

2573
938

OCT 22 1981

WASHINGTON STATE UNIVERSITY



Disease Control in Home Lawns

Extension Bulletin 0938
August 1981



Cooperative Extension

College of Agriculture
Washington State University
Pullman, Washington

DISEASE CONTROL IN HOME LAWNS

Gary Chastagner, Assistant Plant Pathologist, Ralph S. Byther, Extension Plant Pathologist, Roy L. Goss, Extension Turf Specialist

| Disease | Symptoms | Conditions Favoring Disease | Presence in Washington | Cultural Controls | Fungicidal ^(a) |
|--|---|--|--|---|---|
| FAIRY RING (<i>Marasmius oreades</i>) | Rings of dark green grass and sometimes dead zones, with or without tan mushrooms 1-2" in diameter. | Mild, moist. Mushrooms mostly in spring and fall. | Common on all turf grasses in <i>western</i> Washington. Fairly common on turf grasses in <i>eastern</i> Washington. | Open soil mechanically. Daily soakings of rings with water for one month. Keep turf well fertilized. | No registered fungicides. See EM 3488. |
| FUSARIUM PATCH (<i>Fusarium nivale</i>) | Browning and thinning of turf in large (1-18") indefinite spots. Also see Pink Snow Mold | Cool, wet. | Very common on Bent and <i>Poa annua</i> in <i>western</i> Washington. Common in <i>eastern</i> Washington. | Promote air and soil drainage. Avoid excessive nitrogen. 2.0 lbs. sulfur per 1000 sq. ft. per year may help. | Benomyl ^(b) , Mancozeb, PCNB. Use twice in spring and twice in fall. See EM 3467. |
| HELMINTHOSPORIUM Diseases (<i>Helminthosporium sp</i>) | Root and crown rot resulting in yellowing and thinning of turf or tan to purple spots on leaves. | Moist. | Common on blue-grasses. | Water in morning; pick up clippings. Don't let grass get matted. | Anilazine, Captan, Chlorothalonil, Mancozeb, PCNB, Zineb, Thiram + Cadmium, Cycloheximide + Thiram, Maneb + Zinc. |
| OPHIOBOLUS PATCH (<i>Gaeumannomyces graminis</i>) | Thinning and/or dying of turf in circles 4-36" followed by invasion of weeds and annual blue-grass in center. | High moisture favors disease development but symptoms do not show until turf is under moisture stress. | Common on bent-grass in <i>western</i> Washington. Occasional in <i>eastern</i> Washington. | Use ammonium sulfate in balanced NPK (3-1-2 ratio) nutrition. Avoid high lime. 2.0 lbs. of sulfur per 1000 sq. ft. per year may help. | No registered fungicides. See EB 0939. |
| RED THREAD "Pink Patch" (<i>Corticium fuciforme</i>) | Bleached or tan-colored irregular areas 2-24" with red fungus strands. | Cool, moist. | Very common in <i>western</i> Washington. Occasional in <i>eastern</i> Washington. | Use adequate nitrogen in a balanced NPK nutritional program. | Cadmium, Chlorothalonil, Mancozeb, Thiram + Cadmium, Cycloheximide + Thiram. |

See EM 2499.
 Oxy-carboxin, PCNB,
 Zineb, Cyclohexi-
 mide + Thiram,
 Maneb + Zinc.

| | | | | | |
|---|---|--|---|---|---|
| SLIME MOLDS | White to yellowish slimy growth, usually turning to masses of small, dark, powdery "pin-heads" on leaves; occasionally large (1-3") gray powdery mounds. Not parasitic. | Mild, moist. | Occasional spring and fall. | Mow, rake, or wash off with water. Usually disappears after 1-2 weeks. | Common turf fungicides may prevent reappearance. See EM 4050. |
| SNOW MOLD Gray Snow Mold (<i>Typhula sp.</i>) | Irregular dead, bleached areas 2-24" with a gray mold, usually under or near melting snow. | Cold, wet; worse under prolonged snow cover. | Not common in <i>western</i> Washington. Very common in <i>northeastern</i> area. | Avoid late, heavy nitrogen fertilization. | Apply before snowfall: Anilazine, Cadmium, Chloroneb, PCNB. See EM 4047. |
| Pink Snow Mold (<i>Fusarium nivale</i>) | Circular light brown to dark brown patches 2-12". Patches commonly bleached under snow and covered with pink fungus. Also see <i>Fusarium</i> patch. | Cold, wet; worse under prolonged snow cover. | Not common in <i>western</i> Washington. Very common in <i>northeastern</i> area. | Avoid late, heavy nitrogen fertilization. | Apply before snowfall: Benomyl ^(b) , Mancozeb, PCNB. See EM 4047. |
| STRIPE SMUT (<i>Ustilago striiformis</i>) | Yellow-green streaks leading to dry shredded leaves having black, dusty spores. | Cool, moist. | Not common in <i>western</i> Washington. Common on certain bluegrasses in <i>eastern</i> part of state. | Provide adequate fertilizer; do not overfertilize; use resistant varieties. | PCNB late fall and early spring. |

^(a) See last page for trade names of registered fungicides.

^(b) Avoid repeated use of benomyl; either alternate with another registered fungicide or use as a tank mixture with another fungicide to avoid buildup of fungi tolerant to benomyl.

This publication is revised from and replaces WSU Cooperative Extension publication EM 2049.

Issued by Washington State University Cooperative Extension, J. O. Young, Director, and the U.S. Department of Agriculture, cooperating, in furtherance of the Acts of May 8 and June 30, 1914. Cooperative Extension programs and employment are available to all without discrimination. Trade names have been used to simplify information; no endorsement is intended.

FUNGICIDES REGISTERED FOR HOMEOWNER USE IN WASHINGTON AGAINST TURFGRASS DISEASES^(1, 2)

| Common Name | Trade Name | Registrant |
|------------------------|---|---|
| Anilazine | Ortho Dyrene Lawn Disease Control 50W *PAX Fungus Control 4.45G Best Turf Fungicide 3G Best Turf Fungicide 50W | Chevron Chemical Company PAX Corporation Occidental Chemical Company Occidental Chemical Company |
| Benomyl | Miller's Systemic Fungicide Benomyl 50W Lilly Miller Benomyl 50W Science Benomyl 50W | Chas. H. Lilly Company Chas. H. Lilly Company Science Products Company |
| Cadmium | *Cadminate 60W | Mallinckrodt, Inc. |
| Captan | Miller's Garden Captan 50D Lilly Miller Captan 5D Orthocide Garden Fungicide 50W | Chas. H. Lilly Company Chas. H. Lilly Company Chevron Chemical Company |
| Chloroneb | *Tersan SP 65W | E. I. Du Pont de Nemours |
| Chlorothalonil | Ortho Liquid Lawn Disease Control 29.6% F Best Turf Disease Control 5G | Chevron Chemical Company Occidental Chemical Company |
| Mancozeb | Science Fore 80W Best Multi-Purpose Disease Control 80W | Science Products Company Occidental Chemical Company |
| Oxycarboxin | *Plantvax 75W | Uniroyal |
| PCNB | Scott's Lawn Disease Preventor 16.9G Scott's Lawn Disease Preventor plus Fertilizer 9.95G | O. M. Scott & Sons Company O. M. Scott & Sons Company |
| Zineb | Science Zineb Garden Fungicide 75W *Dexol Zineb Garden Fungicide 75W | Science Products Company Dexol Industries |
| MIXTURES | | |
| Thiram + Cadmium | *Cleary's Granular Turf Fungicide 5.0 + 0.75G *Kromad 16 + 5W | W. A. Cleary Corporation |
| Cycloheximide + Thiram | *Acti-dione Thiram 0.75 + 75W | The Upjohn Company |
| Maneb + Zinc | *Tersan LSR 80W | E. I. Du Pont de Nemours |

(1) Numbers and letters following trade names indicate the percentage active ingredient and the type of formulation respectively. Types of formulations are designated as follows: wettable powder as W; flowable as F; dust as D; granular as G.

(2) Before you purchase any of these fungicides, read the label to make certain the package you have selected is labeled for your intended use, and then follow all label directions and precautions.

* These fungicides are registered for use by homeowners but are not commonly found in most garden centers. Check farm and feed stores as possible sources of these fungicides.