



## **Greenhouses and Cold frames**

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When I started growing seeds under lights I soon realized that I would have to get the seedlings outside into the sunshine since they were becoming leggy and I was about to lose them. Putting them outside and bringing them back in at night was a task I did not want to do every day so a greenhouse was the way to go.

If your plants are subjected to cold or frost they cannot adapt themselves to sudden changes and once they get too cold they never again have the ability to draw up moisture and nourishment. The plant may not die but will not grow very well and it will be stunted.

I built a greenhouse from old windows that I got free from a window company and it worked well enough but was a bit of an eyesore. I bought a small plastic shelter to replace it that was 6 feet by 8 feet that I could put up in the spring and took it down when the plants were ready to be planted and it worked well for many years. I put small oil filled heater inside and I turned it on to keep the plants warm at night, if I thought it was going to be cold. I have now built an insulated greenhouse/garden shed that I am hoping will allow me to get the seedlings out even sooner and have more control of the environment inside.

A greenhouse can be an expensive way to grow your plants. Unless you have an interest and the time to keep it going, it might not be for you. Cold frames are less expensive and are easy to build and can do what a greenhouse does at a fraction of the cost. They can be used for a number of valuable gardening tasks during the year. In the spring and fall they can be used to raise crops of spinach, lettuce, and radishes and in the fall for protection of parsley, chives and other greens. In the spring you can move your seedlings out early to harden them off in preparation for planting out. Hardening off involves gradually exposing the plants to increased light and cooler temperatures and wind so they can adjust to the new conditions. In the summer they can be used to grow perennials and for growing plants from cuttings for trees, and flowering shrubs.

A cold frame has four sides built of weather resistant lumber with the back higher than the front so it catches the rays from the sun. The top can be made of old windows that you can buy or even get free from window companies. The size of the frame is

determined by the size of the windows you are able to get. Make sure the windows are hinged so you can lift them up to allow for ventilation and cooling.

The best place for a cold frame is facing south in a sunny spot that gets sun from mid morning to at least mid afternoon with wind protection and good drainage. The frame can be permanent or you can move it away when not in use.

If you are going to use a cold frame successfully you will have to pay attention to the temperature at all times. In the day time, the temperatures will get very high very fast and plants will be lost. By lifting the lid up a little and using various sizes of props you will be able to control the heat but you may also want to use a shade screen on very warm days to keep the plants from burning. As evening comes, close the lids to retain the sun's heat. If the nighttime temperatures are going to be low, cover the frame with some type of insulation such as blankets, straw or newspapers. The temperature in the bed should be 70 to 75 F until the plants are about an inch high then lower the temperature to 65 F in the day and 55 to 60 F at night. Keeping the temperatures cool will result in an earlier setting of the fruit especially in tomatoes and peppers.

If you have success with a cold frame you might want to go a step further and build a hotbed, which is a cold frame with a source of heat. There are several methods to keep them warm such as a light bulb, heating coils or manure buried under the soil. The hotbed allows you to start plants earlier in the spring.

Your first attempt at using a coldframe may be disappointing but you will soon learn how to use it by trial and error and you will soon learn how to grow earlier crops and to lengthen your growing season.

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