GA-008 Small-seed tapping chute

Guide counted small dry seeds from a broad loading area to a narrow delivery tip.

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 Chute floor	1	14 × 3 × 1/2 in 355.6 × 76.2 × 12.7 mm	measured 1/2 in plywood exterior-bond plywood for protected non-food-contact fixtures; substitute thickness only by recalculating joints
P02 Chute sides	2	14 × 1 1/2 × 3/4 in 355.6 × 38.1 × 19.05 mm	1 × 2 in board sound untreated cedar or other durable untreated wood; no unknown salvage
P03 Rear stop	1	1 1/2 × 1 1/2 × 3/4 in 38.1 × 38.1 × 19.05 mm	1 × 2 in board sound untreated cedar or other durable untreated wood; no unknown salvage

Hardware and consumables

10 #6 × 1 in screws: 4 each side, 2 rear

One removable smooth paper liner, 14 × 1-1/2 in

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

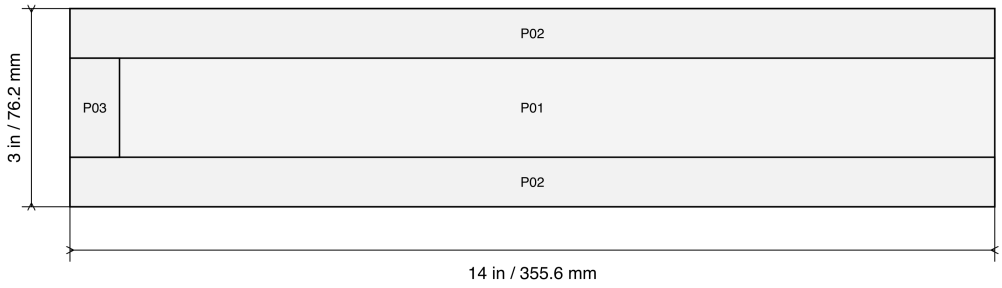
Context references; not design endorsements or certifications.

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

Assembly and first checks

GA-008 Small-seed tapping chute

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 small-seed tapping chute for this result: Guide counted small dry seeds from a broad loading area to a narrow delivery tip. Confirm the design reference before cutting: Inside channel 1-1/2 in (38.1 mm), with no protruding hardware. 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); 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 Chute floor 14 × 3 × 0.5 in (355.6 × 76.2 × 12.7 mm), mark P01; 2 Chute sides 14 × 1.5 × 0.75 in (355.6 × 38.1 × 19.05 mm), mark P02; 1 Rear stop 1.5 × 1.5 × 0.75 in (38.1 × 38.1 × 19.05 mm), mark P03. 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 Mark the floor opening between y = 3/4 and 2-1/4 in. Keep this 1-1/2 in channel constant; it is a seed chute, not a precision seeder.

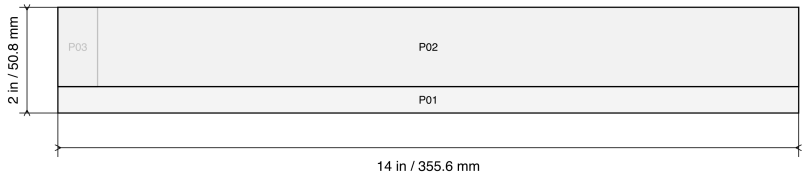
05 Clamp the side rails upright and align both delivery ends with x = 14 in. Predrill four holes through the floor per rail.

06 Fasten the rails from below with 1 in screws, placed at x = 1, 5, 9 and 13 in. Confirm no tips enter the channel.

Complete the assembly

GA-008 Small-seed tapping chute

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 Fit the 1-1/2 in rear stop between the rails at x = 0. Fasten through the base with two screws, avoiding the side fasteners.

08 At the delivery end round the floor corners to a 1/4 in radius. Do not narrow the outlet by freehand guessing; seeds must leave through the full channel.

09 Sand the channel smooth, vacuum dust and install a clean paper liner. Do not apply an unverified chemical coating to the seed path.

10 Count a small seed lot onto the rear half of the liner. Hold the outlet just above the marked sowing line and tip the chute slightly.

11 Tap the outside lightly with a fingertip and stop after each seed falls. Practice over a contrasting empty tray before using valuable seed.

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

Inside channel 1-1/2 in (38.1 mm), with no protruding hardware.

Ten dry test seeds can be recovered and counted; no claim of automatic singulation.

Operation

For dry seed only; perform final spacing/thinning according to the crop.

Cleaning and maintenance

Replace paper between lots and keep the chute completely dry.