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Part II.

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SUGGESTIVE PLAN FOR A HOME GARDEN.

Grapes			
Black berries			Dewberries
Red Raspberries			Black Raspberries
	Strawberries		
	Strawberries		
		Strawberries	
Asparagus			
Pumpkins			
Cantaloupes	Squash		Watermelons
	Cucumbers		Summer Squash
Early Sweet Corn			Late Sweet Corn
Okra			Late Sweet Corn
Peppers	Egg Plant		Cauliflower
Lima Beans	Kohl Rabi	Tomatoes	Snap Beans
	Sweet Potatoes		
Irish Potatoes			
	Irish Potatoes		
	Irish Potatoes		
		Irish Potatoes	
	Cabbage		
Peas		Parsnips	
Peas		Horse Radish	
Radish	Parsley	Beets	Carrots
	Celery	Endive	Lettuce
	Turnip	Garlic	Spinach
	Onion		Leek
			Artichokes
	Onion	Onion	Onion

Plot A.

FALL GARDEN

Scale 1 in. = 20 ft.

Plot B.

H. H. Senolly 1912

Plot A—The Spring Garden.

Plot B—Space for the Fall Garden.

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THE HOME GARDEN

A vegetable garden should be found in connection with every farm as well as city home in the South. Though the space devoted to gardening may be small it may be made to produce a wonderful amount of fresh vegetables, and if rightly arranged will produce something nearly the year round.

The cost for establishing a garden is very low and the labor involved will not be burdensome if the garden is rightly planned.

A town garden is a great aid to the housewife in lowering the cost of living, for fresh vegetables nearly every day the year round can be had at a fraction of the store prices.

A home garden for the farm is an absolute necessity and the sooner a farmer establishes a successful garden the sooner will his profits increase, for the garden can be made to supply a great share of his living.

The crops grown in the garden will depend in a great measure on the tastes of the owner. If the garden is large, nearly every crop can be grown, and in sufficient quantities for the family needs, but if the garden is small only the crops requiring little room and that mature quickly should be planted. In a garden of small size it would hardly pay to raise potatoes as these could be purchased readily, or to raise pumpkins as they require too much space that could be used to better advantage by radish, lettuce, peas, beans, parsley, etc.

The home garden should be located near the house, and on well drained land. If the land is heavy or wet, it should be tilled to loosen up the soil and drain off excess water.

On a farm or in town there are usually chickens to contend with, therefore the garden should be enclosed with a good poultry wire fence. If possible it is a good plan to have the garden large enough so that one half

can be put in cover crops to build up the soil while the other half is in vegetables.

A good system is illustrated on the frontispiece. In this plan the small fruits and asparagus are placed to one side of the garden where they will not be disturbed and the rest is divided into the Spring and Fall garden.

Plot A.—This should be in vegetables in the spring, while in the fall when crops are harvested it is disced and sowed with oats or burr clover and left till next spring, when it is again plowed and planted with cow-peas. In late summer it can be plowed and planted for fall and winter crops.

Plot B.—This will be in vegetables in the fall and the next spring. Then the next fall it is plowed and rotation followed as for Plot A.

If the garden plot is started the spring of 1912, the rotation will be; Plot A in vegetables the spring of 1912, fall 1913, spring 1914, fall 1915. Plot B will be in vegetables, fall 1912, spring 1913, fall 1914, spring 1915.

In arranging the crops in the garden have them in rows. Run the rows the long way of the garden and have wide spaces between rows if horse cultivation is to be used as this saves much time and trouble.

It is a good plan to have the vine crops by themselves and the early crops by themselves as this gives more opportunity for inter planting and succession crops.

COLD FRAMES AND HOT BEDS.

These are a wonderful aid to the gardener, for by their use many crops can be prolonged several weeks in the fall and hastened a month or six weeks in the spring. Many crops, as lettuce, radish, cauliflower, celery, etc., can be grown in frames during the winter when there is little chance to take anything from the garden.

For a full description of the cold frames and hot beds see Part I, Circular 14.

COMPOST AND FERTILIZER.

No one should attempt to run a home garden without making a compost heap. Good rich compost is very

useful for the cold frames, hotbeds, and as a dressing to give quick available plant food. To make a compost heap, the following points are useful:

In an out-of-way corner but close to the cold frames and hotbeds, put down a layer of earth, then on this, a layer of manure and then more soil and manure. On this pile can be put all decayed vegetable and animal matter that is available. The whole pile should be turned over two or three times during the season and when well rotted and mixed it is ready for use. Always have a new heap in process of making.

Commercial fertilizers never take the place of manures and humus in the soil; they are only useful as an aid in increasing crops grown. The richer and better the condition of the soil, the better will be the results obtained from fertilizers used. Plowing under green manure crops, as clover, oats, rye, cowpeas, velvet beans, etc., will add humus and plant food to the soil.

For ordinary garden purposes a good general fertilizer analyzing about 7-5-8, plowed or disced in, would be useful, while top dressings of Nitrate of Soda may be applied where quick growth is desired at certain periods.

SEED AND SEED SELECTION.

Good seed is one of the principal things required in the vegetable garden. Only a small amount of seed is used of each vegetable which makes it doubly important to have this seed pure to assure good stands. To be sure of good seed buy only of reliable dealers and don't buy seed because it is cheap in price. The best seed obtainable is none too good.

It would be a good plan for each person to select his own seed to a certain extent and thus obtain strains that are acclimated to the South. A person can easily save seed of such vegetables as cucumbers, melons, squash, pumpkins, peas, sweet corn, okra, potatoes (Irish), potatoes (sweet) and tomatoes, and with a little care in taking up plants in the fall, storing and planting again in the spring, seed from the following can be saved: cab-

bage, radish, turnips, beets, parsnip, carrots, celery and lettuce.

In saving seed it is well to follow a few definite points as the following:

1. Select plants from among your crops while they are growing.

2. Select plants that most nearly fill required needs of this vegetable.

3. Take the whole plant when considering such points as vigor, earliness or lateness, fruit bearing qualities, etc.

4. It may not be as well to select seeds from plants that produce one or two large fruits as from plants that produce a large number of medium sized fruits.

5. Resistance to disease, drought, etc., should be taken into account.

6. Stake plants selected and when mature, harvest the seed. Good seed is always in demand among your neighbors, therefore it will do no harm to save a little more seed than you require yourself.

Artichoke (Jerusalem).—This crop is similar in culture to the potato. The tubers are planted in early spring in rows four feet apart and 12 to 18 inches in the row. Yields run as high as 500 bushels per acre. Varieties are Red and White.

Artichoke (Globe).—This is a form of artichoke grown for the large flower heads. The seed may be sown in the cold frame in early spring and the plants set later in the open ground, or seed may be sown in spring in the open. If sown in the open, plant in hills four feet by two feet. This plant is a heavy feeder and to get large flower heads the ground should be well enriched.

Asparagus.—For full details of culture see Part I, Circular No. 14.

Beans (Bush).—No garden should be without a continuous supply of bush (snap, string) beans. They may be planted in drills as soon as frost is past and sometimes you can risk planting early if protection is given. Seed is sown about 4 to 5 inches apart along the row and covered from 1½ to 2 inches. Cultivation should

be given as soon as plants break the ground. A very hardy early bean is the Refugee, and following this are: Valentine, Black Wax and Stringless Green Pod. Succession crops can be planted until Summer, and again crops can be planted in late summer for fall use and for canning. See Part I, Circular No. 14 for commercial growing of snap beans.

Beans (Pole).—The culture for these beans is similar to that for snap beans with the exception that they need poles or wire for support. They last over a longer period than the bush varieties and therefore make a good addition to the home garden.

Varieties recommended are Kentucky Wonder, Old Homestead and Lazy Wife.

Beans (Lima).—This is a favorite vegetable to the Southerner and is often called butter bean. There are two forms of the lima; the bush lima and the pole lima. Bush limas are planted in drills 4 feet apart and the beans 8 or 10 inches along the row. The Pole varieties are planted in hills 4 feet one way and 2½ to 3 feet the other.

Limas should not be planted until the soil has warmed up and the weather is settled, for the seed rot easily if it is damp and cold.

These beans may be harvested when green or left to ripen and shelled as dry beans for winter use. When ripe beans are picked, they should be spread out in a thin layer in some dry, well ventilated room where they will thoroughly dry, then they may be threshed with a flail and sacked for future use.

Beets.—This is one of the important root crops and should be in every home garden. The seed of some of the quick maturing varieties as Eclipse, Crosby's Early Egyptian and Detroit Dark Red may be planted in very early spring and they will be ready to use in about 3 months. For late crops, for storing and pickling, some of the slower maturing varieties, as Arlington Favorite Blood, Edmond's Blood Turnip and Long Dark Blood may be planted in late May and June.

The seed is sown in drills 18 inches apart and covered about 1 inch. A good plan is to soak the seed over night before planting as they will germinate more readily.

Borecole.—Kale is another name to give this vegetable and for culture see Kale.

Broccoli.—This vegetable resembles cauliflower but differs from it in having larger leaves which are curled, a larger head and different colored varieties. Broccoli is easier to raise than cauliflower but the culture is the same. White Cape is the best variety to raise. Where cauliflower can be raised broccoli can be discarded.

Brussels Sprouts.—This is one of the cabbage family which is cultivated for the small buds or heads along the central stem. The plants are set in rows two feet apart and 18 inches in the row. The culture is the same as for late cabbage.

Cabbage.—Full details for Commercial Cabbage growing are given in Part I, Circular No. 14.

Carrots.—This is a vegetable that needs to be used some time to be appreciated, but should find a place in every garden where a succulent root is desired for winter use. The carrot is very similar in culture to the beet and is planted at the same time as an early and a late crop.

Varieties recommended are Danver's Half Long Orange and Early Half Long Scarlet.

Cantaloupe (Muskmelons).—For details for culture see Part I, Circular No. 14.

Cauliflower.—This is a vegetable that delights in a cool moist climate, but can be raised in the garden with some care. The seed should be sown in early February in the hot bed or in flats placed in the house. When the plants are an inch or two in height they are transplanted to the cold frames or placed in 2½ inch pots. When all danger of frost is over the plants may be set in the open ground. The heads of the cauliflower need to be bleached and this is usually done by drawing the leaves over the head and tying.

For early spring cauliflower the seed is sown in the

cold frames in early fall and plants thinned to 10 or 12 inches apart. The bed is protected by glass sash or muslin and where the winter is not severe the cauliflower will be ready to use along in January or February.

Varieties recommended are Early Snowball and Early Dwarf Erfurt.

Celery.—Celery will not stand the hot dry summers of the South, therefore instead of spring planting we must plant in late summer and fall. A special seed bed of well rotted compost and sandy soil should be made and in this sow the seed in August or September and keep the bed watered and shaded. When plants are three inches high cut off one-third of the top to make the plants hardy. When plants are three to four inches high they may be set in beds in the open ground. If soil is not moist from rains the plants should be watered when set. The plants do better if set in beds with plants 4 inches in the row and 6 to 8 inches between rows. Protection during winter may be secured by covering with pine straw or some such litter. In the Northern part of Alabama where the winter is quite severe, the plants should have a heavy coating of litter to protect them. Celery can be blanched with either boards or earth.

Varieties recommended are White Plume, Golden Self-Blanching and Giant Pascal.

Celeriac.—This is a variety of celery raised for the bulbous root instead of the stalks. The roots are used in salads, etc. The cultural methods for celery will apply also to the raising of celeriac.

Corn (Sweet).—Sweet corn is a very desirable crop to raise in the garden, for every one is fond of roasting ears. The seed should be planted after danger of frost is passed in hills 2 by 4 feet or in drills 4 feet apart and 8 to 12 inches in the drill. The seeds should be covered $1\frac{1}{2}$ to 2 inches deep and as soon as the plants break through the ground cultivation should begin. The varieties recommended are Extra Early Adams, Country Gentleman, Stowell's Evergreen and Black Mexican.

Corn Salad.—The culture of this vegetable is the same

as that of spinach. The only variety grown is the Large Seeded. Three ounces of seed will sow 100 feet of row.

Cress.—There are several varieties of cress, some being grown in the garden as Upland Cress, and others along the edge of running streams or ditches as water cress. The seed of the Upland Cress may be sown in the open ground in early spring in drills 6 to 8 inches apart and later the plants are thinned to 6 inches apart in the drill. Successive sowings may be made to have a constant supply of tender leaves. Water cress demands very little attention after the plants get a start. The seed is sown the same as for the Upland Cress.

Cucumber.—Full details for commercial cucumber growing are given in Part I, Circular No. 14.

Dandelion.—This plant is a cultivated variety of the wild form and is used mostly as a pot herb or for greens. The seed is sown in early spring in drills 2 feet apart and plants are later thinned to 8 to 12 inches in the row. The varieties grown are the Broad-leaved and Improved Thick Neck. One ounce of the seed will sow 100 feet of drill.

Eggplant.—This vegetable is a native of warm countries and grows well in most parts of the State, if given care in its early stages. The culture is similar to that of cauliflower and tomatoes. The seed are sown in hotbeds and plants are set in the open ground when the weather becomes warm. The plants are set in rows 4 feet apart and 3 feet in the rows and should preferably be set in the morning when it is cool. The plants can be kept moist by covering them with a wet burlap sack.

Varieties recommended are New York Improved Large Purple, and Early Black Beauty, the former being most generally used.

Endive.—This is an excellent salad crop and is grown the same as head lettuce. In the South it does better as a late fall crop than a spring crop. The leaves may be bleached by covering with leaves or litter. The Large Green Curled is the best variety to grow. One ounce of seed will plant 300 feet of drill.

Garlic.—This is one of the onion family and in general the culture is the same. The bulbs are planted in the fall or early spring in rows two feet apart and 3 to 4 inches in the row. Be sure and set the bulbs with top up and cover about 2 inches. Garlic is mostly used by people of foreign countries and is not well liked by Americans.

Horse-Radish.—This vegetable is grown mostly from cuttings which are made from the small roots of the plants. Select clean roots about the size of lead pencils and cut about 6 inches long. These cuttings are planted in rows three feet apart and 10 to 12 inches in the row. Fall planting is advisable in the South. An excellent variety is the Large Bohemian as it makes very large roots. Strong plants may be obtained of any reliable seedsman.

Kale.—This is a hardy plant and the seed can be sown in either the spring or fall. The seed is sown in drills 18 inches apart and covered about 1 inch deep. Varieties are Dwarf Curled Scotch and Dwarf Green Curled German.

Kale is used as greens the same as spinach and dandelion.

Kohl-Rabi.—The culture for this plant is similar to that for cauliflower, but it can be planted a little sooner in the open ground than the latter. Varieties recommended are Early White Vienna, and Earliest Erfurt.

Leek.—The best method for raising leek in the South is to sow the seed in the fall in frames as for onions, and transplant to open ground in February. The culture would be the same as for onions and crop will be ready to harvest in late June or July. Scotch Champion and Large American Flag are the two best varieties to raise.

Lettuce.—Lettuce is a very useful crop for any garden and one easy to cultivate. It may be planted in frames for winter use and in the open ground for spring and fall use. Varieties that are good are the following: Big Boston, Giant Forcing, Improved Hanson, and Black-seeded Tennisball.

For full cultural directions see Part I, Circular No. 14.

Mustard.—The mustard requires similar culture to kale. It can be planted either in the spring or fall. Varieties commonly grown are Giant Southern Curled and Chinese.

Okra.—This plant is easy to cultivate and thrives in any rich garden soil. Seed is planted in rows 4 feet apart and 2 feet apart in the row. Plant the seed in late March or April. If the pods are not allowed to ripen on the stalk the plant will continue to bear throughout the season.

Onion.—The details for onion culture are given in Part I, Circular 14.

Parsley.—Although parsley is not as hardy as mustard and kale it can be sown in either the fall or the spring. If sown in the fall it must receive a covering of straw to protect the foliage and keep it green. The culture of parsley is very similar to that required for kale.

Extra Double Curled is the variety recommended.

Parsnip.—This crop needs a long season of growth and therefore should be planted in the early spring. Sow the seed in drills 18 inches apart and firm the soil over the seed. These seeds take a long time to germinate, therefore it is a good plan to plant radish seed with them to mark the rows so that cultivation may be given before the parsnips come up. The culture of parsnips is similar to that for beets and carrots.

Varieties recommended are Improved Guernsey and Hollow Crown.

Peas.—Full details for culture are given in Part I, Circular No. 14.

Peppers.—The seed of peppers is sown in frames the same as eggplant and the culture is very similar to the latter.

The varieties recommended are Large Bell, Ruby Giant, Small Chili and Neopolitan.

Pumpkin.—This crop is seldom grown in the home garden as the plants take up too much space. The seed is planted in hills 6 feet apart and covered about an inch. The time for planting is about the same as for corn. The

varieties mostly grown are Mammoth and Golden Cashaw.

Potatoes (Irish).—See Part I, Circular No. 14.

Potatoes (Sweet).—See Part I, Circular No. 14.

Radish.—The radish is a very useful crop for the garden and one appreciated by everyone. The culture is the same as for lettuce. The varieties recommended are: Icicle, Cardinal Globe, Cincinnati Market and French Breakfast. Full details for culture are given in Part I, Circular No. 14.

Spinach.—This crop can be planted in either the fall or spring. The seed is sown thinly in drills and covered about 1 inch. The culture is the same as for mustard.

The varieties commonly used are Perfection Curled, Bloomsdale and Curled Savoy.

Salsify.—The same culture is recommended as for parsnips. Mammoth Sandwich Island is the only variety used.

Squash.—For culture see pumpkin. The varieties commonly raised are Early White Bush, Yellow Crookneck, Golden Custard, and Boston Marrow.

Swiss Chard.—This vegetable is a form of the beet that is grown exclusively for the leaves which are used as greens. The seed is planted in early spring and the culture is the same as that for beets with the exception that the plants are thinned to 8 or 10 inches in the row. If leaves are protected in the fall, fresh leaves may be had all the winter. Giant Lucullus is the best variety to raise.

Tomato.—Full details for culture are given in Part I, Circular No. 14.

Turnip.—This is a crop that is very easy to raise and one that can be planted at nearly any time from early spring until late autumn. The seed may be sown in drills or broadcasted. Varieties for early crops are White Egg and Purple Top Globe; for late crops, Purple Strap Leaf, Purple Top Globe, Yellow Aberdeen and Ruta Baga.

Watermelons.—See Part I, Circular No. 14 for full details for culture and varieties.

STORAGE.

While the storage of vegetables for winter use is not as important in the South as in the North, still fresh vegetables can be had over a longer period if storage is practiced.

Different classes of vegetables require different methods of storage and upon the care in following out these requirements depends the success in avoiding decay of the crops stored.

To aid in the right method of storage we have divided the vegetables that can be stored into six groups and give methods of storage for each group.

Group I.—Root crops such as beets, carrots, parsnips, winter radish, salsify, and turnips should be stored in a cool moist place with sand around the roots so that the moisture does not evaporate from them and cause withering. The tops should be removed from the roots before storing as these will decay and cause the roots to rot.

Pits dug in the ground and covered over with earth make good places to store roots. Select only a well drained location, however. A cool cellar will also be good for the root crops.

Group II.—Under this group come squash and pumpkins. These should be handled very carefully so as not to bruise the skin, and should be placed in a dry, well ventilated room. While the roots can be stored in the cellar the pumpkin and squash should be placed in the attic.

Group III.—Onions come in this group. Onions should be dry when taken from the field and stored on racks in a cool but dry and well ventilated room. If onions are stored where damp they will sprout and if not ventilated they will decay. A barn or shed makes a good place for storing onions and if a little heat can be given when first stored to dry them out thoroughly no trouble will be found in keeping them.

Group IV.—This group will include Irish potatoes and cabbage. The requirements are a cool, moist place, but

good ventilation. A cellar either under a house or barn, or a dug-out cellar where ventilation can be secured serves for the storage of these crops.

Potatoes can even be stored in pits in the ground the same as the other roots and cabbage can also be buried with straw or litter around them then earth thrown over entire pile.

Group V.—Sweet potatoes differ a little from Irish potatoes as they will keep better if kept dry. The potatoes should be harvested soon after frost kills the vines and preferably when the ground is dry. A good method of storage is to make a bed on the surface of the ground 4 feet wide and as long as desired. Select a well drained location for this bed. The bottom of the bed is covered with straw or litter and the potatoes piled upon it in a long pile. Over this heap of potatoes is placed a layer of boards, running the long way of the heap and lapped to allow water to run off. The two sides of the boards meet at the top of the pile and the ends of the covering are left slightly open for ventilation. Supports should be placed under the boards every 4 feet, otherwise they will sag and allow the rain and soil to run in onto the potatoes. A layer of earth is heaped over the board covering and potatoes will be found to keep excellently.

Another method of storage but more expensive is to erect a house which is frost proof and well ventilated. In this the potatoes are stored in crates or on racks. Care should be used to keep out the light as light causes potatoes to sprout.

Group VI.—Under this group are celery, parsley, etc. These crops can be stored in any cool place, burying the roots in boxes of sand. The plants should be watered once in a while so that they will keep fresh and growth will not entirely stop.

HOME CANNING.

The canning of vegetables in the home is very important, as it assures a good supply of high quality vegetables at any season of the year. Of course this supply

of canned goods can be purchased at the store but factory products are not usually up to the standard of goods put up in the home, neither are they as cheap.

Home canning means a good source of income to the farmer for he can put up in cans, surplus vegetables which otherwise might go to waste.

The process of canning is not the burdensome task that many suppose it to be and by using tin cans most any child can put up vegetables as good as the older folks. Full directions for canning are usually furnished with most home canning outfits.



Plate I.—Photo showing a home canning outfit in operation, Horticultural Department, Auburn, Alabama.

There are a few points that are important in canning in tin cans and if these are followed there should seldom be a spoiled can of produce.

1. Be sure to get good quality tin cans for then there is no danger of their corroding.

2. Have no overripe or decayed products used for canning.

3. Every can should be washed thoroughly before filling with vegetables.

4. Test every can before cooking to be sure no air holes are left unsealed.

5. Cook required time to kill all germ life.

6. Cleanliness should be the watchword in every operation.

A good plan is to have a special home canning outfit, as these outfits can be purchased at little expense (\$6.50 to \$25.00) and they will do the work much quicker and better than any other way. A good canning outfit should consist of the following:

1. A boiler with a fire box underneath.
2. Soldering irons, (1 tipping iron and 1 capper).
3. A wire basket for scalding tomatoes, etc.
4. A rack to hold tin cans while cooking.
5. Tongs for lifting the hot cans.
6. Solder, flux and Sal Ammoniac.
7. A fire pot for heating irons.

Put up a cheap shelter to protect operators from the sun and showers.

Wire solder may be used as it melts quicker and is handier than the bar solder.

Flux may be made by dissolving zinc in muriatic acid.

Sal Ammoniac is used to clean and tin the soldering irons.

The following is a list of the vegetables that are most often canned:

Tomatoes, snap beans, lima beans, peas, corn, okra, beets, asparagus, pumpkin, squash and sweet potatoes.

The profits of home canning can be roughly figured from the following:

One bushel of tomatoes will can from 12 to 16 three-pound cans and these cans if put up correctly will readily sell at 10 cents a piece. The cost will run about 5 cents per can, thus, 12 cans at 5 cents will make one bushel of tomatoes worth 60 cents. When there is a surplus of tomatoes on the market and prices are low what better method of getting a good profit could be had than canning?

A list of companies supplying home canning outfits follows:

Tharpe Hardware Co., Elkin, N. C.

Slimmer & Sons, Ridgley, Md.

Home Canner Co., Chattanooga, Tenn.

The Raney Canner Co., Chapel Hill, N. C.

Reeves & Son, Collinsville, Ala.

Dixie Hardware Mfg. Co., Elkin, N. C.

The Meridan Farm Canning Machine Co., Meridan, Miss.

Northwestern Steel & Iron Works, Eau Claire, Wis.

Cans may be secured from the following:

E. F. Kirwin & Co., Baltimore, Md.

American Can Co., Atlanta and Savannah, Ga.

Modern Canner Co., Chattanooga, Tenn.

SOME COMMON INSECTS AND DISEASES OF THE GARDEN.

ASPARAGUS:

Asparagus beetles eat foliage and lay eggs on the stalks which spoil their appearance. Dust with pyrethrum when harvesting. After cutting is over, spray with arsenate of lead. When cutting never leave old stalks on the patch.

Rust forms black and yellow spots on the leaves and stalks of plants and can be kept down by burning rubbish in the fall.

BEANS:

Weevils which are found in dry seed can be destroyed by fumigating seed with Carbon Bisulphide at time of storage.

Anthracnose which forms brownish-black spots on the bean pods and stems can be partially controlled by spraying with Bordeaux Mixture when leaves unfold and repeat again at two week intervals for three sprayings. The best method is to destroy diseased plants and to select seed in the fall from plants not diseased.

Rust produces reddish spots on leaves and stems. It can be controlled by spraying with Bordeaux Mixture when it first appears and again every week or ten days. Don't work or pick beans when wet as this seems to spread the disease.

Mildew comes as a mould on surface of leaves and the beans. Spray with Bordeaux Mixture when plants are a foot high and at two week intervals until danger is over.
CABBAGE, CAULIFLOWER, ETC.:

Cabbage worms can be controlled by spraying or dusting with Arsenate of Lead. If head is forming hellebore is safer to use.

Club root: Never plant any of the cabbage family on land infected with club-root. Use about 100 bushels of lime per acre, to free soil of the disease.

CELERY:

Blight both early and late can be controlled by spraying with Bordeaux as soon as plants are established and repeat every two weeks until three or four sprayings have been given.

CORN:

Corn worms eat kernels of the corn and there is no reliable remedy known. Plowing land in the fall and working it over again in the spring seems to aid materially in keeping the worms down.

CUCUMBERS:

Striped Cucumber Beetles can be kept away by keeping plants covered with Bordeaux.

EGG PLANT:

Potato Beetles can be controlled by spraying with Arsenate of Lead or Paris Green.

Leaf Spot can be controlled by spraying plants with Bordeaux. Begin spraying when plants are full estab-

lished in field and repeat at 14 to 20 day intervals until fruits are half grown.

MELONS:

Striped Beetle: Keep plants covered with Bordeaux. Mildew is controlled by spraying with Bordeaux every week to 10 days.

Pickle Worm: Plant Squash as a trap crop and kill insects on this with kerosene. Make two or three plantings of squash at 10 day intervals.

ONIONS:

Blight: Weak Bordeaux (two-thirds strength) every 10 days from time plants are up till harvest. Add sticker to Bordeaux.

Thrips: Kerosene emulsion or whale oil soap 1 pound in 5 gallons of water.

Maggot: Pour around base of plants an emulsion of 1 pound of soap, one gallon of boiling water, and one pint of crude carbolic acid. Dilute emulsion with 30 parts of water.

POTATO:

Potato Beetle: Spray with Arsenate of Lead.

Blight: Spray with Bordeaux when plants are 3 to 4 inches high and continue at 10 day intervals until three sprayings are given.

Scab: Soak uncut seed potatoes for 1½ hours in a solution of one ounce of corrosive sublimate in 8 gallons of water, or for two hours in solution of ½ pint of formalin in 15 gallons of water.

TOMATO:

Leaf Blight: Small specks or blotches appear on leaves and later enlarge into patches. Control by spraying plants in bed with Bordeaux Mixture once a week and one or two sprayings after being set in the field.

Wilt: Leaves and stems wither and die, caused by fungus working on the root and base of the stalk at the surface of the ground. Only remedy is to burn all diseased plants and rotate crops.

Tip-Rot: The green fruit rots at blossom end. No remedy has been found. Cannot control by spraying.

For spraying formulas see Part I, Circular 14.

PLANTING TABLE

VEGETABLE	TIME OF PLANTING	VARIETIES	DEPTH TO PLANT	HILLS OR DRILLS	DISTANCE APART	PLANTS PER ACRE	SEED REQUIRED
Asparagus	Nov. 15 to Dec. Feb. 15 to Mar.	Palmetto, Colossal, Argenteuil	6 to 8 in.	Hills	6 ft. x 3 ft—4 ft.	2400	
Beans (Bush)	Mar. 15 to April Succession Crops	Valentine, Black Wax, Refugee, Golden Wax, Stringless Green Pod	2 in.	Drills	4 ft. x 2 in. to 3 in.		1 qt.—100 ft.
Beans (Lima)	March to April	Henderson's Bush Lima Burpee's Bush Lima	2 in.	Hills	4 ft. x 6 in. to 9 in.		1 qt.—150 to 200 hills
Beets	Jan. 15 to Feb. June or July	Eclipse Early Egyptian, Detroit Dark Red	$\frac{1}{2}$ in.	Drills	3 ft. x 2 to 4 in.		1 oz.—50 ft.
Cabbage (Early)	Jan. 15 to Mar. plants Seed in Dec.	Early Jersey Wakefield Charleston Wakefield	$\frac{1}{2}$ in., seed Plants 2 to 4 in.	Hills	5 ft. x 15 in.—18 in.	6970	1 oz.—3000 plants
Cabbage (Late)	May to July April to May (seed)	Drumhead, All Head, Flat Dutch	Plants 2 to 4 in.	Hills	5 ft x 15 in.—18 in.	6970	1 oz.—3000 plants
Carrots	Jan. 15 to Feb. July	Danver's Half Long Orange, Early Half Long Scarlet,	$\frac{1}{2}$ in.	Drills	3 ft. x 2 in.		Seed, 3 to 4 lbs. per acre 1 oz.—100 ft.
Cantaloupes	In beds Jan. to Feb. April to May	Rocky Ford, Aden Gem, Emer- ald Gem, Hackensack, Jenny Lind, Osage,	1. in.	Hills or Drills	4 ft. x 6 ft.		1 oz.—50 hills
Cauliflower	April to May	Early Snowball, Early Dwarf Erfurt,	Seed shallow, Plants 2 to 4 in.	Hills	4 ft. x 18 in.	7260	1 oz. 3000 plants
Celery	Nov. to Dec.	White Plume, Golden Self Blanching,	Seed shallow. Plants 2 to 3 in.	Hills	3 ft. x 4 in.—6 in.		1 oz—5 to 10,000 plants
Corn (Sweet)	Mar. to April	Extra Early Adams, Black Mexi- can, Stowell's Evergreen, Country Gentlemen,	2 in.	Hills or Drills	4 ft. x 6 in.—12 in.		1 qt.—200 hills

VEGETABLE	TIME OF PLANTING	VARIETIES	DEPTH TO PLANT	HILLS OR DRILLS	DISTANCE APART	PLANTS PER ACRE	SEED REQUIRED
Cucumber	Mar. to April	Klondike, Davis Perfect, Long Green, White Spine,	$\frac{1}{2}$ in.	Hills or Drills	5 ft. x 18 in.		1 oz. to 50 hills
Eggplant	Seeds in beds Feb. April to May	N. Y. Improved, Large Purple, Black Beauty,	Seed shallow, Plants 2 to 3 in.	Hills	4 ft. x 3 ft.	3630	1 oz.—1000 to 1500 plants
Kale	Nov. to Dec.	Dwarf Green Curled,	$\frac{1}{2}$ in.	Drills	3 ft. x 6 in.		1 oz.—5000 plants
Kohl-Rabi	Jan. 1 to Feb. seed in bed Feb. 20 to April	Early White Vienna, Earliest Erfurt,	$\frac{1}{2}$ in., seed Plants 3 to 4 in.	Hills	3 ft. x 12 in. to 18 in.	9680	
Lettuce	Feb. 1 to April	Big Boston, B. S. Tennisball, Improved Hanson, G. Rapids Forcing	$\frac{1}{4}$ in.	Drills	18 in. x 8 in. to 10 in. 3 ft. x 8 in. to 10 in.		1 oz.—3000 plants
Mustard	Sept. to Oct. Feb. to Mar.	Giant Southern Curled Chinese	$\frac{1}{2}$ in.	Drills	3 ft. x 2 in.		1 oz.—100 ft.
Okra	Mar. to April	White Velvet, Kleckley's Favorite	$1\frac{1}{2}$ in.	Hills	4 ft. x 2 ft. to 3 ft.		1 oz.—50 hills
Onion (Seed)	Feb. to Mar. Sept. to Oct.	Red Weathersfield, Yellow Danvers, Prizetaker, Crystal Wax	1 in.	Drills	18 in. x 3 in. to 4 in. 3 ft. x 3 in. to 4 in.		1 oz.—100 ft.
Onion (Sets)	Sept. to Oct. Feb.	Red Weathersfield, White Portugal, Yellow Danvers	$2\frac{1}{2}$ in.	Drills	18 in. x 3 in. to 4 in. 3 ft. x 3 in. to 4 in.	1 qt. per 50 ft.	
Parsley	Feb. 15 to Mar.	Extra Double Curled	$\frac{1}{2}$ in.	Drills	18 in. x 1 in. 3 ft. x 1 in.		1 oz.—150 ft.
Parsnip	Mar. to April	Hollow Crown, Improved Guernsey	$\frac{1}{2}$ in.	Drills	18 in. x 2 in. to 3 in. 3 ft. x 2 in. to 3 in.		1 oz.—200 ft.
Peas	Jan. to Feb. Succession	Alaska, First and Best, Nonpariel, Gradus, Premium Gem, Telephone	2 to 3 in.	Drills	4 ft. x 2 in. to 3 in. 18 in. x 2 in. to 3 in.		1 qt.—100 ft.

Pumpkin	April 15 to May	Mammoth, Cashaw	1 in.	Hills	6 ft. x 4 ft.		1 oz.—25 hills
Peppers	Mar. 20 to April	Large Bell, Ruby Giant, Small Chili, Neopolitan	1 in. Plants 3 in.	Hills	3 ft. x 18 in.		1 oz.—1000 plants
Potatoes (Irish)	Feb. to Mar. July to Aug.	Bliss Triumph, Irish Cobbler, Burbank, Peerless, Early Rose	3 to 4 in.	Hills	3½ ft. x 14 in.	8 to 10 bu.	
Potatoes (Sweet)	Beds, Feb. 15 to Mar. Mar. 20 to April	Southern Queen, Dooley, Nancy Hall, Improved Jersey, Bunch Yam	Seed 2 to 3 in. Plants 3 in.	Hills	3½ ft. x 18 in.	8300	
Radish	Jan. to Feb. Succession	Cincinnati Market, Long Scarlet, Scarlet Globe, Icicle, French Breakfast	½ in.	Drills	12 in. to 20 in. x 1 in.		1 oz.—100 ft.
Spinach	Sept. to Oct.	Curled Savoy, Bloomsdale, Perfection Curled	½ in. to 1 in.	Drills	3 ft. x 3 in. to 4 in. 18 in. x 3 in. to 4 in.		1 oz.—100 ft.
Salsify	Mar. to April	Mammoth Sandwich Island	½ to 1 in.	Drills	18 in. x 2 in. to 3 in. 3 ft. x 2 in. to 3 in.		1 oz.—50 ft.
Squash	April to May	Early White Bush, Yellow Crook-neck, Golden Custard, Boston Marrow	1 in.	Hills	5 ft. x 3 ft.		1 oz.—25 hills
Tomato	In beds Feb. 15 to Mar. 20 to April July to Aug.	Acme, Stone, Majestic, June Pink Chalk's Jewell, Beauty, Earliana	Seed ½ in. Plants 3 to 4 in.	Hills	4 ft. x 2 ft. to 3 ft.	5445	1 oz.—3000 plants
Turnip	Jan. to Feb. July, Aug., Sept.	Purple Top Globe, White Egg, Yellow Aberdeen, Rutabaga, Purple Top Strap Leaved	1 in.	Drills	Broadcast 3 ft. x 1 in.		1 oz.—150 ft.
Watermelons	Mar. 20 to April June 20 to July	Watson, Kleckley's Sweet. Ga. Rattlesnake, Mountain Sweet, Florida Favorite	1 in.	Hills	6 ft. x 4 ft.		1 oz.—30 hills

