GA-035 Dry-brushing root-crop bench tray

Hold a removable brushing basket above a debris tray while soil is brushed from suitable harvested roots.

Controlling dimensions: US inches and feet. Metric equivalents are references. Original editorial design; no physical build, animal trial or load certification is claimed.

Before marking and cutting

Measure the stated stock sections before cutting. Use the cut-list geometry, not scale measurements from the drawing.

US inch dimensions control; millimeter values are rounded conversions. Ordinary cut target ±1/16 in (1.6 mm); fit commercial accessories before boring attachment holes.

Use limits

Original bounded garden component, not an occupied structure.

No human standing, sitting, climbing, lifting or fall protection use. No stated safe working load.

Geometry and fastener quantities are editorially checked; no prototype build, wind test or crop trial is claimed.

Materials and finished cuts

Part	Qty	Size to cut	Material and detail
P01 Base	1	24 × 18 × 1/2 in 609.6 × 457.2 × 12.7 mm	measured 1/2 in plywood exterior-bond plywood for protected non-food-contact fixtures; substitute thickness only by recalculating joints
P02 Side risers	2	18 × 3 1/2 × 3/4 in 457.2 × 88.9 × 19.05 mm	1 × 4 in board sound untreated cedar or other durable untreated wood
P03 Basket support cleats	2	18 × 1 1/2 × 3/4 in 457.2 × 38.1 × 19.05 mm	1 × 2 in board sound untreated cedar or other durable untreated wood; no unknown salvage
P04 Rear dust stop	1	22 1/2 × 2 × 3/4 in 571.5 × 50.8 × 19.05 mm	1 × 3 in board sound untreated cedar or other durable untreated wood

Hardware and consumables

12 #8 × 1-1/4 in screws for sides

8 #8 × 1-1/4 in screws for cleats

4 #8 × 1-1/4 in screws for rear stop

1 removable washable produce-contact perforated basket; rim must bridge the 19-1/2 in clear gap with at least 1/2 in bearing each side

1 removable 22 × 16 in debris liner

Tools

Tape measure and steel rule; Pencil, square and clamps; Saw suited to the stated stock; eye and hearing protection; Drill/driver, countersink and bits matched to fasteners; Sandpaper and edge file; gloves when handling cut mesh

Primary context and design record

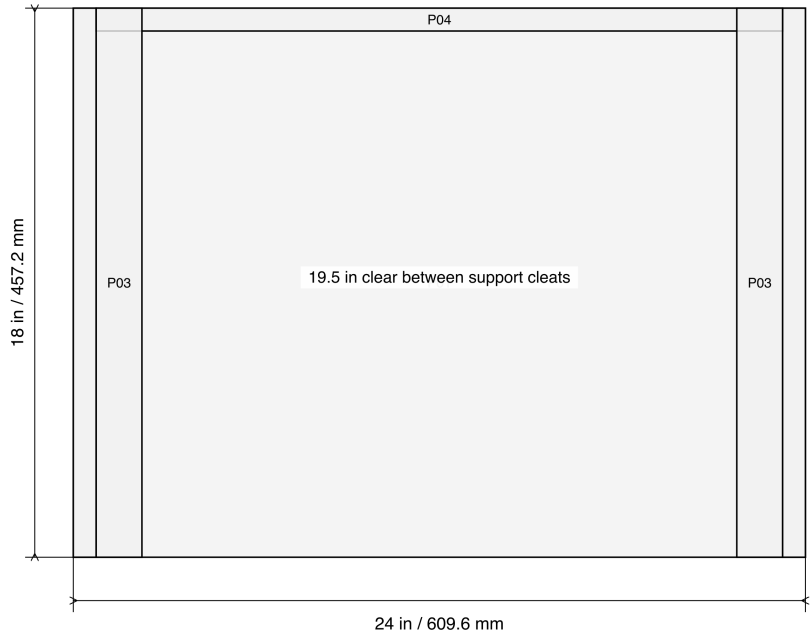
Context references; not design endorsements or certifications.

E06 · Postharvest handling of fruit and vegetable crops in Minnesota · University of Minnesota Extension · https://extension.umn.edu/agriculture/specialty-crops/commercial-fruit-production/postharvest-handling-of-fruit-and-vegetable-crops-in-minnesota

Assembly and first checks

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PLAN — looking down; rear at top; controlling dimensions in inches



Part IDs refer to the finished cut list. Shapes are not load-rated. Read assembly before cutting.

Notches, holes, fittings and operating angles: see numbered steps and geometric annotations.

Original editorial draft • B/W vector • not physically built or tested • no implied Extension endorsement

01 Plan the dry-brushing root-crop bench tray for this result: Hold a removable brushing basket above a debris tray while soil is brushed from suitable harvested roots. Confirm the design reference before cutting: Cleat inside gap 19-1/2 in; basket rim spans at least 20-1/2 in with adequate bearing. In the drawings x runs left to right, y runs front to rear and z runs upward.

02 Verify the required stock before laying out these parts: 1 × 2 in board: actual 0.75 × 1.5 in (19.05 × 38.1 mm); 1 × 3 in board: actual 0.75 × 2.5 in (19.05 × 63.5 mm); 1 × 4 in board: actual 0.75 × 3.5 in (19.05 × 88.9 mm); measured 1/2 in plywood: measured thickness 0.5 in. Reject split or twisted wood and unknown salvage; thinner stock requires recalculating the joints, not simply using the listed lengths.

03 Cut and label the finished parts: 1 Base 24 × 18 × 0.5 in (609.6 × 457.2 × 12.7 mm), mark P01; 2 Side risers 18 × 3.5 × 0.75 in (457.2 × 88.9 × 19.05 mm), mark P02; 2 Basket support cleats 18 × 1.5 × 0.75 in (457.2 × 38.1 × 19.05 mm), mark P03; 1 Rear dust stop 22.5 × 2 × 0.75 in (571.5 × 50.8 × 19.05 mm), mark P04. Keep saw kerf outside each finished line. Rip only where the finished width is narrower than the actual stock; use a suitable guide and target ±1/16 in (1.6 mm) for ordinary cuts. Dowel triples mean length × diameter × diameter, not square dowel stock.

04 Fasten the 18 in side risers on the base at x = 0 and 23-1/4 in, six underside 1-1/4 in screws per side.

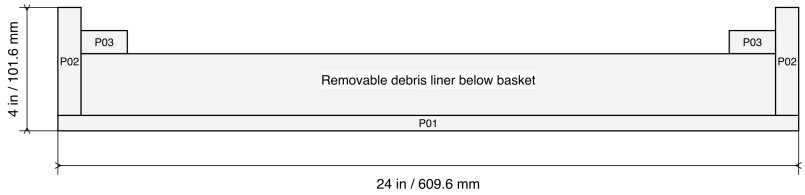
05 Attach a cleat inside each side riser at z = 2-1/2 in. Their 1-1/2 in faces project inward and their top surfaces sit at z = 3-1/4 in.

06 Use four 1-1/4 in screws through each side riser into its cleat edge, staggered from the base screw positions.

Complete the assembly

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FRONT — transparent assembly projection from y = 0; controlling dimensions in inches



Part IDs refer to the finished cut list. Shapes are not load-rated. Read assembly before cutting.
Notches, holes, fittings and operating angles: see numbered steps and geometric annotations.
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07 Rip the rear stop from actual 2-1/2 in stock to 2 in height, then fit it between the side risers at y = 17-1/4 in with its top at z = 2-1/2 in. It finishes just below the cleats instead of intersecting them. Fasten from below with four 1-1/4 in screws.

08 Place the removable debris liner on the base. Keep the front open so it can slide out without lifting the entire fixture.

09 Trial-fit the actual perforated produce-contact basket. Its rim must bear on both cleats with at least 1/2 in support per side and its bottom must stay above the liner.

10 Use a soft crop-appropriate brush over the basket with small quantities, without damaging skins or spreading dust toward people. Remove diseased or injured roots separately.

11 Lift the basket out before removing the liner. Dispose of debris appropriately; washing, curing and storage still follow crop-specific guidance with potable water where washing is needed.

12 Complete the acceptance checks below before putting the assembly into service. Record any changed stock thickness, fastener or equipment fit on the project sheet. The published geometry has not been physically built or load-tested.

Acceptance and intermediate checks

Cleat inside gap 19-1/2 in; basket rim spans at least 20-1/2 in with adequate bearing.

No fastener points in basket/liner path; fixture stable on bench.

Operation

Not for washing produce with roof water or sanitizing crops; avoid inhaling dusty soil.

Cleaning and maintenance

Clean basket and liner separately and dry wood after each batch.