

Argentine Stem Weevil



Introduction

Argentine Stem Weevil (*Lissonotus bonariensis*) is a major pest of New Zealand pastures.

Description

Adults are earth-grey in colour, 2-3 mm long with a pronounced snout on the head. Larvae are soft, with a yellow-white body and a brown head capsule. The larvae have no legs and are up to 4 mm when fully grown. It is the larvae that cause the most significant damage.

Life cycle

There are typically two generations per year of Argentine Stem Weevil (ASW), and the damage done by larvae may be apparent from mid October to mid April. Annual ryegrass may be completely eaten out by the larvae of the first generation, but in perennial ryegrasses the second generation population is usually larger and more damaging.

Adults of the second generation go into a reproductive diapause in autumn triggered by day length (photoperiod). Egg laying typically ceases in the first week in March. These adults over-winter in plant litter at the soil surface and become active, mate, and lay eggs in early spring the following season.

Damage

Feeding by adult weevil is characterised by "windowing" of the grass leaf near its tip. These windows are typically rectangular and appear as clear areas, with the lower leaf cuticle remaining intact. Adult feeding damage is not normally significant except in summer-sown pasture.

It is the larvae mining the stem that do the greatest damage to vegetative tillers, which wilt and yellow from the centre outwards. If ASW larvae are attacking, look for dead or dying central leaves in tillers and pull on these gently. If the tillers come out of the plant easily this will be due to the base of the stem been eaten away, signifying ASW attack.

Management and Control

Sowing standard endophyte ryegrass has been the only option for controlling ASW attack, but now novel endophytes such as AR1® provide the same protection without the negative side effects. When sowing pastures, using an insecticide seed treatment such as Gaucho can provide early seedling protection to aid pasture establishment.

There is also a parasitoid wasp (*Microctonus hyperodae*) that is an important natural enemy of ASW. This is providing some control of ASW populations in some regions.

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