

CONTROLLING MOSS

Moss is common in lawns throughout Western Washington. Moss growth normally starts with the fall rains and reaches a peak in early spring. Because grasses grow poorly in winter, mosses are able to invade and often dominate lawns in only a few months. Moss goes dormant in the summer as conditions become drier and turf grass growth increases. Under shady irrigated conditions, moss may grow throughout the summer. Moss can also tolerate long periods of drought in a dehydrated condition and rehydrate and grow with the onset of fall rains. The persistent and recurring nature of lawn mosses is largely due to our mild temperatures, acidic soils, and the wet-dry nature of our climate.

Cultural Controls

While moss does occur in well-maintained lawns, it is often a symptom of problems. Severe invasion generally occurs in neglected lawns where poor cultural conditions enable mosses to overrun turf. The best way to discourage moss in lawns is to encourage good growing conditions for your grass.

- Moss tends to grow in thin and malnourished lawns. When the grass is thick and healthy, it cannot easily compete. Fertilize your lawn in late fall and spring with a high nitrogen fertilizer to minimize moss growth and over-seed to fill in thin or bare spots.
- Lawns that are mowed too close expose soil surfaces for moss spores to grow. Most lawns should be kept at a mowing height of 2"-3"; a healthy lawn will shade the soil and compete with the moss trying to start.
- Too much shade often contributes to a moss problem. Grasses grow poorly in dense shade; consider either thinning out trees by selective pruning, removing trees completely, or replacing a lawn with a shade loving groundcover. You also can plant shade-tolerant grass species such as fine fescues in dry shade areas.
- Moss thrives in wet soils caused by poor drainage or excess irrigation. Poor drainage can sometimes be improved by lawn aeration or thatch removal. Often drainage can only be improved by changing the soil grade or installing subsurface drainage systems.
- If your wet soil is due to excess irrigation, avoid nightly watering, particularly in fall or early spring when moss growth is vigorous. Infrequent, deep watering is better.
- Lawns that aren't irrigated turn brown and thin out during summer. Letting your lawn go dormant during the summer months stresses the turf and creates space for the moss spores to take hold when the fall rains return. When fall rains come, these lawns may not recover fast enough to compete with moss. To lessen this problem, raise your lawnmower

blade to 2 ½" - 3" in the summer and deep water your lawn at least twice a month.

- Thin turf due to injury or damage from children, pets, insects, or disease is a common cause of moss invasion. Severe dethatching in fall may also predispose the lawn to moss because turf is thin when fall rains come.

Proper culture that encourages healthy, dense turf during the moss season will reduce the moss invasion in most situations. You can control excessive moss populations with chemical or mechanical methods.

Mechanical Control

Moss can be physically removed by hand raking or dethatching in early spring. Optimum timing is mid-March through April when moss is healthy and vigorous. In cases where moss is severe, applying a chemical spray will enhance control further. Using a flail type dethatching machine (available at rental agencies), as much as 75% of the moss can be removed physically. This will also remove any dead thatch hiding below as well. Dethatching should be followed by over-seeding and fertilizing to stimulate grass growth and increase turf density.

Chemical Control

Moss can be killed with iron compounds containing ferrous sulfate such as *Moss-Out* which are highly effective and work quickly. The benefit of using an iron based product is that the iron also greens up and thickens existing lawns. The key to effective control with iron compounds is thorough coverage of the moss foliage applied in the spring. A drawback to iron is that it will stain if used on, or tracked onto concrete, and many other surfaces, so it must be applied carefully. Follow the label instructions carefully!

Another category of moss-control products are the moss killing horticultural soaps such as *Earthtone Moss Control*. The advantage of using these products is that they are extremely safe for use around children and pets. They are fast acting (results usually in hours) and can be used on surfaces such as fences, walls, roofs, or walkways without staining. A downside to the moss killing soaps is their rate of coverage, which is less. They act as contact killers and tend to bleach the moss to a whitish yellow, rather than the dark brown color of moss treated with iron.

After applying a chemical moss control, you will need to wait until the moss dies before removing it. In lawns, it is easiest to remove moss with a grooming/thatching rake, or a dethatching machine. Swansons then recommends that you fertilize and re-seed your lawn to stimulate growth and increase turf density to reduce moss and other weed problems in the future. (*See our handout - Over Seeding & Spot Repair*).