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EQUISETUM MANAGEMENT TIPS

There are 10 species of the genus Equisetum (also called horsetails or scouring rushes) present in Montana. They are easily recognized by their segmented, hollow stems. Most have a rough texture due to high silica content. Equisetum plants reproduce mainly through an extensive, deep (up to 5 feet), rhizomatous root system. Moist soils are required for spores to sprout, but equisetum can be found in drier areas due to transport of root fragments. Equisetums are native to Montana but can become problematic in pastures, irrigation ditches, and crop fields where they can produce dense colonies.


Field horsetail


Scouring rush

Long term control of equisetum is difficult and will only be successful if management actions are undertaken for many (3-4+) consecutive growing seasons. Regrowth of equisetum will occur after management actions, including herbicide applications, due to the large, rhizomatous root system. Equisetum will persist until the root reserves are completely depleted and germination from spores is stopped. Control efforts should focus on depleting root reserves and preventing spore production.

Effective control measures for the management of equisetum include:

1. **Mechanical (hand pulling, digging & mowing):** Completely removing top growth by hand pulling or mowing will stimulate regrowth through the roots. However, this method may be effective if it is repeated every time regrowth occurs throughout each growing season, for at least 3-4 years.

2. **Herbicide: Always follow directions on the label. The label is the law!** Calibrate your equipment to ensure that you are adding the proper amount of herbicide to your tank. The following herbicides are labeled for use on equisetum. **Do NOT use the following herbicides in lawns, turf, or ornamental settings – read the label.** *For the most effective control, apply herbicides while equisetum is actively growing in the spring. Additional fall applications will maximize translocation of herbicide to the roots.*

   Mixing rates in small backpack or hand sprayers are as follows:

*Telar:	1/5 teaspoon herbicide to 1 gallon of water
*Opensight:	1/2 teaspoon herbicide to 1 gallon of water (suppression only)
*Cimarron Plus	1/5 teaspoon herbicide to 1 gallon of water
*Escort XP	1/5 teaspoon herbicide to 1 gallon of water

   Rates in large sprayers are as follows:

*Telar:	1 – 2.6 oz herbicide per acre
*Opensight:	3.3 oz herbicide per acre (suppression only)
*Cimarron Plus	1.25 – 2 oz herbicide per acre
*Escort XP	1 – 2 oz herbicide per acre

   NOTE: Adding a surfactant to your tank mix may enhance the performance of your herbicide and is required for certain herbicides (read the label). Add 0.5 - 1 oz per gallon of water for backpack sprayers or 1 – 2 pints per 100 gallons for large sprayers.

   *** denotes that a surfactant is required for the herbicide to be effective.**

3. **Cultural (tilling & fertilization):** Discing and tillage can spread root fragments of equisetum and potentially increase invasion. However, if these methods are used continually for several years, they may be effective for controlling equisetum. Cleaning equipment is important to prevent the spread of root fragments. Equisetum is not shade tolerant and does not readily take up nitrogen. Adding a nitrogen fertilizer to the soil may increase grass growth which will shade equisetum and reduce competitiveness.

4. **Integrated management:** Management of equisetum is more effective when more than one strategy is used.