

Secondhand High Tunnels: Purchasing, Dismantling, & Rebuilding

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Have you ever seen a vacant high tunnel, greenhouse, or cold frame and considered asking to purchase it? You're not alone! Purchasing secondhand high tunnels is common and a great way to make new use out of an otherwise wasted space. Before jumping in headfirst on the purchase, there are a few things to consider.

First, what is your goal for the structure? Do you want a passive high tunnel or heated greenhouse? Next, how comfortable are you with construction, and do you have access to tools or machinery? Your answer to those questions will help make decisions and ensure you purchase the correct structure for your needs *and* constraints.



When reinstalling end walls, consider changing the design to fit your needs. You can upgrade to polycarbonate, change the door size, or add vents. Take the time to think through your new design and purchase any materials.



Making Good Decisions

When evaluating a secondhand tunnel make sure to answer the following questions:

- Where did the tunnel come from? Knowing the manufacturer can make purchasing any additional pieces more straightforward.
- How does the hardware (bolts, brackets, sidewall hooks and crank) look, and how much needs replacing? These costs can add up.
- Are there any special components like solid doors, vents, or fans? Make sure they are in good working order.
- How deep are the side posts buried, and how difficult would it be to remove them? If removing proves to be too difficult, you will need to purchase new ones.
- How big is the tunnel, and what will maintenance costs be (such as replacing plastic)? Ongoing costs should be considered.
- Is any wood included, and what condition is it in? This can be an added cost to replace.
- What are the constraints for the dismantle process like equipment use, deadlines for removal and special requests from current owners? Negotiate for what you need!
- What is your management capacity? Some secondhand tunnels need more management to avoid adverse weather impacts like snow and rain due to steel gauge or sidewall shape.

Expert Tip: Don't take the task on alone.

Dismantling a high tunnel will require some help, and working with older materials carries some risk. Schedule a few workdays with a small group of people, and it will be down safely in no time!



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Dismantle

Don't rush to break down the tunnel. Take a few important steps to make reinstalling easier.

1. Label everything: Remove the plastic and keep it for patching, end walls, or solarizing. Label each tunnel piece, noting where it's located (ex. side post 1, left side). Make a few sketches noting your labeling system.

2. Remove wood: Remove the wooden components like end walls, baseboards, and hip boards, keeping any good hardware.

3. Metal frame: Take off any purlins or bracing to free the bows. Carefully lift the bows off the side post and completely disassemble them on the ground. Remove ground and side posts if able. Note the diameter and gauge of bows and side posts if you need to order extra parts.

4. Organize: Bind and clearly label all the pieces in amounts that are easy to carry.

5. Review: Sweep the site to make sure nothing was overlooked. Arrange tunnel pieces to easily load on a trailer.

6. Move: Measure your longest piece and use a trailer of the appropriate length. Carefully stack and ratchet down all the supplies.



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Installation

Reinstalling the tunnel is like completing a puzzle; each piece has its place. Select and prepare your site to maximize sunlight and level ground. Once your site is ready, break down the labeled bundles and layout and install the ground post. Next, reassemble each bow using the specifically labeled pieces, and install each bow in order. Purlins and bracing are a little more forgiving; install back into place with existing or new brackets, clamps, and hardware.

How does the wood look? Typically these components need to be replaced on secondhand tunnels. Treated wood will last the longest but is not accepted in most certified-organic operations. Instead, choose rot-resistant wood like cedar or locust. You could also use steel.

Design the end walls to fit your operation. Use any available doors or purchase new ones. Reuse any U-channel but consider purchasing new wiggle wire. You can reuse the old plastic or use new materials on the end walls. Finally, use new plastic to skin the structure.

Secondhand Cost vs. New Cost

Make sure the cost of the secondhand high tunnel plus the replacement parts makes sense. Also remember the time spent dismantling and moving. Compare this with comparable new tunnel kits and make sure it's the right decision for you!

About Carolina Farm Stewardship Association (CFSA) is a farmer-driven, membership-based 501(c)(3) non-profit organization that helps people in the Carolinas grow and eat local, organic foods by advocating for fair farm and food policies, building the systems family farms need to thrive, and educating communities about local, organic agriculture.

CFSA's Mission: CFSA advocates, educates, and builds connections to create sustainable food systems in the Carolina centered on local and organic agriculture.