

Theses  
Kitchen Gardening  
Gertrude Nicholson

## Kitchen Gardening

1180

The purpose of a kitchen garden is not the production of vegetables to supply the market but to supply the home table demand. In raising vegetables for home use the expenditure of time and money is amply repaid, and is well worth the effort.

A kitchen garden is a necessity for every farm and is usually a possibility to the average town home except of course in the large cities. A good garden should furnish at least half of the family living for the entire year, and is thus an important means of support.

Location: The kitchen garden should be conveniently near the kitchen, but soil, exposure to sun, and winds, drainage, and nearness to large trees are all subjects to be considered as well as convenience. If possible the garden spot should slope to the south or southeast, and there should be some protection from north winds, such as trees, providing they are not too near, a hill or even a good wall, or tight board fence. This protection will make

considerable difference in time required for early vegetables to mature. The soil, however, is the most important matter to be considered. Rich deep, sandy loam is the best for general garden purposes for the sand will prevent packing of the soil particles and will also admit air and moisture. If the soil is too sandy decayed manure or leaf mold will improve its texture and also the amount of plant food. After having located and planned the garden the growing of early plants should be considered.

Hot beds; For these a hot bed is necessary, for a very small garden it may be as cheap and more convenient to buy plants from some reliable gardener yet hot beds and cold frames are inexpensive and will easily pay for their trouble.

To make a hot bed; In this country about the middle of March is a suitable time to prepare one. The essentials is bottom heat protection on all sides and a cover of glass. The heat of a hot bed is usually supplied by means of fermenting horse manure. This

manure should be obtained fresh from the stable and piled in large piles together with about half as much straw or leaf mold as there is manure and left for a few days to heat. If fermentation does not start readily a few buckets of hot water will help it. The whole pile should be turned and all lumps broken and evenly mixed together. When heated again the beds should be formed by excavating about two feet and walling up with buck or boards to about one foot above the ground. This will prevent sudden cooling when sudden changes in the weather takes place. Put in the fermented manure to a depth of two feet packing carefully and sprinkling if dry. add four or five inches of good garden loam, then cover the bed with the sash and keep closed until heat generates, which will be in about twenty-four hours. Leave the bed for a few days until the temperature is about  $90^{\circ}\text{F}$ . Then ventilate a little and the bed is ready for the seed. The frame of the bed should face the

south, and be at least eight inches higher at the back than in the front. Care must be taken that the bed does not become too hot during the day and should be covered at night to prevent its becoming too cold. Give plenty of ventilation, beginning with a little at first then more an hour or so later and so on, closing the bed early in the afternoon and giving additional covering before sundown to retain the warmth. Plenty of water should be given, but do not give it at night. The first crop of planting may be shifted to cold frames and the bed resown.

Cold frames are simply hot beds minus bottom heat and are almost indispensable for hardening off plants. In the experiments made with growing plants in the hot bed the following results were obtained. The hot bed was ready for use March 17th. Scarlet Button Radish, Black seeded Tennis Ball Lettuce, Early Jersey Wakefield and Early Winnigstadt Cabbage, Matchless and Quaker Century Tomatoes and Egg plant seeds were sown less than an inch deep,

It required less than two days for the cabbage, radish, and lettuce to germinate. The egg plant and tomato were a little slower in germinating. In less than a week the lettuce, radishes, cress and cabbage were up, but it required a few days longer for the tomatoes and egg plant. The hot bed was cared for according to instructions given above and in twenty eight days the radishes were ready for use. The lettuce and cress were ready for use in thirty one days from time of planting. The cabbage and tomato plants were thinned out leaving about inch space between the plants. As they became larger and filled up the space they were transplanted to boxes and cold frames. Some were left growing in the hot bed but those that were transplanted showed better roots and were stronger plants.

Preparation of soil; If the kitchen garden is large it should be well plowed both in the fall and spring and all clods lumps pulverized and trash burned. If the garden is too small to be plowed

spading is quite satisfactory - and then comes the raking process which must be well done for success depends largely upon the preparation of the soil. No seed can germinate and grow well when covered with or surrounded by clods, while they mean sure destruction to small seeds and tender plants. If as is often the case no suitable site can be found for the garden it should not be given up for with work and a little expense almost any soil can be made to produce some kind of vegetables. If the natural drainage is not sufficient to insure success drainage should be provided artificially. This may be done by elevation of the beds but this method can hardly be recommended in this country since the roots are likely to become too dry during the dry season. Under ground drainage is the most effective. This is best accomplished by ditching and laying tile drains or if these can not be afforded stones or brush may be placed in the bottom

of the ditch. The ditches should be about three feet deep and twenty five feet apart, and should be given a good slope to insure the carrying off of water. The drainage material in the ditches should be covered to prevent the soil packing about them. Artificial drainage may be dispensed with in some soils if the ground is well trenched by deep spading or by subsoiling when plowed.

In any case the soil must be fine and loose as far down as the roots of the plants will extend for this condition is not only favorable to retention of moisture but also to supplying food to the plants.

Fertilizers; Artificial fertilizers are necessary for most soils to insure a proper amount of food material. Especially if the soil has been used for a considerable length of time. The nature of the fertilizer to be used depends upon the condition of soil and the crop to be grown. In general all soils are improved by the addition of well rotted vegetable matter or animal products.

Since it tends to produce a looser texture in the compact soils and also holds the soil particles of loose sandy soil together, besides furnishing plant food. Lime is a valuable addition to the soil especially if it is soggy and damp. Ashes form a cheap and effective source of potash which is very necessary to plant life. A simple but excellent method of supplying nitrogen is by planting legumes and plowing them under the nitrogen formed by the bacteria at the roots of the plants is retained by the soil while the decaying plants are useful as fertilizers. A compost heap made by heaping together leaves, straw, manure, and other organic matter will prove a valuable source for renewing the soil and there should be one on every well regulated farm. Stable manure is one of the best of fertilizers, the manure may either be piled in piles and left until well rotted or it may be hauled out during the winter and spring and distributed over the ground and then plowed under and mixed with the soil the following spring.

Planting; After the soil has been prepared the planting of seed is next in order and this requires no little thinking and planning. The first essential thing is the choice of seeds and the selection of varieties and since all varieties are so highly recommended by seed growers it is difficult to make a choice. But at any rate fresh seed should be bought from some reliable dealer as it seldom pays to plant seeds saved from the preceding year. The time and manner of planting depends upon the condition of the weather and the kind of seeds to be planted. As a usual thing the amateur gardener is timorous about early planting and will wait longer than is necessary for the ground to become warm and weather settled.

As a matter of fact almost all vegetables except beans may be planted at least eight or ten days earlier than they usually are and at any rate in a small garden the waste of time and seeds will not be great and it will pay to take the risk. It is a good plan to test the germin

nation of seed, before planting and a simple device for this purpose is two plates in one of them place a folded woollen cloth which should be dampened until quite wet, place the seeds between the folds of the and cover with a second plate. Leave in the temperature of the ordinary living room. The number of seeds should be noted when they are put in and as they germinate they should be taken out the number kept account of. Thus the germinating power of the seed can be determined and all seed that do not show a high percent and strong sprouts should be rejected as unfit for planting. The depth of planting depends upon the size of the seed the condition of the soil and time of planting. As a general rule seeds should be covered less in the early spring than in the summer because the soil is warmer near the surface and there is usually plenty of moisture. In the summer, however, there is plenty of warmth and likely to be deficient moisture the seeds require deep

planting. Small seeds should be covered lightly and if there is lack of moisture cover the slightly with wet straw or wet cloth. If the soil is heavy or compact the covering should be light while if it be sandy and porous the covering may be deeper as the air and water can be admitted more easily. Cultivation should be commenced at once so as to prevent weeds from starting and also to retain moisture. It is not necessary to wait for the small plants to appear before beginning war on the weeds and the fight must be carried on all summer and none of them permitted to go to seed for a good weed crop the following year. When the plants come up the thinning process should be begun at once for nothing will be gained by trying to raise too many plants on the land, and the sooner it is done the better or the young seedlings will soon become drawn and spindling if felt closely crowded together.

and it should be remembered that plants no matter what they be are as truly harmful as the ordinary weed, if grown out of place or where not wanted. The up-to-date gardener must thin, transplant and till if he desires large early and fine vegetables.

In the experimental work done Permian Gem a dwarf variety of early peas and New Prolific a vining variety, Long white Vienna Radishes, Burpees silver ball lettuce, Salsify and Onion sets were planted in the open ground March 26. The peas were covered about an inch and a half deep the radishes lettuce and salsify about one inch deep. The weather being cold it was very unfavorable for germination and it required about a week for the seeds to germinate and about twelve days before they were fairly well up.

The radishes and lettuce came up in about eight days the salsify required about ten days before making its appearance. The soil was stirred frequently and kept

fine and loose.

The little dwarf peas were ready for use by May 23. The vining variety a few days later. The radishes and lettuce were ready for use by May 1st and as soon as they were used the grown was replanted.

Beans were planted April 20 the seeds being soaked in luke warm water about ten hours before planting. They were covered about one inch deep and were up in less than week. The beans were ready for use by June 9th. The cabbage and tomatoes hardy and vigorous growth after being transplanted to the open grown and up to date all things are doing nicely.

In conclusion a word must be said about watering. Where the garden is small it is a temptation especially for a woman to take a watering pot and sprinkle the plants during a dry spell.

Sprinkling is alright for seed boxes or for seed planted near the surface, but is of no use to growing plants and will result in harm. When plants really need water they want it in generous quantities then the hose should be used and the ground thoroughly soaked at regular intervals if any good is to be done.