GA-049 Manual dry-pod rubbing board

Open a small batch of brittle dry seed pods over a catch sheet using a ridged hand board rather than powered threshing.

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	18 × 12 × 3/4 in 457.2 × 304.8 × 19.05 mm	measured 3/4 in plywood exterior-bond plywood for protected non-food-contact fixtures
P02 Rubbing ridges	7	12 × 3/4 × 3/4 in 304.8 × 19.05 × 19.05 mm	1 × 2 in board sound untreated cedar or other durable untreated wood; no unknown salvage
P03 Hand rubbing block	1	8 × 3 1/2 × 3/4 in 203.2 × 88.9 × 19.05 mm	1 × 4 in board sound untreated cedar or other durable untreated wood
P04 Block grip	1	6 × 1 1/2 × 3/4 in 152.4 × 38.1 × 19.05 mm	1 × 2 in board sound untreated cedar or other durable untreated wood; no unknown salvage

Hardware and consumables

28 #8 × 1-1/4 in screws for ridges, 4 each

4 #8 × 1-1/4 in screws for rubbing-block grip

Large clean removable catch sheet; gloves appropriate to the dry crop

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

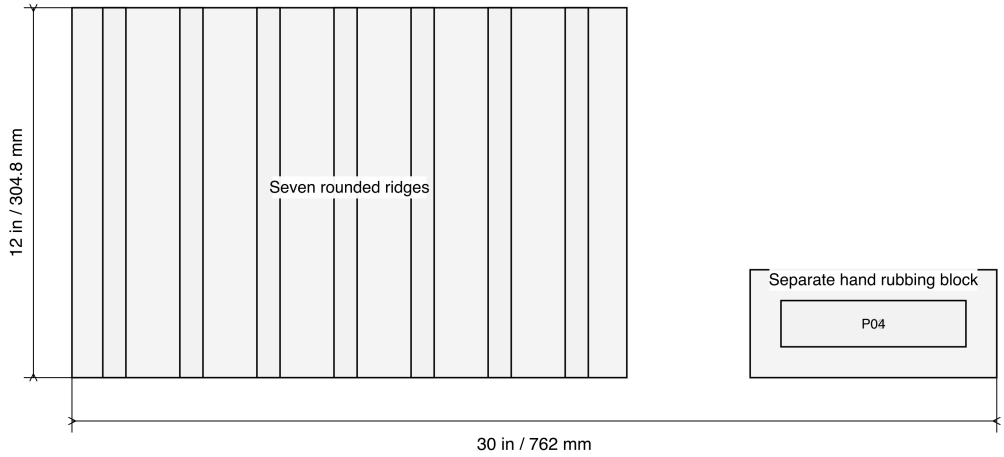
Context references; not design endorsements or certifications.

E02 · Seed and Seedling Biology · Penn State Extension · https://extension.psu.edu/seed-and-seedling-biology

Assembly and first checks

GA-049 Manual dry-pod rubbing board

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 manual dry-pod rubbing board for this result: Open a small batch of brittle dry seed pods over a catch sheet using a ridged hand board rather than powered threshing. Confirm the design reference before cutting: All ridge tops smooth, no screws exposed; grip firm. 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 × 4 in board: actual 0.75 × 3.5 in (19.05 × 88.9 mm); measured 3/4 in plywood: measured thickness 0.75 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 18 × 12 × 0.75 in (457.2 × 304.8 × 19.05 mm), mark P01; 7 Rubbing ridges 12 × 0.75 × 0.75 in (304.8 × 19.05 × 19.05 mm), mark P02; 1 Hand rubbing block 8 × 3.5 × 0.75 in (203.2 × 88.9 × 19.05 mm), mark P03; 1 Block grip 6 × 1.5 × 0.75 in (152.4 × 38.1 × 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 Rip seven ridge strips from actual 1 × 2 stock to 3/4 in square and 12 in long. Round their upper edges to avoid cutting seed coats.

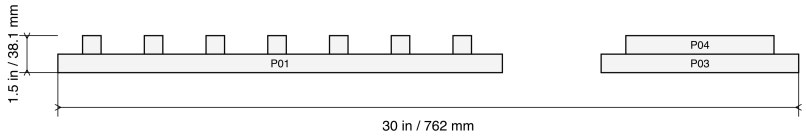
05 Mark ridge left faces on the base at x = 1, 3-1/2, 6, 8-1/2, 11, 13-1/2 and 16 in.

06 Clamp ridges across the 12 in base depth and predrill four underside holes per strip, at y = 1, 4-1/3, 7-2/3 and 11 in.

Complete the assembly

GA-049 Manual dry-pod rubbing board

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

07 Install the 1-1/4 in ridge screws from beneath. Verify no tip emerges through the ridged work surface.

08 Round the 8 × 3-1/2 in rubbing block edges. Attach its centered 6 in grip from beneath with four 1-1/4 in screws, keeping the underside smooth.

09 Set the board over a large clean catch sheet and test only a few dry pods. Rub lightly with the block without trapping fingers between ridges.

10 Inspect recovered seeds for cracking before processing more. Stop if the species needs a different extraction method or if the material produces irritating dust.

11 Keep every fraction until seed recovery is confirmed, then clean by a separate crop-appropriate method. The board opens pods; it does not determine viability, purity or food safety.

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

All ridge tops smooth, no screws exposed; grip firm.

Small trial yields inspectable seed without excessive crushing.

Operation

One board/rubbing-block set is one project. No powered machinery or unknown allergenic plant material.

Cleaning and maintenance

Brush and vacuum between lots; keep variety labels with catch sheets.