

INSTRUCTIONS • FROM SEED TO FIELD

How to use the Paperpot system

The complete process for growing seedlings in paper chain pots and planting them with the Paperpot Transplanter, in four stages: open, seed, grow and plant.

1 Open

2 Seed

3 Grow

4 Plant

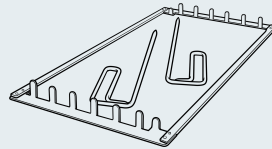
BEFORE YOU START

- Store paper chain pots away from heat and humidity.
- Seed plates and plastic tools can warp in heat. Store them flat, out of the sun.
- Don't leave the transplanter outside; it will rust.

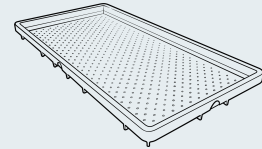
What you need



Paper chain pots
2", 4", 6" or Extra Deep



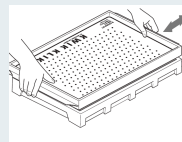
Paperpot Opening Kit
Spreader bars and frame



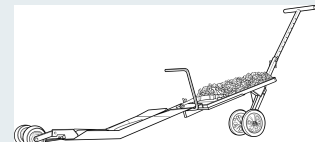
Germination trays
One per chain



Dibble Board
Seed holes in one press



Kwik Klik Slide
Drop seeder with a 264-hole plate

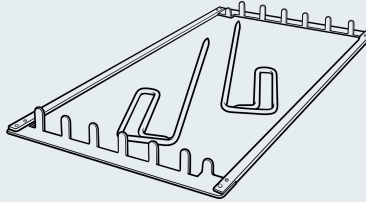


Paperpot Transplanter
HP-16

Optional: Solid Bottom Trays for bottom watering, a germination chamber or heat mats, and landscape staples to pin the start of each chain.

STAGE 1 • OPEN

Prepare the trays



- 1 Work on a stable, solid table. Choose the chain for your crop's in-row spacing (2", 4" or 6"). Slide the spreader bars under the white paper tabs on both sides of the chain without tearing the paper. The printed side can face either way.
- 2 Set the spreader frame in front of you, teeth up. Using the bars as handles, pull the chain open like an accordion until it is about as wide as the frame.
- 3 Find the offset tooth in one top corner of the frame. Turn the chain so the offset corner of its honeycomb lines up with that tooth.
- 4 Starting on one side, set the honeycomb cells over the teeth; every other row hooks on. If the cells won't line up, stretch the chain wider. Then hook the opposite side.
- 5 Remove the spreader bars and set them aside.
- 6 Turn an empty germination tray upside down (holes up) over the frame and chain. Holding both sides of the tray **and** the frame, flip everything right side up. Leave the frame in place.

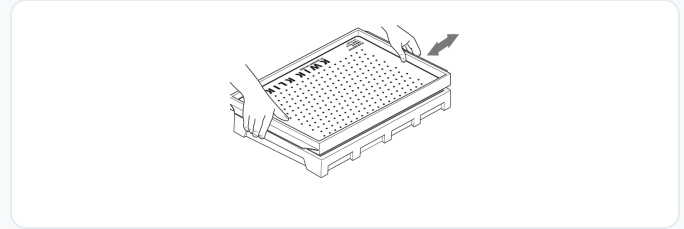
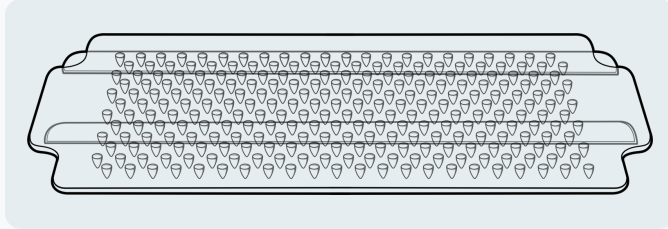
STAGE 2 • SEED

Fill the tray

- 1 Use slightly moist potting mix. Bone-dry mix compresses after the first watering and leaves the cells only partly full.
- 2 Pour an excess of mix over the chain by hand or with a scoop. Spread it in a circular motion so every cell fills; check the edge cells, which tend to be under-filled.
- 3 Tamp lightly so all cells are equally firm, but not so hard that you distort the paper. Brush off the extra mix until you can see the honeycomb.

STAGE 2 • SEED

Dibble and seed



Dibble

- 1 With the spreader frame still in place, line up the top-left dibble with the top-left metal tooth on the frame, then line up the top edge of the board with the top edge of the frame.
- 2 Press down firmly until every cell is indented to the full depth of the dibles.

Seed with the Kwik Klik Slide

Install a 264-hole Paperpot bottom plate and a top plate sized for your seed. Full setup, the plate chart and troubleshooting are in the Kwik Klik Slide instructions at paperpot.co/kwik-klik-slide-instructions/.

- 1 Tilt the tray slightly toward you so seed doesn't roll around in the seeder when you set it down.
- 2 Pour seed onto the top plate. Tilt and rotate the seeder until every hole is filled, then tilt it back to collect the extra seed away from the holes. Leave the extra in the seeder if you're seeding more trays of the same crop.
- 3 Align the seeder like the dibble board: the top-left hole over the cell next to the top-left frame tooth, and the top edge of the seeder along the top edge of the frame. When the corners line up, every hole lines up.
- 4 Slide the top plate to drop seed into all 264 cells at once. For sticky seed, check that every seed dropped and tap any stuck ones through. If static is a problem, wipe the plates with ACL Staticide.
- 5 Holding the chain down with one hand, lift off the spreader frame.

Cover and water

- 1 Without pressing, add just enough covering mix (or vermiculite) to hide the honeycomb, and smooth the surface. A light cover keeps seed from drying out if you aren't using a germination chamber.
- 2 Water right after seeding, about 1 liter per tray, then another liter after 30 minutes. Adjust for your mix; if it absorbs slowly, water more often in smaller amounts.

STAGE 3 • GROW

Germinate and grow on

- 1 Keep each crop at its germination temperature. A germination chamber, domes or seedling heat mats make this easier.
- 2 Set germination trays in Solid Bottom Trays to water from below, which helps prevent fungal disease.
- 3 Plan on about **28 days** from seeding to transplanting as a starting point. Each crop guide at paperpot.co lists its own days to transplant.
- 4 **Transplant sooner rather than later.** Seedlings left too long get tangled tops and roots that grow between cells, and tangled chains run poorly through the transplanter.

STAGE 4 • PLANT

Get the trays and beds ready

Trays

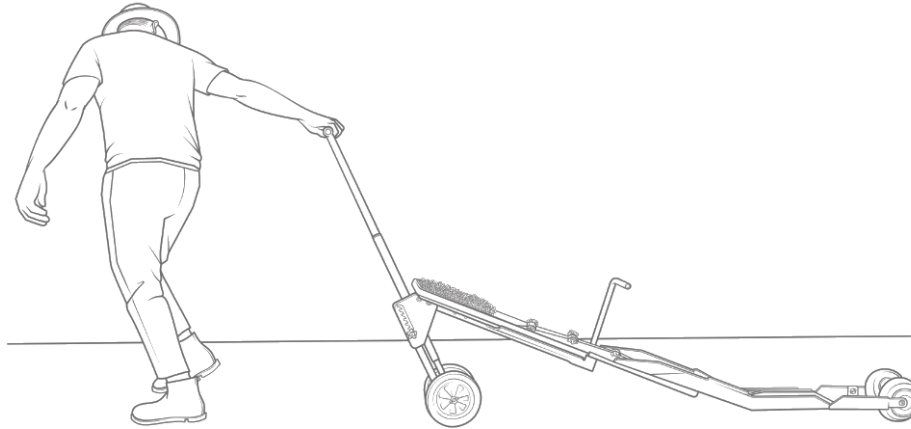
- 1 Water the trays until fully saturated **at least 15 minutes** before transplanting. The water dissolves the glue between cells so the chain unfolds smoothly; under-watered trays cause problems in the field.
- 2 Optional: water with an organic liquid fertilizer for a boost at transplant.
- 3 Before loading trays on the cart, tear off the white paper strips at the ends of each chain and throw them away. They should come off without disturbing the brown chain.

Beds

- 1 Aim for loose, moist soil that flows rather than clumps. Break up or amend heavy soils, and let wet soils dry out.
- 2 Clear mulch, crop residue, rocks and large root balls. Debris makes transplanting harder.
- 3 Mark your rows with a bed-prep rake or row marker. Even lines keep spacing consistent and give you a sight line as you pull.

STAGE 4 • PLANT

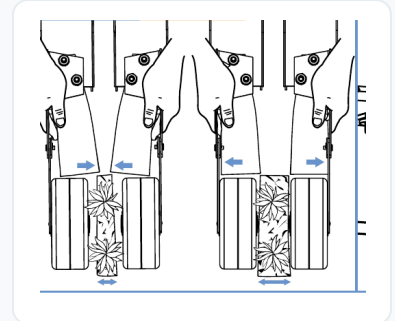
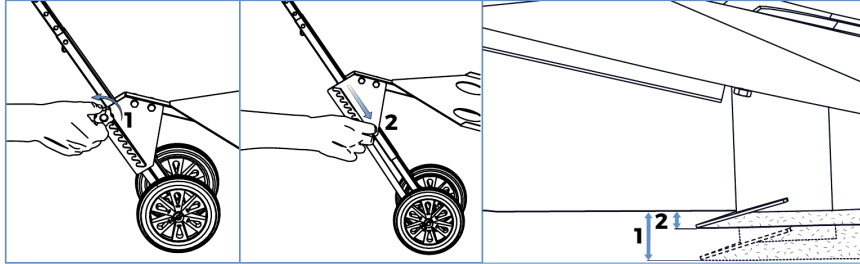
Transplant



- 1 Set a tray of seedlings in the transplanter. Slide the metal ramp under the front edge of the chain, all the way into the tray, with its two tabs pointing down and toward the front. The chain will feed up and over the edge of the tray.
- 2 Set the transplanter at the start of your first row with the handle pointing down the bed and the furrow opener at the front edge of the bed.
- 3 Pull the transplanter forward until the whole tool is in the row, so the opener digs the start of the furrow.
- 4 By hand, clear a furrow at the tail of the transplanter, from the chute exit to the sweeps.
- 5 Pull the loose end of the chain down through the body and into the furrow, stopping before the sweeps. Pin the first cell with a landscape staple.
- 6 Pull the transplanter by the handle while walking in the aisle. Watch the front to stay on your row line and the back to make sure the chain feeds smoothly and is buried at the right depth. Walking forward along the left side of the bed is faster than walking backward over the bed.
- 7 At the end of the bed, keep pulling until the opener reaches the end. Lift the handle slightly as you pull to lay the last of the chain in the furrow.
- 8 When the last cell reaches the end of the bed, tear the chain by hand.
- 9 With one hand on the carry handle and the other on the handle post, lift and turn the transplanter for the next row.

FINE-TUNING

Adjust the transplanter



Left: front knob position 1 (deepest) and 2 (shallowest). Right: sweeps set closer together or farther apart.

TO CHANGE

WHAT TO DO

Handle height

Pull the cotter pin and straight pin, choose one of the 10 holes, and pin it again. Waist height is the most comfortable for most people.

Planting depth, on the go

Lift the handle slightly as you pull to lower the rear and plant deeper. Push down to raise the rear and plant shallower.

Planting depth, set

Use the front wheel knob. Position 1 makes the deepest furrow and position 2 the shallowest.

Soil covering the transplants

Loosen the sweep bolts (10 mm) and move the sweeps closer together to pull in more soil, or farther apart for less. You can also bend the sweeps by hand. In very fluffy soil, the sweeps can be removed.

Firming the soil

The rear wheels tamp soil around the transplants. In heavy clay or rocky soil, flip them to the up position.

TROUBLESHOOTING

Chain tearing or bunching? The tray probably wasn't wet enough; soak it longer before planting. Chain riding high or uncovered? Plant deeper or close the sweeps. Chain jamming? Clear debris and check that seedlings aren't overgrown.

HELP AND RESOURCES

Crop guides, tech sheets and the Kwik Klik Slide instructions are free at paperpot.co. Questions: hello@moderngrower.co. Parts and supplies: shop.moderngrower.co.