Tolerant bean varieties against stem maggots

Recognize the problem
The bean stem maggot, also called bean fly, is a small shiny fly. It is only 2mm long and has transparent wings. The larvae, which are small and yellowish, can be seen by opening the stem. They attack susceptible bean varieties and late-planted beans. Most of the time, the pest lives inside the bean plant.

Background
Bean stem maggots are often a problem in the main growing areas of beans, e.g. Northern Province of Zambia, and in provinces where bean growing is promoted.
Some bean varieties are attacked less than others. Stem or leaf sheaths of some varieties cannot be punctured by the fly for egg laying, because they are hard and rough. Therefore, it is not easy for the fly to lay eggs and so no larvae can develop to damage the beans.

Management
• Maggot-tolerant varieties include Lukupa and Chambeshi, which can be ordered from an agro-input dealer or seed company
• The agronomical practices for these varieties are the same as for other varieties
• Plant them at 20 cm by 5cm in a field that has been well ploughed
• Make sure you plant around mid-January
• Apply basal dressing of 10-20-10 NPK fertilizer, e.g. D Compound, at 200kg/ha during or before planting but no later than two weeks after germination
• Thereafter, when the crop has established, apply top dressing ammonium nitrate fertilizer 100kg/ha
• A healthy strong plant can tolerate pests better than weak plants

Scientific name(s) > Ophiomyia phaseoli

The recommendations in this factsheet are relevant to: Zambia

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