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Integrated Pest Management Training Workshop Report



Training of Bean Farmers and Village
Extension Officers, Lushoto District
Tanga Region, North eastern Tanzania

June 2003

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**Farmer group activity reports for the DFID
Crop Protection Programme (CPP) Bean
IPM Promotion Project in eastern and
southern Africa**

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**For distribution to Village Information
Centres (VICs) in bean growing areas in
eastern, central and southern Africa.**

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Introduction

The first training of farmers and village extension officers from the bean IPM participating villages in February 2003 was very successful. Farmers were encouraged to the extent of requesting for a rehearsal when the bean crop was in the field to enable participants identify the pests on the standing crop. The district agriculture and livestock development officer (DALDO) supported the farmers' request for a field practical training after his participation as a resource person. It was agreed that the practical training be conducted in June 2003 when most beans were supposed to be at podding/maturity stage.

The main growing season (March – July) for Lushoto was not very favourable for beans in most locations this year. The rains were unreliable and in some parts there were only occasional light showers. Six of the 13 participating bean farmer groups were unable to establish a crop. All groups planted the learning and demonstration plots, the crop germinated but the rains stopped and the seedlings dried up before farmers could make observations on pests.

Objective

The objective of this second training workshop was to enable farmers acquire practical experience in the identification of bean pests and common natural enemies on the bean crop as well as exposing new farmers to pest management strategies for beans and other crops.

Participants

Twenty one farmers (7 men, 14 women), 5 village/ward extension officers (1 lady, 4 men), 4 district extension officers (all men) including the DALDO and the SECAP Project Manager, AHI coordinator and 2 CIAT staff from Arusha participated in the one day workshop. The participants included all those (11 farmers, 4 extension personnel) who attended the first training in February.

Training

This was the second training workshop for Lushoto farmers and extension personnel. The extension and research staff conducted the first training in February 2003 and farmers were requested to contribute from their knowledge and experience. In this second training however, farmer trainees (total of 11) from the Feb workshop were encouraged to be trainers to the

new participants while the extension and research personnel backstopped the discussions. All farmers were very happy with this approach and were keen to organise and run their meeting. Ms



Tatu Mussa and Mr Ahamadi Yambizi volunteered to be the chair and co-chair respectively, while Mr Daniel Wilson commanded the flip board. All participants

agreed to this arrangement and the agenda was drawn as follows:

1. Introductions and briefings

- Mr H.P. Shelukindo – DAEO and Manager for the Soil Erosion Control and Agroforestry Project (SECAP). He gave an introductory



welcome note on behalf of DALDO (he was involved in a morning district meeting) and briefly talked about the importance of soil

nutrient management, soil water conservation and related agroforestry initiatives that have been

going on in Lushoto district. Most of the bean IPM farmer groups have been involved in SECAP activities.

- Dr J Mowo – Site Coordinator for the African Highlands Initiative (AHI) activities at Lushoto. He summarised the coverage of the project on soil and water management (terrace construction and maintenance) as well as crop, livestock and forage production on terraced fields with Kwalei farming communities. Kwalei farmer groups are also active participants of the bean IPM promotion activities.

2. Review of February workshop themes by farmer trainers

A review of the February themes was necessary for the benefit of the new participants. Areas reviewed included:

- Insect pests and diseases on beans and other crops
- Natural enemies for common insect pests including aphids (Hover flies, Lady bird beetles, Mantids, Wasps and ants, Frogs, Lizards, etc.)
- Importance of regular scouting in field plots and stores to establish pest incidence, damage levels and timing for management actions

- The value of keeping farm records and weather changes during the cropping season for future reference and timing of control measures
- Importance of farmer groups in technology development, information access and dissemination, capacity building and community ownership
- Control measures - use of traditional strategies including various types of botanicals, cultural practices and when necessary conventional pesticides to protect and conserve the environment
- Importance of the community (village) information centres (VICs) for easy access to extension information
- The value of continuous learning, experimenting, sharing and exchanging knowledge and experiences with other farmer group communities

Common pests and management strategies used by farmers

1. Insect pests			
Local name	Common / Scientific name	Damage on plants	Management
Kiindi	Bean foliage beetle- <i>Ootheca</i> spp.	Adults feed on foliage and larvae on roots	Use botanicals Use wood ash and cow urine Cultural practices Use synthetic pesticides
Kifizi	Aphids- <i>Aphis</i> spp.	Growing points and transmission of viruses	As for <i>Ootheca</i> spp. Conserve natural enemies
Inzi wa maharage	Bean stem maggots – <i>Ophiomyia</i> spp.	Larvae (Maggots) feed on within stems	Use tolerant bean varieties Use botanicals Cultural practices
Visaga	Bruchids	Larvae damage seed in field and storage	Cultural practices Use botanicals
Futu	Caterpillars and pod borers	Larvae feed on foliage, pods and seed	Use botanicals and other traditional practices
Zukizi/Sota	Cutworms	Larvae feed on seedlings	Use botanicals (e.g. <i>Euphobia</i> spp. - Muui or Mnyaa)

Kozwe	Snails	Feed on seedlings and pods	Use salt and botanicals
Mpasi/Ngeda	Grasshoppers	Feed on foliage	Baboons and Monkeys feed on them Smell from crushed elegant grasshoppers repels them from feeding on the crop
Shongo	Cereal stem borer larvae	Feed on cereal stems	Push pull with elephant grass (Ngugu) Intercropping with legumes
2. Rats			
Nkuhe - Panya buku	Mole rats	Open bean pods and feed on seed	Use of smoke Use traditional traps (Ughogho) Use botanicals, e.g. <i>Tephrosia-Mkaa</i> or <i>Utupa</i> Use rattax in baits
3. Diseases			
Ghojo	Wilt on tomatoes		Crop rotation Mixed cropping Use of fresh milk mixed with a filtrate from ash and water

3. General discussion on issues of clarification and contribution from trainees (i.e. new participants)

- Land reclamation and soil conservation (Fanya juu - soil piled on the upper side of the terrace,



Fanya chini – soil piled on the lower side of the terrace, Normal and Stone terraces particularly in northern part of Lushoto district-

- Mtae). In all cases of terracing, farmers are advised to keep livestock and plant forage and fruit trees as well as grass -especially elephant grass on the piled terrace soil.

- Diversified farming using different traditional crops and livestock keeping (traditional crops



like *Dolichos* spp. – locally known as Mayombo and *Crotalaria* sp. – Marejea for food and soil nutrient

amendment respectively, and sources of livestock forage). The livestock manure is collected and used in crop fields for soil fertility improvement and soil water conservation

4. Field visit

Participants had an opportunity to visit a nearby bean field (owned by a bean IPM group farmer / school teacher). Basically, farmers were shown the methodology for scouting and observing the plants for pest and damage incidences. Farmers were able to identify bean stem maggot damage symptoms and pupae, borer damage on pods, aphids and ladybird beetle adults and larvae, and leaf diseases.



5. Summary discussion involving farmers, extension personnel and backstopping from researchers

- Contribution from farmers on use of botanicals and traditional mixed cropping (mixed cropping with root crops - cassava, sweet potato, Irish potato, cereals, fruit trees, and legumes)

including – cowpea – *Vigna* spp., *Dolichos* sp., *Mucuna* spp., *Desmodium* spp., *Crotalaria* spp., *Calliandra* spp., etc.)

- Review contribution from extension officers on major pests of beans and management strategies



- Contribution from researchers on the benefits of farmer groups in research and experimentation



at community level, access to information on science and technologies for agriculture, formation of farmer group associations for easy access to credit facilities for farm inputs, markets for farm products, etc.

List of Participants

Name	Title	Village	Address
Mr Shebughe Omari	Farmer	Mombo	Box 1 Mombo
Mr Ahamadi Yambizi	Farmer	Mbuzii	Box 26 Soni
Mr Bakari Gembe	Farmer	Mombo	Box 1 Mombo
Mr Bakari Iddi Titu	Farmer	Mombo	Box 18 Mombo
Mr Amos Tulla	Farmer	Mombo	Box 1 Mombo
Ms Doris Ngotto	Farmer	Mailitano	Box 18 Mombo
Ms Halima Omary	Farmer	Kwa Ngwenda	Soni
Ms Fatuma Waziri	Farmer	Mbuzii	Box 13 Soni
Ms Sharifa Juma	Farmer	Mbuzii	Box 13 Soni
Ms Zaharia Selemani	Farmer	Ubiri	Box 154 Lushoto
Ms Asumina Adamu	Farmer	Kwalei	Box 85 Soni
Ms Zuhura Rashidi	Farmer	Mombo	Box 76 Mombo
Ms Ana Saimoni	Farmer	Mbelei	Box 56 Soni
Ms Zakati Salimu	Farmer	Nyasa	Box 154 Lushoto
Ms Bafuli Omari	Farmer	Mahange	Box 13 Soni
Ms Maria T Msangula	Farmer	Mbelei	Box 56 Soni
Ms Mwanaisha R Ndege	Farmer	Kwekitui	Box 40 Soni
Ms Hamida Yusufu	Farmer	Mbelei	Box 56 Soni
Ms Tatu Mussa	Farmer	Kizara	Box 10 soni
Mr Daniel Wilson	Farmer	Kwalei	Box 85 Soni

Mr Y Kingazi	Farmer & Ward leader	Ubiri	Box 154 Lushoto
Mr G Matosho	SMS Beans	Lushoto	Box 22 Lushoto
Mr A R Kiluwa	Ext Officer	Lushoto	Box 22 Lushoto
Mr B R Urassa	Div. Ex. Off.	Soni	Box 59 Soni
Ms Happiness Mbwambo	Ward Ex. Off.	Ubiri	Box 154 Lushoto
Mr M D Yona	Village Ex Off	Mailitano	Vuga
Mr J S Mchome	Ward Ex. Off.	Mponde	Box 72 Soni
Mr R H Kimboi	Ward Ex. Off.	Mbuzii	Box 26 Soni
Mr H B Shelukindo	District Ex Off	SECAP Lushoto	Box 72 Lushoto
Mr T M Kizuguto	DALDO	Lushoto	Box 22 Lushoto
Dr J Mowo	Site Coordinator	AHI Lushoto	Box 5088 Tanga
Mr H A Mziray	Res.Assistant	CIAT Arusha	Box 2704 Arusha







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