# Simple Hop Oast Construction

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Constructing a durable oast is essential to hop cone drying. This fact sheet will outline the basics of a simple oast construction.

### **Supplies Needed:**

- Lumber 1" x 4" x 8'
- Lumber 1" x 6" x 8'
- Nails if using air nail gun
- Staples
- Screws
- Plastic 1/4" mesh or 1/4" hardware cloth
- Glue
- Paint
- Box fan

## **Oast Material Selection**

When selecting construction materials for the oast, one needs to take into consideration the food safety regulations in the state for hops processing. In this section we will discuss the two different building materials that can be used in oast construction to meet food safety regulations at this time (January 2015). There are two types of material that can be used to construct an oast. You can choose pvc lumber or standard pine lumber. The pvc lumber cost is higher than standard pine, however with the pvc you will not have to paint after it is constructed. The pvc lumber also makes for easy wash down. To meet the current food safety regulations, the oast must be washable. When choosing the bottoms for the drying trays, use standard hardware cloth or a plastic mesh product.

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## **Equipment Needed:**

- Cordless drill
- Saw
- Nail Gun (optional)



## **Base Construction**

The base is constructed using a 1"x6"x8' piece of pine or pvc lumber. The box fan used in this example was a standard 20" box fan. Build a 24"x24" square frame to house the box fan. Next, make a set of legs for the oast. This is done by lengthwise ripping a piece of 1"x4" into two 1 3/4" wide strips. Glue and secure two strips to one another using air nail gun or screws. Cut four legs each 16" long. Leaving 1 1/2" of space to the top of the frame, secure the four legs to the base frame with screws. Using more of the ripped 1 3/4" strips, cut and secure to the

bottom of the base across the middle to support the box fan.











## **Drying Tray Construction**

Constructing the drying trays for the oast is similar to the construction of the base. Cut a 1"x4"x8' piece of pine or pvc lumber so that you can build a 24"x 24" square frame. Build four of these frames for the drying oast. Once all four trays are constructed, use some of the previously ripped 1 3/4" pieces and cut 16 pieces, each 3 1/2" long. Then, attach a 3 1/2" piece to all four corners of the tray. Be sure to leave a 1 1/2" space between the top of the tray and the top of the piece you are attaching, so that 1 1/2" of the corner piece will extend beyond the bottom of the tray. These pieces will help hold the tray in place when stacked on top of the oast base.

Once all four trays are completed, put the mesh bottoms in the trays. 1/4" plastic mesh is preferred. Cut a piece of the mesh or hardware cloth to fit the bottom of the tray. Cut sections out to fit around the feet on all four corners. Use staples to secure the plastic mesh or hardware cloth to the bottom of each drying tray.



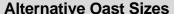














If another size fan is available, oasts can be built to accommodate the fan. At left, a squirrel cage blower fan from a furnace is used for the air source. On the right is an oast using a standard box fan.



These programs are made possible through a grant from the Ohio Department of Agriculture, the State of Ohio, and the United States Department of Agriculture under the provisions of the Specialty Crop Block Grant.

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