

**All Gardens  
Great & Small**  
by  
York Co.  
Horticultural Agent  
**Tom Becker**



**COLDFRAMES**

*Gardeners use them to help extend the growing time at both ends of the season.*

Coldframes are small greenhouses that use solar energy and sunlight to help plants grow.

Coldframes used to lengthen the growing season in spring by allowing earlier seed germination. They also provide extended protection to short-season crops planted into the fall. A fall crop can be planted in the frame, protected from late frosts and then harvested as the weather turns cold.

Many semi-hardy plants can be overwintered in a coldframe. Their protected environment and temperature control can also provide the necessary conditions to stratify some types of seed in before spring germination. Certain root vegetables can be stored in them during fall and winter.

For coldframe to function properly, it should face south so plants receive full sun most of the day. The site should be convenient, close to a good water supply and well-drained to prevent accumulation of water

under the plants. Protection from the wind will make it easier to maintain uniform conditions in the frame.

The actual construction materials depend on how long you plant to use the frame. Use wood boards for lower cost and generally a shorter life. Redwood or cedar will provide the longest life; however, pressure-treated wood will also survive quite a few years. Make certain wood does not contain creosote or pentachlorophenol. Both of these materials are very toxic to plants and will kill anything placed in the frames.

There are no strict rules on the size of garden frames, but consider starting with a 6' by 6' unit. Larger units are easier to ventilate and trap less heat than smaller units. Additional lengths are usually in multiples of 3'.

The width, front to back, often depends on the materials used to cover the frame. If you have sash, make the frames to accommodate them. Keep the size within workable limits.

Construction details are not

elaborate. You are assembling a four-sided frame with the front side slightly lower than the back to provide the optimum light penetration into the frame and allow rain to drain off the cover. The slope of the cover is about 1" per foot of width. If your cover is 6' long, the back of the frame could be 14" off the ground and the front edge would be 6" off the ground. A suitable slope can be created by ripping a board on the diagonal and using it as part of the side construction. Sections of 2" by 4" lumber will help strengthen frame corners.

The frame cover can be made of glass, plastic film, plexiglass or other translucent material that can be loose-pin hinged to the back of the frame. Fiberglass panels will last many years if cared for, and are probably much safer than glass if there are children playing in the area. Glass has the best light

transmission of all materials and should be considered if possible. You should consider screens for the frames to keep insects and rodents out when the cover is lifted for ventilation. On very bright days it may be necessary to shade the frames to reduce the intensity of the sun and prevent damage to tender seedlings early in the season.

If the frame will be set on the soil surface, you should plant to excavate several inches below the surface and put down a layer of crushed stone to provide water drainage below the plants. In any case, if you construct the frame now, it will be ready for spring.

For more information or plans to build a coldframe, contact the Extension Office.

Any questions regarding the above article can be addressed to Tom Becker, Penn State Cooperative Extension at (717)840-7408.

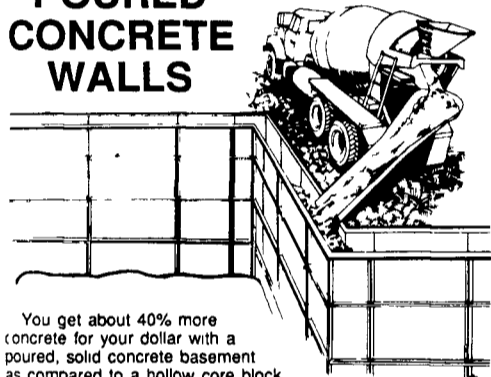
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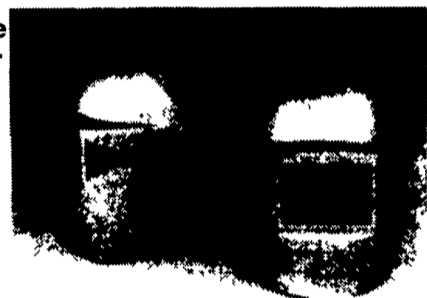
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