



## WELCOMES YOU TO SUGARING WITH THE *SEEDLING* and *SAPLING EVAPORATOR PANS*

The Vermont Evaporator Company's *Seedling* and *Sapling Evaporator Pans* are designed for the backyard sugaring enthusiast who is willing to construct their own firebox!

Our pans are made of 18-gauge, food-grade stainless steel with lead-free welds and come with stainless steel pour-off valves. Although our pans are simply designed, they still have some advanced features. Our pans are continuous-flow evaporator pans, meaning that sap is channeled around the pan using dividers that help you create a sugar gradient. This configuration allows syrup to be drawn off and sap to be added without emptying the pan. The continuous flow is more efficient than other DIY methods, which means more syrup on more pancakes in less time!

We hope you get many years of enjoyment from your pan. Here's how to start!

### **Setting up your Pan**

Before you start, be smart! We're talking about flame, hot metal and boiling syrup here, so:

- **DO NOT** operate while intoxicated or under the influence of alcohol or drugs.
- **DO NOT** heat your pan unless it has sap or other fluid in it. You can quickly destroy your pan by doing so.

### Assembling Your Pan:

Remove all parts from inside your box. Inside your box, you will have:

- one (1) evaporating pan with one (1) threaded exit;

- one (1) ball valve;
  - a smidge of pipe tape;
  - and, one (1) thermometer port plug.
2. Remove the protective stickers from the outside of your pan. If any sticky residue remains, you can remove with Goo Gone or similar product and a SOFT CLOTH (never use abrasives on your stainless).
  3. If applicable, snip off a bit of the pipe tape and fold lengthwise until small enough to use on the thermometer port plug. Starting one thread back from the end, wrap a bit of pipe tape around the thermometer port plug. Screw the plug into the thermometer port.
  4. Starting one thread back from the end, wrap a bit of pipe tape around the exit on the evaporating pan. Screw the valve onto the exit.

### Preparing Your Pan for Use:

You will need:

- a two- or four-foot level
  - water (non-chlorinated, if you have it)
  - baking soda
1. Level your firebox front to back and side to side.
  2. Place your pan on your firebox. Confirm that your pan is level front to back and side to side.
  3. Before you boil your first sap, you'll want to remove any residual materials from your pan. Here's how you do that:

Prepare a solution of 3 gallons (for the *Seedling*), or 5 gallons (for the *Sapling*) of water combined with 1 tablespoon of baking soda. Pour the solution into the pan.

Over your firebox, boil the solution for approximately 30 minutes, making sure the solution in the pan remains at the 2-inch level by adding more solution, as needed.

Check to see that there are no leaks at the fittings in the pan.

Check to see that the pan is boiling evenly.

Open the valve – ensure your valve works properly.

Allow the unit to cool and then drain the pan.

Rinse the pan thoroughly with clean water.

## Operating Your Pan!

**CAUTION: NEVER, EVER, EVER** heat your pan without liquid in it. Otherwise, the operation of the pan is relatively simple! Basically, you add sap at one location and it travels around the pan, becoming denser as it evaporates, until it gets to the valve. Here we go:

1. Place your pan on your firebox. Add 2 inches of sap to the pan. This will amount to just over 3 gallons of sap for the *Seedling Pan* and around 5 gallons in the *Sapling Pan*.
2. Get the sap boiling.
3. Gradually add more sap at the corner of the pan farthest away from the pour-off valve. Continue to add sap at this location gradually as needed to keep the level at about 2 inches. Do this for several hours.
4. There are several ways to tell if your syrup is “done.” The most sophisticated is to use an instrument called a refractometer or hydrometer (see our *Refractometers* and *Hydrometer Kits*) to measure sugar content. Another is to measure temperature. Syrup boils at about 7 degrees F above the boiling point of water (so, approximately 219 degrees F). Therefore, when the temperature of the liquid close to the exit valve measures 219 degrees F, you can draw off syrup (it will take several hours before your first draw off). The syrup should have an amber color and have the consistency of . . . syrup. The *Sapling Pan Thermometer* makes it very easy to tell what the temperature is of the liquid close to the exit valve of your pan on the *Sapling Pan*. A special thermometer like our *Maple Syrup Finishing Thermometer* makes it very easy to measure the correct temperatures for maple syrup (as well as maple cream, candy and sugar) if you are finishing your syrup inside.
5. Get a clean container and place it under the valve exit.
6. Open the valve and watch your exit temperature. If your exit temperature is 219 or so, as you are drawing off, when the exit temperature drops, stop the draw off.
7. If possible, simultaneously add fresh sap at the introduction location. If not possible, add some before you draw off and some more after.
8. As you get comfortable sugaring, you may choose to draw off a bit early into another pot or pan and “finish” on the kitchen stove inside, on a propane burner nearby, or the like, where it may be easier to control and monitor the temperature and progress of your boil. This is especially true if your firebox is powered with wood.
9. If using propane or natural gas as a heat source, at the end of your boiling day, turn off your burners. You can then either drain your pan and finish your syrup, as described above, or use the partially done batch the next time you boil for a faster startup. Whatever you do, don’t leave your boil outside uncovered or you may lose it to the critters! You may be interested in purchasing a *Sapling Pan Lid* or *Seedling Pan Lid* to protect your boil over night.

10. If using wood, at the end of your boiling day, let your fire die down a bit and flood and cover your pan, taking care to ensure that it doesn't dry up while your fire is still warm. You may be interested in purchasing a *Sapling Pan Lid* or *Seedling Pan Lid* to protect your boil over night. Alternately, you may drain off most of your partially done liquid to finish elsewhere and, **EVER SO CAREFULLY AND WITH ADEQUATE HAND PROTECTION**, take your pan off the firebox and place on another fireproof surface away from the fire. Drain off the rest of the pan and leave the pan to cool.
  
11. If you have purchased a *Sapling Evaporator Pan* and are enjoying it, but would like to upgrade to a tighter, tidier, multi-functional wood firebox, you may be interested in purchasing the *Sapling Fire Box*. If you have purchased a *Seedling Evaporator Pan* and would like to build yourself a barrel firebox, check out our *DIY Seedling Evaporator Kits*!

#### Some Tips:

Don't add too much new sap at one time, and try to maintain a constant boil. This will result in a more efficient process.

#### **Maintaining your Pan**

Your pan will likely have some deposits/scaling after use. To clean your pan, put a baking soda and water solution in the pan until the coating to be removed is covered with water (see the recipe above). Simmer the solution for a minimum of one hour and ideally until you see the deposits dissolve. Leave the pan overnight. Brush off the loose scale with a soft material (do not scour) and rinse the pan. If deposits remain, you may want to repeat the process or purchase and use our *Pan Cleaner*. Store your pan in an indoor location.