Management of bean weevils with insecticides

Recognize the problem
The bean weevil is a serious pest that reduces quality of beans whilst in storage. In storage, check for perforated bean seeds. Check for the small roundish adult weevils. An adult bean weevil is small. It is only ½ cm long. The body is grey, brown and reddish brown, without any distinctive patterns.

Background
Farmers often experience damage to their beans during storage. This mainly comes from the bean weevil and its tiny caterpillars feeding inside the beans. In order for the farmers to protect against the infestation of bean weevil, they may use insecticides for example may use insecticides for example Deltamethrin + Fenitrothion, or Pirimiphos-methyl + Permethrin. They should be in dust form and can be incorporated into the stored grains. They are poisonous to human, fish, and bees.

Management
- Thresh the dried beans after harvesting and dispose of the chaff
- Ensure to winnow the threshed beans to get rid of the shells and dust
- Separate all broken beans from whole grain beans
- Weigh the beans to know the actual quantities to estimate how much insecticide is needed
- Do not treat the beans that will be consumed within a period of a month
- Wear protective clothing, at least gloves and mask
- Use storage insecticides to control the bean weevil. Examples include:
  - Shumba Dust (Deltamethrin 0.13 % + Fenitrothion 1 %) @ 1g of chemical to 2 kg of beans
  - Actellic Super (Pirimiphos-methyl + Permethrin) @ 1g of chemical to 2 Kg of beans
  - Super guard dust (Pirimiphos-methyl + Permethrin) @ 1g of chemical to 2 Kg of beans
- But, check product labels for dosage, as products may differ
- Make sure that the chemical and beans are mixed well (use any mixing equipment such as seed dressing drum). Do not use kitchen equipment.
- Store the admixture in a cool and dry place (Super grain bags and or air tight containers)
- Always keep the storage materials (tight plastic containers and silos) covered or tied (sacks) to prevent infestation from the outside
- If the beans are to be kept for a longer period of time, repeat the treatment process every 6 months keeping in mind that once treated, the beans can only be consumed after 30 days
- Make sure that used empty containers of the insecticide and mixing materials are not deposited in the river as they may kill fish.

When using a pesticide, always wear protective clothing and follow the instructions on the product label, such as dosage, timing of application, and pre-harvest interval.

Scientific name(s) > Acanthoscelides obtectus

The recommendations in this factsheet are relevant to: Zambia

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