whats up...

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Pursehouse Rural Newsletter

# Helicoverpa Armigera in Sorghum

Heliothis (now know as heliocoverpa) have become very important economic pests of most crops including sorghum. Heliocoverpa are not generally a widespread or annual problem in sorghum throughout the area, with many seasonal conditions playing a role in there populations. Last year however we saw large numbers of heliothis in the area and unfortunately in some cases significant economic damage was a result of sorghum crops being untreated, or simply being treated too late. This year again, some of the early sown crops have heliothis populations that have been estimated at above acceptable levels.

The helicoverpa lifecycle consists of: moth, egg, larva and pupa. It is the larva form that obviously causes the crop damage. Heliothis do little damage as foliage feeders. The moths lay pearly-white eggs on pre-flowering heads. Up until they are usually about 10mm long, young heiothis mainly feed on the anthers and other floral parts surrounding the flowers in the sorghum head. From this stage through to maturity however the larvae start feeding on the ovaries (developing grain) and cause most of the economic damage.

The control of heliothis has become more difficult in recent times with widespread resistance to pyrethroids now a major problem. The first choice for control should always be Nuclear Polyhedrosis Virus (NPV), registered as Gemstar or Vivus Max. This naturally occurring virus is heliothis specific, and safe on all other beneficial insects. Other chemistry is available if NPV, for some reason does not have a fit.

The helithis larvae economic threshold ( the number per head where the cost of control is equal to the value of the grain saved) can be calculated from the following formula:

| Heliothis larvae economic threshold | Where: |
|---|---|
| $\frac{C \times R}{V \times N \times 2.4}$ | C = Cost of control<br>R = Row spacing (cm)<br>N = Number heads/m row<br>V = Value of crop ($)<br>2.4 = Weight of sorghum (grams) lost per heliothis Larva on average |

# Incitec Pivot Big N Field Day

## When and Where

Tuesday 19th February — Jim Russell 'Andamooka' Spring Ridge
Wednesday 20th February — Jeremy Jones 'Carnarvon' Mullaley

## Topics of Interest

Minimum Tillage Aplication
Raven Variable Rate Controllers
Agronomy with Regional Agronomist
Discussion on Spray Technologies with Graham Betts

Breakfast Meetings commencing 7.00am
For further information contact Steve Byrnes on 0428 963 206

# Lucerne and Chicory...A Fantastic Combination

Lucerne is often described as the king of forages, but there are issues associated with lucerne, some of which have been resolved by including chicory in a lucerne stand.

Chicory is a broadleaf perennial herb, with a large taproot. It is capable of growing at a pH ($CaCl_2$) as low as 4, but is best suited to 5.5-6. Chicory is highly palatable; it provides a balanced protein to energy ratio, high mineral content and rapid passage through the digestive system, enabling high feed intake as well as increased live weight gain.

Sardi 7 lucerne and Puna chicory sown at "Maderty" Coonabarabran

**Benefits**

- Chicory will grow in the acidic areas of a paddock, where the lucerne won't. Limiting the gaps often associated with strait lucerne stands in paddocks with varying pH.
- Growth pattern is similar to lucerne (high spring, summer, autumn growth). Varieties such as commander have even growth patterns, which will mach up with highly winter active lucerne varieties.
- Deep root system and perenniality allows chicory to compete with lucerne where short-lived annuals will not.
- Anecdotal evidence suggests that the inclusion of chicory limits the risk of bloat and redgut.
- Chicory retains leaf better than most lucerne varieties under dry conditions.

**Disadvantages**

- Grazing to short can cause pests and disease to get into the crown.
- Chicory leaves can dry out and crumble when made into hay.
- Herbicide options are limited when chicory is included in a lucerne stand.

For more information on lucerne and chicory mixes, or any pasture mixes, please contact your local Pursehouse Rural agronomist.

Cutting a 6month old Lucerne chicory paddock due to high levels of St Barnaby's Thistle. Chicory does not usually make quality hay, but is suitable for silage.



# January Weather Summary

visit http://www.pursehouserural.com.au/services/weather_station.html

| Location | Average Temp (°C) | High Temp (°C) | Low Temp ( °C) | Number of Days > 35°C | Rain mm | Average Wind Speed Km/h | High Wind Speed Km/h | Dominant Wind Direction |
|---|---|---|---|---|---|---|---|---|
| Cattle Lane, Willow Tree | 22.5 | 36.3 | 11.2 | 3 | 66.6 | 11.3 | 57.9 | SSE |
| "Murlow", Quirindi | 22.6 | 36.2 | 9.6 | 4 | 40.4 | 8.7 | 62.8 | SSE |
| Mullaley | 23.5 | 36.0 | 13.4 | 2 | 67.0 | 14.6 | 69.2 | SSE |
| "Dow Site", Breeza | 23.5 | 36.6 | 13.2 | 4 | 57.8 | 9.6 | 54.7 | SSE |