

Recently, one of extension's weed science specialists had a weed come through her office that is probably one of my favorites to talk about. It goes by many names, but my favorite was the name it was given by my FFA advisor in high school, "Tinker Toys," because you can take it apart and put it back together again. Just like Tinker Toys, the plant pre-dates me, but really humans in general. Horsetails, or *Equisetum* spp., are a prehistoric plant that can be found in the fossil record before dinosaurs. We can find two species in Kansas, and they are field horsetail (*E. arvense*) and scouring rush (*E. hyemale*).

Ecology

Horsetails are generally found in moist soils, such as those found in forests, ditches, or the margins of water bodies. It can grow in either sunny or shaded sites. They contain high concentrations of silica, which made them useful to Native Americans for polishing or scouring. Scouring rush was also used as a drinking straw. Because of the chemical composition, stems typically stand for more than one year. Horsetails have a neurotoxin that can harm livestock, but animals will rarely graze them unless harvested as hay or during winter.

Identification

Horsetails have upright, round, evergreen stems that emerge from rhizomes to form dense stands. Tubers are also found in the field horsetail's root system and sometimes on scouring rush. Stems can be from 7 inches to over 6.5 feet tall with vertical ridges (silica deposits). Dark, toothed bands form at the nodes. The stems of both horsetail species are hollow, with a larger cavity (about $\frac{3}{4}$ of the stem diameter) in scouring rush. Field horsetail has two types of stems. Sterile stems have whorled branches, while fertile stems have neither branches nor chlorophyll.

There is only one form of the stem in scouring rush, and it does not have branches. The leaves of horsetails are reduced to inconspicuous scales at each node. Horsetails reproduce by spores that develop in cones at the top of the stems. Field horsetail cones are 0.1 to 1.5 inches long while scouring rush cones are 0.1 to 1 inch long.

Management

There is little research on the control of horsetail species. An old article from the Canada Department of Agriculture suggests that 4 ounces of 2,4-D or MCPA ester applied after all field horsetail stems have emerged will kill topgrowth and reduce the number of plants present the following year by 50 to 60%. In more recent research from New Zealand, treatments that included imazapyr (Pursuit), picloram (Tordon), or metsulfuron resulted in 100% control of potted field horsetail 6 months after application. However, control was unacceptable by 1 year after treatment. Even more recently, researchers in Canada reported that the best options for control in corn were treatments that include flumetsulam (Python) and MCPA.

The use of trade names is for clarity to readers and does not imply endorsement of a particular product, nor does exclusion imply non-approval. Always consult the herbicide label for the most current use requirements. (Article adapted from K-State Agronomy eUpdate)