

Historically slugs and snails have, up until a couple of decades ago, been a fairly unimportant pest in cereal crops across Australia. Today, slugs and snails in particular heavily threaten the industry. There have even been instances of whole sowings being destroyed.

The slug problem has become more important as minimum or no till methods become widespread and stubble burning has been reduced. Slugs either hollow out seeds in the drill lines or attack plants soon after emergence. Slugs move into the soil during the day and emerge over night feeding on the soil surface up until dawn. Slugs can eat several times their own weight in one night. Slug numbers tend to build up rapidly in wet seasons and tend to increase when the land has been used for pasture for several years. Cultivation reduces slug numbers and slug numbers may be reduced by natural predators such as black shiny beetles called carabid beetles. Unfortunately carabid beetles are killed by broad spectrum insecticides (including methiocarb) and their numbers are also reduced by cultivation and heavy grazing.

The snail problem for cereal crops arise from the white snails usually either the small conical snail, *Cochlicella barbara* or the Italian snail, *Theba pisana*. These snails will attack the seedlings at emergence but more damage is done by contamination of the crop at harvest.

White snails mate and lay clutches of eggs in or on the soil in spring and then as summer approaches they climb up weeds, stalks and fence posts etc to get off the soil surface. They then seal off the entrance to their cell and slow the body functions down in a process called aestivation. On cooler damp days they reverse the process and will come down to the soil to feed. When it warms up again they aestivate again. The problem with cereals arises if harvest occurs on warm to hot dry days. There are various ways to minimize the number of snails collected in the harvest and ways of cleaning the grain but these procedures are not 100% effective and add to production costs.

It is worthwhile checking slug numbers by setting slug traps. This will enable the grower to check which part of the paddock is most infected and if necessary bait all or just some of the paddock. Slug numbers tend to be higher in moister parts of paddock and lower on ridges. Simple slug traps can be made by cutting a masonite piece about 30 x 30cms, drilling a hole in the centre and securing it to the soil by means of a steel tent peg. It is important that the smooth surface is in contact with the soil and there is good soil - trap contact. Putting a small amount of chicken pellets under the trap will help attract the slugs to the trap. The trap should be checked pre- dawn, and if there are two slugs or more under the trap then **ERADICATE** Snail and Slug Killer should be used to reduce numbers.

It is important to apply slug baits several days before sowing. Baits are most likely to be eaten when there is little alternative feed. If slug numbers are high it is possibly better to bait at half the chosen application rate 4 to 5 days before sowing and to apply a second treatment again at half rate at emergence or soon after.

If white snails are a problem at sowing apply **ERADICATE** at 5 kg/ha to 15 kg/ha depending on the infestation at sowing or up to 1 week after emergence. Two applications at half rate separated by two weeks or so may be more effective than 1 application. Usually it is not possible to bait just prior to harvest, but may be possible mid season if the infestation has built up.

For further information on snails and slugs control consult the **ERADICATE** website.



*Theba pisana*



*Cochlicella barbara*



*Deroceras reticulatum*