RMBS
ROCKY MOUNTAIN BONSAI SOCIETY

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Sheltering Trees on a Budget

by Connie Garrett

Bonsai professional Larry Jackel discusses the importance of “Horticultural Mastery” as the important and necessary skill to successfully practice Bonsai. Part of that mastery is how we effectively protect our deciduous and coniferous trees from the effects of cold and wind during the winter months.

This article offers sheltering suggestions to those who are unable to dig up their yard to put in a gravel bed, or don’t have a garage, or lack window wells to shelter their trees and for those that don’t have a home shop with all the necessary equipment to easily build structures. There are many above ground solutions that will provide winter protection for your coniferous and/or deciduous trees. You’ll need an enclosure, a cover, a sheet or two, a tarp, straw, and fill material.

Placement of the shelter is important to help your trees remain dormant for a longer period. My shelters are on the west and south sides of my yard to minimize warming from the winter sun.

I’ll share with you what options I’ve used successfully with the acknowledgement that there’re a myriad of other ways to effectively shelter your trees.

Prefab Option

Mini Greenhouses and Raised Beds - this is a very easy, economical solution but has constraints because of being prefabricated. Also, the greenhouse covering tends to be less durable so a tarp is definitely required.

1. Determine how much space you’ll need to shelter your trees, allowing for some space between the pots as well as a 4-6” buffer zone around the perimeter. This will determine the dimensions of the “floor plan” of your shelter. For example, I took my trees and arranged them as a group on my lawn, allowing for 1-3” of space between the pots. I measured the dimension of the grouping then added 8” to the length and 8” to the width. Multiplying the final length x the final width gave me the minimum square footage needed to safely contain my trees.
2. Measure the height of your tallest pot as well as the height of your tallest tree.
3. You now have a couple of options. Keeping in mind the dimensions of your “floor plan” plus the height of your tallest pot and tree, you can go with either a prefabricated metal or wooden raised bed as your enclosure. Ideally the sides of

your enclosure are at least 6” higher than the top of your tallest pot. Additionally, there needs to be enough room for your tallest tree.

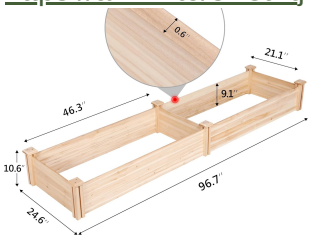
4. With the prefab mini greenhouse options, if you need extra height, place a cinder block laying on its side under each point that the roofing tubing Ts and connects to the bottom tubing which will also provide added support at the tubing connections. I also recommend an additional tarp which will add extra protection as well as cut out light to prolong dormancy.

Below are a few smaller options on Amazon for raised beds, mini greenhouses, and a 2-in-1 option.

Outsunny greenhouse

6x3x3 ft

https://amzn.to/3X3tZtj



Yaheetech wood raised bed

8x2x1 ft

https://amzn.to/3X0gZoy

Sonifly galvanized metal raised bed with cover

6x3x1 ft
8x4x1 ft

https://amzn.to/470DXjK

Perhaps you find yourself in the position where prefabricated options won’t work for your situation so you’ll need to build a customized structure. Or you may have found a larger greenhouse but not a suitable prefabricated raised bed. You can build your own raised bed which will be discussed in the next section.

Do It Yourself Options

Pallets, Cinder Blocks, and Wood – requires a bit of muscle, more math, and, though not very pretty, it is sturdy. The costliest feature of this model will be the wood.

I have used pallets which also serve nicely as tables to place trees on after winter is over. Many stores will let you have them for free or you can purchase one online as well. When using a pallet, your “floor plan” will need to comply with the dimensions of the pallet.

1. Do steps 1-2 previously outlined under *Prefab Options.* Since pallets come in various sizes, take your “floor plan” dimensions ADD 4-6” per side to determine the MINIMUM size of the pallet you’ll need. Why? Depending on the pallet, the top boards are nailed to wooden cross braces and these braces are generally 1-6” inside from the edge of the top boards. You want the braces – not the top boards – to rest on the cinder blocks.

2. Get your pallet.

3. Your pallet size, the height of your tallest pot plus the height of your tallest tree will determine how you build your raised bed.

This is where you can choose how to proceed. For me, in retrospect, the following steps would have been the easiest – and most accurate – way to build my pallet shelters so I will offer it here. The way I will outline this will take at least two trips.

4. Corner concrete planter wall blocks will hold the boards that will create your raised bed walls. How tall is your tallest pot? Since these blocks are 5.5” tall, do the math to see how high your walls will need to be remembering, too, that you’ll also need space to add fill to cover the tops of your pots. So, an 8” high pot will need at least 2 blocks which would be 11” high to allow enough height for the pot plus the fill. Remember, too, that the walls are adding extra protection along with providing a container for your trees.

Now you’ll determine the configuration you prefer. Option A pictured below has the enclosure outside of the restrictions of the pallet size but is best for trees less than 19” tall since the height of the space under the pallet is about 24”. This option also allows for placing smaller trees or plants under the overhang of the pallet if yours has one. Option B pictured below has the enclosure restricted to the size of the pallet but allows for building a taller structure using one cinder block and 2+ planter wall blocks.


Option A: After


Option A:
Enclosure Corner

5. Once you've decided on the configuration – **Option A** or **Option B** - head to your local hardware store and you will need to purchase:

Option A

8 cinder blocks (15.25" H x 7.5" W x 7.5" D). These will support the pallet. At each corner, one cinder block is lying horizontally with a vertical cinder block on top (refer to the photos).

4-8 corner concrete planter wall blocks (5.5" H X 7.75" W x 7.75" D). The slit opening is 1.75" deep and 2" wide. Pictured here.

Option B

4 cinder blocks
4-12 corner concrete planter wall blocks

6. Do a "dry run" build of your Option A or Option B structure by placing the pallet on the ground. For Option A, put the planter wall blocks at the corners around the perimeter of the palette forming an imaginary rectangle or square. Since the cinder blocks will be placed under the pallet for support, doing this "dry run" doesn't require them to be utilized because you are only deciding the enclosure's size. Now measure the distances between the planter wall blocks' slot openings. That will determine the length of the boards you will need for your four walls. For Option B, place the planter wall blocks on the palette at the corner points where the top slats are nailed to the brace and measure the distance between the planter wall blocks' slot openings. You now have the board lengths for your walls.

7. Using the information you have from Steps 4 and 6, head back to your hardware store and buy boards wide and long enough to build your walls. I prefer pretreated wood with a thickness of 1-1.5” to fit into the slots. The larger hardware stores will cut the boards to your preferred length. With Option B board width is more precise. For example, if you want to build a structure with 2 wall blocks, you must use a single board - or multiple boards - that are no wider than 11” total to fit into the 2 blocks and then allow for the cinder block that will rest on top. Also buy some mulch and – optionally – pea gravel.

8. Head home and build your structure but don’t place the pallet on top.

9. Place your trees in your enclosure either on the ground or on top of a layer of pea gravel or mulch allowing for some space between the pots as well as in the buffer zone.

10. I use organic matter such as mulch to fill in the spaces around the pots and fill up to the pots’ rims or higher. If you have a tree with a pot a bit taller than the others, place that tree in the middle of the enclosure. When you put mulch on and around it, the mulch can cascade down to cover the shallower pots.

11. I like to put an additional layer of straw on top as insulation and to allow water to penetrate. You can buy straw bales at most nurseries.

12. Place the pallet on your cinder blocks.

13. Here’s my weird twist: I then place a sheet on top of the pallet. My experience with this is that the cloth gets damp and provides an added degree of humidity in the enclosure. On top of the sheet I add a white tarp and weigh down the corners with bricks.

I particularly like the use of pallets because I can house my trees in there year round with the pallet acting as a shading feature and the mulch works to keep the pots cool.

As I said earlier, there are a myriad of ways to effectively shelter your trees. Find the way that works best for your living situation, aesthetics, and budget. When your trees survive the winter, you'll have the satisfaction of a successful piece of "Horticultural Mastery."

Event Highlight

Several RMBS members enjoyed a tree sale/moss demo at Bert Rhodes' house!

Upcoming Events

Schedule

October Meeting

Monday, **October 14th**

Mitchell Hall, DBG
7:00 PM
-Yannick Kiggen

Subscribe to the RMBS Google Calendar to stay up to date on upcoming events!

Instructions for: Outlook iPhone Mac

View Calendar

Membership

Welcome to our new members!

Ron Maurer – Longmont
Ken Broeren – Bailey
Patrick Hart – Golden
Connor Hart – Golden
Noah Pene - Denver
Juan Carlos Casal-Valero
Greg Szynskie – Englewood
Hailey Renner - Colorado Springs
David Baker – Morrison
Darcie McSkimmings
Andre Reyes
Uriana Bach
Joe Avila – Aurora
Shon Oldefest – Denver
Jason Wiley – Evans
Jenny Tung
Michael Hansen – Denver
Tomas Desosa – Denver

Anthony Ramirez – Denver
Brent Knesal – Lakewood
Melissa Knesal - Lakewood
Anthony Gomez – Aurora
Mark Kramer - Fort Collins
Denim Lind
Patricia Braun – Denver
Susan Laybourn - Fort Collins
Kaegan Cotie - Aurora

Josee Giberson – Greeley
Erin Beckstein – Thornton
Tim Beckstein – Thornton
Alex Beckstein – Thornton
Betsy Lawton – Arvada
Ali Mattoch
Anja Koltes – Denver
Michael Herrera – Denver
Laura Hundley – Denver
Ellie Krienke – Denver
Kateri DeHaas - Denver
Lawley Ray - Westminster
Michael Ziegler – Denver
Guy Peters – Denver
David Fratu – Denver
Jillian Price – Centennial
Sam Veucasovic – Broomfield
Paula Quinney – Littleton
Bob Quinney – Littleton
Jeremy Andrews – Denver
Kara Beasley – Denver
Joe Floyd – Arvada
Emma Greenberg – Aurora
Katharine Jones – Aurora
Calvin Schwadron – Boulder
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Rocky Mountain Bonsai Society
9878 W Belleview Ave
PMB 3146
Denver, CO 80123


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