RESEARCH LABORATORY TECHNICAL REPORT

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Conifer shoot miner

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Identification, Biology & Management

Conifer shoot miner (*Argyresthia dilectella*) is a small moth, with a wingspan of about 8 mm. This is one of several related species of *Argyresthia* that are becoming more widespread through out the UK as a result of the increase in garden juniper (*Juniperus*) and cypress (*Chamaecyparis*) plantings.

Symptoms

The moth can cause severe and highly visible damage (shoot tip dieback and foliar scorch, Figure 1) to infested trees. Damage commonly occurs on hedges and individual specimen trees in urban settings.

Figure 1: Symptoms of shoot miner damage

Causal Agent

Damage caused by the early instar larvae (mined scale leaves) usually goes unnoticed. Late instar larvae hollow out entire shoot tips (Figure 2). Infested trees appear scorched and the dead hollowed out twigs are easily broken off. Heavy feeding will injure leaf cells and reduce leaf tissue area leading to a loss of plant vitality. If complete defoliation occurs the plant may die.

Figure 2: Conifer shoot miner damage

Control

Contact insecticides such as spray oil in combination with a synthetic pyrethroid offer the best form of control. They are mainly formulated as water based sprays and applied when leaf miners are present.

The insect growth regulator Dimlin Flo is highly recommended due to its persistence within the tree providing long term control. Dimlin Flo kills only moths and caterpillars, having no effect

against beneficial insects. Application early in the growing season is recommended.

No biological control agents exist.

Established in 1994, The Bartlett Tree Research Laboratories at the University of Reading is the research wing of Bartlett Tree Experts in the UK. Scientists here develop guidelines for all of the Company's services. The Lab also houses a state-of-the-art plant diagnostic clinic and provides vital technical support to Bartlett arborists and field staff for the benefit of our clients.