Moles Seeds

Damping off in Seedlings

Cultural Leaflet: ZZ134

Damping off is one of the most significant production problems encountered by bedding plant growers. In broad terms, the disease involves collapse and death of germinated seedlings.

It is particularly prevalent in seed trays; the advent of seed sowing machines and plug trays has in itself allowed some control of damping off by isolating seedlings from their neighbours making disease spread more difficult.

Primary causes of damping off

- Pythium species
- Phytophthora species
- Rhizoctonia solani
- Alternaria species

Accurate identification of any damping off fungus is essential as the chemical control methods are specific. Although in this leaflet we try and identify the main features, it is best in the long-run to have this confirmed by an expert, such as The Plant Clinic of FERA (www.frera.co.uk).

Pythium

This disease is by far the most commonly encountered. No bedding plant species is immune from attack. The fungus attacks the roots and the base of the stem, the seedlings collapse, and gradually areas of collapsed seedlings form, creating bare areas in the trays. Sometimes the infection can be carried with pricked-out seedlings, leading to uneven growth and losses later on. As plants mature, susceptibility to attack decreases.

Phytophthora

Produces similar effect to the above, though less common in very young seedlings. Although difficult to distinguish from Pythium, as it happens the chemicals used to control one are generally effective on the other (this will obviously be specified in the chemical manufacturers' literature).

Rhizoctonia solani

Typically, this fungus attacks seedlings at the soil surface level, and produces a narrowing of the stem ("wirestem") which turns reddish-brown at the constricted region. Where humidity is high, the white fungal threads will spread over the soil surface, leading to a web-like appearance. Affected seedlings collapse.

Alternaria

Not strictly a damping off fungus, but included here as a common disease of bedding plant seedlings. Lobelia, Zinnia and Nemesia are particularly susceptible, and first symptoms are spotting of the leaves, before the seedlings collapse and die.

Strategies for dealing with damping off

Avoidance

Glasshouse hygiene is very important - this means:

- Clean water supply (mains or covered reservoir)
- Glasshouse surfaces as clean as possible, ideally surfaces sterilized before the season
- Fresh compost, kept in good storage conditions
- New or cleaned trays
- Not leaving trays water-logged
- Clearing up areas of spilled compost
- Controlling peat fly (sciarid fly) whcih can spread these diseases.

Control

- Discard trays which are part-affected to avoid problems later on
- Use a suitable fungicide, either as a preventative (especially where Alternaria is concerned), or as a control once a disease is identified. Follow manufacturers' guidelines with all agrochemicals.

Information provided for guidance only, as cultural practices and climatic circumstances vary.

(06/19)

Moles Seeds (UK) Ltd, Turkey Cock Lane, Stanway, Colchester, Essex CO3 8PD

Telephone: +44 (0)1206 213213 Email: sales@molesseeds.co.uk Website: www.molesseeds.co.uk

Quality Seed Quality Service

Moles Seeds