



WELCOMES YOU TO SUGARING WITH YOUR NEW *Beginners Tubing Kit for 25 Taps*

The *Beginners Tubing Kit for 25 Taps* you've just received is specially designed for extracting sap to make syrup.

Your Kit Includes:

- 500 feet of 3/16" lateral tubing
- 25 plastic 5/16" taps for tubing
- 25, 3/16" drop lines
- 25 T-Plugs
- 5 End of Line Hooks
- 10 Unions
- 1 Bring Together Hook
- Basic, easy-to-follow directions for the tubing newbie!

Taps, sap lines and sap line fittings come in a few sizes. Antique taps are 7/16" and modern tap sizes can be 7/16", 5/16" or 3/16". Sap lines and fittings are typically 5/16" or 3/16". Your new taps are 5/16" for a 3/16" line. In other words, they carry sap from a 5/16" hole in the tree to line with a diameter of 3/16". The smaller line size helps create a bit of suction, keeping the wound in the tree open and extracting as much sap as possible for you.

How to Run Lines

Running lines for a maple hobby is more art than science. Here are the basics.

The first step is to string lateral tubing from maple tree to maple tree at a slight downward grade toward sap collection point(s). You use an End of Line Hook to secure the lateral tubing to itself around the tree(s) farthest away from your sap collection point(s). We've included 5 End of Line Hooks in your kit so that you can have up to 5 separate lateral lines moving from tree to tree either toward the same or toward individual sap collection points.

Take a look at your sugarbush to determine how you'd like to run your lateral lines. If you have 25 maple trees

all in a line up hill from a convenient place to put a large collection vessel (a food-safe plastic 55-gallon barrel, for example) you may run only one lateral line from the furthest-out tree to the vessel. If your trees are all bunched up on a slope above a convenient collection point, you may use a hub-and-spoke approach, running up to 5 lateral lines from the furthest-to-reach trees to your collection vessel(s). If your trees are scattered about your property, you may choose to run up to 5 lateral lines emptying into five separate collection containers (we recommend our *Food-Grade, 5-Gallon Sap Storage Buckets with Lids*). You should plan on at least one gallon of storage per tap per day.

How to Run Lateral Tubing

You can run lateral tubing at any time of the year. You will need:

- a travel mug of hot water,
- 500 feet of 3/16" lateral tubing,
- your 5 End of Line Hooks,
- your 10 Unions, and
- some wire to create tension at your sap collection point, OR a hammer and nails (see below).

The mechanics are simple. Start with the tree furthest away from your sap collection point. Feed a piece of lateral line through the eye in an End of Line Hook and around the tree. Secure the line to the tree by inserting the pointy end of the End of Line Hook into the line. (This is easiest to do when the line is warm. That's where the mug of hot water comes in.)

When choosing how high up the tree to affix your line, remember that you will want your line to slope gently downward on its way to sap collection (gravity!) but be below your tap (gravity, again.)

Weave your lateral line on alternate sides of the other trees you will tap, keeping the line taught and at a decreasing angle. If you need to for stability, you can wrap the line around the tree.

It is important to keep the lateral line taut. There are several ways to do this. Here are two.

Use a Union

When you arrive at your sap collection point(s) (or, periodically, as needed) use a Union fitting to snug your lateral line to the tree. To do so, cut your lateral line and insert both fresh ends of the line onto the two ends of the Union. Nail the Union to the tree so that the lateral line is snug. If you are at your collection point, let your lateral line drop from the Union and cut it off so that it's long enough to fit into your collection container.

Running Wire

When you arrive at your sap collection point(s) (or, periodically, as needed) run some wire between two trees so that the wire runs perpendicular to the lateral line where the line needs some support. Cut the line at the support point and use a Union to connect the wire to your lateral line at that point.

When running wire, be sure to distribute the pressure of the wire on each tree by using a sturdy buffer such as a few pieces of wood, or a section of mainline or other flexible tubing. Otherwise, you may girdle (strangle) the tree.

How to Tap a Maple Tree for Tubing

Ready to tap? You will need:

- a travel mug of hot water
- a cordless drill with 5/16" bit (we recommend our *5/16" Tapping Bit*)
- a hammer (we recommend our *Tapping Hammer with Spile Remover*),
- your 25 plastic taps,
- your 25 droplines,
- your 25 T-Plugs,
- your Bring Together Hook, and
- a helper (optional).

Before you go outside, you will want to fit your taps into your drop lines. Just like when you were using your End of Line Hooks, it's easiest to do with bare hands and a bit of hot water to help the drop line expand. Simply warm up one end of each line in the water for a few seconds, and insert the shorter, less-tapered end of the tap into the drop line. Now you're ready to tap. Bring your travel mug with!

Proceed to your first tree. Choose a height that is both convenient for the driller and within 3 feet of your lateral line. Choose a spot that is easy to drill at that moment, but also think about the current depth of the snow. Any snow melt will put the collection container further away from you as the season progresses. Keep it within reach in case you need to service your tap and to pull taps in the spring.

Having settled on a height, inspect your tree. For best results, you should choose a place on the tree that is either below a big branch or above a big root, and not near a knot or wound in the tree. Cardinal direction doesn't matter too much—every year you should tap at least 6" away, horizontally, and 12" away, vertically, from the prior year's tap anyway—but a southern tap *will* flow before a northern one, so do think about how you'd like to time your season this year.

When you've chosen your spot, drill a hole of about one and one-half inch deep at a slight, upward angle and look for nice, light, creamy wood chips and sawdust coming out. If what you see is dark or dead, find another place on the tree to tap and try again.

When you have your hole, set your tap in the hole by gently tapping it with your hammer. Now it's time to connect your drop lines to your lateral lines. This is the part where you either need a helper or to learn to use your Bring Together Hook. You will connect your drop line to the lateral line by cutting the lateral line and inserting the three open ends of a T-Plug into the two severed ends of the lateral line and the bottom of the drop line. The challenge is in maintaining tension on the lateral line after making the cut without having three hands. If you have a helper, great! But you can also go solo by using the Bring Together Hook provided in your kit to keep the lateral line taught with one hand while cutting and inserting fittings with your other.

Now it's time to wait for the sap to run!