Horizontal Hive

*You can keep bees, naturally!*

# LAYENS
# Heavy-Duty Swarm Trap / Nuc Box

Thank you for supporting us and buying our heavy-duty swarm trap.

We *love* this deluxe bait hive and hope you'll enjoy it for many years to come!

**WE PREPARED THESE INSTRUCTIONS TO HELP YOU SUCCEED.**

**Premium features**

- Solid-wood construction – strong, dense pine.
- Strong corner joints covered with metal angles.
- Heavy-gauge metal cover – wraps around the lid for maximum life.
- Patented heavy-duty hinges & hooks for secure closure.
- Perforated metal vents in top and bottom for optimum ventilation.
- Slot entrance with metal gate.
- 6 Layens frames, assembled and wired (tension wire with pliers before use).
- Frames have straight (not tapered) end bars and 3/8” less height for aided ventilation and bee traffic – see p. 8. Plastic clips for correct comb spacing.
- Dipped in paraffin wax (no paint necessary) – lifelong superior protection.
- Lid material: 100% eucalyptus hardboard with natural resins (no glues).
- Versatile: swarm trap, a starter hive ("nuc"), a frame-holding box, etc. – see p. 8.
- Made in Europe – old-world craftsmanship, attention to detail, and great value!

Size: 16-3/4” L x 13” W x 20” H.  Weight: 25.5 lb

**Each SWARM TRAP includes**

- Hive Box with Hinged Cover
- Frames (6 Layens Deeps)
- Wooden slat and wedge
- Instructions (these sheets)

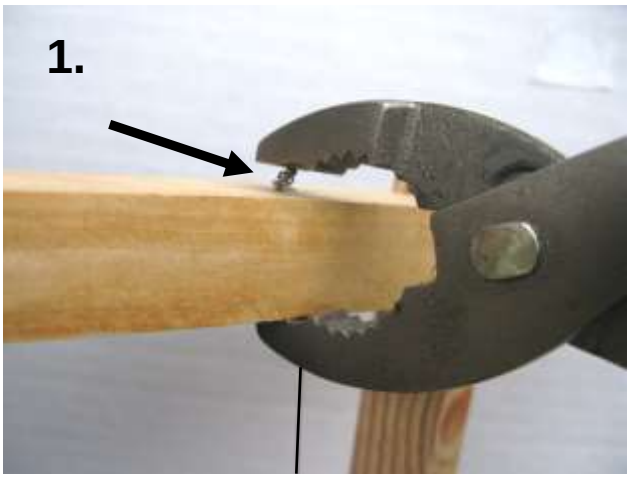
**Full Heavy-Duty Swarm Trap KIT additionally includes**

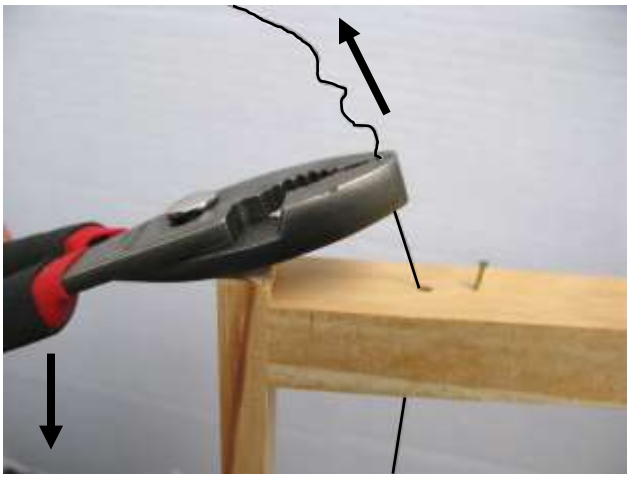
- Wax Foundation (6 wax sheets) for priming the frames
- Propolis (bee resin), 1/2 oz – for scenting the box
- Swarm Lure & slow-release tubes – for scenting the box
- Ratchet Strap (10 ft or longer) – for attaching the box to the tree
- Wire With Loop and Big Screw – for hanging the trap on the tree

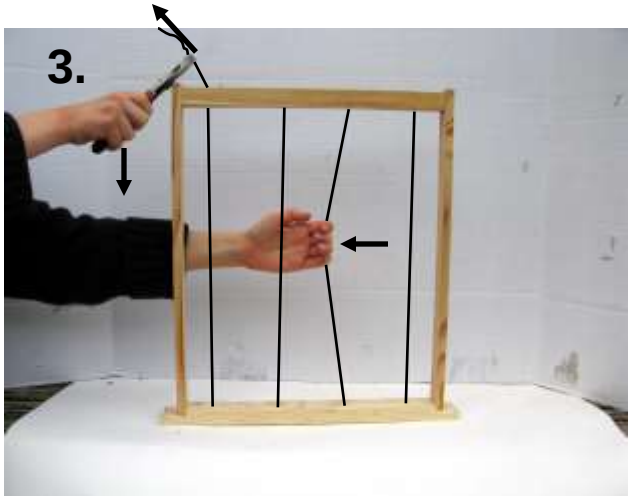
**TENSION WIRE WITH PLIERS**
Slip-joint pliers and several minutes of your time is all you need to tension the wire.

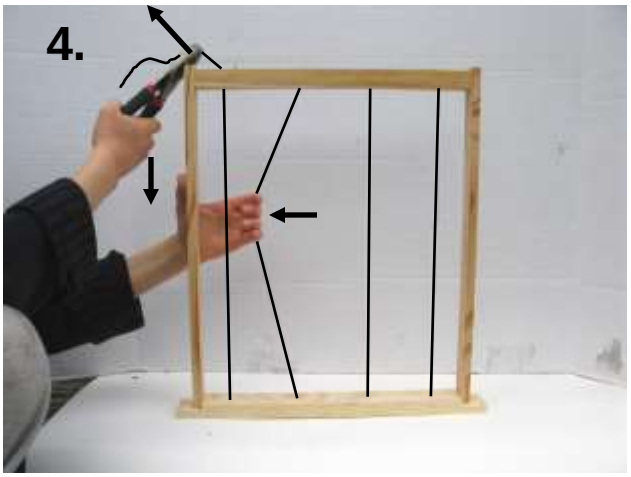
1) Wrap the wire around one anchoring nail. Using pliers, push the nail deeper, then push all the way in *or* bend it. This end of the wire is now firmly anchored.
2) Grab the other end of the wire with pliers as shown (wire runs *between* the jaws, never over the tip of the jaw or it may break). Use the end of the side bar as fulcrum: as you pull pliers' handle down, you raise the wire, tensioning it.
3) Holding the end of the wire with pliers with one hand, pull the 3rd segment of the wire toward you (3rd as you count from you). This pulls wire slack from the 4th segment into the 3rd.
4) Pull the 2nd segment of the wire toward you. This pulls wire slack from the 3rd segment into the 2nd.
5) Pull the slack out with the pliers, working as described in #2 above.
6) Repeat Steps #3, #4, #5 until all slack is removed and the wire starts sounding like guitar strings. Do not overtighten. Too much pressure may damage frame joints and rotate the bottom bar, or even break the wire.
7) Wrap the wire around the nail. Push in or bend with pliers. Grab the loose end of the wire, pull up and rotate like a tornado until it breaks at the base. Done!
8) Repeat with other frames.

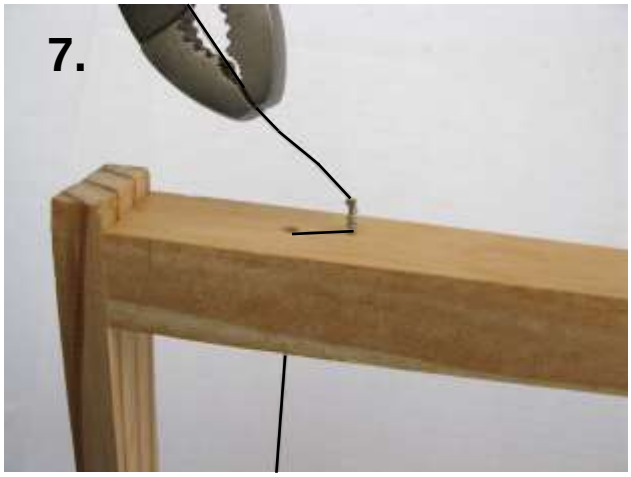
More stainless steel wire is available from **HorizontalHive.com**

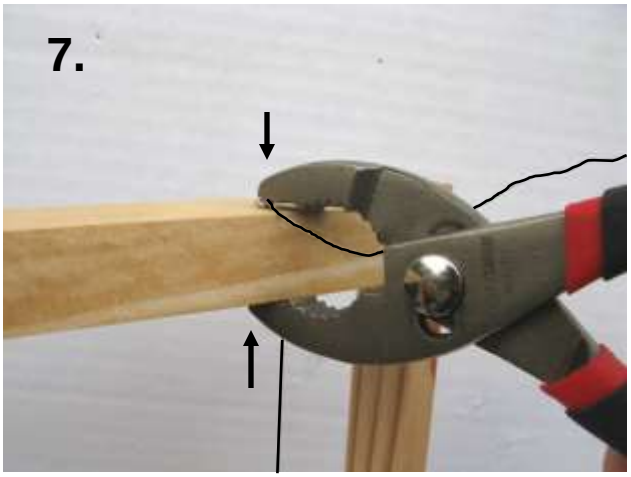


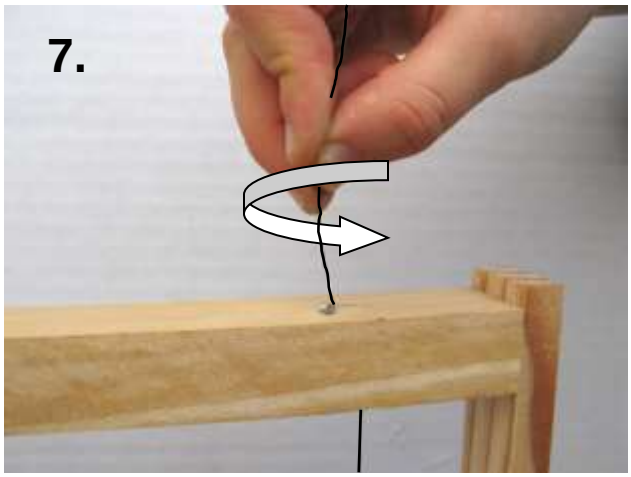






Zaryana, 9, can tension a frame in 60 seconds. So can you!

## INSTALLING WAX FOUNDATION into frames

Detailed illustrated guide is available at **HorizontalHive.com** in the FAQ section.

You'll need 12V to 20V DC current source, such as a car battery or, better still, an old laptop adapter around 130 W (for example, 19.5 Volt DC x 6.7 AMP).

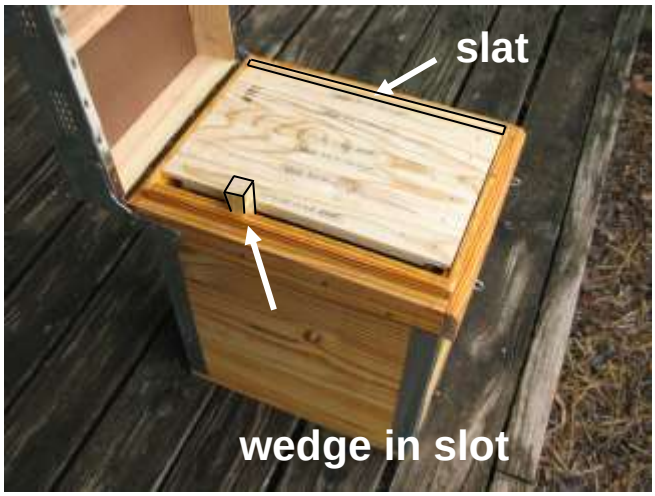
1) Position the frame flat on the table with the frame's top toward you and its bottom raised 4" or so (e.g., put a mug under the frame's bottom bar).
2) Put a sheet of wax foundation on the wires so it touches the top bar.
3) Run 12 to 20 Volt DC electric current (130 Watt) through the wires: for example, connect one pole of a car battery to one end of the frame-wire, and the other pole of the car battery to the wire's other end. The electric current will heat the wire and embed it into wax. As soon as you see wires embedding into the wax (looks like "stitches"), disconnect the power. Repeat with the remaining frames.

NOTE 1: If you want to run this hive as “foundationless”, you can install just a 3” strip of foundation in the top of the frame (or you can use 1/3 or 1/2 sheet per frame). If you don't use full sheets of wax, you *must* make sure the trap is level (or bees will build according to gravity and connect frames together). Unless you have good experience with foundationless frames, we recommend that you use full sheets of foundation.

NOTE 2: Installing wax foundation (or at least 3” strip of it) in the frame is absolutely essential, else the bees may build comb crosswise across several frames, making them impossible to remove/handle. Frames with full sheets of wax make for strongest comb.

## PREPARING THE SWARM TRAP FOR USE

1) Open the box and remove the frames. Tighten the wire and add foundation wax.
2) Warm propolis in your hand (or put the baggie on the dash board of a car parked in the sun, for 10 minutes; or in 220°F oven for 5 minutes; or put on a drywall knife over candle flame); rub / smear on the inside of the walls and bottom. It will leave brown streaks and smell good!
3) Half-fill *two* slow-release tubes with swarm lure. Close the tubes, tie them upright to the lower part of the side bar of a frame that will be in front of the entrance.
4) IMPORTANT: Insert frames with foundation; position a slat before the first frame (slat goes narrow side down, protrudes above the frames); insert the wedge after the 6th frame, firmly into the slot. The slat and the wedge hold the frames tightly together so they don't rock when the box is moved.
5) Open the entrance.
6) *Optional.* Weigh the box and write the weight on a wall or under the lid – this way you can later tell the weight of the swarm you caught.



**WHEN to set it out?**

Late spring through early summer is the prime swarming season. But swarms do issue during the *whole* warm season when flowers are in bloom. For example, in New York State, the swarming season is from May to September, with most swarms caught from late May to early July. • In central Missouri, it's April to October, with most swarms arriving in May and June. The warmer your climate, the earlier your swarming season begins, and the longer it is. • In Florida, swarms fly starting February, in South Carolina and Texas – starting early March. To maximize your chances of success, set out your swarm traps early in the season (when plants start to bloom). And as long as you can see honeybees visiting flowers, you can catch a swarm! Early swarms are more valuable – they have more bees and have more time to prepare for the winter.

**WHERE to hang it?**

- 10-15 feet off the ground – the best height that bees prefer. It does *not* have to be in a tree. You can put it on the second-level deck of your house, on the roof of your garage, on a deer stand, etc. You significantly increase your chances when the box is elevated like that, compared to being closer to the ground.
- Highly visible – not hidden behind leaves and branches.
- Well shaded – to prevent overheating; full shade is great.
- Large, prominent trees that stand out – on the edge of the woods, along rural highways or power lines, in fencerows, in yards, etc.
- Position traps at least 1 mile from one another – to maximize your chances. Our long-term success rate is 50% (one trap out of two occupied each year). So for best results use twice as many traps as the number of swarms you want.
- Hang your trap within 1/4 mile (closer is better) of a permanent water source.
- Hang in areas attractive to the bees – where you see honey bees on flowers.
- Unless you hang the box on your own land, ask the owner's permission.
- "Saving Local Bees" – the swarm trap is designed to be highly visible to the bees, but it is also highly visible to humans! Writing a nice message on the box minimizes vandalism and theft. Paraffin wax is hard to write on, attach a little sign instead.

**HOW TO ATTACH IT to the tree?**

- Be safe when scaling the trees!
- *Option 1 (recommended)*: Run a piece of bailing/fencing wire (17 gauge) around the trap, under the rim that supports the top. Connect wire ends, twisting them together. Drive a big screw (or nail) into the tree and hang the box on it like a painting; then strap to the trunk using a ratchet strap.
- *Option 2:* Pick a tree with a large limb that you can put the trap on. Position the swarm trap on the limb and strap it to the trunk using a ratchet strap. Putting the ratchet strap loosely into place before raising the trap into the tree is helpful. Note: in rare instances putting a trap on a tree limb results in mice moving into the trap, instead of the bees!
- *Option 3:* Throw a long rope over a tree branch close to the trunk; tie one end around the trap. Pulling by the other end of the rope, raise it into the tree. Tie or let someone hold the rope while you climb the ladder and strap the trap to the trunk with a ratchet strap. Then remove the rope – the strap will hold the trap.

- NOTE: if you don't want to climb the ladder at all, you can leave the trap hanging against the tree on a strong rope or wire. Make sure the trap is reasonably plumb and the end of the rope is tied securely and not accessible to thieves or vandals.
- NOTE: if the tree is very thick, use a piece of strong rope as an extension of the straps.
- NOTE: with either option, make sure the strap doesn't cover the entrance!
- NOTE: set the trap as level as possible (left to right), so bees build straight comb. This is *critically* important if you don't use full sheets of foundation in the frames.
- Always tilt the trap slightly forward so rainwater does not run into the entrance.

**"I CAN SEE SOME BEES! Is this a swarm?"**

- Check your trap *at least* once every 2-3 weeks, preferably weekly.
- If you see bees visiting the box, it does *not* yet mean the swarm moved in. It can be scout bees (usually dozens, but sometimes hundreds of them) that discovered the box. After the scouts appear at the box, it usually takes 2-5 days for the swarm to move in. To tell if these are scouts or the actual swarm:
  A) If you see a large mass of bees covering the box or adjacent trunk like a beard, this is a swarm that has just arrived; they will move inside within an hour or so.
  B) Visit the box after dark – if there are bees inside (the entrance has bees in it; some bees walk from the box if you shine your flashlight at it; *you hear a loud hum* putting your ear against the box) – the swarm is in the box, as scout bees do not stay in the box overnight in large numbers.
  C) Bee movements: scouts move briskly, going in and out of the box many times, hovering around it in *jerky* movement (as if bumping their head against it), many leave and many new come, newcomers don't find the entrance straight away; scout numbers increase over time.
  D) If you see some bees arriving with pollen (small balls of yellow/white/gray/pink pollen on their hind legs), the swarm is surely in the box – scouts never carry pollen.
  E) Weigh the box – if it's much heavier than the empty box, the swarm is inside.
  F) Visit the trap 1 week after you first saw the bees in/around it. If you still see bees after a week, the swarm is probably in, but use #B above to make sure.

**MOVING THE TRAP with bees**

- Once the swarm is inside, in the evening after all bees returned from the field (in twilight after sun sets), close the entrance. (In *very* hot weather, move it in early morning before sunrise.) If there are some bees still on the front wall, take a gulp of water and spray them from your mouth (they'll think it's starting to rain and go inside); if this does not work or there's lots of them, use your smoker to drive them inside – when all bees are inside, close the entrance gate. Unstrap the trap and bring it to the ground. Use a rope flung over a branch to lower the trap to the ground if it's too heavy for you to safely carry in your arms down the ladder. Keep the trap as plumb as possible to prevent comb breakage.
- IMPORTANT:
  A) If the hive will be within 6 ft of the tree where the trap hung, just bring it down, set on some kind of stand, and open the entrance.

B) If the trap is more than 2-3 miles from where the permanent hive will be located, you can move and set it at the exact spot where the hive will be. Open the entrance immediately.
C) If the trap is from 10 ft to 2 miles from where the permanent hive will be located, first move it to a place that is *at least* 3 miles from the swarm-trap tree and *at least* 3 miles from the final hive location, open the entrance and leave it there for a week before bringing it home. (Otherwise the bees flying from it would be returning to the place where it hung, and getting lost.) Once the swarm trap is at your place (bring after dark), position it where the permanent hive will be and open the entrance immediately.

- For best results put a new empty trap as you take down the one with the swarm. We repeatedly catch swarms on the same trees the same year!
- VERY IMPORTANT: When transporting the trap (or any hive) by car, frames must be parallel to the direction of movement, to avoid comb breakage.
- IMPORTANT: On bumpy roads, put the trap on a cushion to absorb shocks.
- If bees can't forage (several days of rain or cold weather) give them a frame of honey from another hive, or feed 1:1 sugar syrup in a Layens frame feeder, available from **HorizontalHive.com** See online FAQ for details on feeding.

**TRANSFERRING THE BEES from the trap into the permanent hive**

- Transfer the frames with the bees into the bigger hive the next day or as soon as your new hive is ready (order your Layens hive from **HorizontalHive.com** or use our free hive plans to build one). Don't delay. Depending on the swarm size and nectar availability, the bees may run out of room if left inside the trap for more than 2-3 weeks from the moment they moved in. If they run out of room, they may go under the lid and build honeycomb there, and they can build queen cells and swarm again within 3-4 weeks of moving in. Give them a bigger hive asap!
- While the swarm is in the trap, protect it from direct sunlight in hot weather – so it does not overheat.
- Best time to transfer is in the afternoon (4-5 pm) on a warm sunny day. Open the bigger permanent hive; open the 6-frame swarm trap. Remove the frames from the trap and put them into the hive in the same order. If bees built all frames 2/3 down, add 2-3 new frames plus divider. Close the hive. Dump the bees remaining in the trap on a piece of plywood positioned at a gentle incline against the hive entrance. If the bees are reluctant to enter, use some smoke to drive them inside (this is usually not necessary and they enter on their own accord).
- NOTE: To remove a frame, pry it apart, then lift it. If you feel strong resistance, don't force it – attach a piece of board to all 6 top bars with screws and lift them up as one block, then lower into the hive and remove the board. If frames are cross-combed, lifting them together will prevent breakage and you'll fix the cross-combing later when there's no brood on these frames.
- NOTE: for swarms arriving late in the season (in the fall), the 6-frame hive will provide sufficient room for the first season and you can use it for overwintering this young colony. Feed (give honey from other hives or syrup in a feeder). If you choose to overwinter your bees in the 6-frame box in cold climates, provide additional insulation on the outside and close the bottom ventilation.
- See additional details in Fedor Lazutin's *Keeping Bees With a Smile* (2020 Edition) and in Layens's *Keeping Bees in Horizontal Hives*.

**END OF SEASON**

- After the first frost, remove swarm traps from trees and store in a dry place until spring, with the entrance closed to prevent mouse entry.
- NOTE that many swarm traps that have not been occupied with bees may have ants or other occupants inside them. Clean them a certain distance from the house before storing. Foundation – if not warped or cracked – can be reused.

**OTHER USES for this 6-frame Heavy-Duty Layens Swarm Trap**

- Stand-alone hive. This hive is big enough to serve as a self-sufficient hive. The bees will do well in there. But the box is *not* big enough to hold a surplus honey harvest for *you* the beekeeper. You can keep bees in this hive if your primary interest is to help the bees and pollinate flowers or crops, rather than produce honey. If you keep bees in this hive in hot climates, put it in full shade. In cold climates, insulate the box for the winter and close bottom vents.
- Starter colony / split / nuc. If you make splits, you can use the box to hold the nucleus colony during the first season and overwinter them in it.
- Mating nuc. Divide the box in half with a piece of plywood to turn it into two 3-frame mating nucs. See details in *Raising Honeybee Queens* by Gilles Fert.
- Frame box. As you harvest honey from the bigger hives, put frames into this box and close the lid to prevent robbing. (Make sure the entrance is fully closed too.)

**Care for the swarm trap – what if I want to paint it?**

Your Heavy-Duty Swarm Trap arrives dipped in paraffin wax, which is a life-long protection that does not require renewing or painting prior to use. If you ever need to paint your swarm trap (not recommended) you'd have to use degreaser to remove wax from the surface, then prime and paint with two coats of exterior acrylic house paint.

**Gap after the last frame is good**

The box is wider than the 6 frames in it. This in intentional. The gap after the last frame allows for ventilation and makes it easier to remove the last frame.

**Straight end bars – wedge frames tightly together**

Layens frames come in two designs: with end bars that are straight (like in this swarm trap – 1" wide) and end bars that are tapered (1-1/2" wide at the top, and 1" wide at the bottom). The straight bars are the original classic Layens design making ventilation and bee traffic easier; bees don't propolize the top of these frames as much, and you don't crush bees when sliding frames together. However, it is important to use the provided wedge to keep the frames tightly together if you move the box. If the box is moved without the wedge, the frames swing, crushing bees and endangering the colony. Also, do use the provided wood slat before the first frame for the correct spacing between the wall of the trap an that frame. See the picture on p. 4 for the placement of the slat & the wedge.

**If you don't catch any bees** the first year, don't get discouraged. Hang more swarm traps the following spring, and follow all advice on p. 5 – it works!

Bait hives (swarm traps) are much fun. And *this* is the best-value Layens swarm trap ever. Wishing you good luck catching swarms, and a wonderful beekeeping season!

— Dr. Leo Sharashkin, HorizontalHive.com