

Clover Root Weevil

Introduction

Clover Root Weevil (*Sitona lepidus*) is a very serious pest of improved pastures in New Zealand. Clover Root Weevil (CRW) feeds exclusively on clover, reducing clover production, survival and nitrogen fixation. Given the importance of clover to New Zealand farm systems this is a most serious pest. It was first identified in 1996 and is now found throughout the North Island and parts of the South Island.

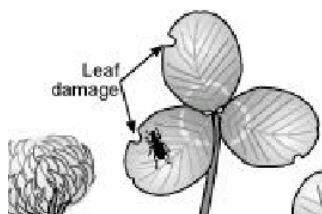
Description

Adult CRWs spend most of their time on the ground or in the lower part of the plant canopy. They move up the plant to feed at night. They are brownish-grey, about 5 mm long and a "typical weevil shape". CRW larvae range in size from 1 mm when newly hatched to 6 mm before pupation. They have brown heads, creamy white bodies and no legs. The smaller larvae feed on clover root nodules, the larger on laterals and main roots. Because of their pale colour, CRW larvae are relatively easy to spot in the soil with the naked eye.

Damage

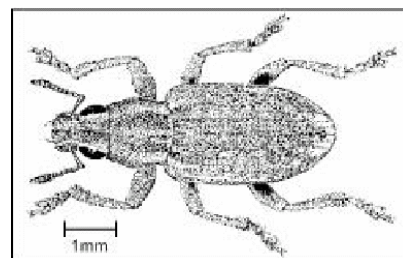
An evenly shaped notch (generally U-shaped notches) around the outside of clover leaves is the most obvious sign of CRW. Difficult to see but very important is the larval feeding that reduces root mass, removes the nitrogen fixing root nodules and creates wounds which make the plant susceptible to fungal diseases. Poor clover persistence and unhealthy plants are possible signs of larval feeding.

Typical CRW foliage damage



Source (AgFACT no. 235)

Adult Clover Root Weevil



Source (AgFACT no. 235)

Management and Control

The major effect of CRW is to reduce the amount of nitrogen available in the soil-pasture system so applications of nitrogen fertilizer can mediate these effects to an extent.

Other recommendations:

- Red clover is thought to be more persistent than white under CRW attack, so adding red clover to pasture mixes could help.
- Young white clover plants (up to 18 months) appear less prone to damage than older ones, thought to be due to having a tap root.
- However, adult ASW prefer seedlings so simply trying to re-establish clover in a CRW infested pasture may not work.
 - Cultivation may reduce weevil numbers in the short term.
 - Do not assist CRW dispersal by moving hay from infested areas to those that are not.
 - AgResearch scientists recently released a parasitoid wasp as a bio control agent for CRW

For more information contact Cropmark Seeds Ltd
Ph: 0800 427 676