

Early Plants

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The Window Box,
The Cold-Frame

WAR GARDEN SERIES 3

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Early Plants

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It is possible to have a garden without starting part of it indoors, but it is usually more expensive or less satisfactory.

Of course if you are absolutely sure you are going to be able to buy good plants of the kinds you want, when you want them, then it may be best to let someone else grow them. But be very sure you won't be disappointed. Although it takes some work and space to grow good plants for setting out for early vegetables, the difficulties of growing them are often greatly magnified.

Lettuce, chard, cabbage, and kohlrabi can be easily matured if planted in the garden after conditions have become favorable for their growth but they may be had much earlier if started indoors or under glass. It is almost essential to start tomatoes, peppers, egg plant, and celery in this way if their production is to be such as to make it worth while to bother with them.

Methods of Growing Early Vegetables.

Three methods are commonly used in producing plants for setting in the garden: hotbeds, cold-frames and window kitchen boxes. The difficulty of securing the proper material for heating the hotbed, and the attention necessary

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to operate it successfully, make it of questionable value to the man with a small garden or to the beginner.

Many city lot gardeners find the cold-frame more satisfactory. While plants cannot be secured quite so early as with the hotbed, the cold-frame requires less attention and there is less danger of injury to the plants because of changing temperatures. It can be constructed without much expense by using storm sash. In addition to the plants for setting out, such crops as lettuce and radishes may be grown in it.

The backyard gardener will usually find that starting the plants indoors is the plan best adapted to his conditions. Comparatively little space will be required to start enough plants for the first crop of lettuce, early cabbage and tomatoes.

Provide Good Soil. Where no provision was made last fall the question of the soil will be the most troublesome. You may be able to secure it from a greenhouse. If not, resort to your own garden. Get the snow off a small area so as to encourage thawing. Some warm day in early March get your soil. If it is still frozen get it anyway, and let it thaw out indoors. If possible, secure a little sand to mix with it and to serve as a top layer in the seed box. Before attempting to start your seed box let the soil warm up and dry until it does not pack in a hard lump when squeezed in the hand.

Shallow Seed Box. A shallow box is most satisfactory for starting the plants. Suitable ones can usually be secured at a grocery store. Cigar boxes $2\frac{1}{4}$ or $2\frac{1}{2}$ inches deep are convenient, but somewhat deeper boxes are more desirable. Three or four will be sufficient to provide all the lettuce, cabbage, and tomatoes used in the average garden. If the box has a tight bottom make a few small holes in this to provide drainage.

Filling the Seed Box. Slightly more than enough soil to fill the box should be put in loosely and the surplus scraped off with a stick. This will leave the top smooth and level. Press the soil down, preferably using a small piece of board, being careful to leave the surface level. After it is pressed down, the top of the soil should be from one-fourth to one-half inch below the top of the box. If sand is to be had a better stand of plants will usually be secured if the last one-half inch of soil put into the box is sand. In this layer the seed may be sown.

Sowing the Seeds. With the finger or a dull pointed stick make a shallow trench about one-fourth of an inch deep, preferably crosswise of the box. Using the packet or thumb and forefinger, scatter the seeds in the trench. The thickness of sowing the seed depends largely on its germination capacity. Do not sow too thickly as there is then more danger of the young plants rotting off. On the other hand, seeding should be thick enough to give a good stand. If the plants are too thick they should be thinned soon after

they come above the surface. Press the seeds gently into the soil and cover them with a thin layer of soil. The distance between the rows depends somewhat on how long the plants are to be left before transplanting. Distances from $1\frac{1}{4}$ to 2 inches are usual and convenient.

Watering the Seeds. After sowing, water the seed box well, being careful not to wash the seed, particularly if different varieties are to be grown in the same box. Enough water should be put on to moisten the whole body of soil in the box but not enough to cause it to become muddy.

One of the objections often raised to growing early plants indoors is the damage resulting to furniture and rugs from watering. This can be overcome by setting the seed boxes in the sink or some other receptacle until all excess water has drained off. Then if the boxes are set on oilcloth or heavy paper no damage should occur. *

Now cover the seed box with a pane of glass or other cover, which will prevent the loss of moisture, and set the box in a warm place. As soon as the young plants break the soil, remove the cover. If it is left on, the plants have a tendency to become spindly or "leggy", and are likely to rot off.

Care of Young Plants. The young plants will need attention; give proper light, heat and water. Keep the seed box where it will get abundant light. Insufficient light results in spindly plants. It is better to have the temperature a little low than too high. High temperatures mean soft, spongy

plants which are less likely to give good results when set out.

How to Water. More people fail in watering than in any other way. Some choke the plants, others drown them. One is as bad as the other. Choking usually comes from applying small amounts at rather frequent intervals. Not enough water is applied to moisten the bottom soil, and the top is kept too wet, which encourages disease.

Drowning is less frequent, especially if the seed box is provided with drainage openings. Water applied frequently in large amounts excludes the air from the soil and the plants smother.

Proper watering consists in putting on enough water to moisten all the soil in the box and then waiting until the surface of the soil begins to appear lighter in color before making another application.

Giving the Seedlings Room. The young plants will soon begin to crowd each other and unless given more room will become long-stemmed or "leggy". To make good plants for setting out they must be either thinned or transplanted. The latter is the more common method. A box 12 inches square will hold 36 plants set 2 by 2 inches, or 64 when planted $1\frac{1}{2}$ by $1\frac{1}{2}$ inches. Four boxes of this size, one for tomatoes, peppers and egg plants (if either of the latter are grown), one for lettuce, one for cabbage and cauliflower, and one for celery would meet the demands of the average gardener. The celery may be planted 1 by 1 inch, lettuce, cabbage and cauliflower $1\frac{1}{2}$ by $1\frac{1}{2}$ inch, and tomatoes, egg plants and

peppers 2 by 2 inches. The same general care should be given the plants after transplanting as when they were in the seed box. For two or three days after transplanting it is well not to give so high a temperature nor so full light as before transplanting.

Hardening-Off. Many have success in growing plants indoors but lose a large portion of them in setting into the garden. Any one of a number of things may be responsible for such losses. One of the common ones is subjecting the plant to too sudden and great a change. A plant requires some time to adjust itself to new conditions. Because of this it should be accustomed to the conditions of the garden gradually. This process is known as "hardening-off". Ten days to two weeks or more before time for setting the plants in the garden begin to get them ready for the change. Begin by setting the box out in the sun at noon for a few minutes. Repeat from day to day when favorable until the plant can be left out continuously. Transplanting will then result in much less loss than if a sudden change is made.

Where plants which transplant with difficulty, such as cucumbers and melons, are started indoors, or when it is desired to have the plants unusually large before setting out, flower-pots are frequently used. Unless the gardener has a hotbed or cold-frame or the number of plants desired is small, this method is not practical because of the space required.

Instead of setting the plant from the seed box into larger box it is put in a



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small flower-pot
pot until set in
moved to a lar
vices are used

Two of the more common are the bot-
tomless strawberry box and a tin can
with the bottom removed and the side
split, so that it may be readily re-
moved from around the plant. The
strawberry box is better than the can
for this purpose.

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