



# Take-All Patch

## › Causal Agent:

*Gaeumannomyces graminis var. avenae*

## › Susceptible Turfgrass

Bentgrass.

## › Symptoms

- Small, light brown dead patches appear on turf.
- Patches once established continue to spread throughout the year.
- Stressed grass appears bronze to reddish brown and then fades to a dull brown.
- During winter affected patches turn grey.
- In pure Bentgrass stands a circular or ring-shaped dead spot occurs.
- Patches may enlarge (up to 15cm a year) to reach diameter of 1m or more.
- Or patches may appear briefly and then cease to spread.
- Affected patches do not usually heal rapidly and the centres are invaded/ colonised by Fescue and weeds.
- In mixed stands, the Bentgrass appears yellow-brown to brown, leaving a thinned overall stand dominated by Wintergrass or Fescue.
- Stolons, rhizomes, roots and bases of shoots become dark brown to black before they are killed.
- Less severely infected tissues often bear dark strands of mycelium oriented primarily parallel to the root axis.

## › Conditions Favouring Disease

- Severe during cool, wet years and in poorly drained turf.
- Greatly enhanced on turfgrasses grown in soils with high pH.
- Increasing acidity tends to suppress this disease.
- Soil conditions favouring the disease include, light texture, low organic content, low or unbalance fertility, soil pH above 5.5.

## › Management Tips

- Use acidifying fertilisers.
- Apply moderate to high levels of phosphorous, potassium and minor elements where these nutrients are depleted from the soil.



- Improve drainage of turf.
- When liming apply the coarsest grades of lime to avoid rapid changes in pH.
- Removal of diseases patches and resodding where small areas are affected.
- Preventative systemic fungicide applications.

## › General Comments

Take-All Patch predominately affects new Bentgrass golf greens (within 2 years old). However, it also infects older Couch greens.

## › Distribution

New South Wales, Victoria, Tasmania, Queensland.