How-to
Milk Crate Planter Beds

Description

Milk crates are perfect for storage and shelving and they also make elegant and affordable raised planter beds when dressed up in a refurbished shipping pallet frame. A milk crate, at one cubic foot is the perfect size and depth for most edible crops. It is a new and reused kind of square foot gardening, a term and practice originated by Mel Bartholomew.

Not only are milk crates appropriate planter bed units, but also they add ease to soil component transport, especially important in an urban environment where ground level soil is often contaminated and rooftops lie barren. During transport, milk crates lined with trash bags can be spread across the bed of a truck and soil components can be dumped on top, filling each container. Upon delivery, each milk crate can easily be carried to its final resting place, be it a rooftop, patio or backyard.

The finished planter beds also feature an element of water and nutrient conservation. It is designed to slope and drain along the center where runoff water and nutrients are captured in the two gutters hanging below. The water and nutrients are then drawn back up into the planter bed through a capillary wick system.

Various milk crate planter bed configurations can be made. They can be stacked one on top of another, lined up side by side or can serve as stand alone planters. Reclaimed bread crates can also similarly up-cycled to create 6” deep planter beds that are half the weight and a sufficient depth for most leafy greens and short-term crops.

Materials

8 – Reclaimed Milk Crates
3 to 4 – Reclaimed Shipping Pallets
Exterior Stain (Sample Ext. Environmental Stain: Duro Stain by AFM Safecoat, Bioshield etc.)
1 lb. - 1 ¼” Exterior Screws
100 Grit Sand paper
11” Zip Ties
8 - Galvanized Carriage Bolts, nuts, and washers
8 - Steel Square Bend Screw Hooks
1 - 18” x 36” Metro Rack Shelf or alternative raised bed frame if desired.
4 - 14-1/2" Metro Standard Posts
10’ Capillary Wick
2 – 6” 4 ft Aluminum Gutters
22’ 1”x2” FSC certified finishing lumber
1 – 3’x30’ roll of nonwoven filter fabric
8 sq. ft. of reclaimed sheet metal
2 – 8’, 6” diameter gutters

Tools

Drill
12” Pry Bar
Electric Sander
Miter Saw
Metal Cutters
Scissors

Directions

1. Acquire all materials and tools listed below.
2. Set up the metro rack shelf or alternative raised bed frame.
3. Attach the milk crates together with zip ties and bolts to form a 2'x4' rectangle. Place zip ties at the bottom and top of each contiguous side or center point. To further secure the connection bolt the outer top contiguous sides together and secure with bolts and washers. Drilling is necessary.
4. Zip tie the 2'x4' rectangle to the raised bed frame.
5. Deconstruct the shipping pallets using the 12" pry bar.
6. Cut the resulting shipping pallet lumber into 13" pieces and cut four 54" 1x2's, four 28" 1x2's, and eight 11" 1x2s using the skill saw.
7. Sand and stain all cut lumber.
8. Evenly space and assemble the four side panels using the refurbished shipping pallet boards and the 54" and 28" long pieces of finishing lumber using the 1 ½" exterior screws. Place the finishing 1x2 strips at the top and bottom of each panel resulting in two 54" panels and four 28" panels.
9. Screw the square bend screw hooks to the inside top of each panel 3" from the edge and 1 ¼" from the top for the long side panels and 1 ½" from the edge and 1 ¼" from the top for each of the short end panels.
10. Place the 11" 1x2s on the in each milk crate on the outer inner edge of the planter bed.
11. Cut the reclaimed sheet metal into 10"x12" squares.
12. Place each metal sheet in each planter bed so that it slopes to the center and leaves a gap along the center line of the 2'x4' planter bed frame.
13. Cut eight 1'x3' and eight 15"x3' pieces of nonwoven filter fabric and cross line each milk crate with the two different sized pieces of filter fabric. The widest piece should be on the bottom.
14. Cut the capillary wick into 14"x1" pieces and place them at the center point of each milk crate leaving a 2 ½" tail hanging beneath the planter bed and the rest on the interior of each bay.
15. Hang the two gutters lengthwise 2" below the center of the raised planter bed.
16. Dress the milk crates with the four panels.
17. Fill and plant each bed.