

Guidelines for using screens to clean seeds

Use screens to separate seeds from chaff. Screening generally complements threshing & winnowing, but these methods/ steps can also be effective separately. For brief crop-specific seed-saving instructions, see our Guide to Saving Seeds for Home Use pdf, listed on the Growing Guides page of our website.

- 1. Thresh:** If the seed you've harvested is encased in pods, or attached to stalks, allow it to dry thoroughly. Then, thresh to separate the seed from its stalks and/or pods. Depending on your scale, your crop, & your social situation, threshing may be easiest to accomplish by putting the seeds in a pillowcase & alternately stomping on it & turning it over, or by repeatedly slinging/ flinging/ knocking the full end of the pillowcase against a firm surface, or by scattering the seedheads/ pods between 2 sheets on the floor of a hallway where you walk frequently, or by holding a dance on such a pair of sheets, or by opening the pods individually by hand, or by rubbing small pods between your hands, or by using a threshing machine.
- 2. Assess & Pour:** Look at the threshed seed lot, & ask yourself:
 - *Is much of the chaff (material other than seed) notably larger than the seeds themselves?* In this case, you will pour the seeds over the smallest screen that will allow all the seeds themselves to pass through.
 - *Is much of the chaff notably smaller than the seeds themselves?* In this case, you will pour the seeds over the largest screen that does not allow many seeds themselves to pass through.
 - *Is much of the chaff notably lighter in weight than the seeds themselves?* In this case, you will pour the seeds in front of a fan such as a box fan. This is called winnowing. Use a sheet, tray, box, or tote in front of the fan to catch the seeds. You can use a second container to catch the heavier chaff & ensure that you don't discard too much good seed. If you're unsure what fan speed to use, start with a slow speed.
- 3. Shake:** Use a gentle horizontal motion to shake the frame, and/ or to spread the seeds out. If the screen becomes very crowded with seeds or chaff, pour the contents into a larger container, before adding more of the mixed seeds & chaff.
- 4. Repeat:** Alternate screening & winnowing until the seed is clean to your satisfaction.

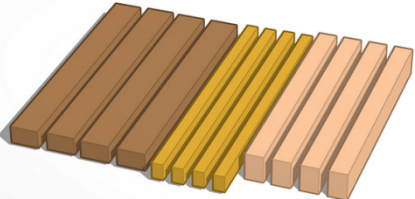
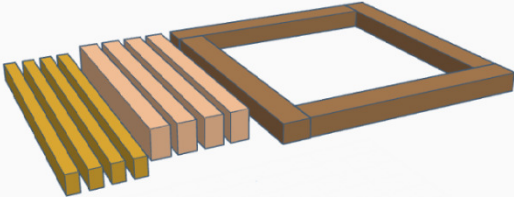
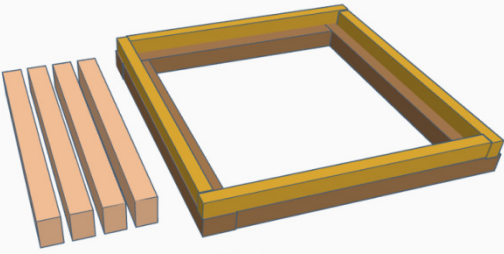
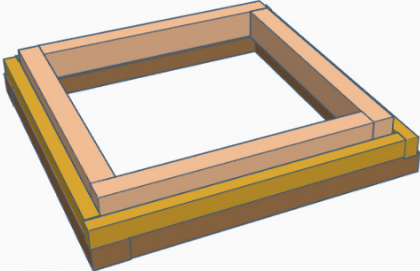
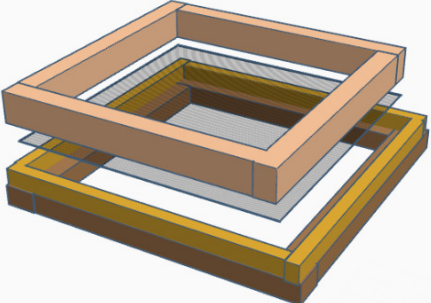
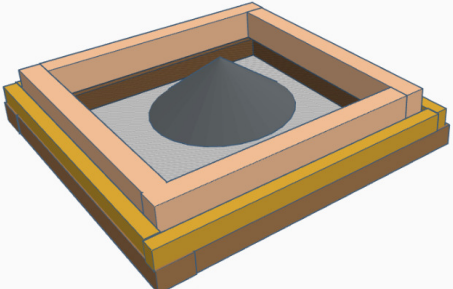
Frames: Various seed-cleaning screens on the market are sold already attached to wooden frames; you could build individual wooden frames for each of these screens. The model of frame we sell has an outer piece, or two, that any of these screens nests in, and an insert that holds the screens in place. For instructions on building a similar frame with simple tools, see reverse. Screens may also be used without frames, however: **a)** To avoid small cuts, use rubber or leather gloves when handling unframed screens. **b)** Frames may make seed cleaning quicker and easier, especially with large lots of seed. **c)** Unframed screens may be more likely to fray or bend. If you notice fraying, you may trim wires with tinsnips. You may also apply tape (duct, electrical, or packing) around the edges of the smaller-mesh screens to prevent fraying. To avoid bending very fine screens, we also recommend framing them with the much firmer 2-mesh screen beneath them. Rest the fine-mesh screen on top of the wide-mesh screen, then put the frame insert over them.

Stacking: If you have 2 frames, or a 3-piece frame, you can stack two screens. Place a frame with a screen that the seeds can pass through above a frame with a screen that the seeds cannot pass through. You can then pour the seeds on the upper screen & shake both together, leaving the seeds on the lower screen.

Cut-off points: Heavier-weight seeds and larger, denser seeds are generally better developed than lighter-weight, smaller seeds from the same crop/ variety/ harvest. Light seed weight may also be caused by insect damage. It is generally best to discard the smallest & lightest-weight seeds from the lot, & keep the largest, heaviest, and densest.

How to build a simple frame for your seed-cleaning screens

These instructions are intended for beginning woodworkers & those with minimal tools. Experienced woodworkers with extensive woodshops may wish to make mitered, routed frames.

	<p>Cut wood for the frame. Pine is suitable & easy to find. You can use "1x2s" (which are actually about 13/16 x 1 5/16 inch). Cut 4 pieces each 11 1/4 inch long, & four pieces each 10 1/2 inches long. You'll also need 4 slimmer pieces, 1/2 inch wide by 1/2-1 inch tall, cut to 11 7/8 inch lengths.</p>
	<p>Glue the 4 largest pieces (the longer 1 x 2s) together to form a square, with a 2-inch side of each piece resting on your work surface. To keep the pieces square, use a carpenter's square, a rig, or another form of nest with a 90-degree corner. Nail each corner together with 2 finishing nails.</p>
	<p>Glue the 4 thin pieces to the top of the first square, forming a second square with a slightly larger interior. A 1-inch side of each piece should rest on top of the outer portion of the first square. Check that each screen fits inside this portion of the frame. Adjust if necessary. Nail each corner of the second, outer square together with a finishing nail or two. Near the middle of each side, use an additional finishing nail to firmly attach the second square to the first one.</p>
	<p>Place the last 4 pieces of wood inside the bottom portion of the frame. Glue these last 4 pieces to each other but not to the rest of the frame. You may wish to insert thin a folded notecard or two along each edge, between the second & third squares, so that the third square will neither be too tight nor too irregular. When the glue has dried, remove the last (top) square. Nail each corner of the last square together with 2 finishing nails. You may wish to oil, varnish or paint the frame.</p>
	<p>Place your screen of choice in the bottom section of the frame. Place the top square above it.</p>
	<p>See reverse for instructions for using framed screens to clean seeds.</p>