



## COMMON SOIL BORNE DISEASES

### Fusarium

- Commonly called 'fusarium wilt'.
- Pronounced *few-sare-ee-um*.
- The fusarium fungi lives in the soil and attacks through the roots and the stem. If the plants are young, they will wilt, topple over and then die. In older plants, the leaves will go yellow and the plant will wilt, usually more on one side than the other. The roots and the stem will look dark orange to brown when cut.
- Plants that are stressed by high temperatures and soil that is too dry are usually affected. Also, soil that is too high in nitrogen is favourable to fusarium fungi.

### Pythium

- Commonly called 'collar rot' or 'root rot'.
- Pronounced *pith-e-um*.
- The pythium fungus usually affects very young seedlings or even the seeds just as they are germinating. The roots and stem of seedlings turn tan to mid-brown or black and then die. If the seeds are just germinating, they will rot and the top of the soil will look slimy.
- Pythium usually takes hold if there is too much moisture in the soil or if the soil drainage is poor which is usually caused by not choosing a suitable propagating mix. It also attacks unhealthy seedlings.

### Phytophthora

- Commonly called 'dieback', 'collar rot' or 'root rot'.
- Pronounced *fy-tofth-er-u* and is the Greek word for 'plant destroyer'.
- The phytophthora fungus attacks roots of any age plant at a point which is already damaged. The plants become stunted and the leaves become pale green, yellow or reddish. The leaves die quickly starting from the tip but they stay attached to the branch even when dead. If the plant is pulled up, the roots will appear rotten before the damage is seen on the leaves.
- Usually occurs in plants that are already a bit weak and where the soil is always too wet. The deadly plant disease commonly called 'dieback' that affects large areas of eucalypts and native species in WA, Victoria and Tasmania is a variety of phytophthora.

### Rhizoctonia

- Commonly called 'damping off' or 'collar rot'.
- Pronounced *rye-zock-toe-knee-u*.
- The rhizoctonia fungus mainly attacks seedlings with the damage caused on the stem at or slightly above ground level. The seedling will eventually topple over. Under a magnifying glass, black threads (called mycelium threads) can be seen around the damaged stem. The roots will also show signs of rotting and will eventually break off.
- Usually develops in seedlings when the soil is allowed to dry out and then is re-wet many times over.