Quality of growing media matters

FACTSHEET

HORSETAIL

Horsetail (Equisetum arvense), also known as field horsetail, is a perennial plant that establishes itself deep in the soil with an extensive root system. The species is tough and difficult to remove. Due to its strong rhizomes and root tubers, which easily sprout again, horsetail is a persistent weed in public spaces.

Horsetail

Horsetail (Equisetum arvense), also known as field horsetail, is a perennial weed and belongs to the spore plants. The plant is commonly found on nutrient-poor, compacted, or acidic soils, such as in gardens, parks, fields, and road verges.
In spring, the fertile (spore-bearing) stems appear, lacking leafy growth and with spore cones at the top. Once these have matured, the green, sterile stems develop, ranging from 20 to 40 cm in height, with whorls of side branches. Through photosynthesis, food is produced and stored in the underground stems or rhizomes.
The root system reaches about two meters deep and is highly branched. The plant spreads in three ways:

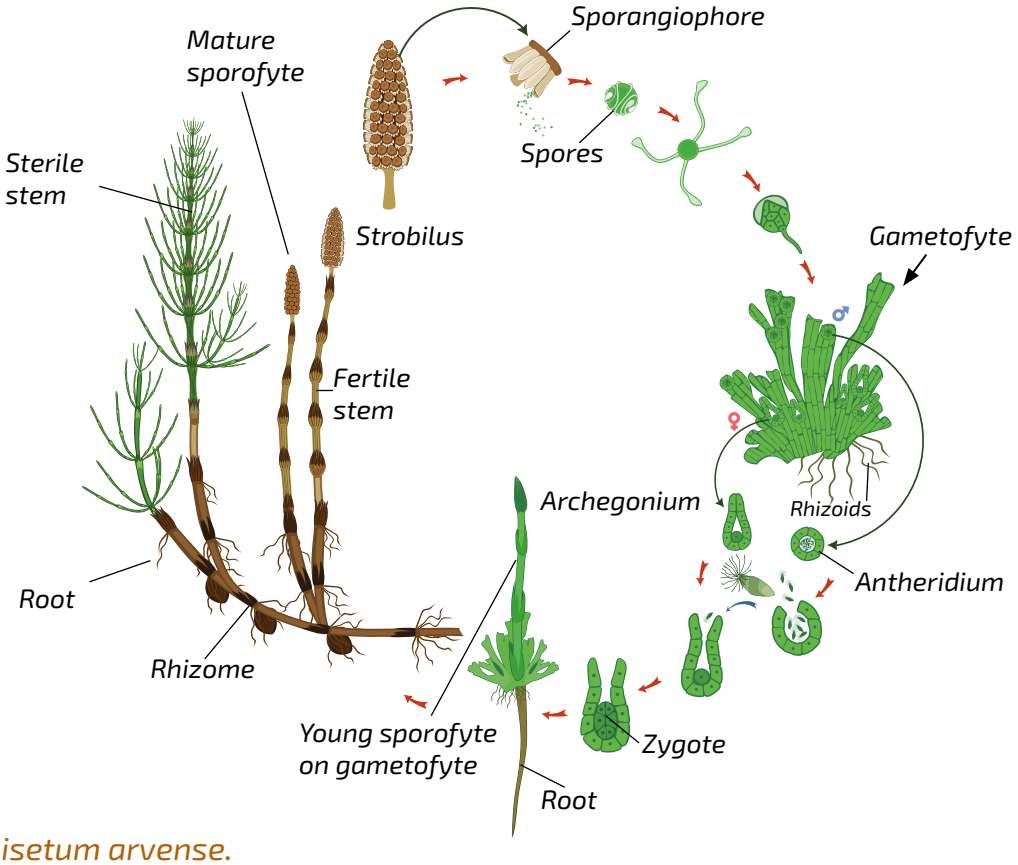
✔ *Spores*: in spring, the fertile stems emerge; spores are dispersed by the wind. They are short-lived and sensitive to drying and sunlight.
✔ *Rhizomes*: grow deep into the soil and branch horizontally; upright stems grow from these “creeping” rhizomes. If damaged, new shoots develop.
✔ *Root tubers*: during summer, these small starch-rich structures form on the rhizomes and serve as food storage and overwintering organs. They are highly resistant to drought, cold, and disturbance, and grow into new plants in spring.
Mechanical or manual removal is virtually impossible; detached rhizome pieces or root tubers actually contribute to further spread. Regular mowing can help weaken the plant and promote depletion.

Horsetail in substrates?

The presence of a persistent and deep-rooting weed such as horsetail in raw materials or substrates is undesirable. The weed usually appears due to existing root or tuber material, which can remain viable and continue to spread in the green project after processing. Due to its extensive underground development, horsetail is difficult to control. Propagation through the short-lived spores rarely occurs in soil or substrate products.

What are the requirements of the RAG quality mark?

The weed test is part of the inspection of raw



Life cycle Equisetum arvense.

materials and substrates for the RAG quality mark. Within the RAG quality mark, horsetail falls under the category of “harmful weeds”. RAG-certified raw materials and substrates are regularly tested for this.

The locations where RAG-certified substrates are produced are also regularly checked for the presence of horsetail, among other weeds. This is done to prevent contamination of the certified products. Horsetail from the immediate surroundings does not pose a risk, as spores do not form a seed bank in a raw material or substrate during dispersal. The spores are not viable due to drying and processing of the soil or substrate product.

Advice for the user

For users of substrates in public spaces or garden construction, such as municipalities and professional landscapers, it is important to be alert to the presence of horsetail. Avoid using contaminated soil and equipment. Preferably use RAG-certified products to minimize the risk of contamination in your green project. If horsetail is present, complete removal is difficult. Effective control requires an integrated approach involving soil improvement, competitive pressure, and persistence.

- **Horsetail (Equisetum arvense) is a persistent weed.**
- **Horsetail spreads primarily through rhizomes and root tubers.**
- **Due to its extensive underground development, horsetail is difficult to control.**
- **The weed test is part of the inspection for the RAG quality mark.**
- **RAG-certified products prevent harmful weeds in green projects.**