

Bean stem maggot / bean fly

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



Maggots in bean stem (CIAT-Tanzania)



Wilted bean tap root resulting from bean stem maggot infections (CIAT-Tanzania)



Bean stem fly (CIAT-Tanzania)

Prevention	Monitoring	Direct Control	Direct Control	Restrictions
<ul style="list-style-type: none"> ◆ Plant tolerant variety such as Mwezi moja ◆ Plant at the onset of rains (bean fly numbers tend to be low during the early stages of growing season and increase with time) ◆ Mulch with rice straw or cut grass. Earth up the soil around the stem base to enhance adventitious root formation and tolerance to damage ◆ Uproot volunteer crops to break the BSM cycle ◆ Avoid overlapping bean crop during the rainy season (i.e. only one crop per rainy season) ◆ Seed dress with a insecticide (see direct control column) ◆ Avoid planting beans near alternative host plants such as cowpea, soybean and other leguminous crops ◆ Practice good field sanitation by removing crop residues 	<ul style="list-style-type: none"> ◆ Start scouting for presence of pest 2-3 weeks after germination by inspecting the leaves and stem base for symptoms ◆ Look out for: <ul style="list-style-type: none"> • swelling and cracking on the base of the stem • oviposition marks on the leaves • larvae and pupae in the stem base (root collar) ◆ Institute control measures when 5-10% of the plant population has been infested 	<ul style="list-style-type: none"> ◆ Use botanical insecticides such as neem: <ul style="list-style-type: none"> ◆ 100 g of dried leaves in 1 litre warm water (30°C) Kept for 12 hours then filter and spray ◆ Uproot infested plants and destroy by burning 	<ul style="list-style-type: none"> ◆ 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 	<ul style="list-style-type: none"> ◆ WHO Class II: Moderately hazardous ◆ PHI 14 days
			<ul style="list-style-type: none"> ◆ Diazinon based products (such as Diazol EC, Domain etc.) at a rate of 40mls/20L of water ◆ Mode of action: Organophosphate 	<ul style="list-style-type: none"> ◆ WHO Class II: Moderately hazardous ◆ PHI 7 days
			<ul style="list-style-type: none"> ◆ Acephate based products (such as ACE WSP, ASATAF etc.) at a rate of 10mls/20L of water ◆ Mode of action: Organophosphate 	<ul style="list-style-type: none"> ◆ WHO Class II: Moderately hazardous ◆ PHI 3 days
			<ul style="list-style-type: none"> ◆ 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 	
			<ul style="list-style-type: none"> ◆ 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 	



Kenya

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