



Ground rat (left) and Climbing rat.

## MEET THE GROUND RAT

Two types of rats infest cane crops – the ground rat (*Rattus sordidus*) and the climbing rat (*Melomys burtoni*) – causing \$2 to \$9 million damage each year in Queensland.

Ground rat damage is most severe in the Herbert and Mackay districts although this species also causes problems farther north.

Rats damage cane in two ways. First, chewed stalks cause a direct yield loss (reduced tonnes per hectare). Second, rat bites allow bacteria and fungi to enter the stalks, resulting in a 15 to 20 per cent reduction in ccs. Bites also can increase the incidence of attacks by insect pests such as the weevil borer. If you have both destruction of cane and decreased ccs due to rat damage, your losses could be as high as 30 per cent.

Understanding a little about rat biology, including what these species like to eat, where they like to live and when they breed, can help you better control these pests in your canefields.

### Diet

- Grasses, weeds, seeds, sugarcane, and occasionally insects.
- The ground rat has a distinct switch in diet, which is linked with the beginning of its breeding season.
- From November to March grasses and weeds make up the greater part of the rodent's diet with very little sugarcane being consumed.
- From April to September sugarcane is the rat's primary food source.

### **Habitat**

- The ground rat is a grassland animal that prefers to inhabit areas with moist, friable soils.
- Mature sugarcane provides the ground rat with excellent shelter.
- Drainage areas and creeks and riverbanks overgrown with grasses and weeds provide the ground rat with safe harbourage after crops have been harvested.

### **Reproduction**

- Rats begin breeding in November/December depending on the availability of summer grasses (a good source of protein).
- The high protein grasses ensure healthy populations capable of reaching their full breeding potential.
- Females are capable of producing ten litters per year (25 in their lifespan), starting when they are only 65-days-old.
- Litter size ranges between 3-14.
- This species has the highest reproductive potential of any native Rattus species.

### **Damage**

- Damage by this species has a greater economic impact to the sugar industry than damage caused by the climbing rat.