SUMMARY OF THE ZIMBABWE 2004/2005 DE TRIALS AFTER 20 OR 24 WEEKS OF STORAGE

Damage in all the grain protectants is still generally low (≤10%) except in the maize cob ashes treatment on cowpeas, which has a damage level similar to the untreated control. There is also evidence that the damage level in the finger millet chaff has started increasing, however it is still less than the untreated control. The insect population is dominated by *Sitophilus* species on maize and sorghum. The occurrence of *Rhyzopertha dominica* on sorghum is still patchy. The sampling is expected to provide the data which will clearly distinguish the treatments.

Insect damage to maize grain treated with DEs or chemical protectants during the 2004/05 storage season, IAE Harare (n=4)
Insect damage to sorghum grain treated with DEs or chemical protectants during the 2004/05 storage season, KMTC Binga (n=4)

- Untreated control
- Protect-It 0.15%
- Protect-It 0.1%+ Permethrin 0.01%
- Chemutsi 0.2%
- Chemutsi 0.25%
- Beitbridge 0.2%
- Shumba Super Dust

Mean % insect damaged grain (± sem)

- 0 wks (29/07/04)
- 10 wks (07/10/04)
- 20 wks (21/12/04)
- 30 wks (24/02/05)
- 40 wks (05/05/05)

Insect damage to maize grain treated with DEs compared to other grain protectants during the 2004/05 storage season, Buhera (n=4)

- Untreated control
- Protect-It 0.15%
- Chemutsi 0.15%
- Chemutsi 0.2%
- Chemutsi 0.25%
- Shumba Super Dust
- Finger millet chaff

Mean % insect damaged grain (± sem)

- 0 wks (15/07/04)
- 10 wks (07/09/04)
- 20 wks (02/12/04)
- 30 wks (10/02/05)
- 40 wks (21/04/05)
Insect damage to cowpeas grain treated with DEs compared to other grain protectants during the 2004/05 storage season, Buhera (n=4)

<table>
<thead>
<tr>
<th>Treatments</th>
<th>0 wks  (14/07/04)</th>
<th>10 wks (07/09/04)</th>
<th>20 wks (03/12/04)</th>
<th>30 wks (10/02/05)</th>
<th>40 wks (21/04/05)</th>
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<tbody>
<tr>
<td>Untreated control</td>
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<td>Protect-It 0.1%</td>
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<td>Chemutsi 0.1%</td>
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<td>Chemutsi 0.15%</td>
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<td>Chemutsi 0.2%</td>
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<td>Maize Core Ashes</td>
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Mean % insect damaged grain (± sem)