

The Cold Frame

Build this hinged-top Frame in a single weekend and enjoy your flowering plants or vegetables a little longer !

With the increasing popularity of gardening these days, more and more people are discovering the benefits of cold frames. Not only can you save money and extend your growing season by using them, you'll also be able to start your own plants from seedlings that will be directly acclimatized to your locality.

Just as the name implies, a *Cold Frame* is a FRAME with sides and a top, but no bottom. We built the one shown here from scratch using purchased glass panes. You can also use clear plastic material such as Lexan or Plexiglas...just be sure they're UV-resistant to prevent "clouding".

However, if you prefer, you can also build one from an old window or two that you might have laying around the house, or be able to find at a local flea market. The glass inserts from discarded storm doors also make excellent cold frames. If you decide to recycle some old windows, you will, of course, have to adjust your dimensions accordingly.

Start by choosing the lumber you plan to use. Since Cold Frames are intended for use outdoors, we suggest that you build your Frame from a weather resistant wood such as Western red cedar, pressure-treated lumber or cypress, depending on what's readily (and economically) available in your area. Redwood also makes an excellent choice for durability, although it's usually quite expensive.

Remember, you can make your frame any size you like to accommodate the plants you plan to protect. Just adjust your component sizes accordingly.

For our example, we started with wide 11" to 15" boards for the ends and sides of the frame. Doing so ensures that the windows rest about 10" above the surface of the ground. Another important point of consideration is the insulating properties of the wood you're using. If you're building with standard "2-by" lumber (about 1-1/2" thick), your frame will be self-insulating. However, if you use 3/4" lumber, you'll need to mound-up the soil around the outside edge of the frame for added protection from the elements.

Start by cutting all of your pieces to size, as shown in the drawing. Cut the mitered 30-degree angles using your Table Saw & Miter Gauge. An angle setting gauge such as the MiterMatic Angle Setter can make quick work of achieving the exact 30-degree angle you need.

Use your Dado Set to create the rabbets for your glass or plastic panes, then drill all the necessary holes for the dowels that will help align and hold the frame together. Or, if you prefer, assemble your frame using biscuits.

Assemble your frame using a weather-resistant glue such as Titebond II or a two-part epoxy such as Resorcinol. Once all of your components have set up properly, apply the stain or paint of your choice (or none, it's up to you).

Next, assemble the panes using glazing compound with glazing points or small brads as retainers. Attach the lift-up windows with hinges and add handles. **NOTE:** We recommend that you use brass hardware, since it won't rust.

A few words about using your Cold Frame:

- Place the Frame in the warmest spot in your yard.
- Sink the sides 2" to 4" into the ground and anchor the Frame into position with stakes at the inside corners.
- Once the plants are in, keep an "eagle-eye" on heat and moisture. The most common mistake is to allow small seedlings (or even full-sized plants) to "cook" inside the frame – or to not allow moisture build-ups to escape (which lets mold and fungus grow). Both of these conditions are easily remedied by simply raising the top slightly...but **DON'T FORGET** to close the top at night.

Bill of Materials

(finished dimensions in inches)

Ends (2)	11-1/4 x 34 x 3/4
Sides (2)	11-1/4 x 43-3/4 x 3/4
Window frame sides (4)	2 x 23-1/4 x 3/4
Window frame center (2)	5 x 11-3/4 x 3/4
Top (1)	6 x 35-1/2 x 3/4
Top lid frame rails (4)	2-1/4 x 35-1/2 x 3/4
Top lid frame stiles (4)	2-1/4 x 20 x 3/4
Dowels (optional) (20)	5/16 dia. x 3/4 long

Hardware

Lid glazing (2)	21 x 32 x 1/8
Side glazing (4)	10-1/2 x 17-3/4 x 1/8
Handle (2)	4-1/2 long (Brass)
Butt hinges (4)	2-1/2 x 1-3/4 (Brass)
Flathead wood screws (16)	1-1/2 x #10