## Lucerne seed web moth (Etiella behrii) in lentils, field peas, lupins, soybeans (WA, SA, VIC, NSW), and peanuts (QLD)

<table>
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<th>Vegetative – early pod development</th>
<th>Pod fill</th>
<th>Drying off</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signs</td>
<td>Frass and larvae in pods, and adjacent pods webbed together as larvae move between pods.</td>
<td>Seeds usually only partially eaten out, often with characteristic pin-hole damage. Damage is difficult to grade out and unattractive appearance reduces seed quality. Peanuts are at particular risk during end-of-season droughts when the dry soil allows larval access to the pods.</td>
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<td>Monitoring</td>
<td>The etiella degree-day model forecasts timing of initial moth flight using daily max/min temperatures from June 21 onwards. Start monitoring for moth flights when the model reaches 351 D-days.</td>
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<td>Thresholds</td>
<td>Control weeds - rattle pods are favourite weed hosts (QLD)</td>
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### Signs
- Incidence and abundance varies by season. Severe infestations can result in a loss of yield and quality.
- Etiella flights commonly occur in mid to late September and often coincide with early pod development in pulses.
- Larvae burrow into pods within 24 hours of hatching. They feed on pods and seeds, remaining in pods until entire content has been eaten.
- Frass is left in the pod, and adjacent pods may be webbed together as larvae move between pods.

### Monitoring
- The etiella degree-day model forecasts timing of initial moth flight using daily max/min temperatures from June 21 onwards. Start monitoring for moth flights when the model reaches 351 D-days.
- An etiella pheromone is available for use in sticky traps.
- Moths are attracted to lights from around mid August.

### Beneficials
- Predatory bugs – glossy shield bug can attack moths
- Parasitic wasps and flies have been recorded from larvae and pupae

### Cultural control
- Avoid moisture stress during early podding
- Early planting of crops should ensure that most pods are set before moth activity occurs in spring
- Control weeds - rattle pods are favourite weed hosts (QLD)

### Thresholds
Recommended action threshold is 1-2 etiella moths in 20 sweeps (lentils)

### Pesticides
Chemical control of etiella is only effective on adult moths. Once larvae are in pods they cannot be controlled by insecticides.
- Successful control relies on thorough crop monitoring in order to time insecticide applications to target adult moths prior to egg lay.
- Continue monitoring for 1 week after chemical applications

### Considerations
- Typically only the first generation of etiella are of concern. However, in late finishing seasons, a second generation may also cause significant seed damage.
- In some years both helicoverpa and etiella moths can be controlled with one spray.
- Etiella is associated with aflatoxin in peanuts.

### Communication
Good communication and sharing information with agronomists and other growers may provide initial indications or etiella presence. Area wide coordination of management methods is useful, particularly weed control, monitoring techniques/frequency, and trapping strategies.
Industry publications provide up to date information about regional pest issues

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