Farmer Survey (Farm Input Promotions-Africa Bean Demos Evaluation)—Baseline 2017

SURVEY INSTRUMENT (Version 13, August 21 2017)

SECTION 1: FARMER CONTACT INFORMATION

Questions 1-8 to be filled in by supervisor.

Enumerator: Please verify the spelling of the farmer's first name and surname.

1.	District name	**DISTRICT**	
2.	District code	**district_id**	
3.	Ward name	**WARD**	
4.	Ward code	**ward_id**	
5.	Village name	**VILLAGE**	
6.	Village code	**village_id**	
7.	Household serial number (assigned by supervisor during sampling)	**HH**	
8.	Name of the household head (from village chairperson's list)	**headname**	
9.	Name of the respondent (if different from head) ***(Enumerator:*** A respondent must be the head of the HH or an adult HH member who is a decision maker and is involved in growing beans. Ensure that the respondent is 18 years of age or older.***)***	**respname**	
10.	Did you or any member of your household grow beans in the following season? (select all that apply from 1-4 or select 5) 1=Major season this year (March-July 2017) 2= Minor season this year (Dec 2016-March 2017) 3= Major season last year (March-July 2016) 4= Minor season last year (Dec 2015-March 2016) 5= None of the seasons in the past two years ***If the response is 5→Thank the respondent and end the interview. Then consult your supervisor to be assigned a replacement household.***	**growbeans**	
11.	Respondent's gender ***1=male 2=female***	**gender**	
12.	What is the best mobile phone number at which to reach the respondent? ***(Enter "-9" if none → go to Q.14)***	**phonenumber**	
13.	Does this phone number belong to the respondent him/herself? ***1=Yes 2=No***	**ownnumber**	
14.	Is the respondent married? ***1=Yes 2=No→go to Q.17***	**married**	
15.	What is the respondent's spouse's name?	**spname**	
16.	What is the best mobile number at which to reach the respondent's spouse? ***(Enter "-9" if none)***	**spphonenum**	
17.	GPS coordinates of the homestead — South **S_DD** Decimal degrees ☐☐ . ☐☐☐☐☐ East **E_DD** Decimal degrees 0☐☐ . ☐☐☐☐☐		
18.	Response status ***1=Complete-HH grows beans*** ***2=Interview ended because HH dd not grow beans last year or this year (growbeans=4) 3=Refusal 4=Non-contact*** ***(If response=2, 3, or 4, consult your supervisor to be assigned a replacement household)***	**response**	

19.	ASSIGNMENT RECORD					Day	Month	Year
	a. Name of Enumerator		**ENCODE**		Date completed			2017
			START		Start time			
			END		End time			
						Day	Month	Year
	b. Name of Supervisor		**SPCODE**		Date checked			2017

SECTION 2: VBAA presence and activities

2.1 We'd like to learn if there was a village-based agricultural advisor (VBAA) in your village, the activities the VBAA carried out, and your interactions with the VBAA.

2.1.1 To the best of your knowledge, was there a village-based agricultural advisor (VBAA) that covered your village this year (the 2016/17 agricultural year)? ***1=Yes, 2=No → go to Table 2.2, 3=I don't know → → go to Table 2.2***	**vbaacov**	
2.1.2 What was the name of the VBAA? ***(-9 = I don't know)***	**vbaaname**	
2.1.3 To the best of your knowledge, did your VBAA operate a bean demonstration plot (bean "mother demo") in the MAJOR season this year (March-July 2017)? ***1=Yes, 2=No → go to Q2.1.15, 3=I don't know → go to Q2.1.15***	**vbaademo**	
2.1.4 What bean varieties were planted at the mother demo? Tick all that apply. ☐ Njano Uyole ☐ Uyole 96 ☐ Wanja ☐ Calima Uyole ☐ Uyole 03 ☐ Local variety ☐ Other (specify: _____) ☐ I don't know	**demovar**	
2.1.5 Was some of the bean seed planted at the mother demo treated with Apron Star? ***1=Yes, 2=No, -9=I don't know***	**demoapron**	
2.1.6 Was fertilizer applied to some of the bean plants at the mother demo? ***1=Yes, 2=No, -9=I don't know***	**demofert**	
2.1.7 To the best of your knowledge, did the VBAA invite members of the community to attend the planting of the bean mother demo? ***1=Yes, 2=No → go to Q2.1.13, -9=I don't know → go to Q2.1.13***	**demoinvite**	
2.1.8 Other than yourself, did any members of your household attend the bean mother demo planting? ***1=Yes, 2=No***	**demohh**	
2.1.9 Did you yourself attend the bean mother demo planting? ***1=Yes, 2=No → go to Q2.1.13***	**demoattend**	
2.1.10 Did you help to plant the bean mother demo? ***1=Yes, 2=No***	**demoplant**	
2.1.11 Did you help apply Apron Star to any of the bean seed for the mother demo? ***1=Yes, 2=No***	**demoapron**	
2.1.12 At the bean mother demo planting, did the VBAA do any of the following? Tick all that apply ☐ Speak about the characteristics of the improved bean varieties ☐ Provide written information about the characteristics of the improved bean varieties ☐ Demonstrate how to plant the improved bean varieties ☐ Ask the participants about their previous experiences with the improved bean varieties ☐ Speak about the benefits of using Apron Star on beans ☐ Provide written information about the benefits of using Apron Star on beans ☐ Speak about how to apply Apron Star to beans ☐ Provide written information about how to apply Apron Star to beans ☐ Demonstrate how to apply Apron Star to beans ☐ Ask the participants about their previous experiences with Apron Star on beans ☐ Ask the participants about their previous experiences using other seed treatments, insecticides, or fungicides on beans	**demoact**	

2.1.13 Not counting the bean mother demo planting day, how many other times did you visit the bean mother demo this year? ***(Number of times. Enter "0" if none.)***	**demovisits**	
2.1.14 How many of your friends/relatives/neighbors/fellow farmers that you talk to about bean farming attended the bean mother demo planting this year? ***(Number; Enter "-9" for "I don't know")***	**demofrnd**	
2.1.15 To the best of your knowledge, did your VBAA distribute free bean seed (bean "baby demos") to people in your village during the MAJOR season this year (March-July 2017)? ***1=Yes, 2=No → go to Table 2.2***	**vbaatpack**	
2.1.16 Did you or any member of your household receive some of the free bean seed? ***1=Yes, 2=No → go to Q2.1.20***	**rectpack**	

Table 2.1.17 Please describe the free bean seed that your household received from the VBAA during the MAJOR seaon this year (March-July 2017). We'd like to know about the quantities, varieties, and if the seed was treated with Apron Star or not.

Key variables: village_id HH vcode *Reference period: Major season March-July 2017*

Variety name		Quantity (grams) of bean seed of variety ___ NOT treated with Apron Star *(Enter "0" if none)*	Quantity (grams) of bean seed of variety ___TREATED with Apron Star *(Enter "0" if none)*
	vcode	**bdseednoap**	**bdseedap**
Njano Uyole	1		
Uyole 96	2		
Wanja	3		
Calima Uyole	4		
Uyole 03	5		
Local variety	6		
Other (specify:_____	7		

2.1.18 Did your household receive the free bean seed at the mother demo planting or at another time? ***1=At the bean mother demo planting → go to Q2.1.20, 2=At another time***	**trectpack**	
2.1.19 When the VBAA gave you the free bean seed, did s/he do any of the following? Tick all that apply. ☐ Speak about the characteristics of the improved bean varieties ☐ Provide written information about the characteristics of the improved bean varieties ☐ Demonstrate how to plant the improved bean varieties ☐ Ask you about your previous experiences with the improved bean varieties ☐ Speak about the benefits of using Apron Star on beans ☐ Provide written information about the benefits of using Apron Star on beans ☐ Speak about how to apply Apron Star to beans ☐ Provide written information about how to apply Apron Star to beans ☐ Demonstrate how to apply Apron Star to beans ☐ Ask you about your previous experiences with Apron Star on beans ☐ Ask you about your previous experiences using other seed treatments, insecticides, or fungicides on beans	**tpackact**	
2.1.20 How many of your friends/relatives/neighbors/fellow farmers that you talk to about bean farming received free bean seed from the VBAA this year? ***(Number; Enter "-9" for "I don't know")***	**tpackfrnd**	

We'd now like to know if there was a VBAA that covered your village in past years and if so, if they did a bean mother demo or handed out free bean seed small packs.

Table 2.2 VBAA bean-related activities during the 2012/13-2015/16 agricultural years

Key variables: village_id HH agyear *Reference period: Each agricultural year, 2012/13-2015/16*

Agricultural Year		Did a FIPS VBAA cover your village during the … agricultural year? ***1=Yes*** ***2=No →go to next agricultural year***	To the best of your knowledge, did the VBAA do a bean mother demo during the … agricultural year? ***1=Yes*** ***2=No →go to ACT5***	Did you or any member of your household attend the bean mother demo planting during the … agricultural year? ***1=Yes*** ***2=No***	Did you or any member of your household visit the bean mother demo at another time during the … agricultural year (after it was planted)? ***1=Yes*** ***2=No***	To the best of your knowledge, did the VBAA distribute free bean seed to people in your village during the … agricultural year? ***1=Yes*** ***2=No →go to next agricultural year***	Did you or any member of your household receive free bean seed from the VBAA during the … agricultural year? ***1=Yes*** ***2=No →go to next agricultural year***	Did you or any member of your household plant the free bean seed from the VBAA during the … agricultural year? ***1=Yes*** ***2=No***
	agyear	**ACT1**	**ACT2**	**ACT3**	**ACT4**	**ACT5**	**ACT6**	**ACT7**
2015/16 (1 year ago)	1516							
2014/15 (2 years ago)	1415							
2013/14 (3 years ago)	1314							
2012/13 (4 years ago)	1213							

2.3 We'd like to learn about other free or subsidized bean inputs you might have received over the past year.

2.3.1 Did you or any member of your household receive free or subsidized bean seed from any organization other than FIPS this year (2016/17 agricultural year)? ***1=Yes, 2=No →go to Q2.3.4***	**spotherorg1**	
2.3.2 What quantities and varieties of bean seed did you receive? ***See table below***		

Key variables: village_id HH vcode *Reference period: 2016/17 agricultural year*

Variety name		Total quantity (kg) of bean seed of variety ___ received from organizations other than FIPS/VBAAs *(Enter "0" if none)*
	vcode	**spotherorg2**
Njano Uyole	1	
Uyole 96	2	
Wanja	3	
Calima Uyole	4	
Uyole 03	5	
Local variety	6	
Other (specify:_____	7	

2.3.3a Was any of the free or subsidized bean seed from non-FIPS organizations treated with Apron Star? ***1=Yes, 2=No***	**spotherorg3**	
2.3.3b Was any of the free or subsidized bean seed from non-FIPS organizations treated with any other type of treatment material? ***1=Yes, 2=No***	**spotherorg4**	
2.3.3c In which season did you receive the free or subsidized bean seed from non-FIPS organization? 1=Minor season (Dec-Feb); 2=Major season (March-July); 3=both seasons	**spotherorg5**	

2.3.4 Did you or any member of your household receive free or subsidized Apron Star seed treatment from any organization other than FIPS this year (2016/17 agricultural year)? ***1=Yes, 2=No →go to Table 2.4***	**spotherorg6**	
2.3.5 How many grams of Apron Star did you receive? *(Grams)*	**spotherorg7**	
2.3.6 In which season did you receive the free or subsidized Apron Star from non-FIPS organization? 1=Minor season (Dec-Feb); 2=Major season (March-July); 3=both seasons	**spotherorg8**	

2.4 We would like to learn about your bean production and inputs during the Major season (March-July 2017)

Questions	Variable Name	Response
2.4.1 On how many plots did you grow beans during the MAJOR Season (March-July 2017) *Note: If response is 0 plots, then skip to 2.5*	**mjrplots17**	

Table 2.4.2 For each of the plots mentioned in 2.4.1, please tell me the following about bean production:

Key variables: village_id HH PLOT *Reference period:* Major season (March-July 2017) in *2016/17 agricultural year*

Plot Number	What is the total area of this plot?		Were the beans on this plot intercropped with other crops? ***1=Yes 2=No***	What was the main bean variety planted on this plot during the Major season (March-July 2017)? ***See codes below.***	What other bean varieties, if any, were planted on this plot during the Major season (March-July 2017)? Please list all varieties. ***See codes below. Enter "0" if no other varieties were planted.***	Was the main variety a local/traditional variety or an improved variety? ***1=local/ traditional*** ***2=Improved*** ***-9= Don't know***	What color/market class was the main variety planted? 1=Red 2=White 3=Yellow 4=Purple 5=Orange 6=Red mottled 7=Sugar Type 8=Black 9=Khaki 10=Cream 11=Mixed	What size seed was the main variety planted? 1=Small 2=Medium 3=Large	What was the total area planted to beans on this plot? *Programmer: The area should be equal to or less than P01A* (Note: If beans were not intercropped, the area should be same as in P01A)		What was the total quantity of bean seed planted to this plot?		What was the main source of seed for this plot? 1=Saved from own harvest ***→go to P06*** 2=purchased as grain from others/market ***→answer P04 then skip to to P07A*** 3=purchased as seed from others/market 4=Given by NGO/Govt program 5=FIPS/VBAA 6=Given by friend/neighbor/relative/fellow farmer 99= Other (specify)	If purchased, what price per kg was paid for the bean seed on this plot? (Tsh/kg)	What type of bean seed was it? 1= Certified 2=Quality declared seed 3= Non-certified but came in a package with labeling 4= Came in no package and no label -9= Don't know	Was any of this seed obtained from a FIPS VBAA? ***1=Yes 2=No***	Was see wi
	Area	Units 1=Acre 2=Ha 3=Sq. meters							Area	Units 1=Acre 2=Ha 3=Sq. meters	Quantity	Units 1=kg 2=grams 3=lbs					
PLOT	**P01A**	**P01B**	**INTCROP**	**MVARIETY**	**OVARIETY**	**VARTYPE**	**COLOR**	**SIZE**	**P01C**	**P01D**	**P02A**	**P02B**	**P03**	**P04**	**P05**	**P06**	

Bean variety codes						
1=Local	4=Calima Uyole	7=Njano Uyole	10=UYL 84	13=Uyole 90	16=Uyole 98	19=Other (specify: _____)
2=Bilfa 4	5=Kabanima	8=Roba1	11=Uyole 03 (Mwaspenjele)	14=Uyole 94 (Kasukanywele)	17=Uyole 2003	
3=Bilfa-Uyole	6=Kablanket	9=Urafiki	12=Uyole 04 (Maini)	15=Uyole 96 (msafiri)	18=Wanja	

Table 2.4.3 **For each of the plots mentioned in 2.4.1, please tell me the following about inputs to bean production:**

Key variables: village_id HH PLOT *Reference period:* Major season (March-July 2017) in *2016/17 agricultural year*

Plot Number	What quantity of Apron Star was applied to the bean seeds on this plot?		What quantity of inorganic fertilizer was applied to this plot?		What quantity of herbicide was applied to this plot?		What quantity of insecticide was applied to this plot?		What quantity of fungicide was applied to this plot?		What quantity of animal manure was applied to this plot?		What was the estimated total cost of non-labor inputs on this plot ? (Tsh)	What quantity of labor was used on this plot?		What was the estimated cost of hired labor on this plot? (Tsh)
	Quantity	Units 1=kg 2=grams 3=lbs	Quantity	Units 1=kg 2=grams 3=lbs 4=litre	Quantity	Units 1=kg 2=grams 3=lbs 4=litres 5=mL	Quantity	Units 1=kg 2=grams 3=lbs 4=litres 5=mL	Quantity	Units 1=kg 2=grams 3=lbs 4=litres 5=mL	Quantity	Units 1=kg 2=grams 3=lbs 4=metric tonnes		Quantity	Units 1=man days 2=hours	
PLOT	**P10A**	**P10B**	**P11A**	**P11B**	**P12A**	**P12B**	**P13A**	**P13B**	**P14A**	**P14B**	**P15A**	**P15B**	**P16**	**P17A**	**P17B**	**P18**

2.5 We would like to learn about your bean production and inputs during this last Minor season (Dec 2016 – Feb 2017)

Questions	Variable Name	Response
2.5.1 On how many plots did you grow beans during the last Minor season (Dec 2016 to Feb 2017)? *Note: If response is 0 plots, then skip to 2.6*	**mnrplots17**	

Table 2.5.2 For each of the plots mentioned in 2.5.1, please tell me the following about bean production: Key variables: village_id HH PLOT

Reference period: Minor season (Dec. 2016-Feb. 2017) in *2016/17 agricultural year*

Plot Number	What is the total area of this plot?		Were the beans on this plot intercropped with other crops? ***1=Yes 2=No***	What was the main bean variety planted on this plot during the Major season (March-July 2017)? ***See codes below.***	What other bean varieties, if any, were planted on this plot during the Major season (March-July 2017)? Please list all varieties. ***See codes below. Enter "0" if no other varieties were planted.***	Was the main variety a local/traditional variety or an improved variety? ***1=local/ traditional*** ***2=Improved*** ***-9= Don't know***	What color/market class was the main variety planted? 1=Red 2=White 3=Yellow 4=Purple 5=Orange 6=Red mottled 7=Sugar Type 8=Black 9=Khaki 10=Cream 11=Mixed	What size seed was the main variety planted? 1=Small 2=Medium 3=Large	What was the total area planted to beans on this plot? *Programmer: The area should be equal to or less than P01A* (Note: If beans were not intercropped, the area should be same as in P01A)		What was the total quantity of bean seed planted to this plot?		What was the main source of seed for this plot? 1=Saved from own harvest ***→go to P06*** 2=purchased as grain from others/market ***→answer P04 then skip to to P07A*** 3=purchased as seed from others/market 4=Given by NGO/Govt program 5=FIPS/VBAA 6=Given by friend/neighbor/relative/fellow farmer 99= Other (specify)	If purchased, what price per kg was paid for the bean seed on this plot? (Tsh/kg)	What type of bean seed was it? 1= Certified 2=Quality declared seed 3= Non-certified but came in a package with labeling 4= Came in no package and no label -9= Don't know	Was any of this seed obtained from a FIPS VBAA? ***1=Yes 2=No***	Was see wi
	Area	Units 1=Acre 2=Ha 3=Sq. meters							Area	Units 1=Acre 2=Ha 3=Sq. meters	Quantity	Units 1=kg 2=grams 3=lbs					
PLOT	**P01A**	**P01B**	**INTCROP**	**MVARIETY**	**OVARIETY**	**VARTYPE**	**COLOR**	**SIZE**	**P01C**	**P01D**	**P02A**	**P02B**	**P03**	**P04**	**P05**	**P06**	

Bean variety codes

1=Local	4=Calima Uyole	7=Njano Uyole	10=UYL 84	13=Uyole 90	16=Uyole 98	19=Other (specify: _____)
2=Bilfa 4	5=Kabanima	8=Roba1	11=Uyole 03 (Mwaspenjele)	14=Uyole 94 (Kasukanywele)	17=Uyole 2003	
3=Bilfa-Uyole	6=Kablanket	9=Urafiki	12=Uyole 04 (Maini)	15=Uyole 96 (msafiri)	18=Wanja	

Table 2.5.3 For each of the plots mentioned in 2.5.1, please tell me the following about inputs to bean production:

Key variables: village_id HH PLOT *Reference period:* Minor season (Dec. 2016-Feb. 2017) in *2016/17 agricultural year*

Plot Number	What quantity of Apron Star was applied to the bean seeds on this plot?		What quantity of inorganic fertilizer was applied to this plot?		What quantity of herbicide was applied to this plot?		What quantity of insecticide was applied to this plot?		What quantity of fungicide was applied to this plot?		What quantity of animal manure was applied to this plot?		What was the estimated total cost of non-labor inputs on this plot ? (Tsh)	What quantity of labor was used on this plot?		What was the estimated cost of hired labor on this plot? (Tsh)
	Quantity	Units 1=kg 2=grams 3=lbs 4=litre	Quantity	Units 1=kg 2=grams 3=lbs 4=litres 5=mL	Quantity	Units 1=kg 2=grams 3=lbs 4=litres 5=mL	Quantity	Units 1=kg 2=grams 3=lbs 4=litres 5=mL	Quantity	Units 1=kg 2=grams 3=lbs 4=litres 5=mL	Quantity	Units 1=kg 2=grams 3=lbs 4=metric tonnes		Quantity	Units 1=man days 2=hours	
PLOT	**P10A**	**P10B**	**P11A**	**P11B**	**P12A**	**P12B**	**P13A**	**P13B**	**P14A**	**P14B**	**P15A**	**P15B**	**P16**	**P17A**	**P17B**	**P18**

2.6 We would like to learn about your bean production and inputs during the Major season last year (i.e., March-July 2016)

Questions	Variable Name	Response
2.6.1 On how many plots did you grow beans during the MAJOR Season last year (March-July 2016) *Note: If response is 0 plots, then skip to 2.7*	**mjrplots16**	

Table 2.6.2 For each of the plots mentioned in 2.6.1, please tell me the following about bean production:

Key variables: village_id HH PLOT *Reference period:* Major season last year (March-July 2016)

Plot Number	What is the total area of this plot?		Were the beans on this plot intercropped with other crops? ***1=Yes 2=No***	What was the main bean variety planted on this plot during the Major season (March-July 2017)? ***See codes below.***	What other bean varieties, if any, were planted on this plot during the Major season (March-July 2017)? Please list all varieties. ***See codes below. Enter "0" if no other varieties were planted.***	Was the main variety a local/traditional variety or an improved variety? ***1=local/ traditional*** ***2=Improved*** ***-9= Don't know***	What color/market class was the main variety planted? 1=Red 2=White 3=Yellow 4=Purple 5=Orange 6=Red mottled 7=Sugar Type 8=Black 9=Khaki 10=Cream 11=Mixed	What size seed was the main variety planted? 1=Small 2=Medium 3=Large	What was the total area planted to beans on this plot? *Programmer: The area should be equal to or less than P01A* (Note: If beans were not intercropped, the area should be same as in P01A)		What was the total quantity of bean seed planted to this plot?		What was the main source of seed for this plot? 1=Saved from own harvest ***→go to P06*** 2=purchased as grain from others/market ***→answer P04 then skip to to P07A*** 3=purchased as seed from others/market 4=Given by NGO/Govt program 5=FIPS/VBAA 6=Given by friend/neighbor/relative/fellow farmer 99= Other (specify)	If purchased, what price per kg was paid for the bean seed on this plot? (Tsh/kg)	What type of bean seed was it? 1= Certified 2=Quality declared seed 3= Non-certified but came in a package with labeling 4= Came in no package and no label -9= Don't know	Was any of this seed obtained from a FIPS VBAA? ***1=Yes 2=No***	Was see wi
	Area	Units 1=Acre 2=Ha 3=Sq. meters							Area	Units 1=Acre 2=Ha 3=Sq. meters	Quantity	Units 1=kg 2=grams 3=lbs					
PLOT	**P01A**	**P01B**	**INTCROP**	**MVARIETY**	**OVARIETY**	**VARTYPE**	**COLOR**	**SIZE**	**P01C**	**P01D**	**P02A**	**P02B**	**P03**	**P04**	**P05**	**P06**	

Bean variety codes						
1=Local	4=Calima Uyole	7=Njano Uyole	10=UYL 84	13=Uyole 90	16=Uyole 98	19=Other (specify: _____)
2=Bilfa 4	5=Kabanima	8=Roba1	11=Uyole 03 (Mwaspenjele)	14=Uyole 94 (Kasukanywele)	17=Uyole 2003	
3=Bilfa-Uyole	6=Kablanket	9=Urafiki	12=Uyole 04 (Maini)	15=Uyole 96 (msafiri)	18=Wanja	

Table 2.6.3 **For each of the plots mentioned in 2.6.1, please tell me the following about inputs to bean production:**

Key variables: village_id HH PLOT *Reference period:* Major season last year (March-July 2016)

Plot Number	What quantity of Apron Star was applied to the bean seeds on this plot?		What quantity of inorganic fertilizer was applied to this plot?		What quantity of herbicide was applied to this plot?		What quantity of insecticide was applied to this plot?		What quantity of fungicide was applied to this plot?		What quantity of animal manure was applied to this plot?		What was the estimated total cost of non-labor inputs on this plot ? (Tsh)	What quantity of labor was used on this plot?		What was the estimated cost of hired labor on this plot? (Tsh)
	Quantity	Units 1=kg 2=grams 3=lbs 4=litre	Quantity	Units 1=kg 2=grams 3=lbs 4=litres 5=mL	Quantity	Units 1=kg 2=grams 3=lbs 4=litres 5=mL	Quantity	Units 1=kg 2=grams 3=lbs 4=litres 5=mL	Quantity	Units 1=kg 2=grams 3=lbs 4=litres 5=mL	Quantity	Units 1=kg 2=grams 3=lbs 4=metric tonnes		Quantity	Units 1=man days 2=hours	
PLOT	**P10A**	**P10B**	**P11A**	**P11B**	**P12A**	**P12B**	**P13A**	**P13B**	**P14A**	**P14B**	**P15A**	**P15B**	**P16**	**P17A**	**P17B**	**P18**

2.7 We would like to learn about your bean production and inputs during Minor season last year (i.e., Dec 2015 – Feb 2016)

Questions	Variable Name	Response
2.7.1 On how many plots did you grow beans during the Minor season Dec 2015 to Feb 2016? *Note: If response is 0 plots, then skip to 2.8*	**mnrplots16**	

Table 2.7.2 For each of the plots mentioned in 2.7.1, please tell me the following about bean production:

Key variables: village_id HH PLOT *Reference period:* Minor season (Dec. 2015-Feb. 2016) in *2015/16 agricultural year*

Plot Number	What is the total area of this plot?		Were the beans on this plot intercropped with other crops? ***1=Yes 2=No***	What was the main bean variety planted on this plot during the Major season (March-July 2017)? ***See codes below.***	What other bean varieties, if any, were planted on this plot during the Major season (March-July 2017)? Please list all varieties. ***See codes below. Enter "0" if no other varieties were planted.***	Was the main variety a local/traditional variety or an improved variety? ***1=local/ traditional*** ***2=Improved*** ***-9= Don't know***	What color/market class was the main variety planted? 1=Red 2=White 3=Yellow 4=Purple 5=Orange 6=Red mottled 7=Sugar Type 8=Black 9=Khaki 10=Cream 11=Mixed	What size seed was the main variety planted? 1=Small 2=Medium 3=Large	What was the total area planted to beans on this plot? *Programmer: The area should be equal to or less than P01A* (Note: If beans were not intercropped, the area should be same as in P01A)		What was the total quantity of bean seed planted to this plot?		What was the main source of seed for this plot? 1=Saved from own harvest ***→go to P06*** 2=purchased as grain from others/market ***→answer P04 then skip to to P07A*** 3=purchased as seed from others/market 4=Given by NGO/Govt program 5=FIPS/VBAA 6=Given by friend/neighbor/relative/fellow farmer 99= Other (specify)	If purchased, what price per kg was paid for the bean seed on this plot? (Tsh/kg)	What type of bean seed was it? 1= Certified 2=Quality declared seed 3= Non-certified but came in a package with labeling 4= Came in no package and no label -9= Don't know	Was any of this seed obtained from a FIPS VBAA? ***1=Yes 2=No***	Was see wi
	Area	Units 1=Acre 2=Ha 3=Sq. meters							Area	Units 1=Acre 2=Ha 3=Sq. meters	Quantity	Units 1=kg 2=grams 3=lbs						
PLOT	**P01A**	**P01B**	**INTCROP**	**MVARIETY**	**OVARIETY**	**VARTYPE**	**COLOR**	**SIZE**	**P01C**	**P01D**	**P02A**	**P02B**	**P03**	**P04**	**P05**	**P06**		

Bean variety codes

1=Local	4=Calima Uyole	7=Njano Uyole	10=UYL 84	13=Uyole 90	16=Uyole 98	19=Other (specify: _____)
2=Bilfa 4	5=Kabanima	8=Roba1	11=Uyole 03 (Mwaspenjele)	14=Uyole 94 (Kasukanywele)	17=Uyole 2003	
3=Bilfa-Uyole	6=Kablanket	9=Urafiki	12=Uyole 04 (Maini)	15=Uyole 96 (msafiri)	18=Wanja	

Table 2.7.3 For each of the plots mentioned in 2.7.1, please tell me the following about inputs to bean production:

Key variables: village_id HH PLOT *Reference period:* Minor season (Dec. 2015-Feb. 2016) in *2015/16 agricultural year*

Plot Number	What quantity of Apron Star was applied to the bean seeds on this plot?		What quantity of inorganic fertilizer was applied to this plot?		What quantity of herbicide was applied to this plot?		What quantity of insecticide was applied to this plot?		What quantity of fungicide was applied to this plot?		What quantity of animal manure was applied to this plot?		What was the estimated total cost of non-labor inputs on this plot ? (Tsh)	What quantity of labor was used on this plot?		What was the estimated cost of hired labor on this plot? (Tsh)
	Quantity	Units 1=kg 2=grams 3=lbs 4=litre	Quantity	Units 1=kg 2=grams 3=lbs 4=litres 5=mL	Quantity	Units 1=kg 2=grams 3=lbs 4=litres 5=mL	Quantity	Units 1=kg 2=grams 3=lbs 4=litres 5=mL	Quantity	Units 1=kg 2=grams 3=lbs 4=litres 5=mL	Quantity	Units 1=kg 2=grams 3=lbs 4=metric tonnes		Quantity	Units 1=man days 2=hours	
PLOT	**P10A**	**P10B**	**P11A**	**P11B**	**P12A**	**P12B**	**P13A**	**P13B**	**P14A**	**P14B**	**P15A**	**P15B**	**P16**	**P17A**	**P17B**	**P18**

2.8 We would like to know about your seed purchasing habits and other aspects of bean farming

Questions	Variable Name	Response
2.8.1 Do you **regularly purchase** or have you **ever purchased** bean **seed** (not grain) for planting? **1= Yes, regularly purchase** **2= Yes, purchase occasionally** **3= No, never purchase 'seed'** ***→2.8.7***	**seedpur**	
2.8.2 What is the highest price per kg you have ever paid for bean seed? (Tsh/kg)	**hseedpr**	
2.8.3 In what agricultural year and season did you pay this high price? a. ***Enter agricultural year as YYYY, e.g., Dec 2010 to July 2011 should be noted as 2011, Dec 2015 to July 2016 should be 2016, etc.***	**yrhseedpr**	
b. Select the season 1=Minor season 2=Major season	**sehseedpr**	
2.8.4 When was the last time (year and season) you purchased bean seed?	**lstseedpur**	
a. ***Enter agricultural year as YYYY, e.g., Dec 2010 to July 2011 should be noted as 2011, Dec 2015 to July 2012 should be 2016, etc.*** b. Select the season 1=Minor season 2=Major season	**selstseedpur**	
2.8.5 What was the price per kg you paid for acquiring this seed last time? (Tsh/kg)	**lstseedpr**	
2.8.6 What was the name of this bean seed variety you acquired last time you paid this price?	**nmlstseed**	
2.8.7 In a normal year, what **percent (%)** of your bean **harvest** do you **sell?**	**pctbeansld**	
2.8.8 In a normal year, what **percent (%)** of your **HH income** comes from **bean sales?**	**pctbeaninc**	
2.8.9 With how many total friends/relatives/neighbors/fellow farmers did you talk about bean farming in this 2016/17 agricultural year?	**beanagfrnd**	
2.8.10. Have you heard about hybrid seeds? 1=Yes 2=No (if No, skip to 2.8.13)	**hybridknow**	
2.8.11 Have you ever used hybrid seeds of any crop? 1=Yes 2=No (If No, skip to 2.8.13)	**hybriduse**	
2.8.12 Name of the crop for which you have used hybrid seeds (select all that are mentioned) [1] maize [2] rice [3] sorghum [4] soybean [5] potato	**hybridcrop**	

[6] vegetables [99] Other (specify_____)		
2.8.13 Do you practice cereal-legume rotation on your farm? *(Enumerator: explain that rotation means on a given plot growing a cereal crop and a legume crop in alternate season (or in rotation). A legume crop includes beans, groundnuts, cowpea, soybeans, etc.* 1=Yes 2=No	**rotation**	

Table 2.9 We would like to learn about the relative importance of beans for your household.

Which are the three most important crops on your household's farm in terms of…. *(see codes below)*			
	C01	**C02**	**C03**
	1st	**2nd**	**3rd**
2.9.1 Total area planted?			
2.9.2 Purchased inputs devoted for production?			
2.9.3 Source of cash income?			

[1] maize	[5] pigeon pea	[9] potato	[13] vegetables
[2] rice	[6] cowpea	[10] cassava	[14] banana
[3] sorghum	[7] soybean	[11] sesame	[15] other fruit crops
[4] beans	[8] groundnut	[12] coffee	[99] Other (sp.)

SECTION 3: New Agricultural Technologies

3.1 We'd like to learn more about your knowledge of Apron Star seed treatment

Questions	Variable Name	Response
3.1.1 Prior to this interview, had you ever heard about Apron Star? ***1=Yes, 2=No →go to 3.1.28***	**apknow**	
3.1.2 In what agricultural year did you first learn any information about Apron Star? a. ***Enter agricultural year as YYYY, e.g., Dec 2010 to July 2011 should be noted as 2011, Dec 2015 to July 2016 should be 2016, etc.*** b. Select the season 1=Minor season 2=Major season	**yrap** **seap**	
3.1.3 How did you learn about Apron Star seed treatments? Please check all that apply: ☐ FIPS VBAA ☐ Government Extension Officer ☐ Farmer Cooperative/Group ☐ ARI-Uyole or other research center ☐ Neighbor/Friend/Relative ☐ Private Company/Input Dealer ☐ Other NGO ☐ Radio/TV/Mobile Phone ☐ Newspaper ☐ Other (Specify _____)	**aplearn**	
3.1.4 Have you or any member of your household ever used Apron Star? ***1=Yes →go to 3.1.6, 2=No***	**apuse**	
3.1.5 If No, why? Please check all that apply: ***→go to 3.1.15*** ☐ Unwilling to try new technology; ☐ Lack training/information; ☐ Too expensive; ☐ Apron Star not available in village; ☐ Not satisfied with output; ☐ Not suitable for crop; ☐ Difficult to apply to seeds; ☐ Other(Specify)	**noaprsn**	
3.1.6 In what agricultural year did your household **first** start using Apron Star? a. ***Enter agricultural year as YYYY, e.g., Dec 2010 to July 2011 should be noted as 2011, Dec 2015 to July 2016 should be 2016, etc.*** b. Select the season 1=Minor season 2=Major season	**yrapstart** **seapstart**	
3.1.7 What was the motivation behind your household's decision to use Apron Star? Please check all that apply. ☐ To increase crop yield ☐ To reduce loss from pests ☐ To reduce loss from disease ☐ To reduce loss from fungus ☐ VBAA recommended Apron Star ☐ Other farmers in my village were using Apron Star ☐ Friends/family members were using Apron Star ☐ Less weeding ☐ Lower cost of inputs ☐ Improved land quality ☐ Reduce risk and uncertainty of bean production ☐ Other (Specify)	**apmotiv**	
3.1.8 Did your household stop using Apron Star after adopting it? ***1=Yes, 2=No →go to 3.1.10***	**apstop**	
3.1.9 Why did your household stop using Apron Star? Please check all that apply: ☐ Lack training/information; ☐ Too expensive; ☐ Apron Star not available in village; ☐ Not satisfied with output; ☐ Not suitable for crop; ☐ Did not prevent pests/fungus/disease as advertised;	**apstoprrsn**	

☐ Difficult to apply to seeds; ☐ Other(Specify)		
3.1.10 In which agricultural year did you/your household last use Apron Star?	**yrlstapuse**	
a. ***Enter agricultural year as YYYY, e.g., Dec 2010 to July 2011 should be noted as 2011, Dec 2015 to July 2016 should be 2016, etc.*** b. Select the season 1=Minor season 2=Major season	**selstapuse**	
3.1.11 From whom did you obtain Apron Star for your beans? ☐ FIPS VBAA; ☐ Government Extension Officer; ☐ Farmer Cooperative/Group; ☐ ARI-Uyole or other research center; ☐ Neighbor/Friend/Relative ; ☐ Private Company/Input Dealer; ☐ Other NGO; ☐ Other (Specify_____)	**apsource**	
3.1.12 What was the total bean area to which you/your household applied Apron Star that year? (hectares)	**aparea**	
3.1.13 Do you share your experiences using Apron Star with other farmers? ***1=Yes, 2=No***	**apshfrm**	
3.1.14 Do you share your experiences using Apron Star with your VBAA? ***1=Yes, 2=No***	**apshvbaa**	
3.1.15 Have you received training in how to use Apron Star on beans? ***1=Yes, 2=No →go to 3.1.17***	**aptraining**	
3.1.16 If yes, from whom? Please check all that apply: ☐ FIPS VBAA ☐ Government Extension Officer ☐ Farmer Cooperative/Group ☐ ARI-Uyole or other research center ☐ Neighbor/Friend/Relative ☐ Private Company/Input Dealer ☐ Other NGO ☐ Radio/TV/Mobile Phone ☐ Newspaper ☐ Other (Specify _____)	**aptrsource**	
3.1.17 Do you plan to increase, decrease or not change the bean area under Apron Star in the next season? 1-increase, 2-decrease, 3-not change	**apchange**	
3.1.18 In your opinion, what are the main benefits of using Apron Star? ☐ To increase crop yield ☐ To reduce loss from pests ☐ To reduce loss from disease ☐ To reduce loss from fungus ☐ VBAA recommended Apron Star ☐ Other farmers in my village were using Apron Star ☐ Other friends/family members were using Apron Star ☐ Less weeding ☐ Lower cost of inputs ☐ Improved land quality ☐ Reduce risk and uncertainty of bean production ☐ Other (Specify)	**apben**	
3.1.19 In your opinion, what are the main inconveniences of using Apron Star? ☐ Lack of service provider in the village ☐ Cost of technology ☐ Treating/coating the seeds ☐ Lack of information/knowledge about Apron Star ☐ Other (Specify)	**apincon**	
3.1.20 In your opinion, does the Apron Star increase, decrease or have no effect on the total labor time devoted to farming (family and hired labor) relative to your typical practice? **1=Increase, 2=Decrease, 3=No change**	**aplbrchg**	
3.1.21 Does time devoted to land preparation increase, decrease, or stay the same? **1=Increase, 2=Decrease, 3=Stay the same**	**aplandchg**	
3.1.22 Does time devoted to seed preparation increase, decrease, or stay the same? **1=Increase, 2=Decrease, 3=Stay the same**	**apseedchg**	
3.1.23 Does time devoted to weeding increase, decrease, or stay the same? **1=Increase, 2=Decrease, 3=Stay the same**	**apweedchg**	

3.1.24 Does time devoted to applying chemical insecticide increase, decrease, or stay the same? **1=Increase, 2=Decrease, 3=Stay the same**	**apinsectchg**	
3.1.25 Does time devoted to applying chemical herbicides increase, decrease, or stay the same? **1=Increase, 2=Decrease, 3=Stay the same**	**apherbchg**	
3.1.26 Does time devoted to applying chemical fungicides increase, decrease, or stay the same? **1=Increase, 2=Decrease, 3=Stay the same**	**apfungchg**	
3.1.27 Does time devoted to harvesting beans increase, decrease, or stay the same? **1=Increase, 2=Decrease, 3=Stay the same**	**apharchg**	
3.1.28 Have you ever used another type of bean seed treatment? ***1=Yes, 2=No →go to 3.1.30***	**oseedtrt**	
3.1.29 If yes, what was the name of the most frequently used alternative seed treatment? 1=Apron Star/Syngenta 2=Seed Plus 3= Carbofuran /Marshal 4=Other (specify: _____) - 9=Don't recall	**nmoseedtrt**	
3.1.30 Have you ever used fungicide on beans? ***1=Yes, 2=No***	**othfung**	
3.1.31 Have you ever used herbicide on beans? ***1=Yes, 2=No***	**othherb**	
3.1.32 Have you ever used insecticide on beans? ***1=Yes, 2=No***	**othinsect**	

3.2 We'd like to learn more about your knowledge of an improved bean seed called Uyole 96

Questions	Variable Name	Response
3.2.1 Have you ever heard about Uyole 96? ***1=Yes, 2=No →go to 3.3.1***	**uyknow**	
3.2.2 In what agricultural year did you first learn any information about the Uyole 96 variety of bean seed?	**yruyknow**	
a. ***Enter agricultural year as YYYY, e.g., Dec 2010 to July 2011 should be noted as 2011, Dec 2015 to July 2016 should be 2016, etc.*** b. Select the season 1=Minor season 2=Major season	**seuyknow**	
3.2.3 How did you learn about Uyole 96? Please check all that apply: ☐ FIPS VBAA; ☐ Government Extension Officer; ☐ Farmer Cooperative/Group; ☐ ARI-Uyole or other research center; ☐ Neighbor/Friend/Relative ; ☐ Private Company/Input Dealer; ☐ Other NGO; ☐ Radio/TV/Mobile Phone; ☐ Newspaper; ☐ Other (Specify_____)	**uylearn**	
3.2.4 Have you or any member of your household ever used Uyole 96? ***1=Yes →go to 3.2.6, 2=No***	**uyuse**	
3.2.5 If No, why? Please check all that apply: ***→go to 3.2.18*** ☐ Lack training/information; ☐ Too expensive; ☐ Seeds not available in village; ☐ Not satisfied with output; ☐ Not suitable for farm; ☐ Did not function as advertised; ☐ Other (Specify_____)	**rsnnouyuse**	
3.2.6 In what agricultural year did your household start using Uyole 96?	**yruystart**	
a. ***Enter agricultural year as YYYY, e.g., Dec 2010 to July 2011 should be noted as 2011, Dec 2015 to July 2016 should be 2016, etc.*** b. Select the season 1=Minor season 2=Major season	**seuystart**	
3.2.7 What was the motivation behind your household's decision to use Uyole 96? Please check all that apply: ☐ To increase crop yield ☐ To reduce loss from pests ☐ To reduce loss from bean rust ☐ To reduce losses from Angular Leaf Spot (ALS) ☐ VBAA recommended Uyole 96	**uymotiv**	

☐ Someone else recommended Uyole 96 ☐ Other farmers in my village were using it ☐ Less weeding ☐ Fast time to maturity ☐ I like the color, size and shape of Uyole 96 beans ☐ I like the taste of Uyole 96 beans ☐ Uyole 96 beans are good for consumption ☐ Uyole 96 beans are good to sell ☐ It was given as free seed ☐ Other (Specify_____)		
3.2.8 Did your household stop using Uyole 96 after adopting it? ***1=Yes, 2=No →go to 3.2.10***	**uystop**	
3.2.9 Why did your household stop using Uyole 96? Please check all that apply: ☐ Lack training/information; ☐ Too expensive; ☐ Uyole 96 not available in village; ☐ Not satisfied with yield; ☐ Not suitable for farm; ☐ Took too long to mature; ☐ Required too many seeds per hectare; ☐ Did not prevent disease as advertised; ☐ Difficult to apply to seeds; ☐ Don't like the color, size and shape of Uyole 96 beans ☐ Don't like the taste of Uyole 96 beans ☐ Uyole 96 beans are not good for consumption ☐ Uyole 96 beans are not good to sell ☐ Other (Specify_____)	**rsnuystop**	
3.2.10 In which agricultural year did your household last use Uyole 96?	**yrlstuyuse**	
a. ***Enter agricultural year as YYYY, e.g., Dec 2010 to July 2011 should be noted as 2011, Dec 2015 to July 2016 should be 2016, etc.*** b. Select the season 1=Minor season 2=Major season	**selstuyuse**	
3.2.11 When your household last obtained/purchased Uyole 96, how much did you get? (kilograms)	**lstuyquan**	
3.2.12 When your household last obtained/purchased Uyole 96, how much did you pay for it (per kg)? Write 0 if it was given as free seed.	**lstuypr**	
3.2.13 Was this a subsidized price or the commercial price? ***1=Subsidized, 2=Commercial***	**uysub**	
3.2.14 From whom did your household obtain/purchase Uyole 96? Please check all that apply: ☐ FIPS VBAA; ☐ Government Extension Officer; ☐ Farmer Cooperative/Group; ☐ ARI-Uyole or other research center; ☐ Neighbor/Friend/Relative/Fellow farmer ; ☐ Private Company/Input Dealer; ☐ Other NGO; ☐ Other (Specify_____)	**uysource**	
3.2.15 When you last obtained/purchased Uyole 96 bean seed, what type of seed was it? 1= Certified, 2=Quality declared seed, 3= Non-certified but came in a package with labeling, 4= Came in no package and no label, -9= Don't know/Don't remember	**uytype**	
3.2.16 What was the total bean area to which your household planted Uyole 96 during the last year you used it? (**acres**)	**uyarea**	
3.2.17 Do you share your household's experiences using Uyole 96 with other farmers? ***1=Yes, 2=No***	**uyshfarm**	
3.2.18 Do you share your household's experiences using Uyole 96 with your VBAA? ***1=Yes, 2=No***	**uyshvbaa**	
3.2.19 Have you or anyone else in your household received training in how to use Uyole 96 beans? ***1=Yes, 2=No →go to 3.2.21***	**uytraining**	
3.2.20 If yes, from whom? Please check all that apply: ☐ FIPS VBAA ☐ Village cooperative ☐ Relatives/Neighbor Farmer ☐ Agrodealer	**uytsource**	

☐ Farmer association ☐ Other (Specify_____)		
3.2.21 Does your household plan to increase, decrease or not change the bean area under Uyole 96 in the next season? 1-increase, 2-decrease, 3-not change	**uychange**	
3.2.22 In your opinion, what are the main benefits of using Uyole 96? Please check all that apply: ☐ To increase crop yield ☐ To reduce loss from pests ☐ To reduce loss from bean rust ☐ To reduce loss from Angular Leaf Spot (ALS) ☐ VBAA recommended Uyole 96 ☐ Someone else recommended Uyole 96 ☐ Other farmers in my village were using it ☐ Less weeding ☐ Fast time to maturity ☐ Uyole 96 beans are good for consumption ☐ Uyole 96 beans are good to sell ☐ Other (Specify_____)	**uyben**	
3.2.23 In your opinion, what are the main inconveniences of using Uyole 96? Please check all that apply: ☐ Lack training/information; ☐ Too expensive; ☐ Uyole 96 not available in village; ☐ Unsatisfactory yield; ☐ Not suitable for farm; ☐ Takes too long to mature; ☐ Requires too many seeds per hectare; ☐ Does not prevent disease as advertised; ☐ Uyole 96 beans are not good for consumption ☐ Uyole 96 beans are not good to sell ☐ Other (Specify_____)	**uyincon**	
3.2.24 In your opinion, does the Uyole 96 seed increase, decrease or have no effect on the total labor time devoted to farming (family and hired labor) relative to your typical practice? 1-increase, 2-decrease, 3-not change	**uylbrchg**	
3.2.25 Does time devoted to land preparation increase, decrease, or stay the same? **1=Increase, 2=Decrease, 3=Stay the same**	**uylandchg**	
3.2.26 Does time devoted to seed preparation increase, decrease, or stay the same? **1=Increase, 2=Decrease, 3=Stay the same**	**uyseedchg**	
3.2.27 Does time devoted to weeding increase, decrease, or stay the same? **1=Increase, 2=Decrease, 3=Stay the same**	**uyweedchg**	
3.2.28 Does time devoted to applying chemical insecticides increase, decrease, or stay the same? **1=Increase, 2=Decrease, 3=Stay the same**	**uyinsectchg**	
3.2.29 Does time devoted to applying chemical herbicides increase, decrease, or stay the same? **1=Increase, 2=Decrease, 3=Stay the same**	**uyherbchg**	
3.2.30 Does time devoted to applying chemical fungicides increase, decrease, or stay the same? **1=Increase, 2=Decrease, 3=Stay the same**	**uyfungchg**	
3.2.31 Does time devoted to harvesting beans increase, decrease, or stay the same? **1=Increase, 2=Decrease, 3=Stay the same**	**uytimechg**	
3.2.32 How do you generally obtain Uyole 96 bean seed? Please check all that apply: ☐ Save seed from previous season ☐ Purchase from agrodealer (non-VBAA) ☐ Purchase from VBAA ☐ Receive for free from VBAA ☐ Receive from extension officer ☐ Purchase from the vendors in the market ☐ Purchase/borrow from other farmers in this village ☐ Given by friends/family/neighbors/fellow farmers ☐ Other (Specify_____)	**uyhabit**	

3.3 We'd like to learn more about your knowledge of an improved bean seed called Njano Uyole (Mercy—this section is same as the previous one, except for the variety focus and the last four questions)

Questions	Variable Name	Response
3.3.1 Have you ever heard about Njano Uyole? ***1=Yes, 2=No →go to 3.3.33***	**njknow**	
3.3.2 In what agricultural year did you first learn any information about the Njano Uyole variety of bean seed?	**yrnjknow**	
a. ***Enter agricultural year as YYYY, e.g., Dec 2010 to July 2011 should be noted as 2011, Dec 2015 to July 2016 should be 2016, etc.*** b. Select the season 1=Minor season 2=Major season	**senjknow**	
3.3.3 How did you learn about Njano Uyole? Please check all that apply: ☐ FIPS VBAA; ☐ Government Extension Officer; ☐ Farmer Cooperative/Group; ☐ ARI-Uyole or other research center; ☐ Neighbor/Friend/Relative ; ☐ Private Company/Input Dealer; ☐ Other NGO; ☐ Radio/TV/Mobile Phone; ☐ Newspaper; ☐ Other (Specify_____)	**njlearn**	
3.3.4 Have you or any member of your household ever used Njano Uyole? ***1=Yes →go to 3.3.6, 2=No***	**njuse**	
3.3.5 If No, why? Please check all that apply: ***→go to 3.3.33*** ☐ Lack training/information; ☐ Too expensive; ☐ Seeds not available in village; ☐ Not satisfied with output; ☐ Not suitable for farm; ☐ Did not function as advertised; ☐ Other (Specify_____)	**rsnnonjuse**	
3.3.6 In what agricultural year did your household start using Njano Uyole?	**yrnjstart**	
a. ***Enter agricultural year as YYYY, e.g., Dec 2010 to July 2011 should be noted as 2011, Dec 2015 to July 2016 should be 2016, etc.*** b. Select the season 1=Minor season 2=Major season	**senjstart**	
3.3.7 What was the motivation behind your household's decision to use Njano Uyole? Please check all that apply: ☐ To increase crop yield ☐ To reduce loss from pests ☐ To reduce loss from bean rust ☐ To reduce loss from Angular Leaf Spot (ALS) ☐ To reduce loss from root rot ☐ To reduce loss from halo blight ☐ To reduce loss from common bacterial blight (CBB) ☐ VBAA recommended Njano Uyole ☐ Someone else recommended Njano Uyole ☐ Other farmers in my village were using it ☐ Less weeding ☐ Fast time to maturity ☐ I like the color, size and shape of Njano Uyole beans ☐ I like the taste of Njano Uyole beans ☐ Njano Uyole beans are good for consumption ☐ Njano Uyole beans are good to sell ☐ It was given as free seed ☐ Other (Specify_____)	**njmotiv**	
3.3.8 Did your household stop using Njano Uyole after adopting it? ***1=Yes, 2=No →go to 3.3.10***	**njstop**	
3.3.9 Why did your household stop using Njano Uyole? Please check all that apply: ☐ Lack training/information; ☐ Too expensive; ☐ Njano Uyole not available in village; ☐ Unsatisfactory yield; ☐ Not suitable for farm; ☐ Takes too long to mature;	**rsnnjstop**	

☐ Requires too many seeds per hectare; ☐ Does not prevent disease as advertised; ☐ Don't like the color, size and shape of Njano Uyole beans ☐ Don't like the taste of Njano Uyole beans ☐ Njano Uyole beans are not good for consumption ☐ Njano Uyole beans are not good to sell ☐ Other (Specify_____)		
3.3.10 In which agricultural year did your household last use Njano Uyole? a. ***Enter agricultural year as YYYY, e.g., Dec 2010 to July 2011 should be noted as 2011, Dec 2015 to July 2016 should be 2016, etc.*** b. Select the season 1=Minor season 2=Major season	**yrlstnjuse** **selstnjuse**	
3.3.11 When your household last obtained/purchased Njano Uyole, how much did your household obtain?	**lstnjquan**	
3.3.12 When your household last obtained/purchased Njano Uyole, how much did your household pay for it (per kg)? (write zero if it was given as free seed)	**lstnjpr**	
3.3.13 Was this a subsidized price or the commercial price? ***1=Subsidized***, ***2=Commercial***	**njsub**	
3.3.14 From whom did your household obtain/purchase Njano Uyole? Please check all that app ☐ FIPS VBAA; ☐ Government Extension Officer; ☐ Farmer Cooperative/Group; ☐ ARI-Uyole or other research center; ☐ Neighbor/Friend/Relative ; ☐ Private Company/Input Dealer; ☐ Other NGO; ☐ Other (Specify_____)	**njsource**	
3.3.15 When you last obtained/purchased Njano Uyole bean seed, what type of seed was it? 1= Certified, 2=Quality declared seed, 3= Non-certified but came in a package with labeling, 4= Came in no package and no label, -9= Don't know/Don't remember	**njtype**	
3.3.16 What was the total bean area to which your household planted Njano Uyole during the last year you used it? (**acres**)	**njarea**	
3.3.17 Do you share your household's experiences using Njano Uyole with other farmers? ***1=Yes***, ***2=No***	**njshfarm**	
3.3.18 Do you share your household's experiences using Njano Uyole with your VBAA? ***1=Yes***, ***2=No***	**njshvbaa**	
3.3.19 Have you or anyone else in your household received training in how to use Njano Uyole beans? ***1=Yes***, ***2=No*** ***→go to 3.3.21***?	**njtraining**	
3.3.20 If yes, from whom? Please check all that apply: ☐ FIPS VBAA; ☐ Government Extension Officer; ☐ Farmer Cooperative/Group; ☐ ARI-Uyole or other research center; ☐ Neighbor/Friend/Relative ; ☐ Private Company/Input Dealer; ☐ Other NGO; ☐ Other (Specify_____)	**njtsource**	
3.3.21 Does your household plan to increase, decrease or not change the bean area under Njano Uyole in the next season? 1-increase, 2-decrease, 3-not change	**njchange**	
3.3.22 In your opinion, what are the main benefits of using Njano Uyole? Please check all that apply: ☐ To increase crop yield ☐ To reduce loss from pests ☐ To reduce loss from bean rust ☐ To reduce loss from Angular Leaf Spot (ALS) ☐ To reduce loss from root rot ☐ To reduce loss from halo blight ☐ To reduce loss from common bacterial blight (CBB) ☐ VBAA recommended Njano Uyole ☐ Someone else recommended Njano Uyole	**njben**	

☐ Other farmers in my village were using it ☐ Less weeding ☐ Fast time to maturity ☐ Njano Uyole beans are good for consumption ☐ Njano Uyole beans are good to sell ☐ Other (Specify_____)		
3.3.23 In your opinion, what are the main inconveniences of using Njano Uyole? Please check all that apply: ☐ Lack training/information; ☐ Too expensive; ☐ Njano Uyole not available in village; ☐ Not satisfied with yield; ☐ Not suitable for farm; ☐ Took too long to mature; ☐ Required too many seeds per hectare; ☐ Did not prevent disease as advertised; ☐ Difficult to apply to seeds; ☐ Njano Uyole beans are not good for consumption ☐ Njano Uyole beans are not good to sell ☐ Other (Specify_____)	**njincon**	
3.3.24 In your opinion, does the Njano Uyole seed increase, decrease or have no effect on the total labor time devoted to farming (family and hired labor) relative to your typical practice? 1-increase, 2-decrease, 3-not change	**njlbrchg**	
3.3.25 Does time devoted to land preparation increase, decrease, or stay the same? **1=Increase, 2=Decrease, 3=Stay the same**	**njlandchg**	
3.3.26 Does time devoted to seed preparation increase, decrease, or stay the same? **1=Increase, 2=Decrease, 3=Stay the same**	**njseedchg**	
3.3.27 Does time devoted to weeding increase, decrease, or stay the same? **1=Increase, 2=Decrease, 3=Stay the same**	**njweedchg**	
3.3.28 Does time devoted to applying chemical insecticides increase, decrease, or stay the same? **1=Increase, 2=Decrease, 3=Stay the same**	**njinsectchg**	
3.3.29 Does time devoted to applying chemical herbicides increase, decrease, or stay the same? **1=Increase, 2=Decrease, 3=Stay the same**	**njherbchg**	
3.3.30 Does time devoted to applying chemical fungicides increase, decrease, or stay the same? **1=Increase, 2=Decrease, 3=Stay the same**	**njfungchg**	
3.3.31 Does time devoted to harvesting beans increase, decrease, or stay the same? **1=Increase, 2=Decrease, 3=Stay the same**	**njtimechg**	
3.3.32 How does your household generally obtain Njano Uyole bean seed? Please check all that apply: ☐ Save seed from previous season ☐ Purchase from agrodealer (non-VBAA) ☐ Purchase from VBAA ☐ Receive for free from VBAA ☐ Receive from extension officer ☐ Purchase from the vendors in the market ☐ Purchase/borrow from other farmers in this village ☐ Given by friends/family/neighbors/fellow farmers ☐ Other (Specify_____)	**njhabit**	
3.3.33. I would like to ask you about other improved bean varieties you are aware of. Other than Uyole 96, Njano Uyole, and varieties you planted in the last two years mentioned before, please tell me the names of all the improved bean varieties you know or are aware of (Enumerator—write the names as mentioned)	**varaware**	
3.3.34 Enumerator: count the number of improved varieties mentioned and put the number in this field	**varcount**	
3.3.35 Have you ever grown any of these varieties on your farm in the past? 1= Yes 2= No	**varuse**	
3.3.36 Main reasons for not growing these bean varieties on your farm? (please check all that are mentioned) ☐ Too expensive; ☐ Seed of that variety not available;	**varavoid**	

☐ Unsatisfactory yield; ☐ Not suitable for farm; ☐ Takes too long to mature; ☐ Requires too many seeds per hectare; ☐ Does not prevent disease as advertised; ☐ Didn't like the color, size and shape of that variety ☐ Didn't like the taste of that variety ☐ That variety was not good for consumption ☐ That variety was not good to sell ☐ Other (Specify_____)		

SECTION 4: SOCIO-ECONOMIC CHARACTERISTICS & FARMING/EXTENSION EXPERIENCE

4.1 We'd now like to know more about you and your background.

4.1.1 What is your **age**?	**age**	

4.1.2 What is your **marital status**? ***See codes below***	**mastatus**	

4.1.3 What is your **relationship to the head** of your household? ***See codes below***	**relhead**	

4.1.4 Excluding yourself, how many male and female members age 15 to 59 are in your household?	**hhmale**	Male	
	hhfem	Female	

4.1.5 Excluding yourself, how many male and female members age 60 and above are in your household?	**hhmale60**	Male	
	hhfem60	Female	

4.1.6 How many child members age 14 and below are in your household?	**children**	

4.1.7 What is the highest level of formal education that you have completed? ***See codes below***	**educ**	
4.1.8 What is the highest level of formal education completed by any member of your household? ***See codes below***	**educhh**	

4.1.9 Are you a member of a farmer cooperative, farmer association, and/or other farmer group? ***1=Yes 2=No***	**memcoop**	

4.1.10 Are you or your spouse a member of a women's group? ***1=Yes 2=No***	**womgroup**	

4.1.11 Do you have a bank account? ***1=Yes 2=No***	**bankacct**	

4.1.12 Are you a member of a rotating savings and credit association, village community bank (viccoba), or any community-based savings and loan group? ***1=Yes 2=No***	**creditassoc**	

Marital status codes (maritalstatus)
1=never married before
2=monogamously married
3=polygamously married
4=divorced
5=widowed
6=separated
7=live together / cohabit

Relationship to the HH head codes (relhead)
1=head
2=spouse
3=child (own/step)
4=parent/parent-in-law
5=brother/sister
6=other relative
7=unrelated

Education codes (educ)			
00=none	07=standard 7	14=form 6	21=univ year 3
01=standard 1	08=standard 8	15=college year 1	22=univ year 4
02=standard 2	09=form 1	16=college year 2	23=univ year 5
03=standard 3	10=form 2	17=college year 3	24=postgrad
04=standard 4	11=form 3	18=college year 4	25=other, specify
05=standard 5	12=form 4	19=univ year 1	_____
06=standard 6	13=form 5	20=univ year 2	

4.1.13 What is the most common ethnic group/tribe in your village? ***See codes below***	**viltribe**	

4.1.14 What is your main ethnic group/tribe? ***See codes below***	**tribe**	

4.1.15 Are you or your spouse related to the village extension officer? ***1=Yes 2=No***	**relvilext**	

4.1.16 Are you or your spouse related to the village chairman or the village executive officer? ***1=Yes 2=No***	**relvilcon**	

4.1.17 Are you or your spouse related to the VBAA serving your village? ***1=Yes 2=No -9=No VBAA serving village***	**relvbaa**	

4.1.18 Do you currently serve on the village council? ***1=Yes→go to Q4.1.20 2=No***	**vilconcur**	

4.1.19 Have you ever served on the village council? ***1=Yes 2=No***	**vilcon**	

4.1.20 In what year did you first settle in your village? ***(If the respondent was born in the village, enter -9)***	**yearvil**	

4.1.21 Were either of your parents born in the village where you currently live? ***1=Yes 2=No***	**parvil**	

Ethnic group/tribe codes (tribe, viltribe)			
1=Bungu	11=Matengo	21=Nyiha	31=Kara
2=Chaga	12=Meru	22=Pare	32=Kinga
3=Digo	13=Ndali	23=Safwa	33=Ndengereko
4=Fipa	14=Ndengereko	24=Sangu	34=Nyambo
5=Gogo	15=Ngoni	25=Bembwa	35=Sambaa
6=Kaguru	16=Nyakyusa	26=Bena	36=Sukuma
7=Kimbu	17=Nyamwanga	27=Bondei	37=Yao
8=Lambya	18=Nyaturu	28=Hangaza	38=Zaramo
9=Makonde	19=Nyantuzu	29=Haya	39=Malila
10=Masai	20=Nyeramba	30=Hehe	39=Other (specify: _____)

4.2 We'd now like to know about your other sources of income

4.2.1 **Did** you or any member of your household have a job that paid a **regular salary** during the 2015/16? ***1=Yes 2=No***	**saljob1516**	

4.2.2 **Do** you or any member of your household currently have a job that pays a **regular salary**? ***1=Yes 2=No***	**saljob**	

4.2.3 **Did** you or any member of your household have any **wage employment** during the 2015/16 agricultural year? Do NOT include work on others' farms. ***1=Yes 2=No***	**wage1516**	

4.2.4 **Do** you or any member of your household currently have any **wage employment**? Do NOT include work on others' farms. ***1=Yes 2=No***	**wage**	

4.2.5 **Did** you or any member of your household have any **wage employment** on **someone else's farm** during the 2015/16 agricultural year? ***1=Yes 2=No***	**ganyu1516**	

4.2.6 **Do** you or any member of your household currently have any **wage employment** on **someone else's farm**? ***1=Yes 2=No***	**ganyu**	

4.2.7 **Did** you or any member of your household earn income from any **formal or informal business activities** during the 2015/16 agricultural year? ***1=Yes 2=No***	**bizact1516**	

4.2.8 **Do** you or any member of your household currently earn income from any **formal or informal business activities**? ***1=Yes 2=No***	**bizact**	

4.2.9 **Did** you or any member of your household receive a **pension** during the 2015/16 agricultural year? ***1=Yes 2=No***	**pen1516**	

4.2.10 **Do** you or any member of your household currently receive a **pension**? ***1=Yes 2=No***	**pension**	

4.2.11 **Did** you or any member of your household receive any **remittances** during the 2015/16 agricultural year? ***1=Yes 2=No***	**remit1516**	

4.2.12 **Do** you or any member of your household currently receive **remittances**? ***1=Yes 2=No***	**remit**	

4.3 We'd now like to know about the land your household owns.

4.3.1 How much **land** does your household currently **own**? ***Unit codes: 1=acres 2=hectares 3=square meters***	**lndarea**	Area	
	lndunit	Unit	

4.3.2 For how much of this land do you have a **formal land title**? ***Unit codes: 1=acres 2=hectares 3=square meters***	**lndtitlearea**	Area	
	lndtitleunit	Unit	

4.3.3 How much **land** did your household **own** during the 2015/16 agricultural year? ***Unit codes: 1=acres 2=hectares 3=square meters***	**lndarea1516**	Area	
	lndunit1516	Unit	

4.3.4 For how much of this land did you have a **formal land title**? ***Unit codes: 1=acres 2=hectares 3=square meters***	**lndtitlearea1516**	Area	
	Lndtitleunit1516	Unit	

4.3.5 How much of your **total land** area was **cultivated** with any crop during the 2016/2017 agricultural year**? (acres)**	**areacult**	

4.3.6 How much of your **total land** area was **cultivated** with any crop during the 2015/2016 agricultural year**? (acres)**	**areacult**	

4.3.7 How many total **years of farming experience** do you have? ***(Enter "0" if none.)***	**farmexper**	

4.3.8 How many total **years of experience** do you have growing **beans**? ***(Enter "0" if none.)***	**bnexper**	

4.3.9 What is the rental rate for an acre of land in your village? (Enter -9 if the farmer doesn't know)	**rentrate**	

4.4 Please tell us about the types and numbers of livestock, assets, and implements that your household currently owns.

Table 4.4 Assets *Key variables: vbaa_id asset* *Reference period: Now*

Type of asset	Asset code	How many … does your household currently own? ***(Enter "0" if none)***
	asset	**assetnum**
Mobile phones	1	
Smart phones	2	
Landline phones	3	
Radios	4	
Televisions	5	
Computers	6	
Solar panels and equipment	7	
Generators	8	
Bicycles	9	
Motorcycles	10	
Pick-ups/vans/cars/jeeps	11	
Trucks/lorries	12	
Trailers	13	
Tractors	14	
Animal drawn carts	15	
Houses	16	
Shops	17	
Cattle excluding oxen	18	
Oxen	19	
Sheep	20	
Goats	21	
Pigs	22	
Donkeys	23	
Chickens	24	

4.5 We'd now like to know the distance in kilometers from your homestead to some key locations and services.
Enumerator: If the distance is less than 1 kilometer, enter "0".

4.5.1 What is the distance from your homestead to the nearest mineral fertilizer seller (other than yourself)? ***Km*** ***If "0"→go to 4.6.4***	**kmfert**	

4.5.2 How much does it cost to transport one 50 kg bag of fertilizer from the nearest seller to your homestead? ***TZS***	**transfert**	

4.5.3 With what main type of transport from seller to homestead? ***1=car, 2=bus/daladala, 3=bicycle, 4=motorcycle, 5=ox cart, 6=donkey, 7=tractor, 8=other (specify: _____)***	**transtypef**	

4.5.4 What is the distance from your homestead to your FIPS VBAA? ***Km***	**kmvbaa**	

4.5.5 What is the distance from your homestead to the nearest seller of commercial bean seed? ***Km***	**kmseedbn**	

4.5.6 What is the distance from your homestead to the nearest seller of Apron Star or other seed treatment for maize or beans (other than yourself)? ***Km***	**kmseedtrt**	

4.5.7 What is the distance from your homestead to the nearest town? ***Km*** ***If "0"→go to 4.6.10***	**kmtown**	

4.5.8 How much does it cost to transport one 100 kg bag of maize grain from your homestead	**transmz**	

to the nearest town? ***TZS***		

4.5.9 With what main type of transport from your homestead to the nearest town? ***1=car, 2=bus/daladala, 3=bicycle, 4=motorcycle, 5=ox cart, 6=donkey, 7=tractor, 8=other (specify: _____)***	**transtypem**	

4.5.10 What is the distance from your homestead to the nearest agricultural extension advice/service (other than the VBAA)? ***Km***	**kmextens**	

4.5.11 What is the distance from your homestead to the nearest market place for farm produce? ***Km***	**kmmarket**	

4.5.12 What is the distance from your homestead to the district headquarters? ***Km***	**kmdisthq**	

4.5.13 What is the distance from your homestead to the nearest motorable road? ***Km***	**kmmotorrd**	

4.5.14 What is the distance from your homestead to the nearest tarmac road? ***Km***	**kmtarmac**	

4.6 Progress Out of Poverty Module

4.6.1 How many household members are 18-years old or younger?	**ppi1**	
4.6.2 Are all household members ages 6 to 18 currently in school? **1= Yes, 2=No, 3=No members aged 6-18**	**ppi2**	
4.6.3 What is the main building material used for the walls of the main building? 1=Baked bricks, 2=Poles and mud,grass,sun-dried bricks, or other 3=Stones, cement bricks, or timber	**ppi3**	
4.6.4 What is the main building material used for the roof of the main building? 1=Grass/leaves, mud/leaves, other, 2=Iron sheets, tiles, concrete, or asbestos	**ppi4**	
4.6.5 What is the main fuel used for cooking? 1=Firewood, coal, solar, gas(biogas), wood residuals, animal residuals, 2= Charcoal, paraffin, gas(industrial), electric, other	**ppi5**	
4.6.6 Does your household have any televisions? **1= Yes, 2=No**	**ppi6**	
4.6.7 Does your household have any radios, cassette/tape recorders, or hi-fi systems? ? **1= Yes, 2=No**	**ppi7**	
4.6.8 Does your household have any lanterns? **1= Yes, 2=No**	**ppi8**	
4.6.9 Does your household have any tables? **1= Yes, 2=No**	**ppi9**	
4.6.10 If your household has cultivated any crops in the last 12 months, does your household currently own any bulls, cows, steers, heifers, male calves, female calves, or oxen? 1= No crops and no cattle, 2=No crops and cattle, 3 = Crops but no cattle, 4=Crops and cattle	**ppi10**	

********** SECTION 5: Agricultural Output and Input Prices **********

5.1 We would like to ask you about crop prices in recent years.

Table 5.1 Crop prices *Key variables: village_id HH CPR* *Reference period: Various (see questions)*

		If you had sold a 20-kg bag of …. (shelled) to a private trader that came to your village during the following periods, how much would it have fetched? *(Tsh)*					
Crop		March-April 2015	June-September 2015	March-April 2016	June-September 2016	March-April 2017	June 2017-present
CPR		**CPR01**	**CPR02**	**CPR03**	**CPR04**	**CPR05**	**CPR06**
Beans	1						
Groundnuts	2						
Maize	3						

5.2 We would like to ask about input prices in recent years.

Table 5.2 Input prices *Key variables: village_id HH IPR Reference period: Agricultural years 2015/16-2016/17*

Input	IPR	What was the price of … at the nearest retailer during the **2015/16 agricultural season**? *(Tsh)*	What was the price of … at the nearest retailer during the **2016/17 agricultural season**? *(Tsh)*
	IPR	**IPR01**	**IPR02**
10-kg packet of hybrid maize seed	1		
50-kg bag of compound DAP fertiliser	2		
2-kg packet of commercial groundnut seed	3		
2-kg packet of commercial certified bean seed	4		

5.3 We would like to ask about hired labor and agricultural wages in recent years.

5.3.1 How many hours are typically worked when agricultural labor is hired for the day?	**hours**	

5.3.2 What was the agricultural wage rate in your area during the 2016/17 agricultural year?	**Quantity (Tsh)**	**wage1617a**	
	Units 1=per hour, 2=per day	**wage1617b**	

5.3.2 What was the agricultural wage rate in your area during the 2015/16 agricultural year?	**Quantity (Tsh)**	**wage1516a**		
	Units 1=per hour, 2=per day	**wage1516b**		

********** **SECTION 6: Follow-Up Questions** **********

6.1.1 Would you like to receive SMS messages (at no cost to you) related to bean management practices and bean inputs during the upcoming agricultural year? ***1=Yes, 2=No***	**followup**	

6.1.2 ***Enumerator: Is this household in a village where you are conducting experimental auctions? 1=Yes, 2=No→ End the interview and thank the respondent for his/her time***	**auction**	

ENUMERATOR: Please record auction results in this section

********** **SECTION 7: Auction Data** **********

7.1 Soap Auction

7.1.1 Farmer bid for 1 bar of soap (Tsh)	**bidsoap**	
7.1.2 Random price rolled for 1 bar of soap (Tsh)	**rpsoap**	
7.1.3 ***Enumerator: Does the farmer purchase the soap at this random price?*** 1=yes, if random price is less than or equal to bid price 2=No, if random price is more than the bid price	**purchsoap**	
7.1.4 **Enumerator: Have the farmer roll the 6-sided die to determine which version of the auction you will play. Then use the appropriate bid sheet.** 1 ***→go to 7.2.1 and use Seed Auction Bid Sheet Version 1*** 2 ***→go to 7.3.1 Seed Auction Bid Sheet Version 2*** 3 ***→go to 7.4.1 Seed Auction Bid Sheet Version 3*** 4 ***→go to 7.5.1 Seed Auction Bid Sheet Version 4*** 5 ***→go to 7.6.1 Seed Auction Bid Sheet Version 5*** 6 ***→go to 7.7.1 Seed Auction Bid Sheet Version 6***	**randseed**	

7.2 Seed Auction Version 1

7.2.1 Farmer bid for 1kg certified, untreated Uyole 96 (Tsh)	**u96cu**	
7.2.2 Farmer bid for 1kg certified, untreated Njano Uyole (Tsh)	**njcu**	
7.2.3 Farmer bid for 1kg certified Uyole 96 with 2.5g sachet of Apron Star for self-treatment (Tsh)	**u96stas**	
7.2.4 Farmer bid for 1kg certified Njano Uyole with 2.5g sachet of Apron Star for self-treatment (Tsh)	**njstas**	
7.2.5 Farmer bid for 1kg certified Uyole 96 pre-treated with 2.5g of Apron Star (Tsh)	**u96as**	
7.2.6 Farmer bid for 1kg certified Njano Uyole pre-treated with 2.5g of Apron Star (Tsh) ***→go to 7.8.1***	**njas**	

7.3 Seed Auction Version 2

7.3.1 Farmer bid for 1kg certified, untreated Njano Uyole (Tsh)	**njcu**	
7.3.2 Farmer bid for 1kg certified, untreated Uyole 96 (Tsh)	**u96cu**	
7.3.3 Farmer bid for 1kg certified Njano Uyole with 2.5g sachet of Apron Star for self-treatment (Tsh)	**njstas**	
7.3.4 Farmer bid for 1kg certified Uyole 96 with 2.5g sachet of Apron Star for self-treatment (Tsh)	**u96stas**	
7.3.5 Farmer bid for 1kg certified Njano Uyole pre-treated with 2.5g of Apron Star (Tsh)	**njas**	
7.3.6 Farmer bid for 1kg certified Uyole 96 pre-treated with 2.5g of Apron Star (Tsh) ***→go to 7.8.1***	**u96as**	

7.4 Seed Auction Version 3

7.4.1 Farmer bid for 1kg certified Uyole 96 with 2.5g sachet of Apron Star for self-treatment (Tsh)	**u96stas**	
7.4.2 Farmer bid for 1kg certified Njano Uyole with 2.5g sachet of Apron Star for self-treatment (Tsh)	**njstas**	
7.4.3 Farmer bid for 1kg certified, untreated Uyole 96 (Tsh)	**u96cu**	
7.4.4 Farmer bid for 1kg certified, untreated Njano Uyole (Tsh)	**njcu**	
7.4.5 Farmer bid for 1kg certified Uyole 96 pre-treated with 2.5g of Apron Star (Tsh)	**u96as**	
7.4.6 Farmer bid for 1kg certified Njano Uyole pre-treated with 2.5g of Apron Star (Tsh) ***→go to 7.8.1***	**njas**	

7.5 Seed Auction Version 4

7.5.1 Farmer bid for 1kg certified Njano Uyole with 2.5g sachet of Apron Star for self-treatment (Tsh)	**njstas**	

7.5.2 Farmer bid for 1kg certified Uyole 96 with 2.5g sachet of Apron Star for self-treatment (Tsh)	**u96stas**	
7.5.3 Farmer bid for 1kg certified, untreated Njano Uyole (Tsh)	**njcu**	
7.5.4 Farmer bid for 1kg certified, untreated Uyole 96 (Tsh)	**u96cu**	
7.5.5 Farmer bid for 1kg certified Njano Uyole pre-treated with 2.5g of Apron Star (Tsh)	**njas**	
7.5.6 Farmer bid for 1kg certified Uyole 96 pre-treated with 2.5g of Apron Star (Tsh) ***→go to 7.8.1***	**u96as**	

7.6 Seed Auction Version 5

7.6.1 Farmer bid for 1kg certified Njano Uyole pre-treated with 2.5g of Apron Star (Tsh)	**njas**	
7.6.2 Farmer bid for 1kg certified Uyole 96 pre-treated with 2.5g of Apron Star (Tsh)	**u96as**	
7.6.3 Farmer bid for 1kg certified Njano Uyole with 2.5g sachet of Apron Star for self-treatment (Tsh)	**njstas**	
7.6.4 Farmer bid for 1kg certified Uyole 96 with 2.5g sachet of Apron Star for self-treatment (Tsh)	**u96stas**	
7.6.5 Farmer bid for 1kg certified, untreated Njano Uyole (Tsh)	**njcu**	
7.6.6 Farmer bid for 1kg certified, untreated Uyole 96 (Tsh) ***→go to 7.8.1***	**u96cu**	

7.7 Seed Auction Version 6

7.7.1 Farmer bid for 1kg certified Uyole 96 pre-treated with 2.5g of Apron Star (Tsh)	**u96as**	
7.7.2 Farmer bid for 1kg certified Njano Uyole pre-treated with 2.5g of Apron Star (Tsh)	**njas**	
7.7.3 Farmer bid for 1kg certified Uyole 96 with 2.5g sachet of Apron Star for self-treatment (Tsh)	**u96stas**	
7.7.4 Farmer bid for 1kg certified Njano Uyole with 2.5g sachet of Apron Star for self-treatment (Tsh)	**njstas**	
7.7.5 Farmer bid for 1kg certified, untreated Uyole 96 (Tsh)	**u96cu**	
7.7.6 Farmer bid for 1kg certified, untreated Njano Uyole (Tsh) ***→go to 7.8.1***	**njcu**	

7.8 Seed Auction Results

7.8.1 ***Enumerator: Please have farmer roll the 6 sided die and record which auction was selected to be binding*** 1=1kg certified, untreated Uyole 96 2=1kg certified, untreated Njano Uyole 3=1kg certified Uyole 96 with 2.5g sachet of Apron Star for self-treatment 4=1kg certified Njano Uyole with 2.5g sachet of Apron Star for self-treatment 5=1kg certified Uyole 96 pre-treated with 2.5g of Apron Star 6=1kg certified Njano Uyole pre-treated with 2.5g of Apron Star	**bind**	

7.8.2 ***Enumerator: Please record the random price rolled by the farmer (Tsh). Use the 10 sided die for the second number and use the 6 sided die for the first number.***	**rprice**	
7.8.3 ***Enumerator: Does the farmer purchase the seed at this random price?*** 1=yes, if random price is less than or equal to bid price 2=No, if random price is more than the bid price	**purchseed**	
7.8.4 ***Enumerator: Ask the following question after giving the seed and/or money to the farmer:*** How many kilograms of … would you be willing to purchase **at your bid price? (Kg)**		
Certified, untreated Uyole 96	**kguyole96**	
Certified, untreated Njano Uyole	**kgnjuyole**	
Certified Uyole 96 with 2.5g sachet of Apron Star for self-treatment	**kguyole96as**	

Certified Njano Uyole with 2.5g sachet of Apron Star for self-treatment	**kgnjuyoleas**	
Certified Uyole 96 pre-treated with 2.5g of Apron Star	**kguyole96tr**	
Certified Njano Uyole pre-treated with 2.5g of Apron Star	**kgnjuyoletr**	

ENUMERATOR: END THE INTERVIEW AND THANK THE RESPONDENT FOR PARTICIPATING IN THE SURVEY