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DISEASE CONTROL IN LAWN TURF

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Disease	Symptoms	Conditions Favoring Disease	Presence in Washington		Recommendations for Control	
			Western	Eastern	Cultural	Fungicidal ^(a)
CORTICIUM RED THREAD (<i>C. fuciforme</i>)	Bleached or tan-colored, irregular areas 2"-24" with red fungus strands 1/8"-1/4" long on leaves.	Cool, moist	Very common in fescues and ryegrasses; sometimes in bent and blue-grasses in winter.	Occasional	Use adequate nitrogen in a balanced NPK nutritional program.	Thiram, Dyrene, Daconil, or Chipco 26019 ^(b) once in spring and again in fall. See EM 3490.
FAIRY RING (<i>Marasmius oreades</i> in west. Wash.)	Rings of dark green grass and sometimes dead zones, with or without tan mushrooms 1"-2" diameter.	Mushrooms mostly in spring and fall.	Common	Fairly common	Open soil mechanically. Daily soaking of rings with water for 1 month. Keep turf well fertilized.	Eliminate with methyl bromide. See Washington State University EM 3488.
FUSARIUM PATCH (<i>Fusarium nivale</i>)	Browning and thinning of turf in large (4"-18") rather indefinite spots.	Cool, wet	Very common	Common	Promote air and soil drainage. Avoid excessive nitrogen. 2.0 lbs. sulfur per 1000 sq. ft. per year may help.	Benzimidazole ^(c) , Fore, Tersan LSR, or Chipco 26019 ^(b) . Use twice in spring and twice in fall. See EM 3467.
HELMINTHOSPORIUM BLIGHT (<i>H. vagans</i>)	Root and crown rot resulting in yellowing and thinning of turf or tan to purple spots on leaves.	Moist	Common on blue-grass	Common	Water in morning, pick up clippings. Don't let grass get matted.	Use Daconil, Dyrene, Fore, or Tersan LSR. (Follow label directions.)
OPHILOBOLUS PATCH (<i>Ophiobolus graminis</i>)	Thinning and/or dying of turf in circles 4" to 36" followed by invasion of weeds and annual blue-grass in center.	Non-specific	Common on bent-grass	Occasional	Use ammonium sulfate in balanced NPK (3-1-2 ratio) nutrition. Avoid high lime. See EM 3487.	Sulfur (see under Fusarium patch).
POWDERY MILDEW (<i>Erysiphe graminis</i>)	Gray-white, powdery masses on leaves and stems, which may yellow and die.	Mild, moist	Uncommon	Common in shaded areas	Fertilize and water to maintain vigor. Promote air drainage.	Usually not necessary. Try Karathane, actjdione, or benzimidazole ^(c) .
RUST (<i>Puccinia graminis</i>)	Reddish or brown-to-black, powdery spots. Mostly on Merion bluegrass.	Warm, dry	Common on certain bluegrass	Common on certain bluegrass	Increase nitrogen. Water during dry periods. Mow frequently.	Usually not necessary. If needed, zineb, Fore, Tersan LSR, actidione, or Daconil may help.
SLIME MOLDS	Usually small, dark, powdery "pin-heads" on leaves; occasionally large (1"-3") gray powdery mounds. Not parasitic.	Mild, moist	Occasional spring and fall	Occasional spring and fall	Mow, rake, or wash off with water. Usually disappears after 1-2 weeks.	Common turf fungicides may prevent their reappearance.
TYPHULA SNOW MOLD (<i>T. Incarnata</i> usually)	Irregular, dead, bleached areas, 2" to 24" with a gray mold, usually under or near melting snow.	Cold, wet; worse under prolonged snow cover.	Not common	Very common in northeastern area	Avoid late, heavy fertilizing.	Chloroneb (Tersan SP or Proturf Fungicide II) or Daconil; preferably mixed with a fungicide to control Fusarium. Apply before snowfall.

- (a) Preferably alternate types of fungicides or use commercial mixtures of them. Also many satisfactory granular formulations are available.
- (b) Recommendation for use of Chipco 26019 are contingent upon EPA granting a suitable label.
- (c) The benzimidazoles include benomyl (e.g., Tersan 1991 and Proturf DSB) and the thiophanate compounds (e.g., Fungo, 3336, Bromosan, and Spotkleen).

Notes: Recommendations for *Fusarium*, *Corticium*, *Ophiobolus*, and *Typhula* based primarily on research in Washington. Other recommendations based on reports from other states. Commercial mixtures of two or more fungicides are sometimes best for homeowner's use. Check labels to be certain they contain the fungicides recommended, if a specific disease is suspected. FOLLOW MANUFACTURER'S RECOMMENDATIONS for use and observe the necessary safety precautions when applying fungicides. The information given herein is for education purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Cooperative Extension Service is implied.