

Assessment of Farmers' Perceptions, Knowledge and Practices of Coping with Bean Leaf Beetles (*Ootheca* spp.) Problem in Uganda

Questionnaire Number.....

Bean production area (1=South-west highlands; 2=Western highlands; 3=North-west tall grass zone; 4= Mt Elgon; 5= North central; 6 =Central and east tall grass zone; 7= North short grass zone; 8 = West short grass zone)

Enumerator.....Date of interview

Survey Objective

The purpose of this survey is to understand farmers' perceptions, knowledge and practices of coping with the Bean Leaf Beetle problem in infested bean production areas in Uganda. Understanding of farmers' perceptions, knowledge and coping mechanisms can assist in designing readily satisfactory integrated pest management practices. Besides, prospects identified in such surveys can also help in hastening technology development and promotion.

1. FARMER CHARACTERISTICS

1. Name of respondent..... 2. Gender: 1. ☐ Male 2. ☐ Female

3. Telephone.....

4. Area of residence:

(a)District:..... (b)Sub-county:

(c)Parish :.....(d) Village:

(e) Latitude: (f) Longitude:

(g) Altitude:

5. Age of respondent: (*Please enter year of birth if known*)

6. Are you the household head? 1. ☐ Yes 2. ☐ No

7. If No, what is the name of the household head?

8. Gender of household head: 1. ☐ Female 2. ☐ Male

9. Education of Household head: 1. ☐ None 2. ☐ Primary 3. ☐ 'O'Level

4. ☐ 'A'Level 5. ☐ Vocational 6. ☐ College/University

10. Age of household head: (*Please enter year of birth if known*)

B. FARM CHARACTERISTICS

1. List in order of importance the **FIVE** (5) main crops that you grow.

Crop	Rank (1= most important	Proportion for food (%)	Proportion for cash (%)	Other uses

C. FARMER ORGANIZATIONS AND ADVISORY SERVICES

1. Do you belong to any farmer organisation which relates to any aspects of common beans?

☐ Yes

2. ☐ No

2. What is the name of the organisation?.....

3. If Yes , which type of aspects (activities) does the organisation deal with?

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4. Have you ever received advisory services on common bean production, post harvest handling or marketing?

1. ☐ Yes

2. ☐ No

5. If Yes, what was it about?.....

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 6. From where did you get the advice? Tic all which apply

- | | |
|---|---|
| 1. <input type="checkbox"/> Extension agent | 2. <input type="checkbox"/> Agro inputs dealers |
| 3. <input type="checkbox"/> Fellow farmers | 4. <input type="checkbox"/> Research station |
| 5. <input type="checkbox"/> Media | 6. <input type="checkbox"/> Others (<i>specify</i>) |

D. BEAN PRODUCTION

1. How long have you been growing common beans? (*Years*)

2. Which varieties of common beans do you grow and why? (Use codes below table)

Variety	Reason (Specify pests and diseases if mentioned)

Reason: 1=high yielding; 2= Disease resistance; 3= Seed availability; 4=High market demand; 5=Pest resistance; 6= Early maturity; 6) Drought tolerance; others (*specify*).....

3. Please help us provide the following information on the seasons' activities. Tick the right month (specify time of planting after onset of rain and why)

	Questions	J	F	M	A	M	J	J	A	S	O	N	D	Planting Time (weeks after onset of rain)	Why?
I	When does the first rainy season begin?													xxxxxxx	xxxxxxxxxxxxxxxxxxx
II	When do you plant the first season bean crop(s)	x	x	x	x		x	x	x	x	x	x	x		
III	When do you harvest first season bean crop (s)													xxxxxxx	xxxxxxxxxxxxxxxxxxx
I	When does the second rainy season begin?													xxxxxxx	xxxxxxxxxxxxxxxxxxx
II	When do you plant the second season bean crop(s)	x	x	x	x		x	x	x	x	x	x	x		
III	When do you harvest second season bean crop(s)													xxxxxxx	xxxxxxxxxxxxxxxxxxx

E. BEAN PRODUCTION CONSTRAINTS

1. BIOTIC AND ABIOTIC

What are the main constraints that you face when producing common beans and during which season are they more serious?

Constraint	Rank (1= most serious)	Season(1or 2)

2. BIOTIC CONSTRAINTS

Cause	Rank (1=major cause)	List types/names in each category
Rodents		
Weeds		
Insects		
Diseases		
Birds		
Others 1		
Others 2		

F. FARMERS' KNOWLEDGE OF BEAN LEAF BEETLES

1. What are the most common field insect pests that infest your common bean crops (*Give both local names and English name*) indicate the plant part attacked and season of severe attack.

Insect pest (local name)	English / scientific name (if known)	Plant part(s) attacked	Overall rank (1= most damaging)	Season (1or2)

Plant part attacked: 1. Roots; 2. Stem; 3. Leaves; 4. Pods; 5. Flowers

2. Show farmers colored photos of Bean Leaf Beetles and ask them to answer the following questions:

- Local name of Bean Leaf Beetles.....
- Plant part attacked: [1] Leaves [2] stems [3] flowers [4] pods [5] Roots
- Where do they come from?
- Where do they go after harvesting?.....
- Where do they lay their eggs?.....
- Season of severe attack.....
- Type of damage caused:

3. Have ever observed such damage on any plants other than common beans? [**Respondent will be shown colored photographs of beetle damaged (defoliated) bean plants**]

- [] Yes
- [] No

4. If Yes, which plant(s) and how significant is the damage compared to that in common beans?

Plant	Intensity of damage compared with common beans indicate appropriately 1. Lower 2. Similar 3. Higher	Stage of crop damaged 1. pre-emergency 2. early emergency 3. vegetative 4. Flowering 5. Podding	Part of plant attacked
Cowpeas			
Pigeon pea			
Okra			
Hibiscus (malakwang)			
Soybeans			
Simsim			
Others (<i>specify</i>)			
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4. Is it the same pest that moves from beans to other crops and vice versa?.....

5. If not the same, how different is this pest from the one that attacks beans?

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G. FARMER'S PERCEPTIONS OF THE YIELD LOSS DUE TO BEAN LEAF BEETLE INFESTATION

1. On what acreage did you grow beans in the last two seasons?

a. First seasonacres b. Second season acres

2. How much bean yield did you obtain?

a. First season: Kg b. Second season Kg

3. How much bean yield were you expecting?

a. First season: Kg b. Second season Kg

4. How much beans do you lose due to attack by bean leaf beetles?

H. MANAGEMENT OF BEAN LEAF BEETLES

1. Do you use any methods to control Bean Leaf Beetles?

1. ☐ Yes

2. ☐ No

2. If Yes, What methods do you use:

Method	Which ones	Cost/season	Source of solution information	Accessibility (readily accessible, accessible, not accessible)	Efficacy(very effective, moderately effective, not effective)
Chemical					
Botanical /organic					
Tillage practices					
Timing of planting					
Residue destruction					

A. CHEMICAL AND BOTANICAL/ORGANIC METHODS

Method	Which ones	Cost/season	Source of solution information	Accessibility (readily accessible, accessible , not accessible)	Efficacy(very effective, moderately effective, not effective)
Chemical					
Botanical /organic					

Source of information: 1. Extension agent; 2. Agro inputs dealers; 3. Fellow farmers; 4. Research station; 5. Media; 6. Farmer organization; 7.Others (*specify*).....

B. CULTURAL AND BIOLOGICAL METHODS (TIC APPROPRIATELY)

Method	Tic (√)	Source of solution information	Accessibility (readily accessible, accessible , not accessible)	Efficacy(very effective, moderately effective, not effective
Cultural control				
Early planting				
Delayed planting				
Crop rotation (which crops?)				
Weed burning				
Mixed cropping (which crops?)				
Fallowing				
Antagonistic crops (which ones?)				
Biological control				
Predators (which ones?)				
Pathogens (which ones?)				
Resistant varieties (which ones?)				

4. Any other comment from the respondent on Bean Leaf Beetles?

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END
THANK YOU FOR YOUR COOPERATION