

## IS SOMETHING SUCKING THE LIFE OUT OF YOUR YOUNG CROP?

Red Legged Earth Mite (RLEM) and Blue Oat Mite (BOM) can devastate newly sown pastures and crops and dramatically reduce production of established pasture. Mites can increase to plague proportions when left unchecked. The rapid reproduction cycle of the RLEM means that untreated populations increase in size by 100 times every 60 days. Plague populations can exceed 100,000 mites per square metre, causing enormous damage in a relatively short period. The longer that treatment is delayed under high numbers, the greater the potential damage to young crops and pasture.

RLEMs are easily identified. Adults have black bodies and eight bright orange-red legs and are about the size of a pin head (up to 1mm). BOM are often mistaken for RLEM, and can only really be distinguished by the red blotch on their backs, and blue black colour.



Red Legged Earth Mite



Blue Oat Mite

Mite hatchings are generally triggered by 15-20mm of rain followed by 3-4 days of cool cloudy weather with day temperatures less than 20 degrees. Mites are seen 10-21 days after this.

The mites feed by rasping the surface of the leaves and by sucking the sap. Feeding is from late afternoon until early morning, but continues through the day in calm, cloudy weather. The mites are very active and if disturbed on a plant will drop or descend to the ground and disperse to find shelter. RLEM usually remain clustered together in the soil or on parts of the leaves during the day. BOMs generally hide by day in the soil beneath damaged plants or under plant debris on the ground. Scouting is obviously best undertaken early in the morning or late in the afternoon.

Spraying is effective and cheap but not all registered chemicals control both mites. Specific products work better in certain situations, eg those that are systemic work better on green plants, while others act well as bare ground sprays. Seed can also be treated to protect against mites, however, if heavy infestations occur this method is often inadequate.

### June Monthly Specials Quirindi Only

5lt Garden Sprayer with adjustable nozzle -  
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# Fertigation for Pasture

Liquid fertilisers are becoming accepted as tool for efficient pasture topdressing using fertigation as the method of application. Fertigation has both agronomic and logistical benefits for efficient pasture management. Such as-

- Using liquid fertilisers through irrigation allows flexibility to match application rates to crop production eg applying small amounts regularly rather than irregular large applications.
- Reduces compaction from machinery such as spreaders and tractors

- Eliminates handling and storage of bulk fertilisers in sheds and silos.
- Fertigation applies nutrient evenly across the paddock.
- Application cost savings eg contractors are not required to apply fert as with solids
- Storage tanks and pumping systems are affordable and easy to operate.

Some key points for calculating methods of application rates are:

- Hectares covered by Center Pivot.
- Hours for the irrigation sys-

tem to cover the hectares

- Litres of solution required per hectare.

$$\text{Injection rate: - } L/Hr = \frac{A + V}{T}$$

L/hr = injection rate of liquid fertilizer in litres per hour.

A = Area to be fertilized in hectares.

V = Volume of Product needed in litres per hectare.

T = Time to irrigate/fertigate the field in hours.

For further information on the benefits of fertigation contact your local agronomist.

## Erik's Humour...

- ⇒ My dad always said "fight fire with fire", that's probably why he got thrown out of the fire brigade...
- ⇒ There are two kinds of fisherman—those who fish for sport....and the ones who actually catch something.
- ⇒ A man orders a pizza and the sales person asks if he would like it cut into 6 or 12 pieces. The man replies "make it six, I could never eat 12".....



# Under Sowing Lucerne

Ideally, lucerne should be sown alone. Under-sowing lucerne with cereal cover crops is widespread to help defray the costs of establishment. A cover crop is also used to help reduce soil erosion or sand blasting of seedlings. Sowing of pure lucerne - without a cover crop - has been shown to provide reliable stand establishment, improved survival in the first year by up to 80 per cent and resulting in more productive pastures in the following spring. It is often forgotten that longer term financial returns may be reduced by cover cropping if lucerne establishment is poor and subsequent crop yields are reduced by low soil nitrogen levels.

The risks and pitfalls of various cover cropping techniques are summarised below: -

## Cover Cropping Techniques

**Method 1:** Mix the cover crop and lucerne seeds together and sow as normal for the cover crop.

**Comment:** High risk of establishment failure. Lucerne seed sown too deep and the risk of smothering increased.

**Method 2:** Sow the cover crop first and then sow the lucerne in a separate operation over the top of the cover crop.

**Comment:** Cover cropping may be well established before rains establish all the lucerne. Establishment is often weak, and stand may remain unproductive for at least 12 months.

**Method 3:** Sow the crop and the lucerne in the same operation but the lucerne being sown from a small seed box with simple modifications to ensure shallower sowing of the lucerne.

**Comment:** Improves reliability of lucerne establishment. Earlier sowing and reduced sowing rates of cover crop (15-30 kg/ha) will increase lucerne establishment with generally only a small effect on crop yields.

**Method 4:** As for method three, but using wider crop row spacings or sowing the lucerne in alternative rows to the cover crop.

**Comment:** Significantly better lucerne establishment than Method 3 giving more accurate lucerne seed placement and lucerne far more pro-

ductive in the following autumn-winter period. Increased longer term financial returns.

**Method 5:** Direct drilling the lucerne into the crop stubble in the year after the crop.

**Comment:** Alternative approach if lucerne seed cannot be placed accurately at the correct depth for adequate establishment more often. Lucerne also sown at the optimum time and grain yield of the crop in the final year not affected. Proven successful technique with a highly productive lucerne stand being achieved in the first year of pasture.

If a cover crop is required the following alternative practices will reduce the level of competition and minimise the effect on lucerne establishment:-

**Choose a less competitive cover crop** - Lucerne appears more sensitive to cover cropping than other clovers. The risk of establishment failure is greatest when lucerne is undersown to oats, wheat, barley, pulses, grain legumes and safflower. Canola is a less common option for establishing lucerne but may be an ideal fit with similar seeding requirements, common pests, new herbicide options available (e.g. canola varieties with Clearfield\* trait) for weed control and earlier maturity at the end of the season.

**Early removal of cover crop** - Sow the cover crop without the lucerne in autumn then, using a knockdown herbicide, spray out the cover crop and sow the lucerne into the crop residues.

Removal of the cover crop in the boot stage, by making hay or silage will help prevent smothering the new lucerne stand.

**Delay grazing** - If a cover crop is left to harvest grain, use straw spreaders to ensure the young lucerne is not smothered and leave the seedling lucerne stand ungrazed during the first summer.

**Sow Alternate Rows** - Sowing alternate rows, eg sow a wheat row then a lucerne row, will allow the lucerne to have its space to establish without the intrarow competition from the cereal plants.