

GROWING AND PROPAGATING IN A COLD FRAME

THE PROPER ENVIRONMENT

Although anthropomorphy – attributing human qualities to non-humans – is frowned upon in the world of science, a little of it will serve well when operating a cold frame. Let us think of the cold frame occupants as premature babies being nurtured in a protected environment of a state in which they can hold onto life unaided. The plant cutting lacks feeding roots; the seedling has only rudimentary leaves. Therefore, just as babies can never be subjected to extremes and sudden changes of temperature or to droughts, so we will try to be sensitive to the similar need of protection of our “premature”, i.e. yet unformed plants. *-Fred Rosenstiel*

POINTS TO KEEP IN MIND

* Put the cold frame in a shady spot, near but not under deciduous trees, away from drafts and danger of flooding. Do not place it under overhanging branches that might snap or break during storms.

* Dig it a foot or more into the soil to preserve warmth (**not heat**) and keep it closed in frosty weather.

* Light is absolutely essential. Let all the light possible flood the cold frame, but not direct sunlight which would overheat the enclosed space. If it receives direct sunlight then it must be possible to open it immediately.

* Keep the lid slightly ajar for air circulation, except in severe frost. Some humidity is necessary; dehydration from lack of water or from dry air currents can be fatal to cuttings and seedlings; excessive moisture can kill them.

SAFETY FACTORS TO REMEMBER: the sloping sides should prevent snow build-up and be adequately supported with bracing material that will not rust or rot from rain or collapse under a snow load. The membrane material should let light through and be sturdy enough so that it won't break, shatter, rip or rot under wintery conditions. Think about safety before constructing a cold frame. Is access marked and protected so members of your garden won't slip and crash or fall into the cold frame? Will its placement attract vandals or litterers? Would placement interfere with emergency entrances or exits of adjacent buildings?

* In the selection of materials you have two choices. First is to build one according to specifications that are suitable to your site, and budget for all new materials cut to order or in kit form.

This can be expensive. Whatever you decide, you will need a thermometer to gauge temperature ranges within the frame. The second option is to try a combination “found” materials such as an old window frame, storm window or reusable, thick, clear polyurethane (plastic sheeting) and supportive materials such as old (but not rotting) lumber, brick, cinderblocks or concrete blocks. To improve insulation you can try to locate Styrofoam, corrugated cardboard, roofing paper, corkboard, or similar materials. Whatever you can't locate, you'll have to buy. The like hood of marrying all your odd-sized pieces into one structure is slim – you'll probably have to buy some extra materials to accommodate your found materials.

* Construction hardware will include a shovel, hammer, screwdriver, coated or galvanized nails, screws, hinges, handles and possibly scissors and a staple gun. Also, some material to fill in the cracks.

* Interior cold frame material needs might include cinders, sand, or gravel for good drainage at the bottom. As a growing medium use peat moss, soil, sand, vermiculite or a mixture of some of these.

* Some people increase light in a too shady location by painting the inside walls white, which reflects more light inside. Other cold frames have a problem storing heat, in which case the sides can be painted black to absorb heat or lined with black plastic. One of the best ways to insulate your boxed environment is with air. Airspaces between two pieces of glass, plastic Plexiglas, plywood or brick and wood help tremendously. Also, placing a good cooking compost pile, straw, evergreen boughs or similar materials around the most exposed sides can help too. Stable waste dug into the bottom of a deep pit (3') underneath the drainage material and growing medium will give temporary heat as the manure decomposes.

* If you use wood, you may want to treat it with a non-toxic wood preservative. However, read the label and follow the directions. Some preservatives can burn unprotected human skin and can be harmful to plants as well.

For further information, advice on design and construction and/or a cold frame calendar outlining the timing and use of cold frames, contact the Council on the Environment of NYC.