Background

- Banana weevil borer (BWB) (*Cosmopolites sordidus*) is the major insect pest of bananas in New South Wales, Australia.
- Two slow release lures of the aggregation pheromone sordidin +/- other attractants are available commercially, neither lure is used in banana production in Australia.
- BWB population monitoring with pseudostem traps is conducted in some plantations, however this is very labour intensive.
- Commercially available traps are not suited to Australian production systems as they are dislodged by animals, rain events or catch significant numbers of beneficial insects.

Trial design

- Traps placed 20m apart in a double row Cavendish plantation in a latin square experimental design, were filled with soapy water to capture BWB for the fortnightly counts.
- Pseudostem baits were insecticide treated and replaced at the time of each count.
- The trial ran for 140 days. A high intensity rainfall event flooded and dislodged some of the traps at day 40 and the trial was re-established at day 42.

Results

- Results are shown in Table 1 and Figure 1.
- There was no statistical difference between the catch rates with either lure when paired with the prototype or commercial trap.
- The commercial trap outperformed the prototype trap.
- Both lures outperformed the pseudostem baits.
- Beneficial bycatch was limited at this site so results were not collected.

Table 1. Mean total catch for each of the trial treatments after 84 days.

<table>
<thead>
<tr>
<th>Trap x lure</th>
<th>total</th>
<th>se</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial x Cosmolure</td>
<td>91.6</td>
<td>21.3</td>
</tr>
<tr>
<td>Commercial x CosmoPlus</td>
<td>71.6</td>
<td>16.8</td>
</tr>
<tr>
<td>Homemade x Cosmolure</td>
<td>34.8</td>
<td>8.4</td>
</tr>
<tr>
<td>Homemade x CosmoPlus</td>
<td>37.3</td>
<td>8.9</td>
</tr>
<tr>
<td>Stem x nil</td>
<td>7.9</td>
<td>2.2</td>
</tr>
</tbody>
</table>

Discussion

- The pheromone lures are significantly more attractive and less labour intensive than pseudostem baiting.
- BWB lures are now available commercially in Australia.
- The flooding and dislodgement of the traps indicate trap design needs further work for Australian conditions.

Figure 1. Estimated trends in fortnightly catches. Shaded areas enclose predictions +/- 2 standard errors within the commercial and homemade trap classes.