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Melting-Out of Bluegrass Lawns

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in yard and garden

Control

PLANT DISEASES

Mimeo BP 7-1

MELTING-OUT OF BLUEGRASS LAWNS

One of the most widespread diseases of bluegrass lawns in Indiana is a condition known as "melting-out." This disease results in noticeably thinned or weak areas in the lawn, varying in size from a few inches in diameter to circular spots of a foot or more across. Several common names, such as *Helminthosporium* leaf spot, blight, "going-out" and "dying-out," have also been used to describe this condition.

In addition to attacking Kentucky bluegrass, the disease may also affect fescues, Rye-grass, Delta bluegrass, Canada bluegrass, Bermuda grass, Zoysia and St. Augustine grass.

"Melting-out" occurs on all parts of affected grass plants. It will be observed first in early May as small, watersoaked spots on the leaf blades. These lesions quickly enlarge to form oval, dark purplish areas on the leaf blade approximately 1/4 inch long and 1/6 to 1/8 inch wide. As these infected areas enlarge, the center of the spot becomes lighter in color, finally turning a dull white. The leaf spot stage of melting-out disease usually passes unnoticed, and does not cause serious damage.

In late May, the disease will spread to the leaf sheath, forming lesions.

Infections on the sheath are frequently so severe that the grass leaf may be girdled and killed. It is this "leaf-killing" stage of the disease that has resulted in the popular name of "melting-out." Loss of leaves may be so severe that an entire stand of bluegrass will seem to suddenly "fade" or "melt-out."

In the final stages of the disease, infection of crowns, roots and stolons occurs and infected turf will have a reddish-brown, rotten appearance that finally turns dark brown to black as secondary fungi and bacteria move in to infected areas.

"Melting-out" of bluegrass destroys lawns much faster during hot weather than during cooler periods. Sometimes it causes a sudden dying-out of large, irregular sized patches in the lawn without any visible signs of disease on the dead grass plants that appear to have died from drought.

"Melting-out" is caused by two closely related fungi--*Helminthosporium vagans* and *Helminthosporium sativum*. *H. vagans* does most of its damage during the cooler spring and fall weather, while *H. sativum* is most destructive during hot summer weather.

How to Prevent "Melting-out"

A number of suggestions are offered to reduce the danger of serious damage to home lawns by "melting-out" disease. There is no single recommendation that will "cure" this dis-

ease, but if the complete prescription given below is followed carefully, serious damage will be prevented.

FERTILIZER PRACTICES: Every lawn varies in its nutritional requirements. Therefore, the home owner should determine "the diet requirements" for his own lawn and apply the fertilizer needed to maintain a healthy, vigorous lawn. (See Purdue Extension Circular 438, "The Lawn, How to Establish and Maintain.") Use good judgment in your fertilizer program. A very dense and succulent turf is more likely to be damaged by "melting-out" than a thin lawn. A lawn that is too thin also presents problems. The home owner should try to maintain a turf thick enough to stop weed invasion but not overly vigorous and matted.

REMOVE CLIPPINGS: A heavy mulch of grass clippings is ideal for the establishment and spread of "melting-out." All clippings should be removed from lawns affected by the disease. After this condition has been brought under control, clippings may be allowed to accumulate to a depth of about 1/4 inch. This helps to hold moisture during dry periods.

WATERING: Most home owners make the mistake of sprinkling the lawn during periods of dry weather. This only serves to spread spores of the fungus causing "melting-out" and does not supply enough water to maintain proper moisture supply. The average lawn should be watered once a week during dry weather, soaking the soil to a depth of seven to 14 inches. If "melting-out" is well established, avoid watering the lawn in mid-summer.

Fungicides for "Melting-out"

A severe outbreak of "melting-out" is very difficult to eradicate with fungicides. Excellent protection against this disease may be achieved by spraying every 21 days from the time the grass "greens up" in the spring until late fall. This, however, becomes expensive. So if only a few sprays can be afforded, spring applications of fungicides will return the best dividends. Apply the first spray shortly before the grass turns green in the spring. Make a second application three or four weeks later. A final spray should be applied four weeks after the second application.

Dusting is not effective against most lawn diseases. Sprays should be applied with some type of pressure sprayer, operating at 100-400 pounds pressure. Compressed air sprayers, wheel barrow sprayers, trombone-type force pumps or small power sprayers will do a satisfactory job.

To avoid injury to tender grass, spraying should be done in early evening, applying half of the recommended amount of fungicide in one direction and the remainder in the opposite direction.

Any of the fungicides listed below will be effective against "melting-out."

<u>Fungicide</u>	<u>Dosage per 1000 square Feet of Lawn</u>
Acti-dione RZ (Acti-tabs Acti-dione Ferrated)	1 gram
Captan (Captan 50-W, Orthocide Garden Fungicide, etc.)	2-4 ozs.
Kromad (a broad spectrum fungicide)	2-6 ozs.
Phaltan	2-4 ozs.
Phenyl mercury (PMAS, Puratized, Tat-C-Lect, Merbam 10, Tag, etc.)	1-1 1/2 ozs.

Tersan (Tersan 75, Spotrete, Arasan 75, Panoran 75, Aromad, etc.)	4-6 ozs.
Zineb (Parzate, Dithane Z-78, Blightox 65-W, Fungicide A)	4-6 ozs.

The amount of water used to apply these materials is not too important but should be sufficient to adequately cover 1000 square feet of area. Usually three to five gallons will cover this area conveniently. The addition of one teaspoonful of liquid household detergent or one tablespoonful of powdered detergent to each gallon of spray solution will improve the control of "melting-out" with fungicides.

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