Cold Frames



▲ **This portable cold frame** can be built in a day but should last forever. For best results, paint or stain the wood. See the plan on the next page.

Cold frames

A terrific way to extend the gardening season is with a cold frame. These can be used to warm the soil, grow plants as in a mini-greenhouse or to protect plants like a giant cloche. They're also good for holding flats of seedlings you've started or plants that arrived too early to set out.

You can construct a cold frame that's nearly as warm as a greenhouse. By locating it near the wall of a heated building, insulating its walls, sinking the foundation in the soil and using a double-glazed top, cool-season vegetables could grow in your cold frame all winter in mild areas. Adding heating coils or using manure to warm the soil turns the frame into a *hot bed* and extends its winter usefulness into colder areas.

You can get as elaborate as you want with your cold frame. For example, you can use automatic, thermostat-controlled vent windows and heating units. In this case, the frame almost acts like a miniature greenhouse.

However, such a permanent frame is not as flexible as some gardeners would like. You may prefer a lightweight, portable frame, which you can take into the garden and use as a combination soil warmer and giant cloche.

To use it as such, place the cold frame in the garden seven to 10 days before you wish to plant, letting the frame warm the soil. Then, with it in place, plant your crop directly into the frame. Remove the frame when weather stabilizes.

Portable frames are available from several sources. Or you can put together a few low-tech versions. For example, you can stack bricks or bales of straw in a square and cover them with glass.

You can make a box and cover it with an old storm window for a lid. You can attach plastic window-well covers to a hinged frame (see photo). Or make the *Garden Gate* cold frame shown above. For complete construction details, write to the Cold Frame Editor at *Garden Gate*, 2200 Grand Ave., Des Moines, IA 50312. We'll be glad to send them to you.



Two window-well covers can be nailed to a hinged 2 x 4 in. frame to make a simple and inexpensive cold frame.

If you decide to use a cold frame, here are some tips to get the most from it:

- Orient the frame so it runs east to west. More sun will reach growing plants.
- Make the frame lower on the south side so it catches more sun.
- Paint the inside wood of the cold frame white to help reflect sunlight to the plants.
- Vent the cold frame to keep it from getting too hot. Venting also reduces dampness, which helps keep foliar diseases at bay.

The highest you'll want to let the temperature get is 80 degrees. But don't let the temperature drop too low either. The soil under the cold frame needs to absorb enough heat to keep plants warm at night. An automatic opener will help tremendously, especially if you work and can't be there to open and close the lid.

- Keep an eye out for air leaks where warm air can seep out.
- Irrigate with water that's at least as warm as the soil. Cold water will cool the soil and reduce the effectiveness of the cold frame. And it can chill the seedlings.
- Finally, a tip from a reader for those extra-cold nights: Place small votive candles inside the frame, using one candle for every 2 square ft. of space. The candles burn for hours, protecting plants until morning.

But be careful. Place the candles away from leaves that might be hanging over the pot and from any combustible materials in the cold frame, such as straw, sawdust or the walls of the frame or your house.

— Marilyn Rogers

Sources

Gardener's Supply Co., 128 Intervale Rd., Burlington, VT 05401-2804. 800-444-6417. *Row covers, cloches.*

Harris Seeds, P.O. Box 22960, Rochester, NY 14692-2960. 800-514-4441. *Cold frames, cloches, plastic, row covers.*

Ken-Bar Inc., P.O. Box 504, Reading, MA 01867. 800-336-8882. *A list of distributors for T-518 row covers.*

A.M. Leonard, Inc., P.O. Box 816, Piqua, OH 45356. 800-543-8955. *Cold frame, plastic.*

Walt Nicke Co., P.O. Box 433, Topsfield, MA 01983. 508-887-3388. *Cold frames.*

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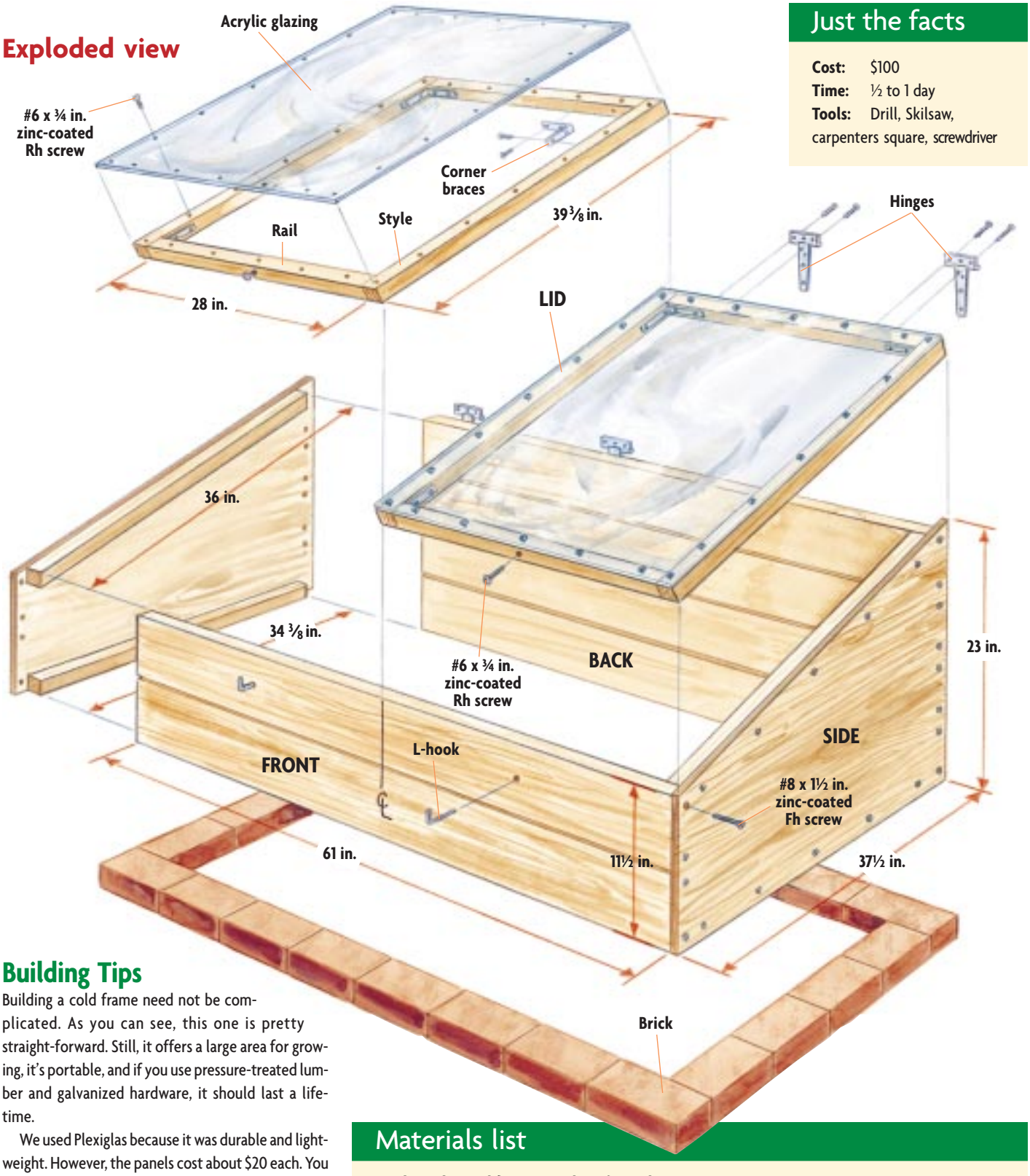
Exploded view



Just the facts

Cost: $100
Time: ½ to 1 day
Tools: Drill, Skilsaw, carpenters square, screwdriver

Building Tips

Building a cold frame need not be complicated. As you can see, this one is pretty straight-forward. Still, it offers a large area for growing, it's portable, and if you use pressure-treated lumber and galvanized hardware, it should last a lifetime.

We used Plexiglas because it was durable and lightweight. However, the panels cost about $20 each. You could staple thick plastic over the frame or even use an old window.

The hooks on front are for two 36 in. perforated metal straps. These attach to the screws on the front of the lid to hold it open (see photo, previous page).

For a complete set of plans, send a self-addressed stamped envelope to the Cold Frame Editor at *Garden Gate,* 2200 Grand Avenue, Des Moines, IA 50312.

Materials list

Lumber/Plywood (use treated CCA)			Hardware		Misc.	
Front	2 x 6 x 61 in.	(2)	Acrylic glazing, 32 x 44 in.	(2)	Bricks	(32)
Back	2 x 6 x 61 in.	(4)	#6 x ¾ in. roundhead (Rh) screws*		Paint	
Sides	½ in. x 2 ft. x 4 ft. plywood cut to shape		#8 x 1½ in. flathead (Fh) screws*			
	2 x 2 x cut to fit	(4)	T-hinges, 5 in. with screws	(4)		
			Corner braces, 3 in. with screws	(8)		
Lids	2 x 2 x 39¼ in.	(4)	L-hooks	(2)		
	2 x 2 x 28 in.	(4)	Perforated strap	(2)	* Indicates zinc-coated	

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