

Supplementary S1: Questionnaire Survey

Hello all. My name is Angela Mkindi. I thank you very much for spending your time to meet up with me. I am a researcher from the Nelson Mandela African Institution of Science and Technology-Arusha. I am aiming at facilitating a farmer research Network to assess use of botanicals for pest management. I realize and have witnessed your involvement in the project. I wish to ask questions about pests, and management, as well as about use of botanicals in the past seasons. I will hardly spend one hour in this activity. This information will assist to figure out sustainable and inclusive strategies for pest management for smallholder farmers.

Name of Enumerator

Day and time

yyyy-mm-dd

hh:mm

Would you wish to take part in this survey?

☐ Yes

☐ No

What is your name?

How old are you

Sex

☐ Male

☐ Female

Which education level do you have?

☐ Did not go to school

☐ Primary school (class 4)

☐ Primary school (class Seven)

☐ Secondary School

☐ Certificate

☐ Diploma

☐ First Degree

☐

Second degree

☐ Others?

What other education do you have

Who do you live with in the family

Ask family composition. parents, children, and other relatives

- ☐ Father
- ☐ Mother
- ☐ Girl child
- ☐ Boy child
- ☐ adopted
- ☐ other relatives
- ☐ non-relatives

Father

Mother _____

Girl child _____

Boy child _____

adopted child _____

other relative _____

non-relative _____

Is this your permenent Sattlement?

- ☐ Yes
- ☐ No

Where else do you have a family?

What is your main daily activity

- ☐ Farmer
- ☐ Employed
- ☐ Laborer
- ☐ Business
- ☐ Retired

In which group do you belong?

- ☐ Lukundane
- ☐ Nguvu kazi
- ☐ Kilimo bora
- ☐ Inuka

What is the area of your cultivated field

In which zone is your field

- ☐ Upper
- ☐ Middle
- ☐ Lower

What is the type of vegetation around your field?

- ☐ No vegetation
- ☐ Little/scattered vegetation
- ☐ There is a forest
- ☐ Field bordered by farms with similar crops
- ☐ Field bordered by farms with different crops

What type of farming do you adopt

- ☐ Monocrop
- ☐ Intercrop

Name crops you have in your field

Farm ownership?

- ☐ rented
- ☐ Family farm
- ☐ Bought
- ☐ Any other type of ownership

Any other type of ownnership

Distance from your household to the field

Do you get and advice on extension officers?

- ☐ Yes
- ☐ No

If Yes, What kind of advise does he give you?

- ☐ Use of chemical pesticides
- ☐ Use of natural methods
- ☐ Other advise

What advice do you get

Have you encountered pests challenges in your field in the past two seasons?

- ☐ Yes
- ☐ No
- ☐ I dont know

If Yes, What insects are more challenging on your field?

- ☐ Aphids
- ☐ Lady bird beetle
- ☐ Fall armyworm
- ☐ Pod sucker
- ☐ foliage beetle
- ☐ flower beetle

What other insects have you seen in the field?

- ☐ Lacering
- ☐ Ladybird beetle
- ☐ Hoverfly
- ☐ Robberfly
- ☐ Ladybird beetle larva
- ☐ Lacewing larva

Can you recall the area of the field damaged by pests?

- ☐ Quarter of an acre
- ☐ Half of an acre
- ☐ more than quarter
- ☐ I cant say exactly how much

What are you using to control insect pests?

- ☐ Chanical pesticides
- ☐ Botanical pesticides
- ☐ I use both pesticides and chemicals
- ☐ I use biological control options
- ☐ Others?

If others, please mention other interventions.

What plant do you use as botanical pesticide?

- ☐ Tephrosia vogelii
- ☐ Tithonia diversifolia
- ☐ Lantana camara