



## **Establishing pastures - Readers' Note**

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## Pest control at sowing

If you have found pests when checking the topsoil or crop residue, or if there is a historical risk of pests, you can treat immediately before sowing for seed-harvesting ants, red-legged earth mites (blue oat mites), slugs, snails and cockchafers.

### Seed-harvesting ants

To prevent seed loss by seed-harvesting ants, treatment with bendiocarb (for example, Ficam®) or permethrin (for example, Coopex®) is essential for all grass and small legume seed that will be surface-sown. This treatment does not affect rhizobium survival on inoculated seed.

### Red-legged earth mites (blue oat mites)

These mites can cause regular and severe damage on the Slopes and Tablelands and spasmodic outbreaks in coastal areas. When damage is regular it is common to prespray or treat seed before sowing both conventional seedbeds and by direct-drill.

Seed can be bought pretreated (for example, N•Dure Plus® or AgricOTE®) or can be treated on-farm before sowing with omethoate (for example, Le-Mat®); or seedlings can be treated with an appropriate insecticide applied by boomspray after germination.

To prepare the seed dressing, mix it in a cement mixer. Mix omethoate with about half the suggested water volume, then add it to the seed. Add the remaining water slowly to obtain full coverage of the seed. Continue mixing until the seed is dry. Store under cover. Seed dressings will give 3–6 weeks' protection depending on mite numbers and growth. For additional protection, follow-up spraying might be

needed after sowing.

When applying glyphosate before sowing, add dimethoate (for example, Rogor®) or omethoate to the spray mix. This will give 2–3 weeks' protection depending on rainfall. Mites are usually a problem only in mild winter weather.

To inoculate omethoate-treated legume seeds, treat with omethoate and let stand for 24 hours. Then apply inoculant and sow on the same day. (See section 2.5 for how to inoculate.) Destroy treated seed not used for sowing.

**Do not** sow into dry soil or where germination might be slowed.

**Do not** mix omethoate directly with inoculant.

**Do not** treat seed more than one season old.

**Do not** store treated seed for more than one week.

**Do not** store treated seed near foodstuffs or where it is likely to prove hazardous to humans or animals.

Decreased efficiency can occur when heavy rain falls after sowing but before emergence, and where weed control has not been adequate.

### Slugs and snails

The best method of checking for slugs and snails is to put out bait stations before sowing. Squares of cardboard (30 × 30cm) held down by a stone are suitable. Place these near watercourses, in damp spots and near trees. If there are more than 2–3 slugs or snails at the bait stations, baiting with methiocarb (for example, Mesurol®) is recommended.

Slugs and snails can be controlled by cultivation or, in direct-drill or mulch planting situations, by applying a bait

containing methiocarb at or immediately before planting. Where slugs and snails are readily found, rates of 5.5–22kg/ha could be necessary.

Consider routine baiting with 2–3kg/ha in wet situations by broadcasting or dropping the pellets above the drill row. A pesticide permit will be needed for low rates of application. Apply to your local office of the EPA for this.

**Further reading:** Agfact AE.19, *Slugs and Snails*.

### Pasture cockchafer

Larvae of African black beetle, pruinose and dusky pasture scarab and Argentine scarab can severely damage direct-drilled pastures at establishment. Where these larvae are present in populations below approx. 15 per m<sup>2</sup>, pasture establishment can be doubled by treating the grass seed before sowing as outlined in the table below. Where populations are greater, consider cultivating before sowing.

Products	Where to use	Pests	Rate	Critical comments
250 g/kg chlorpyrifos seed dressings (e.g. Lorsban® 250)	Direct-drilled ryegrass and clover pastures	Root-feeding scarab larvae, wireworms and seed-harvesting ants	10 g product per kg seed	Mix thoroughly and evenly with the seed immediately before sowing
500 g/kg chlorpyrifos seed dressings (e.g. Lorsban® 500)			250 g product + 250 g talcum powder per 50 kg seed	If inoculant is required for nodulation of clover seedlings, apply as a water-injected slurry alongside the treated seed

**Further reading:** Agfact AE.5, *African Black Beetle*; Agfact P2.AE, *Scarab Grubs in Northern Tablelands Pastures*.

### Black field crickets

Crickets can be controlled by cultivation before planting, or by baiting before direct-drilling, mulch planting or broadcast sowing.

Field crickets can be controlled with a bait made up of wheat grains treated with

maldison (17 kg wheat treated with 560mL of 500g/L maldison concentrate, per hectare). This use is not registered under the Pesticides Act 1978, but has been authorised by permit by the Registrar of Pesticides for field cricket control in pastures and cereals, on seed crops and on seed and pod vegetables.

Prepare the bait by mixing the wheat and the maldison together thoroughly and storing it overnight. Scatter it over the affected area late on the following afternoon.

**Treated seed must not be used for animal or human consumption. Do not allow treated seed to contaminate grain intended for animal or human consumption.** If storing treated grain, keep it apart from other grain and clearly mark the bags or other containers holding it to show that the contents have been treated.

No guarantee is given by the Registrar of Pesticides as to the effectiveness,

safety, or any other thing of this advice or information; and no responsibility is accepted by the Registrar of Pesticides as to the effectiveness, safety, or any other thing which may, or may not, occur as a result of preparing the pesticide for use, using the pesticides, and/or making a claim that the pesticide may be prepared for use and/or used.

**Further reading:** Agfact P2.AE.6, *Field Crickets*.