599950 & 599960 Horsetail

The genus Equisetum - Horsetail includes, according to current knowledge, only about 15 species, which are distributed worldwide with a focus on the temperate regions of the northern hemisphere. They are herbs up to about 150 cm high (the tropical ones reach heights of up to 13 m with E. giganteum!) with a rhizome that roots quite deeply (in the case of the marsh horsetail E. palustre up to 4 m!).
From this arise the upright shoots (E. fluviatile), which are usually annuals in our region and are composed of limbs. These consist of a leaf node and the associated shoot piece, the internode. At its base is a growth zone of soft tissue, so that the shoots tear apart at this point when subjected to tensile stress ("horsetail"). The leaves of a node are fused together in a sheath.
This sheath encloses the shoot and thus especially the sensitive growth zone, which is supported in this way. The lateral branches develop below this sheath. Silicate crystals are found in the cells of the very rough epidermis (cuticle). For this reason, horsetails were used to polish pewter dishes ("pewter weed"). At their tips, the culms bear cone-like structures consisting of numerous, closely spaced leaf organs that produce spores.
These so-called sporophylls are table-shaped, with the spore receptacles inserted along their edges like the tassels of a tablecloth. It is now interesting to note that the horsetails (a family with only one genus) represent the last remnants of a group that was much more diverse in the past, including large, arboreal forms such as the Carboniferous and Permian calamites (Calamites carinatus). As the phylogenetic tree teaches, some other larger groups are added, all of which, except for the inconspicuous horsetails, became extinct about 130 million years ago.

Source: www.tu-darmstadt.de

599960 Horsetail in bundles

The rough stems of several species of horsetails were used more often in the past than they are now for sanding wood surfaces. When smoothing carvings, the same are still used by woodcarvers and sculptors.
Before use, the box is cut into short pieces where there is a knot, tied tightly at one end and cut off at the other end so that all knots fall away, as these are detrimental to sanding. These tied up stalks are dipped into warm water, squeezed out of it and left to dry a little, so that it loses its brittleness, becomes more supple and does not attack too much, but in such a way that it is neither too wet nor too dry, because in the first case it causes smearing, in the second case it streaks and crumbles easily.

Kremer Pigmente GmbH & Co. KG · Hauptstr. 41-47 · DE-88317 Aichstetten ·Tel. 0049 7565 914480 · info@kremer-pigmente.com · www.kremer-pigmente.com