February, 1915.

# DEPARTMENT OF THE INTERIOR BUREAU OF EDUCATION, WASHINGTON

# INSTRUCTIONS FOR SCHOOL SUPERVISED HOME GARDENS.

#### SUMMARY.

1. Clean up back yard.

2. Provide drainage where needed.

3. Select crops that will give, so far as possible, continuous use of the ground and a continuous supply of vegetables from early spring to late fall.

4. Secure good seed from a reliable seedsman. This is very important.

5. Use good stable manure freely if possible.

6. Make a good seed bed by digging deeply and by a vigorous use of the hoe and rake.

7. Plant in long straight rows.

8. Keep down weeds and thin out superfluous plants.

9. Maintain a loose soil mulch by frequent use of the hoe, rake, or wheel hoe.

10. Keep a close watch for insects and disease.

This circular is intended to supply garden supervisors with some information for immediate use in conducting the present season's work. Similar circulars dealing with other phases of the work will be prepared from time to time. The garden specialists of the bureau are prepared to supply specific information bearing upon the practical work of the garden.

There are abundant local opportunities for gaining information relating to gardening. Seed catalogues usually give specific directions for the culture of most crops. Some seed houses have these directions printed on the seed packages. The United States Department of Agriculture has many bulletins relating to gardening that may be obtained free upon application. The various State colleges and experiment stations issue bulletins for free distribution and are prepared to answer inquiries by correspondence.

## CLEANING UP THE BACK YARD.

In order that all available space may be utilized for the growing of vegetables, the back yard should be completely rid of all rubbish. If there is only a small amount of ground, it will be very helpful if

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any high board fence can be replaced with one made of chicken wire. This will allow a maximum amount of light and a free circulation of air, both of which are desirable for the best development of the plants and the prevention of such diseases as mildew. Board fences are sometimes objectionable in that they often prevent free surface drainage. The yard should be so graded that no water will stand on the surface of the ground. Sometimes an open ditch leading into the alleyway or on to some lower ground will be necessary.

# SELECTION OF CROPS.

Beginners in gardening should be encouraged in the selection of the more easily grown crops, such as onions, radishes, lettuce, peas, beans, turnips, carrots, beets, tomatoes, and cabbages. Too frequently the boys and girls select too many crops and fail to raise enough of any to be of use for either the home or market. For market purposes, the fewer the crops, consistent with continuous cropping, the greater the chances for success. Too much stress can not be placed upon the necessity for selecting crops that will be required to supply the home or for which there is a good market. In this connection it is well to select crops that fit into the general cropping scheme and those that will give a continuous succession of crops. The following crops are suggested for the various seasons:

First planting (early spring).—Radishes, onion sets, spinach, kale, turnips, garden peas, lettuce (from plants, if obtainable), cabbage, and cauliflower.

Second planting (from two to four weeks later).-Beans, beets, carrots, corn, parsely, and white potatoes.

Third planting (from two to three weeks later).—Beans, beets, tomatoes, eggplants, melons, cucumbers, sweet potatoes, okra, and corn.

Fourth planting (August).—Beans, beets, white potatoes, turnips, carrots, and mustard.

Fifth planting (late September and October).—Onion sets, lettuce (from plants), spinach, kale, mustard, turnips, and cabbage.

In the southern sections these five seasonal groups of crops are recognized. The crops of the fifth group are harvested during the winter months or in the early spring. In the northern sections the first four groups only are recognized, except when the crops are given some protection by means of cold frames. Some of the crops of the fourth group also, when planted in August, will not mature in the North.

## PROCURE GOOD SEED.

The first step in this direction is to send to some reliable seed firm for catalogues. The individual orders from the pupils may be com-

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bined into one common order and special prices obtained. Seed may be purchased either by the package or in bulk. Orders should be put in early, for there should be no delay when the planting season arrives and the supply of seed of the most popular varieties soon becomes exhausted. Many dealers put out seed in penny or twopenny packages. The seed catalogue usually gives the amount of seed required for a certain length of row.

## PREPARATION OF SOIL.

The soil should be broken up in the spring just as early as possible, and yet it should not be handled while wet. Sandy soil may be worked much earlier than clay soil and is therefore better adapted to early cropping.

A spading fork is probably the best tool with which to break up the soil. Deep spading gives better opportunity for root development.

A liberal dressing of well-rotted stable manure spaded into the soil supplies plant food, improves the physical condition, and serves to hold moisture during dry seasons. Lime is often beneficial in that it "sweetens" the soil, or neutralizes the acid character. Soils that fail to give good results after receiving attention in other ways will usually respond to an application of lime. (Apply at the rate of 1,000 pounds per acre.) It may be applied in the fall or just before spading in the spring. In order that the seed may have the most favorable conditions for germination and that the small seedlings may be given a good opportunity to develop, the soil should be well pulverized before planting.

## PLANTING.

Planting should always be done in long straight rows, for this facilitates cultivation and contributes to the appearance. A garden line or some heavy twine may be used for the purpose. Many of the crops, like onions, spinach, radishes, carrots, beets, turnips, parsnips, salsify, and lettuce, may be planted in rows about 18 inches apart. Other crops, like corn, tomatoes, potatoes, okra, and lima beans, require more room and should be planted in rows about 3 feet apart. (See seed catalogues.) In general, the small seeds should be planted shallow; that is, no more than 1 inch in depth. The large seeds require a depth from 2 to 3 inches. The depth of planting is dependent to some extent upon the character and condition of the soil. The lighter and warmer the soil, the deeper the seeds should be planted. When the soil is heavy and somewhat cold, it is safer to plant slightly shallower.

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The soil should be made firm over the seed after planting. This is usually done by patting it with a hoe. In transplanting plants, also, the soil should be well firmed about the roots.

# THINNING AND WEEDING.

Seeds are usually sown more thickly than necessary, and the superfluous plants resulting must be regarded as weeds. The superfluous plants of such crops as beets, onions, carrots, and spinach may be used for "greens" or salad, or they may be transplanted. All weeds, of course, should be promptly removed. A small hand tool, called a weeder, is useful for the purpose.

## CARE OF THE GROWING CROPS.

Frequent and thorough cultivation is most essential in successful gardening. Cultivation liberates plant food, preserves moisture, and improves the sanitary condition of the soil. An effort should be made to keep a loose, dust-like mulch on the surface to prevent the evaporation of water. To maintain this mulch it will be neces-'sary to cultivate soon after each rain or each watering. (Do not cultivate while the soil is sticky.)

A good hoe and a steel rake are the necessary tools, the former for use when the soil is hard or when large weeds are present; the latter for preparing the ground and for maintaining the soil mulch. A wheel hoe is very useful and will save much time in cultivating.

When artificial watering is practiced it should be remembered that one heavy application is better than many sprinklings.

Keep a close watch for insects and disease.

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