

Force<sub>of</sub>  
Nature



# Overview



## Types of Anthracnose

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There are two types of infection –

- Anthracnose Leaf Blight, which occurs during the summer months.
- Anthracnose Basal Rot, which is found during cool and moist conditions.

## Period of Activity

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Anthracnose Leaf Blight is quite evident during the months of June, July, and August, but may also exist in May and September.

## Susceptible Species

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Annual bluegrass and creeping bentgrass, located on golf course putting greens, tees, and fairways, are attacked by this disease.

## Identification

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Anthracnose Leaf Blight may be injurious to the roots and crowns, but it will damage especially the leaves.

During the summer months, turf may be completely burned within forty-eight hours after the beginning of conditions favourable to disease development.

Some species, such as annual bluegrass, may be subjected to a rapid death in the form of spots or irregularly-shaped patches.

The oldest outer leaves will be attacked first.

Eventually, the entire plant will seem to age rapidly, in a process that is called « senescence », which is the aging of the plant parts.

The leaves will become infected from the tip to the base, especially after a recent mowing.

In the beginning, the leaves will become discoloured and yellow.

In comparison to drought damage, which produces its typical purplish colour.

Turf will lose its vigour.

Once the leaves are yellow, they will rapidly change colour, to speckled reddish-brown, or bronze.

The colour will change one last time to an entirely reddish-brown colour, which is the classic symptom of Anthracnose Leaf Blight.

# Overview

## Environmental Extremes

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This disease will become infectious and damaging when turf is UNDER STRESS.

Stress caused by weather extremes during spring and summer WILL INCREASE the damage associated with this disease.

Examples —

- compaction
- drought
- excess humidity
- heat
- lack of nitrogen
- poor soil drainage
- shade
- wear

## Cultural Practices

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The prevailing maintenance practices will greatly affect the development of this disease.

Examples —

- mowing that is TOO SHORT
- nitrogen fertilization that is INADEQUATE or EXCESSIVE
- irrigation that is EXCESSIVE
- topdressing that is damaging to foliage
- thatch accumulation that is HIGH

A mowing height that is too short and nitrogen level that is too low will have the most pronounced effects on this disease.

The severity of this disease is greatest on SOFT and SUCCULENT TURF maintained with VERY HIGH LEVELS OF NITROGEN, especially when compared to levels that are more moderate.



## Temperatures

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High temperatures occurring for an extended period will increase damage.

Ideally ... day-time temperatures ranging from 30 to 33 °C ( 86 to 91 °F ), and night-time temperature of 21 °C ( 70 °F ).

However, the turf may also be infected when temperatures range between 25 and 35 °C ( 77 and 95 °F ).

## Moisture

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This disease will develop when the SURFACE MOISTURE and ATMOSPHERIC HUMIDITY are HIGH. Frequent rain showers and 100 per cent saturated relative humidity will GREATLY ACCELERATE the development of this disease.

# Anthracnose Leaf Blight Disease

## Chemical Control



### Aliette® Signature

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- Manufacturer — Bayer Environmental Science.
- Classification — Group U fungicide.
- Active ingredient — Contains 80 per cent fosetyl AL.
- Mode of action — This fungicide is COMPLETELY SYSTEMIC ( upward and downward, or acropetal and basipetal movement ).
- Use — Most effective when used in a PREVENTIVE program. Begin applications when conditions are favourable for disease development.
- Frequency of application — Apply two to four applications EVERY 14 DAYS as a part of a PREVENTIVE treatment in spring or summer, on turfgrass areas with a history of Anthracnose incidence.
- Rate of application —
  - 120 grams in 6 to 10 litres of water per 100 square metres
  - 112 grams per 1000 square feet
  - 4 ounces avdp per 1000 square feet
- Net contents — One 2.26-kilogram unit may treat 20,000 square feet.

# Anthracnose Leaf Blight Disease

## Chemical Control



### Banner<sup>®</sup> MAXX emulsifiable concentrate

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- **Manufacturer** — Syngenta Canada, Inc.
- **Classification** — Group 3 fungicide.
- **Active ingredient** — Contains 14.3 per cent propiconazole.
- **Mode of action** — A LOCALLY SYSTEMIC fungicide.
- **Use** — This fungicide must be used in a PREVENTIVE disease control program. Apply during warm and humid weather conditions.
- **Frequency of application** — For PREVENTIVE control EVERY 21 DAYS. Under conditions optimum for high disease pressure, use the higher rate.
- **Rate of application** —
  - 26 to 51 millilitres in 3 to 15 litres of water per 100 square metres
  - 0.85 to 1.66 Imperial fluid ounces per 1000 square feet
- **Net contents** — One 3.78 litre-unit may treat 80,000 to 156,000 square feet.
- **Tank mixtures** — Banner can be tank-mixed with one of the following fungicides : Daconil 2787, Daconil Ultrex, or Heritage.
- **Restrictions** — Do not apply more than 473 millilitres per 100 square metres per season, or do not apply more than 3 applications per season.

Force Of Nature presents THE WHOLE TRUTH FROM AN INDEPENDENT PERSPECTIVE from National Organization Responding Against Hujes that seek to harm or misinform the Green Space Industry (NORAHG). It is a series of Reports destined for the Green Space Industry, the Environmental Terror Movement, Governments, and the Media, nationwide across Canada, the United States, and overseas. This Report has been developed for the education and entertainment of the reader by providing TECHNICAL INFORMATION WITH COMMENTARY. The neutrality of the Report might be disputed.



The information presented in this Report is for preliminary planning only. Before making a final decision, the turf manager is expected to obtain trusted expert advice from extension specialists, local distributors and/or agronomists. All decisions must take into account the prevailing growing conditions, the time of year, and the established management practices.

All products mentioned in this Report should be used in accordance with the manufacturer's directions, and according to provincial, state, or federal law. For the official advantages, benefits, features, precautions, and restrictions concerning any product, the turf manager must rely only on the information furnished by the manufacturer. The mention of trade names does not constitute a guarantee or a warranty.

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Force Of Nature is the brainchild of William H. Gathercole and his entourage. Mr. Gathercole is a principal founder of the Modern Professional Lawn Care Industry in both Ontario and Quebec. He holds a degree in Horticulture from the University of Guelph, and another pure and applied science degree from McGill University. He has worked in virtually all aspects of the Green Space Industry, including golf, professional lawn care, and distribution. Mr. Gathercole has supervised, consulted, programmed, and/or overseen the successful execution of hundreds of thousands of management operations in the urban landscape. He has trained, instructed, and advised thousands of turf managers and technicians. Mr. Gathercole has also been an agricultural agronomist. Mr. Gathercole is personally credited for crafting the Exception Status that has allowed the Golf Industry to avoid being subjected to the prohibition of pest control products. He is also the creator of the signs that are now used for posting after application. Mr. Gathercole is now retired from Force Of Nature, although his name continues to appear as the founder.

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