# PEST MANAGEMENT DECISION GUIDE: GREEN AND YELLOW LIST

## Bean stem maggot / bean fly

*Ophiomyia phaseoli;* local name: Funza wa inzi wa maharage (Swahili)

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<th>Prevention</th>
<th>Monitoring</th>
<th>Direct Control</th>
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<td>- Plant tolerant variety such as Mwezi moja</td>
<td>- Start scouting for presence of pest 2-3 weeks after germination by inspecting the leaves and stem base for symptoms</td>
<td>- Use botanical insecticides such as neem:</td>
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<td>- Plant at the onset of rains (bean fly numbers tend to be low during the early stages of growing season and increase with time)</td>
<td>- Look out for:</td>
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<tr>
<td>- Mulch with rice straw or cut grass. Earth up the soil around the stem base to enhance adventitious root formation and tolerance to damage</td>
<td>- swelling and cracking on the base of the stem</td>
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<td>- Uproot volunteer crops to break the BSM cycle</td>
<td>- oviposition marks on the leaves</td>
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<tr>
<td>- Avoid overlapping bean crop during the rainy season (i.e. only one crop per rainy season)</td>
<td>- larvae and pupae in the stem base (root collar)</td>
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<td>- Seed dress with an insecticide (see direct control column)</td>
<td>- Institute control measures when 5-10% of the plant population has been infested</td>
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<tr>
<td>- Avoid planting beans near alternative host plants such as cowpea, soybean and other leguminous crops</td>
<td>- Use botanical insecticides such as neem:</td>
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<td>- Practice good field sanitation by removing crop residues</td>
<td>- 100 g of dried leaves in 1 litre warm water (30°C). Kept for 12 hours then filter and spray</td>
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<td>- Note that the larvae are inside the stems and cannot be reached by sprays. Purchase of seed dressed with pesticides that enter germinating plants can protect against bean fly. Do not use treated seed as food or feed</td>
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### Direct Control

- **Diazinon based products (such as Diazol EC, Domain etc.)** at a rate of 40mls/20L of water
  - Mode of action: Organophosphate
  - WHO Class II: Moderately hazardous
  - PHI 14 days

- **Acephate based products (such as ACE WSP, ASATAF etc.)** at a rate of 10mls/20L of water
  - Mode of action: Organophosphate
  - WHO Class II: Moderately hazardous
  - PHI 7 days

- **Imidacloprid based products** (such as Confidor 200SL, Imaxi 200SC, TATA MIDA 200SL etc.) at a rate of 10mls/20L of water
  - Apply as seed dressing
  - Mode of action: Neonicotinoid
  - WHO Class II: Moderately hazardous
  - PHI 3 days

### Restrictions

- **WHO Class II: Moderately hazardous**
- **PHI 14 days**

### Preventive Measures

- Wear protective clothing when handling chemicals
- Follow instruction on the product label such as dosage, pre-harvest interval and appropriate time of application.
- Always consult with PCPB list of registered pesticides

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**Kenya**

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