



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

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## Pest control before sowing

Careful checking of the top 10 cm of soil and pasture residues is necessary before direct drilling. Slugs, snails, pasture cockchafers and black field crickets may be better treated by cultivation rather than chemical means. Planting pest-resistant lucerne varieties might minimise damage from spotted alfalfa, blue-green and pea aphids. Some subclovers have been selected for tolerance to red-legged earth mites.

### Snails and slugs

Snails and slugs can cause significant seedling losses in direct-drilled and mulch-planted pastures in wet conditions or following cool wet summers.

The best method of checking for them is to put out bait stations before sowing. Squares of cardboard (30 × 30cm) held down by a stone or wet hessian bags are suitable. Place these near watercourses, in damp spots and near trees. If there are more than 2–3 snails or slugs at the bait stations, baiting with methiocarb is recommended. Where large numbers are found, thorough cultivation might be the best option for killing adults and eggs.

When herbicides have been used to kill existing pasture, and dry residue remains, burning before drilling can greatly reduce populations.

### Earth mites

The most common pests of new pastures on the Tablelands and Slopes are red-legged earth mites and blue oat mites. They can cause enormous damage, especially if they attack the cotyledon, or seed leaf, of the germinating legume seedlings.

If direct-drilling or mulch plantings are to take place in autumn, early prespraying

in spring and autumn can reduce numbers in areas where earth mites occur regularly.

**Spring spray:** Apply an appropriate miticide such as dimethoate or omethoate when spraying thistles, spray-fallowing or pasture-topping in late spring. This kills most of the year's final adult population and greatly reduces the number of over-summering eggs.

**Autumn knockdown:** When the autumn break coincides with maximum temperatures below 22°C, the mites will hatch. Two or three weeks later the first generation will be mature and ready to lay eggs. If sufficient numbers are present and any weed spraying is being done, include a miticide at this time.

### Black field crickets

These spasmodic pests of direct-drilled and mulch-planted pastures can be found under plant debris, in cracks in the ground and under clods. Field inspection before sowing is essential. They can be controlled by baiting before sowing or cultivation.

### Pasture cockchafers

This group includes African black beetle, pruinose scarab and dusky pasture scarab. Larvae, or white curl grubs, can cause major losses of establishing grass and clover seedlings in direct-drilled and mulch-planted pastures. Adult African black beetles can also damage grass seedlings in late autumn and winter.

Larvae of the African black beetle are active from early summer to late February. Where these are the only scarabs, autumn planting from mid March onwards should avoid significant losses. Pruinose scarab and dusky pasture scarab larvae feed

actively from February to spring. Yellow-headed cockchafer numbers increase following dry springs and summers, particularly after a succession of dry years.

A thorough check of the top 10cm of soil before sowing is the only way to check for these pests. If white curl grubs are found, thorough cultivation will give easy control.

### Further reading

Agfact AE.19, *Slugs and Snails*

Agfact AE.54, *African Black Beetle*

Agfact P2.5.13, *Lucerne Varieties 1995–96*

Agfact P2.5.16, *Subterranean Clover in NSW—Identification and Use*

Agfact P2.AE.1, *Scarab Grubs in Northern Tablelands Pastures*

Agfact P2.AE.6, *Field Crickets*

Agnote DPI 64, *Goulburn Subterranean Clover*

Agnote DPI 65, *Denmark Subterranean Clover*

Agnote DPI 66, *Leura Subterranean Clover*