

# Food from the forest: tree sap

*Forager Mo Wilde explains how to tap trees for sap in the spring.*

There is a short period of two to three weeks between mid-March and mid-April when sap flows in birch trees (*Betula* sp.). Once the ground has thawed, the pressure on the roots, and air within the wood fibres, changes allowing the sap to rise up the trunks, preparing for the new greening. The effect is most marked in the mornings, but a steady flow will continue overnight as long as it does not freeze. Colourless with a neutral flavour, birch sap is a pleasant, refreshing, healthy drink. It is to the northern hemisphere as coconut water is to the tropics. With a subtle, earthy hint that reminds you it is not water, sap is full of nutrients: amino acids, sugars and salts. It also contains natural carbohydrates, organic acids, fruit acids, potassium, calcium, phosphorus, magnesium, manganese, zinc, sodium, iron and copper, B vitamins and vitamin C.

I mainly tap birch trees, but you can tap and drink sap from at least twenty species of tree in Europe. Walnut (*Juglans regia*) likes a freezing cold winter and spring, but some can be tapped from autumn right through until spring. Sycamore (*Acer pseudoplatanus*) and other trees in the maple (*Acer*) family are tapped from January to March—as long as nights are cold but the days crisp and sunny. In 1919, American agronomist and botanist Edward Sturtevant recorded, “In England, children suck the wings of the growing keys for the sake of obtaining the sweet exudation that is upon them. In the western Highlands and some parts of the Continent, the sap is fermented into wine, the trees being first tapped when just coming into leaf. From the sap, sugar may be made but not in remunerative quantities.” Sycamore sap boiled down into sugar crystals is a real treat!

I have noticed that climate change is affecting sap production. The tapping period is getting earlier as winters



Birch tree. Photo: Paul VanDerWerf on Wikimedia Commons.

are warmer. Twenty years ago, it was rare for me to tap before April. In the last five years, I have always tapped in March. American tappers have noticed maple sap yields in the southern states are dropping and their season is starting earlier too, often in December, and is shorter. Higher temperatures associated with climate change produce more phenolics, making the syrup darker and changing its flavour.

## How to tap birch

I tap birches in the early spring—usually late March or early April in central Scotland. The precise timing varies, so keep an eye out. When outside, snap a small birch twig. If a drop of sap forms at the break, the sap is flowing and the tree is ready. Only tap mature trees, with trunks of at least 25 cm diameter at chest height. A tree this size can produce about two to five litres of sap a day from a single tap. Choose the tallest tree in a group as these produce the strongest flow. You will need a tree tap with a mallet (or a short length

of flexible plastic tubing), a portable drill with an 8 mm wood bit and a container to collect the sap.

First drill a small hole into the trunk, at an upward angle, about 2.5 cm deep. When you remove the drill you should see sap starting to drip. Hammer the tree tap into the hole with the mallet, following the angle, so the sap flows down to a bucket—hung from the tap or secured to the trunk. If you use the tubing method, the drill bit must be the same diameter as the tubing to ensure a snug fit—8 to 10 mm is ample as the sap comes out drop by drop. Push the tube into the hole. It should be a snug fit with no sap leaking around the sides. Put the free end of the tube into an appropriate glass, stoneware or stainless steel containers (plastic can taint the sap). Only use one tap or tube per tree.

Once the tap is set up and the sap is flowing into your container, leave it to collect for 24 hours. You will need to swap containers over when

you return to continue collection. The sap can run for one or two weeks and you may collect 30 to 60 litres—a small fraction of the thousands of litres a tree produces. The flow will stop when the leaf buds open. You will notice a change in the sap, from crystal clear to milky, as bud burst approaches. The taste also changes, becoming slightly ‘cheesy’, the signal to stop and remove the tap.

There are various opinions on sealing the hole. Some advocate plugging it with a sterilised 8 mm dowel but there is the danger of trapping dirt and moulds in the trunk which could cause infection. An alternative is to plug the hole with moss which is antiseptic. However, sap will flow into an unplugged hole washing out any pathogenic microbes, then thicken and harden to form a natural plug. Do not tap the same tree every year, this may affect the lifespan of the tree. Birch trees have a relatively short lifespan—about 90 years (occasionally 150 years). An alternative method, to avoid

making holes in the tree, is to cut the end off a small 5 cm diameter branch. Tie or tape a bottle over the cut end and wait for the sap to fill it. This will not collect as much sap as a trunk tap but is less damaging to the tree.

### Birch sap

Birch sap can be drunk straight after collection. Just strain and keep it cool in the fridge. You can lightly pasteurise it if you want to keep it for longer. Fridge space is always an issue in my house! Birch sap is drunk as a tonic and a traditional beverage in Belarus, Ukraine, Russia, Lithuania, Latvia, Estonia, Finland, other parts of northern Europe and northern China. Traditionally, people drank eight to ten litres of birch sap annually as an effective ‘spring detox’—waking up a sluggish liver and flushing the kidneys. It is a living water renowned for its restorative and detoxifying properties.

Regular consumption of birch sap is reputed to have a fortifying and tonic action. In his 1905 book, *Meals*

*medicinal*, the herbalist William T. Fernie wrote, “A fermented liquor may be made from the sap of the birch tree in the springtime, this being collected throughout the mountains, and wooded districts of Germany, and Scandinavia. It is possessed of diuretic properties, and is antiscorbutic, being especially commended for modifying the symptoms of diabetes mellitus. As well as being drunk fresh, there is also a tradition of fermenting tree saps into wines and spirits.”

Birch sap syrup is produced by boiling the sap at a slow, steady simmer to evaporate off the water. I do this outside in my old wood-fired Soyer stove with its large cauldron. Once most has boiled off, I transfer it to an induction hob for the last part, so as not to scorch the syrup as it thickens. The process takes several hours as the water to sugar ratio is 100:1 so ten litres of sap only yields 100 ml of precious syrup. Use it like maple syrup on pancakes, fresh fruit or in savoury dishes. Birch syrup is less sweet than maple and has a mysterious, smoky, earthy flavour.

### Roast mushrooms with birch sap syrup

Serves six as a starter or to accompany a roast

#### Ingredients:

400g mushrooms (3 cm cubes or small buttons)  
2 tbsp olive oil  
2 tbsp birch sap syrup  
1 tbsp cider vinegar or lemon juice  
2 tbsp fresh thyme (chopped)

Put the liquid ingredients and thyme into a bowl and blend together. Add the mushrooms and stir so they are evenly coated. Pour both mushrooms and marinade into an oven-proof dish. Roast in a preheated oven at 200°C for 20 minutes, stirring halfway through. Remove from the oven and garnish with fresh chopped wild garlic leaves, ground elder or parsley.

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Collecting birch sap. Photo: R Adept on Wikimedia Commons.

