# Grain Millet: Grain Millet Insect Control

(Pearl millet for grain production)

David Buntin, Research/Extension Entomologist

<table>
<thead>
<tr>
<th>PEST</th>
<th>INSECTICIDE</th>
<th>MOA</th>
<th>AMOUNT PER ACRE</th>
<th>LB ACTIVE INGREDIENT PER ACRE</th>
<th>REI/PHI (Hours or Days)</th>
<th>WHEN TO TREAT, REMARKS AND PRECAUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil insects: wireworms</td>
<td>imidacloprid</td>
<td>4C</td>
<td>6.4 fl oz/100 lb of seed</td>
<td>–</td>
<td>12H/45 D grazing</td>
<td>Seed treatments also may suppress aphids for 2-3 weeks after planting.</td>
</tr>
</tbody>
</table>
| | thiamethoxam  
Cruiser 5FS | 4C | 0.75-1.33 fl oz/100 lb seed | – | 12 H/45 D | |
| Chinch bug, False chinch bug | alpha-cypermethrin  
Fastac, other brands 0.83 | 3A | 3.9 fl oz | 0.025 | 12 H/14 D | Inspect seedlings soon after emergence. Apply after planting when stunting and discoloration are visible and bugs are present. In wide rows, direct spray at base of plants. In narrow rows, broadcast application. Use at least 10 gal of spray mix/A. Spray for thorough coverage. Applications to dense foliage and after boot stage may not be effective. |
| | beta-cyfluthrin  
Baythroid XL 1 | 3A | 2.4 fl oz | 0.019 | 12 H/30 D | |
| | spinosad + gamma cyhalothrin  
Conseso | 5 + 3A | 3.05 fl oz | – | 24 H/30 D | |
| | zeta-cypermethrin  
Mustang Maxx 0.8 | 3A | 4 fl oz | 0.025 | 12 H/14 D | |
| Lesser cornstalk borer | zeta-cypermethrin  
Mustang Maxx 0.8 | 3A | 4 fl oz | 0.025 | 12 H/14 D | Very difficult to control. Broadcast application may provide some control. Do not plant millet into burnt crop stubble. |
| Fall armyworm and other worms in the whorl | alpha-cypermethrin  
Fastac, other brands 0.83 | 3A | 3.9 fl oz | 0.025 | 12 H/14 D | Millet is very tolerant of whorl stage defoliation. Treat when 50% of whorls are infested and larvae are present. Blackhawk / Tracer is most effective against smaller larvae. |
| | chlorantraniliprole  
Prevathon 0.43 | 28 | 14-20 fl oz | 0.047-0.067 | 4 H/1 D | |
| | beta-cyfluthrin  
Baythroid XL 1 | 3A | 2.4 fl oz | 0.019 | 12 H/30 D | |
| | spinosad + gamma cyhalothrin  
Conseso | 5 + 3A | 3.05 fl oz | – | 24 H/30 D | |
| | spinosad  
Blackhawk (36%) | 5 | 1.7-3.3 oz | 0.038-0.075 | 4 H/7 D | |
| | zeta-cypermethrin  
Mustang Maxx 0.8 | 3A | 4 fl oz | 0.025 | 12 H/14 D | |
## GRAIN MILLET INSECT CONTROL

**(Pearl millet for grain production)**

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| Headworms: corn earworm, fall armyworm, sorghum webworm | *alpha-cypermethrin*  
Fastac, other brands 0.83 | 3A | 3.9 fl oz | 0.025 | 12 H/14 D | Larvae chew and damage or destroy seed. Treat when 1 or more earworms and armyworms or 5 or more sorghum webworms per grain head are present. |
|  | *chlorantraniliprole*  
Prevathon 0.43 | 28 | 14-20 fl oz | 0.047-0.067 | 4 H/1 D | Blackhawk/Tracer is most effective against smaller larvae. |
|  | *spinosad + gamma cyhalothrin*  
Consero | 5 + 3A | 3.05 fl oz | – | 24 H/30 D |
|  | *spinosad*  
Blackhawk (36%) | 5 | 1.7-3.3 oz | 0.038-0.075 | 4 H/7 D |
|  | *zeta-cypermethrin*  
Mustang Maxx 0.8 | 3A | 4 fl oz | 0.025 | 12 H/14 D |
| Stink bugs, Leaffooted bugs | *alpha-cypermethrin*  
Fastac, other brands 0.83 | 3A | 1.8-3.9 fl oz | 0.012-0.025 | 12 H/14 D | Infest grain heads, feeding causes shriveled seed. Threshold: 3 bugs/head at milk stage; 5 bugs/head at dough stage. Do not treat after medium dough stage. |
|  | *beta-cyfluthrin*  
Baythroid XL 1 | 3A | 1.8-2.4 fl oz | 0.014-0.019 | 12 H/30 D |
|  | *spinosad + gamma cyhalothrin*  
Consero | 5 + 3A | 2.0-3.05 fl oz | – | 24 H/30 D |
|  | *zeta-cypermethrin*  
Mustang Maxx 0.8 | 3A | 3.2-4 fl oz | 0.02-0.025 | 12 H/14 D |
| False chinch bugs on seed heads | *alpha-cypermethrin*  
Fastac, other brands 0.83 | 3A | 3.2-3.8 fl oz | 0.02-0.025 | 12 H/14 D | Treat when 100 bugs/head are present in milk to soft dough stage. |
|  | *zeta-cypermethrin*  
Mustang Maxx 0.8 | 3A | 3.2-4 fl oz | 0.02-0.025 | 12 H/14 D |

**Disease Control** – Except for seed treatments, there are no fungicides labeled for use on pearl millet at this time.
# PEARL MILLET FOR GRAIN WEED CONTROL

Eric P. Prostko, Extension Agronomist – Weed Science

<table>
<thead>
<tr>
<th>HERBICIDE</th>
<th>MOA</th>
<th>BROADCAST RATE/acre</th>
<th>AMOUNT OF FORMULATION</th>
<th>POUNDS ACTIVE INGREDIENT</th>
<th>REI/PHI (Hours or Days)</th>
<th>REMARKS AND PRECAUTIONS</th>
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<tbody>
<tr>
<td><strong>PREEMERGENCE</strong></td>
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<tr>
<td>mesotrione</td>
<td>27</td>
<td></td>
<td>6 oz</td>
<td>0.188</td>
<td>12 H/</td>
<td>Callisto will provide preemergence control of large crabgrass and various pigweed species. Apply after planting but before crop emergence. Callisto may cause temporary crop injury in the form of bleaching or whitening. <strong>Applications of Callisto to emerged pearl millet will result in severe crop injury.</strong> Callisto rotational crop restrictions: field corn, grain sorghum – 0 months; small grains and sugarcane – 4 months; soybeans, cotton, peanuts, sunflowers, canola, tobacco – 10 months; other crops – 18 months.</td>
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<tr>
<td>Callisto 4SC</td>
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<tr>
<td><strong>POSTEMERGENCE</strong></td>
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<tr>
<td>2,4-D amine</td>
<td>4</td>
<td></td>
<td>16 oz</td>
<td>0.475</td>
<td>48 H/</td>
<td>2, 4-D is very effective on common broadleaf weeds such as pigweed and morningglory. Apply when weeds are small and after crop is tillered but before jointing stage of growth. Do not apply before tillering stage or during early boot through milk stage of growth.</td>
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<td>Various trade names</td>
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<td>3.8 SL</td>
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