

COMMON DISEASES OF TURF ON HOME LAWNS

Diseases of grass are not normally a problem on home lawns if proper cultural practices are followed. Information is available on this web site outlining proper practices for establishing and maintaining a healthy lawn. Diseases on turf typically result in patches of dead or discoloured grass on a lawn. They are difficult to diagnose, and are often confused with problems caused by physical imbalances (e.g. salt damage, dog urine etc.). However noting the pattern of damage and the time when damage becomes noticeable often aids in diagnosis of a disease problem. The following diseases are the ones most commonly found on home lawns:

Snow Moulds are caused by several species of fungi which grow at temperatures near freezing. Symptoms appear on the lawn in the spring just after the snow melts. These are; circular or irregular straw-coloured patches with fluffy grey-white or pink mould visible on the margins, depending on the species of fungi. Damage is usually more noticeable in areas where snow persists longer into the spring. The fungus grows actively in cold weather, and survives in the spring and summer in the thatch or in the soil. It grows best on soft succulent plant tissue. To manage snow mould and its symptoms:

- Rake the affected turf areas as soon as they are noticed in the spring to encourage drying. Apply fertilizer to encourage new growth.
- To prevent damage from snow mould, do not apply nitrogen to lawns within 6 weeks of when grass is expected to stop growing in the fall, to allow grass to harden off for the winter.

- Lower mower blades for the final cuttings of the year so that long grass does not go under snow cover.
- Remove excessive thatch.

Leaf Spot appears as small oval reddish-brown spots on grass blades in early spring.

When conditions are hot and humid, the spots spread to kill stems and crowns, causing the lawn to thin or suddenly die out referred to as **Melting Out**. As the weather becomes warmer and drier, the grass becomes less susceptible to damage. These fungi survive the winter as spores in the thatch layer. Spores are splashed onto leaf blades in the spring and infection results. To manage Leaf Spot and its symptoms:

- When damage is noticed, raise mowing height and fertilize lightly to encourage new growth.
- If this disease has been a problem, do not apply excessive nitrogen in the spring. The succulent growth resulting from nitrogen application is very susceptible to attack.

Necrotic Ring Spot appears in the midsummer as roughly circular patches 0.5 to 1 metre in diameter. Affected areas are initially wilted and bluish green, and then turn brown. There is often a tuft of green grass in the centre of the dead area, resulting in a 'ring' of damage. The roots of affected plants are damaged, and have noticeable dark coloured strands on them. This fungus overwinters in thatch. It infects new plants during cool, wet conditions in the spring. Heat and dry conditions in the summer stop fungal growth;

however damage becomes noticeable when plants with damaged roots become stressed.

To manage Necrotic Ring Spot and its symptoms:

- Water lightly and frequently during dry periods to encourage root growth.
- Aerate and overseed affected lawns in the late summer/early fall.
- Reduce excessive thatch

Powdery Mildew appears as greyish-white powder on the upper surfaces of leaves and stems of grass plants, usually in the late summer. If the infection is severe, entire leaf blades will turn yellow or have yellow patches. Large areas of diseased turf look as if flour or lime has been sprinkled on it. It is most common in moist shaded areas.

To manage Powdery Mildew and its symptoms:

- Prune plant material surrounding diseased turf to increase air circulation, and to allow light to penetrate to the grass.
- Make sure that shade tolerant grass mixes are planted in shady areas.
- Consider replacing grass in heavily shaded areas with alternative shade-loving ground covers.
- Avoid excessive nitrogen in affected areas.

Rust appears as yellow flecks on grass blades, which elongate to yellow stripes running parallel to the veins. These split open, and yellow to orange-red powdery spores are produced. If the infestation is heavy, yellow or red powder may be noticeable on footwear and on mower blades used in the area. This disease is noticeable in late summer or early fall. To manage rust and its' symptoms:

- Rust attacks lawns stressed by low nitrogen and drought. Fertilize turf and water whenever necessary. However, avoid fertilizing from mid-September to mid-October, when the rust fungi will infect succulent new growth.

Fairy Ring can be caused by a variety of fungi, including common white mushrooms or puffballs. It appears initially as a dark green circle or arc of fast growing grass on a lawn. A band of dead grass or mushrooms may or may not be growing at the outer edge of the ring in late summer or early fall. The size of the ring varies from less than 1 metre to many metres, depending upon how many years the fungus has been growing there. It is most noticeable in areas where soil has low fertility and inadequate moisture. This is because the fungi break down organic material in the soil and the thatch, providing nutrients for turf in affected areas. You should see white fungal growth in the soil or thatch and notice a mouldy or musty smell upon close examination of fairy rings. To manage fairy ring and its symptoms:

- Cultivate deeply and drench the affected area with water. This encourages the activity of other soil micro-organisms, which compete with the fairy ring fungi.
- Mow to remove mushrooms

For more information on diseases of home lawns visit the following web sites:

<http://www.gov.on.ca/OMAFRA/english/crops/facts/03-059.htm>

<http://www.extension.umn.edu/distribution/horticulture/components/DG0488k.html>

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