may be grown in one hot bed. The essential difference between a cold frame and a hot bed is that the cold frame does not have bottom heat. The bottom heat is usually furnished by eighteen or twenty inches of fermenting manure in a pit, beneath four to six inches of surface soil. A special bulletin will be prepared giving directions for making hot beds.



LIST OF VEGETABLES AND DIRECTIONS FOR CULTURE

Asparagus.

For quick results buy strong one year old roots. Set in well manured rich soil, in rows three and one-half to four feet apart and fourteen to sixteen inches apart in the row. Early spring is the best time to set out these plants although they may be set in the fall. Cultivate well during the entire growing season of the first summer. In the fall when the tops die, cut them off. A light strawy mulch should then be applied five or six inches deep. For home purposes more mulch is usually applied the next spring and this mulch is depended on to keep down weeds, no further cultivation being given. The second season a light cutting of the sprouts may be made

and the third season the bed should produce a good crop. During the height of the season all the shoots should be removed every day, whereas every other day will be found often enough at the close or beginning of the season. The shoots are removed by cutting them off below the ground and just above the crown. In cutting be careful not to cut so deeply as to injure this crown as such injury is more or less permanent. A butcher knife is commonly used for cutting asparagus in home beds. Palmetto and Conover's Colossal are the two most popular varieties.

Bush Snap Beans.

Beans will not stand any frost and do not grow well until the soil is fairly warm. The first planting should be made between April 10th and April 20th and successive plantings may be made every two weeks until the 1st of June. If the first planting is killed by frost it is not a serious matter as the other plantings will assure a crop. If the soil is moist enough to germinate the seeds a fall crop of beans may be grown by planting during the latter part of July and until the middle of August. In many parts of Oklahoma the bean does poorly on account of the hot dry winds that are liable to come during the blossoming period. These winds prevent the pods from setting. Plant in drills about three feet apart and about two inches deep. The plants should stand about four inches apart in the row. Varieties: Stringless Green Pod, Extra Early Red Valentine, Refugee, Black Wax.

Bush Limas.

The culture of the bush limas is about the same as for the snaps with the exception that the first planting should be a little later. Burpee's Bush Lima, Henderson's Bush Lima, Fordhook.

Pole Snap Beans.

All the varieties of pole beans are more tender than the bush beans, and for this reason should be planted about two weeks later. They should be planted in hills about four feet apart each way and each hill provided with a stake about eight or nine feet in height. From five to six beans are planted in each hill about two inches deep. Varieties: Kentucky Wonder, Lazy Wife, Horticultural.

Pole Lima Beans.

The culture and requirements are much the same as for the pole snap beans. Large White Lima, King of the Garden and New Leviathan are the common varieties.

Beets.

Beets are one of the best vegetables for both early and late gardens in Oklahoma. They will stand a fairly heavy frost with but little injury. Because of this and because the seeds germinate quite slowly, they should be planted very early in the spring. From March 10th to 20th is usually

the best time for planting. Later plantings may be made but beets usually become tough and woody after the hot dry weather sets in. For the fall garden a planting may be made about the middle of August providing the soil is moist. Make the plantings in drills about three feet apart and about one and one-half inches deep. The seed should be sown quite thick. When the plants are about four inches high they should be thinned to six inches apart. The extra plants may be transplanted or used for greens. Beets may be stored for use during the winter. Early Blood Turnip, Extra Early Egyptian, Eclipse and Long Blood Red are the most popular varieties.

Cabbage.

Cabbage desires a cool, moist climate and for this reason must be grown either very early or late in Oklahoma. The seeds should be planted rather thinly about one-fourth inch deep in a flat in the house about February 10th. Cabbage will withstand a low temperature, and if the soil is in the proper condition the plants may be set in the open by March 5 or 10. The plants should be set deep, almost to the leaves, two feet apart, in rows three feet apart. The soil should be pressed firmly about the roots of the plant. Plants for late cabbage should be started in a bed, where it can be watered. July 1st is early enough to start them, so that they may be set in the garden about the middle of August. If the weather is dry and hot when the transplanting is done the plants should be shaded in some manner for a few days. Only the early varieties should be grown. Jersey Wakefield, Early York and Extra Early Etampes are the best varieties.

Carrots.

Carrots are not affected by frost and should be planted as soon as the ground is tillable in the spring. Plant thickly about one-half inch deep in rows three feet apart. Before the plants begin to crowd, thin them to about five inches apart. Carrots may be harvested in the fall or early winter and stored for use during the winter. Some report good success while others have secured disappointing results. Early Scarlet Horn, Oxheart and Danvers are the best known varieties.

Cauliflower.

Oklahoma conditions are not favorable enough for cauliflower to be raised with much success. It is grown much the same as cabbage, but is not quite as resistant to frost. Snowball and Dwarf Erfurt are the most common varieties.

Celery.

The weather is too dry and hot for much success with celery in Oklahoma. Where irrigation is practiced some growers have been quite successful. Plant the seeds rather thinly in flats about the 15th of March and cover about one-fourth inch deep. Set in the open about April 20th six inches apart in three foot rows. Press the soil firmly about the roots. For winter celery sow the seeds in a bed about May 1st and transplant to the field in

July. The soil for celery should be very rich. Golden Self Blanching, White Plume and Giant Pascal are the common varieties.

Collard.

The collard is a member of the cabbage family which is raised largely in the South. It does not form a solid head, but only a loose cluster of leaves. It withstands the hot weather of Oklahoma better than cabbage. Frost is supposed to improve the quality. It is grown the same as cabbage. Georgia Southern or Creole is the common variety.

Cucumber.

The cucumber will not withstand frost but nevertheless must be grown early to be a success here. Cucumber plants are very difficult to transplant and for this reason it is not very practicable to start them inside. By using paper pots, or tin cans with the bottoms melted off, the plants can be grown separately in the hot bed and removed to the field without disturbing the roots. They may be started in this manner about March 25th. The seeds may be sown out doors about April 20th. Hills one inch high should be made 4 to 6 feet apart each way. Eight or ten seed should be scattered over the hill and covered about one-half inch deep. As soon as the danger of insect injury is over, thin to four strong plants. Ashes or air slacked lime dusted on the leaves of the cucumber and melon plants while they are moist with dew, usually prevents insect injury. Long Green, White Spine, Early Russian, Everbearing and Boston Pickling are the common varieties.

Egg Plant.

Egg Plant deserves to be raised more commonly in Oklahoma gardens. It requires a long growing season and should be in the open ground just as soon as the danger of frost is over. Plant the seed in a flat about one-fourth inch deep during the last week of March. About April 25th set these plants in rows three feet apart and two feet apart in the row. New York Improved, Purple Spineless, Early Long Purple and Black Beauty are the common varieties.

Endive.

Endive is a leafy plant used for garnishing and for salads. It is usually grown in the fall. Plant quite thickly in rows three feet apart and cover about one-half inch deep. Thin the plants to about eight inches apart. Make the spring planting about March 1st to 15th and the fall planting during the latter part of August. Endive is usually blanched by tying the outer leaves together for a few days. Green Curled and Moss Curled are the varieties most common.

Horse-Radish.

Horse-radish is grown from pieces of the root. These pieces of root may be set almost any time during the spring and early summer. Place them eighteen inches apart, in rows three feet apart, in an upright position, the small end down. Cover about three inches deep. After the first year

the tops will be so large that the plants will need very little cultivation. Commercial growers usually plow out the plants when they are one year old, sell the larger roots and save the smaller ones in damp soil for re-planting the bed the next season.

Kale or Borecole.

Kale is a leafy member of the cabbage family that is grown for garnishing and for greens, in both spring and fall. Plant three-fourths inch deep in rows three feet apart. Thin the plants to about twelve inches apart. Kale will usually remain in the open without harm until January 1st in this climate. It can usually be made to live through the winter by mulching with straw. Dwarf Green German and Dwarf Curled Scotch are the common varieties.

Lettuce.

Lettuce is a plant which should be grown during the late fall and early spring in every home garden. It can be grown during the winter, without much trouble in an ordinary hotbed. Lettuce grows very quickly during cool moist weather, but stops growth and becomes bitter soon after the hot weather starts. Plant thickly in rows three feet apart, during the last of February or the first of March. Cover about one-half inch deep. After the plants are up, thin to six or eight inches apart. In order to have a continuous supply, plantings should be made every week or ten days till May 1st. For fall lettuce, plant during the latter part of August and first of September. Big Boston, Hanson and Denver Market are good head varieties. Grand Rapids and Black Seeded Simpson are good leaf varieties.

Muskmelons.

Muskmelons generally do better on the lighter, sandier soils and particularly on the bottom lands. In the western part of Oklahoma, however, they succeed well on the uplands and do moderately well in quite heavy upland. Muskmelons are difficult to transplant and for this reason it is not practicable to start large quantities of them in a hot bed or cold frame. A few extra early ones may be started in tin cans or paper pots as suggested for cucumbers, or a series of plantings may be made. The first planting should be made about April 5th, the second April 15th and the third April 25th. The first planting will usually be killed by frost and sometimes the second one, but the third practically always escapes. After danger of frost and insect injury is over the plants are thinned to two or three of the oldest and strongest plants. The hills for muskmelons should be made six to eight feet apart. Make a slight mound at each hill about a foot across. Scatter about a dozen seed over this hill and cover about three quarters of an inch deep. Guard against insects the same as for cucumbers. The Rocky Ford and other varieties of the Gem class are the most popular. The Casaba or Persian, a comparatively new sort, is also highly spoken of for home use.

Mustard.

For use in early summer plant thickly in rows three feet apart and cover three-fourths of an inch deep. Gradually thin the plants as they are used until they stand ten inches apart. Mustard will grow until the weather is quite cold, so that fall plantings may be made as late as September 1st to 15th. Southern Giant Curled and Ostrich Plume are good varieties.

Okra or Gumbo.

Because of its ability to make a vigorous growth during the hot and dry summer weather this vegetable deserves a place in every Oklahoma garden. Plant about six inches apart in rows three feet apart, during the latter part of April. Thin to 20 inches apart when the plants are well started. The seeds should be covered about an inch deep. If the pods are gathered before they ripen the plants will fruit heavily until frost. To be palatable the pods must be gathered when quite small only two or three days old. White Velvet, Early Dwarf Prolific and Tall Green are popular varieties.

Onion.

The onion is raised in large quantities on the sandy and sandy loam bottom lands of this State. This is the type of soil that is best adapted to its growth, but almost any well manured garden will grow onions quite successfully. Onions are grown both from seeds and from sets. Ordinarily the sets are best for the home garden as one is never sure of a stand from seeds. Sets also produce onions earlier than seeds but are much more expensive. Plant the sets three inches apart in rows three feet apart, March 6th to 15th, or as soon as the ground is tillable. Cover about two inches deep in sandy loams and about one inch deep in clay soils. The seeds may be sown thickly, one-fourth inch deep, in rows three feet apart, at about the same time. When the plants have become well established they are thinned to about four inches apart. It is usually difficult to secure a stand in the heavy soils so early, but the size of the crop depends largely on the earliness. In cultivating do not disturb the roots. Prizetaker, Yellow Globe, Danvers, Red Bermuda and Southport Yellow Globe are all good varieties.

Multiplier or Potato onions are commonly used for supplying green onions. These are grown from sets which divide continually, none of the bulbs ever attain much size. The sets are usually planted in the fall in the same manner that spring onions are planted. The following spring each set will produce from six to a dozen green onions. If a few of the onions are left they will remain until the following year and produce again.

Parsley.

Parsley is the most beautiful garnishing plant we have. It is also used for salads and for flavoring. In the spring the plants may be grown much the same as cabbage plants and set in the open about the same time. For fall and winter use plant the seed about one-half inch deep in three foot

rows during August, or start the plants in a bed in July and remove to the garden later. Moss Curled, and Dwarf Perfection are common varieties.

Parsnip.

The parsnip is one of the most successful root vegetables in Oklahoma and withstands the drouth remarkably well. The seeds are slow to germinate and should be planted quite early. A few radish seeds are sometimes mixed with parsnip seeds so that the row will be marked for cultivating purposes. Plant the seed thickly, one-half inch deep, in rows three feet apart, and firm the soil well over them. When the plants are well started thin to about four inches apart. Do not harvest until late as freezing seems to improve them. Hollow Crown and Guernsey are good varieties.

Peas.

Only the early varieties are successful in the greater part of this State. They do not grow well except in cool, moist weather. Make the first planting as soon as the ground can be worked in the spring. This will be late February or early March. Two or three more plantings should be made at intervals of ten days. Plant one inch apart in three foot rows and cover two to three inches deep. Alaska, Grandus, First and Best., and Notts Excelsior are the earlier varieties. All are dwarf and do not require any sticks or trellis to grow on.

Pepper.

Peppers are tender and have much the same plant requirements as egg plant and tomatoes. They should be started inside in a flat, planting the seed about the middle of March and transplanting to the garden about the 25th of April. Handle in flats the same as for tomatoes. In the garden they should be set eighteen inches apart in three foot rows. Of the hot-fruited varieties the Long Red Cayenne and Red Chili are popular. Of the mild-fruited varieties the Chinese Giant, Bull Nose and Sweet Spanish are popular.

Irish Potato.

The climate of Oklahoma is such that it is difficult to grow Irish potatoes successfully except early in the season and sometimes late in the season. A rich, well drained, sandy loam is best adapted to the growth of Irish potatoes. The potatoes should be cut so that there are at least three good eyes in each piece. The planting should be done between March 1st and 30th. Plant the pieces three or four inches deep, about eighteen inches apart in rows three and one-half feet apart. The furrow for planting may be opened with a small turning plow and potatoes covered by turning the furrow back with the same plow. Frequently for small patches, potatoes are planted by dropping the seed in every third furrow when plowing. The cultivation should be frequent and much the same as for corn. Where straw is plentiful and cheap potatoes are frequently grown under a mulch.

The mulch may be applied at time of planting or later, up to the time when the potatoes are coming through the ground. When mulched, potatoes may be planted much earlier than when not mulched. Mulch should be applied eight to twelve inches deep and it will settle to from three to five inches. Mulched potatoes are not cultivated but it may be necessary to pull some weeds.

In Oklahoma it is usually necessary to dig the potatoes as soon as they are mature, otherwise they will either sprout or decay. In some portions of the western part of the State the growers report that they keep their potatoes through the summer by throwing a ridge over the row with a turning plow.

Triumph (Bliss Triumph, Early Triumph), Early Ohio, Irish Cobbler, Early Six Weeks and Early Rose are well adapted for growth in Oklahoma. All of them are early.

Pumpkin.

Pumpkins grow quite well in Oklahoma. Their culture is much the same as for melons and cucumbers. The hills should be made ten to twelve feet apart and on account of their very rank growth, they are usually excluded from the garden. A very good method is to plant them in missing hills in the corn field. In this way they are cultivated along with the corn. Large Cheese, Genuine Mammoth and Small Sugar are good varieties for culinary purposes.

Radish.

Radishes may be grown successfully during both spring and fall but become too strong during the hot weather to be palatable. Plant thickly about one-half inch deep in rows, March 15th to 30th. Thin to two inches apart. Plantings may be made at intervals of two weeks until about the middle of May. For fall radishes plant rather deep from the middle of August to the middle of September. French Breakfast, Rosy Gem and Deep Scarlet Turnip are small early varieties. White Icicle and Chartier Long Scarlet are better for later plantings. Long Black Spanish and White Chinese are winter radishes and will grow until late November.

Rhubarb.

Rhubarb is nearly always grown from roots or crowns. These crowns are usually secured from a seed house or a neighbor. In the dryer sections of the State a bit of low ground is especially desirable as a site for rhubarb, as rhubarb desires a great deal of moisture and is a gross feeder. Any deep rich soil that has been well manured will, however, prove quite satisfactory. The crowns should be set two or three inches deep and three feet apart in rows four or five feet apart. They should be set early in the spring. Cultivate thoroughly during the entire season. The second year the stalks may be pulled for four or five weeks. Victoria and Linnaeus are the popular varieties.

Salsify or Oyster Plant.

The culture of salsify is much the same as for the parsnip. The seeds should be planted one inch deep in rows three feet apart, as soon as possible in the spring. When the plants are well started thin to five inches apart. The roots may be used in the fall, dug and stored for use during the winter or they may be allowed to remain in the ground until spring before digging. Mammoth Sandwich Island is the common variety.

Spinach.

Spinach is the plant most commonly used for greens. It requires only about six weeks to grow and is tough and strong except when grown in cool weather. When grown in rich soil it is much more tender and succulent. For the spring crop plant thickly about March 5th to 15th. For the fall crop plant about September 1st to 15th. The germination of the seed may be hastened by soaking them over night in water. Firm the soil well over the seed. Long Standing, American Savoy Leaved and True Victoria are the common varieties.

Squash.

There are several types of squash three of which are raised more or less in Oklahoma. These are the Hubbard, the Cushaw, and the summer squash. The Cushaw and the Summer Crookneck are particularly well adapted to the prairie sections of Oklahoma. The insects must be watched closely, however, or the young plants will be destroyed. The Cushaw and Hubbard should be planted in hills eight to twelve feet apart April 15th to 20th. The Summer squash should be planted April 5th to 15th, in hills four feet apart. Eight or ten seeds are usually planted in a hill and the plants later thinned to two or three. There are no varieties of the Cushaw. Early White Bush, Golden Summer Crookneck and Boston Marrow are common summer varieties. Hubbard, Warty Hubbard and Marblehead are common varieties of the Hubbard type.

Sweet Corn.

It is useless to try to grow any but the early varieties in a greater part of the State. About March 20th to April 10th, plant four or five grains in hills three feet apart each way, or plant separate grains each eight inches apart in three foot rows. Two or three later plantings should be made at intervals of ten days, so that a loss of the first plantings will not be serious. Cultivate often and remove all suckers. Golden Bantam, White Cob Cory and Early Minnesota are the best early varieties. Stowells Evergreen and Country Gentleman are excellent late varieties.

Sweet Potatoes.

The sweet potato is particularly well adapted to Oklahoma conditions and is the leading truck crop. It does best in a sandy loam soil of moderate fertility, but grows successfully on practically all the soils of the State.

It is propagated by means of "slips" which are grown by placing the potatoes in a hotbed. For early plantings the hotbed should be started between March 10 and 30. A frame of inch boards with muslin covering is easily made and serves very well for a hotbed for sweet potatoes.

A bed 3 by 6 feet is required to accommodate a bushel of potatoes and will produce from 2,000 to 5,000 plants. About ten thousand plants are required to set one acre. Sweet potato plants should not be set out till all danger of frost is over, as they are very tender. The earliest dates at which it is safe to set sweet potatoes in Oklahoma varies from April 15 to 30, according to season and part of the State. Since there is no apparent gain from early planting, the larger growers do not usually plant in the field till some time in May.

The plants are usually set on ridges made either with a lister or turning plow. These ridges are commonly made three and one-half feet apart, and the plants set from one and one-half to two feet apart in the row. The plants may be set with a trowel, a dibble, or any other tool which is found convenient by the person doing the planting.

The cultivation may be done much the same as for corn, but must cease early as the plants soon cover the ground. The best time to harvest is just before the first hard freeze. If the vines are killed by frost before the potatoes are dug, cut the vines loose from the hill, otherwise the potatoes are likely to become bitter.

Bradley Yam, Triumph, Early Golden, Southern Queen, Pumpkin Yam and Nancy Hall are all good varieties.

Tomato

In many sections of Oklahoma tomatoes are a failure, due to the falling of the blossoms without setting fruit. This trouble is not so prevalent early or late in the season, appearing to be worse during the hot and dry weather. As we have as yet no proved remedy, the difficulty should be avoided as much as possible. Tomato plants should be started inside in a flat or purchased from some neighbor who has a hotbed or cold frame. The transplanting to the field should be done on a cloudy, damp day if possible. If the weather is clear and warm, transplant in the evening and shade the plants the following day in some manner. If the vines are kept pruned to one main stem the fruit will be somewhat earlier, but there will not be so much of it. The pruning of the tomato vines and the thinning of the fruit, while it does produce larger and earlier fruit, is not advised for the home garden. Tomatoes should be kept well cultivated. Earliana, Truckers Favorite, Prosperity and Dwarf Champion have given the best results here.

Turnip

The turnip is a cool weather plant and it is difficult to get the seed to germinate during dry, hot weather. The turnips also get more or less woody and strong if grown during hot weather. Plant thickly in three-foot rows about March 1. Thin the plants later to five inches apart. For the fall crop, sow broadcast some time in August or September on well prepared

land. Cover with a rake or brush harrow. The success of this fall crop in the western two-thirds of the State depends wholly on the amount of fall rain. Purple Top, Strap Leaf and Red Top Globe are standard sorts.

Watermelons

The watermelon is particularly well adapted to sandy bottom lands, and the commercial districts are practically all located in such sections. In the western part of the State, however, they do very well on the uplands. The watermelon is a warm weather plant and should not be planted till all danger of frost is past. If extra early melons are desired, serial plantings may be made the same as is described for muskmelons. The rows should be eight or ten feet apart each way. Hills ten or twelve inches across may be mounded up two or three inches and the seed scattered over this hill and covered about three-fourths of an inch deep. In commercial plantings or where they are raised for stock it is a common practice to make a back furrow to mark each row, throwing two furrows from each side, thus forming a ridge. Hills are made on this ridge every eight or ten feet with a hoe. Care should be taken to have the hills come opposite one another in order that it may be possible to cultivate the field crosswise if desired. After melons are up and beginning to vine, the land in between the rows is plowed. This manner of planting saves one cultivation and gives the melons the start of the weeds. It loses some moisture and its advisability depends on the conditions. On bottom lands in the Middle West and in the East it has proven successful. We do not recommend it for upland. The watermelon will stand lots of dry weather, and if properly handled, on good watermelon land, will make a crop every year. They will also stand lots of weeds, and while the best melons are not raised in a weed patch, it is usually better to let the weeds grow than to try to cultivate after the ground is partly covered with the growing vines, and cultivation cannot be done except by moving the vines around. Kolb's Gem is one of the most popular market sorts, but is rather deficient in quality. Tom Watson, Georgia Rattlesnake, Halbert Honey, Cole Early and Kleckley's Sweet are good varieties.

