Jubilee Orchard

Horsetails

Equisetum hyemale

Horsetail, also called rough horsetail or scouring rush, is a non-flowering evergreen perennial. It has vertical green stems with horizontal bands, similar to bamboo, but the stems are skinny, like tall grass, and it reproduces through spores (not seed), like ferns. However, horsetail is not related to bamboo or grass or ferns. Its species dates back to Paleozoic times, some 350 million years ago. Horsetail grows in wet conditions and can even grow in standing water. For this reason, it is commonly used to decorate water gardens or swampy areas where few other plants can survive. It's also commonly grown as an accent along borders or in large patio pots, similarly to ornamental grasses.

Horsetail spreads via rhizomes and is such an aggressive spreader it would likely be considered invasive if it weren't native to the UK, most plants classified as invasive are not native.

Botanists point out that *Equisetum hyemale* has tiny leaves fused onto its stems. But the untrained eye notices only the attractive stems, which grow anywhere from 2 to 6 feet tall, depending on conditions. These stems are dark green at times (picking up some bronze colour in winter) and hollow. Tiny ridges run vertically along the stems and contain silica, giving them the rough feel that earns the plant the common name, rough horsetail.

Horsetails are known for their diverse chemistry. They contain high levels of silica, magnesium, potassium, multiple flavonoids, alkaloids (including traces of nicotine in some cases), saponins, and various other minerals.

This diverse chemistry makes horsetail an interesting medicinal plant. Historically, it was used as a remedy for myriad conditions, including anaemia, bleeding, depression, coughing, stomach ulcers, urinary problems, wound and bone healing, tuberculosis, and many more. The silicic acid in it is especially useful for encouraging calcium absorption. Horsetail is still used by some herbalists nowadays but only very carefully as it does contain some detrimental compounds.

Horsetails are also important to aquatic ecosystems. The submerged portions of the stems provide habitats for numerous small organisms, and the detritus from decaying plants provides a food source for these organisms. In the Paleozoic, when Horsetail was most dominant, it probably played an even bigger role in more types of ecosystems.

Despite its name, horsetail is toxic to horses (as well as humans and other animals in large quantities). It contains an enzyme thiaminase which interferes with thiamine (a B-complex vitamin) metabolism. When poisoning occurs from horsetail, especially in livestock, it is called “equisetosis”.

Horsetails are often called “scouring rushes” because of their historical use of scouring metal cookware. The stems are covered in small grains of silica, which are abrasive enough to clean metal.