GA-013 Inclined cucumber training panel

Keep short-vined cucumber growth on a sloping removable mesh face with rear access for harvest.

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 Side rails	2	48 × 1 1/2 × 1 1/2 in 1219.2 × 38.1 × 38.1 mm	2 × 2 in board sound untreated wood
P02 End rails	2	30 × 1 1/2 × 3/4 in 762 × 38.1 × 19.05 mm	1 × 2 in board sound untreated cedar or other durable untreated wood; no unknown salvage
P03 Mesh panel	1	48 × 30 × 1/25 in 1219.2 × 762 × 1.02 mm	galvanized hardware cloth 1/4 in grid, about 19 gauge; all cut edges trapped under battens; soil contact only
P04 Mesh cover battens	2	48 × 1 1/2 × 3/4 in 1219.2 × 38.1 × 19.05 mm	1 × 2 in board sound untreated cedar or other durable untreated wood; no unknown salvage

Hardware and consumables

8 #10 × 2 in exterior screws for end rails

16 #8 × 1-1/4 in screws for mesh battens

2 site-selected fixed support posts, 2 removable pins and 2 ground ties; mounting separately verified

2 smooth U-channel guards, 30 in each, for front/rear mesh cut wires

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

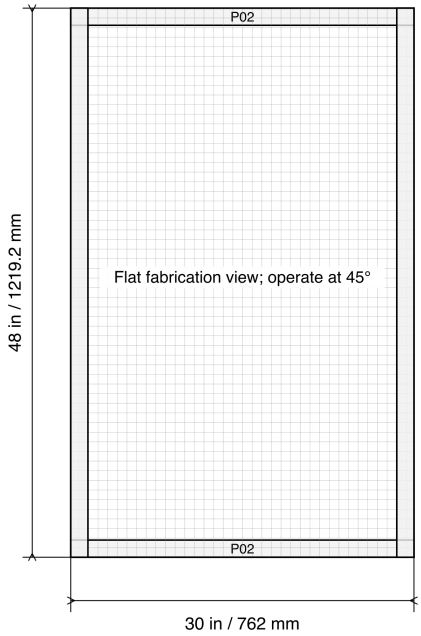
Context references; not design endorsements or certifications.

E04 · Trellises and cages to support garden vegetables · University of Minnesota Extension · https://extension.umn.edu/garden-and-home/yard-and-garden/gardening-in-minnesota/trellises-and-cages

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 inclined cucumber training panel for this result: Keep short-vined cucumber growth on a sloping removable mesh face with rear access for harvest. Confirm the design reference before cutting: Mesh edges all covered; frame outside 30 × 48 in (762 × 1219.2 mm). 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); 2 × 2 in board: actual 1.5 × 1.5 in (38.1 × 38.1 mm); galvanized hardware cloth: 1/4 in grid, about 19 gauge; all cut edges trapped under battens; soil contact only. 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: 2 Side rails 48 × 1.5 × 1.5 in (1219.2 × 38.1 × 38.1 mm), mark P01; 2 End rails 30 × 1.5 × 0.75 in (762 × 38.1 × 19.05 mm), mark P02; 1 Mesh panel 48 × 30 × 0.04 in (1219.2 × 762 × 1.02 mm), mark P03; 2 Mesh cover battens 48 × 1.5 × 0.75 in (1219.2 × 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 Lay the 48 in side rails parallel at 30 in outside width. Place the end rails across their upper faces with ends flush.

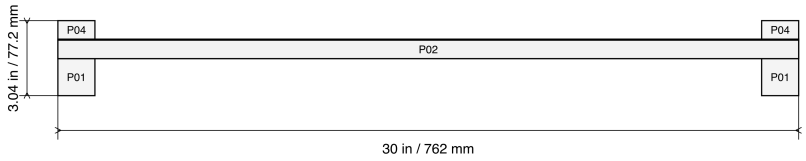
05 Use two 2 in screws at each corner overlap. Pilot first and space screw centers 3/4 in apart along the overlap.

06 Square the panel; expected outside fabrication diagonals are approximately 56.60 in. Keep diagonal difference within 1/8 in.

Complete the assembly

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



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07 Lay the 30 × 48 in mesh on the frame. Align all cut edges over wood and keep the first/last grid wires under the cover battens.

08 Clamp and screw the two side battens with eight 1-1/4 in screws each, from 1 in off the ends at roughly 6-1/2 in spacing. Cap the front and rear cut wires with compatible U-channel.

09 Locate two independent rear supports so the panel can lean at 45 degrees with its lower edge on firm ground. At 45 degrees the 48 in face has about 33.9 in horizontal run and rise.

10 Attach the rear corners with removable pins through compatible brackets selected for the supports; tie the lower corners against sliding. Do not put posts through utilities or assume any embedment rating.

11 Check rear harvest access before training plants. Remove the panel for storms or winter when the anchorage cannot be verified; do not walk beneath a loose panel.

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

Mesh edges all covered; frame outside 30 × 48 in (762 × 1219.2 mm).

Empty operating frame remains restrained from sliding and tipping.

Operation

Fabrication drawings are flat, with operating angle explicitly stated.

Do not use poultry wire with uncontrolled sharp ends or let heavy fruit hang unsupported.

Cleaning and maintenance

Brush vines off, inspect rust and fasteners, and store dry.