

How to Make a Light Trap

The multicolored Asian lady beetle, *Harmonia axyridis*, was introduced into the US to serve as a biological control agent for arboreal insect pests and has now become well established in many parts of the US, including Ohio. Although *H. axyridis* has proven to be highly effective at controlling aphids and other soft-bodied insect pests in many agricultural systems it has also become recognized as a serious nuisance pest due to its habit of aggregating in very large numbers on and in houses and building while searching for viable overwintering sites.

In order to help homeowners control the beetle problems, once the beetle has entered the house, the IPM program has designed a simple light trap made of materials that can be found around the house and at the local hardware store. This trap has proven to be 70% effective at catching MALB.

Materials and Tools:

- 2- One gallon jugs (Milk jugs)
- 8- Twist ties
- 1- Clamp light
- 1- 60 watt light bulb
- 2- Transparencies (from office supply store, normally used for overhead projector)
- Black spray paint
- Scotch tape
- Talc powder
- Hole punch
- Scissors
- Knife
- Nail
- Hammer

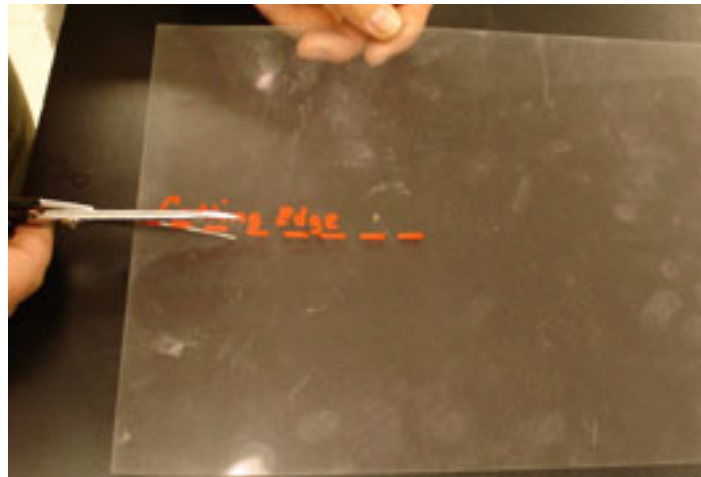
Step # 1- Clamp Light

- Take the clamp light and place the edge of the light shade flat on a block of wood, use a hammer and nail to puncture 4 holes evenly spaced around the perimeter of the light shade. (these holes will be use to connect the clamp light to the transparencies later)

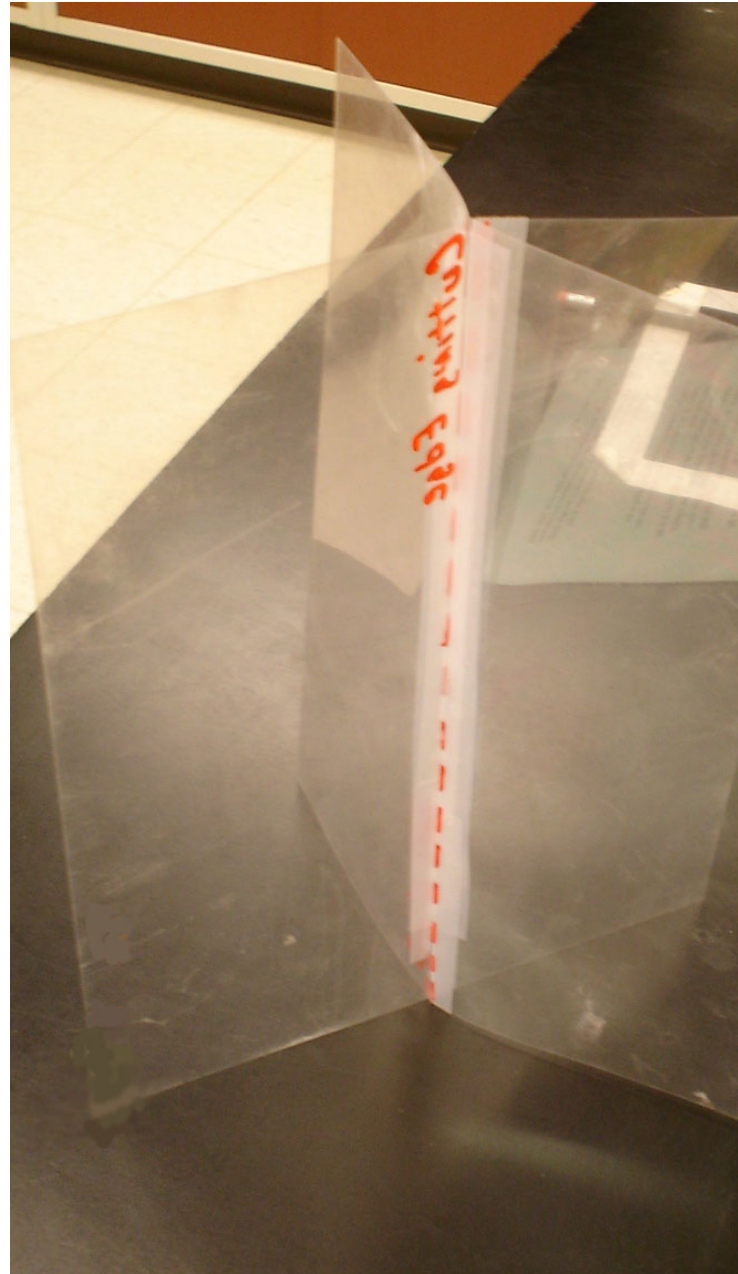


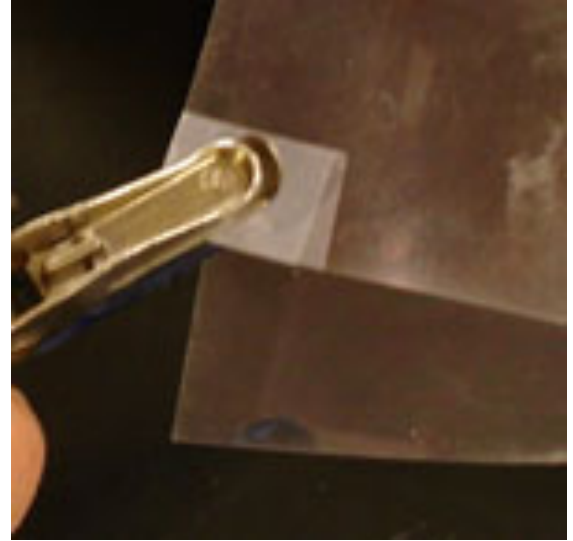
Step #2 – Making Vanes (Transparences)

- Cut the 2 transparences starting in the middle of the top or bottom and cut a straight line into the center of the sheets.
- Flip one of the sheets 360° so that the cut (slice) is at the opposite end from the other transparency. Slide the two sheets together making an "X"
- Take scotch tape and tape the center seams together to prevent the sheet from sliding apart, and to help keep the vanes separated and sturdy.
- Take a small piece of tape and put on each corner on both sides of the transparences. (this prevents the holes from ripping out.)



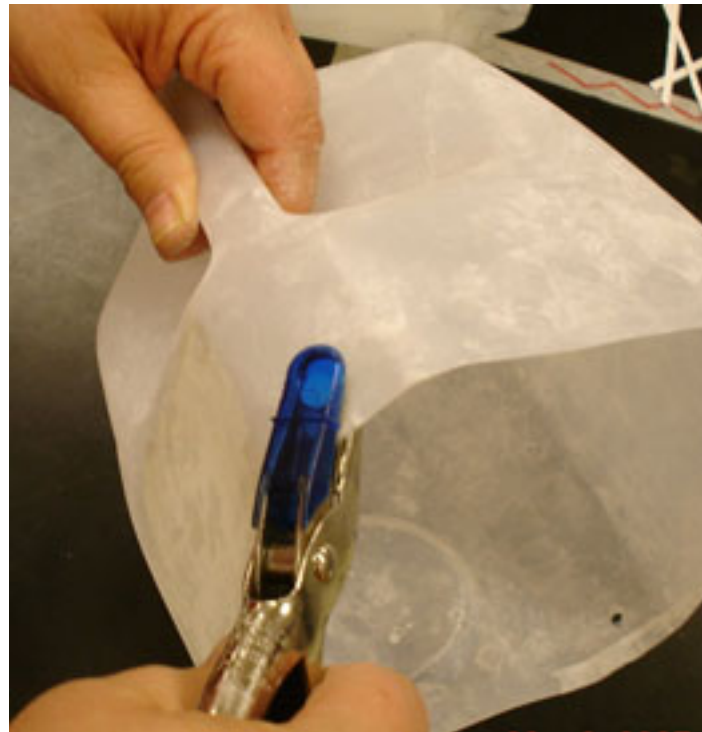
- Take the hole punch and punch a hole in each corner of the transparencies and tape. (the holes will be used to connect the clamp light to the top and the funnel to the bottom of the transparencies.)





Step # 3 – Making the funnel and collection container (gallon jugs)

- Take one of the gallon jugs and cut the bottom third off, then using the hole punch, punch 4 holes around the cut edge evenly spaced apart.
- Take a knife and cut out the center of each of the lids and tape them together back to back so that you can still screw the lids onto the gallon jugs. (Hint; it's easier to cut the lids before you tape them together, we also put hot glue between the lids for added strength.)
- Next you will need to paint all the parts to the funnel and the collection container with black spray paint.(both gallon jugs and lids)





Step # 4 – Assembling Light Trap

- Connect the clamp light to the transparencies by putting a twist tie thru the hole in the clamp light shade and then thru the hole in the transparency. Repeat this for all four holes.
- Using the other four twist ties, connect the gallon jug that is now your funnel to the bottom of the transparency.
- Take the lids that are taped together and painted and screw onto the funnel that is now connected to the transparencies.
- Using the second jug as your collection container screw it onto the opposite end of the funnel so that it hangs down.



Using the Light Trap

- In order for the trap to be effective the trap should be placed in the room where you want to collect beetles. (this trap will not effectively attract beetles from other rooms.)
- **IMPORTANT** - Make sure that you turn off all other lights in the room and (if possible) close doors and window shades so that no other light is in the room. Use a 60 watt light bulb in the light trap.
- **IMPORTANT**- sprinkle talc powder on the vanes of the light trap and inside the funnel. This prevents the beetles from being able to "grab" onto the vanes and flying away.

