

HHID: _____

PART A:

A1. HHID:

A2. Date ____ / ____ / 2015

A3. Enumerator Name:

Checked by:

A4. Name of household head:

A5. Name of Respondent:

We are here today to follow up on the high and low fertility plots you showed us in March. We will be doing yield measurements of each field.

Ask question A6 **PRIOR** to going to the field to manage time if rented have someone find manager while you proceed to other plot

**DO NOT INCLUDE BORDER CROPS IN THIS SURVEY!
WE ARE NOT CONSIDERING THE BORDER FOR ANYTHING IN THIS SURVEY!
STAY AWAY FROM BORDER!**

A6. Are either of the plots rented? _____
1 = HIGH 2 = LOW 3 = NO

Answer A7 below.
Make sure all of your samples are accounted for and LABELED correctly BEFORE leaving EPA.

CROP CODES

MAIZE

- 1 = Local Maize
- 2 = Newly Acquired Maize Hybrid
- 3 = Saved Maize Hybrid
- 4 = OPV/Composite Maize

LEGUMES

- 5 = Pigeon Pea / nadolo
- 6 = Groundnut / mtedza
- 7 = Soya Bean / soya
- 8 = Common Bean / Nyemba
- 9 = Cowpea / Khobwe
- 10 = Velvet Bean / Kalongonda
- 11 = Bambara nut / Nzama

88 = Other Legume (specify)

OTHER CROPS

- 12 = Sorghum / Mapira
- 13 = Cassava / Chiningwa
- 14 = Sweet Potato / Mbatata za kholowa
- 15 = Millet
- 16 = Pumpkin
- 17 = Sugarcane
- 18 = Tobacco
- 19 = Cotton / thonje
- 80 = FALLOW
- 99 = Other Crop (specify)

A7. Did you collect the following samples for this HHID? 1 = YES 2 = NO
IF YES, FILL OUT BELOW
(to be done when leaving each field)

		1 = YES 2 = NO	
HIGH	a) MAIZE STOVER		
	b) LEGUME (1) STOVER		
	c) LEGUME (2) STOVER		
	d) RIDGE WEEDS		
LOW	f) MAIZE STOVER		
	g) LEGUME (1) STOVER		
	h) LEGUME (2) STOVER		
	i) RIDGE WEEDS		

HHID: _____

HIGH FERTILITY PLOT

ENUMERATORS:

1) The following questions and measurements pertain only to the part of the plot which was FERTILIZED.

If none of it was, these questions pertain to the entire plot.

2) If the plot is FALLOW only answer B1, B2, B3, B4, B6 and PART H. WEEDS for the plot

PART B.

HIGH FERTILITY PLOT	B1. NAME OF PLOT: _____	B2. GPS OF PLOT	S	°	'	"
MICRO-TOPOGRAPHY			E	°	'	"
B3. SLOPE OF PLOT (write corresponding slope) _____		B4. Are these the same coordinates as your list?		_____	_____	1 = YES 2 = NO
0	1	2	3			
B5. Did you use HERBICIDES in this plot THIS (2014-2015) year? _____ 1 = Yes 2 = No If YES, name of herbicide: _____						
B6. Did you use HERBICIDES in this plot LAST (2013-2014) year? _____ 1 = Yes 2 = No If YES, name of herbicide: _____						
B7. How many WEEDINGS were done in this plot THIS year? (circle one) 1 2 3						
B8. What was the typical time spent weeding each day by a family member in this plot? (number of hours per day spent by person pimarly responsible for weeding this plot 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10) _____						

HHID: _____

PART C.

HIGH FERTILITY PLOT

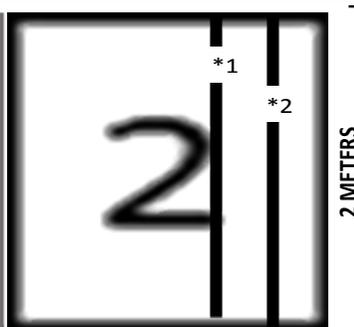
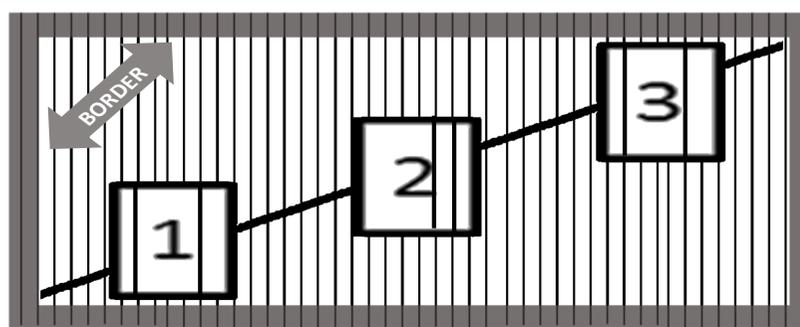
C1. Fill out which crops are present in the field below. This will allow you to identify MAIN crops and organize.
 (Use crop codes from part A) DO NOT forget to list all additional crops that will not be sampled and **FALLOW**.

FOCUS ON THE MAIN CROPS WHICH ARE PRESENT IN THE FERTILIZED AREA OF THE FIELD OR THE ENTIRE PLOT IF UNFERTILIZED. IF THERE ARE MORE THAN 5 CROPS (INCLUDING MAIZE 4 CROPS IF NO MAIZE), IGNORE THE 6TH AND 7TH CROPS WHICH ARE PRESENT IN SMALL AMOUNTS.

SAMPLING INSTRUCTIONS & CROPS IN FIELD

IF (a) YES, STEP 4

a) IS PLOT FALLOW?	b) MAIZE CROP	c) MAIZE ready to harvest?	d) LEGUME (1)	e) LEGUME (1) ready to harvest?	f) LEGUME (2)	g) LEGUME (2) ready to harvest?	h) OTHER (1)	i) OTHER (2)
circle one 1 yes 2 no		circle one 1 yes 2 no		circle one 1 yes 2 no		circle one 1 yes 2 no		



2 METER SECTION OF A RIDGE
 *X 2 (MAIZE)
 *X 1 (LEGUME & OTHERS)

STEP 1)
 Avoid edge effect by choosing a location at least two (2) ridges (RIDGE SPACING) in from the field border. ALL locations must be at least 2 ridges apart. In LARGE fields this will be easy BUT be cautious in smaller fields.

STEP 2)
 Choose three (3) random locations along a diagonal transect

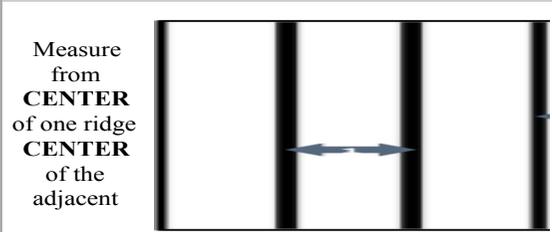
STEP 3)
 For each crop in the field fill out the corresponding information.
 Maize = Maize HIGH
 Legume(s) = Legume (1 & 2*) HIGH
 OTHER(S) = OTHER (1 & 2*) HIGH
 (* if applicable. IF more than two of either pick the most dominate two)

STEP 4)
 If **FALLOW**, skip to WEEDS HIGH section. Do steps 1 & 2 taking weed measurements.



SPACING BETWEEN RIDGES MEASUREMENTS

RIDGE SPACING HIGH



C2.
 DISTANCE BETWEEN 2 RIDGES AT EACH LOCATION WITHIN THE FIELD
 (example: 1.2 meter OR 0.75

FIELD LOCATION		
1 a)	2 b)	3 c)
_____ meter	_____ meter	_____ meter

HHID: _____

PART D.

D2. Is MAIZE grown in this field? (*circle one*) 1 = YES 2 = NO

: If **YES**, fill out section D taking and recording all measurements for MAIZE.
 : If there is an **intercrop with maize**, do applicable measurements for the intercrop in following sections.
 : If **NO**, MAIZE is **NOT** grown in this field, skip section D and fill out subsequent applicable section(s).

★ = CANNOT DO IF **NOT** READY TO HARVEST

**IF PLOT IS DIVIDED INTO SOLE CROPPING OF DIFFERENT CROPS:
 ** FOCUS ONLY ON THE FERTILIZED CROP**

**IF ALL SOLE CROPS ARE FERTILIZED OR ALL UNFERTILIZED:
 ** CHOOSE 3 SECTIONS WITHIN EACH INDIVIDUAL
 SOLE CROP FOR MEASUREMENTS**

MAIZE ONLY

D3. CROP CODE: _____ **D4.** Is this crop intercropped or sole crop? (*circle one*):
 1 = INTERCROPPED
 2 = SOLE CROPPED

SAMPLE INSTRUCTIONS

TOTAL MAIZE STOVER OF 1 **RANDOMLY**
 CHOSEN IN-FIELD LOCATION
 (WHOLE MAIZE PLANTS WITHOUT COBS)



HOMOGENIZE by:

- 1) collecting all stover in chosen location,
- 2) chopping into ~ 10 cm size pieces,
DO NOT MIX WITH SOIL
OR OTHER RESIDUE
- 3) mixing together,
- 4) collecting a 4 liter subsample,
- 5) **WEIGHING** the subsample (**D11**),
- 6) placing subsample in sample bag provided
- 7) labeling *outside* of bag with below information
(MAIZE, HHID, DATE, HIGH)
- 8) labeling and placing provided label *inside* the bag
(*use pencil*)

MAIZE
HIGH
MAIZE
HIGH
MAIZE

**TAKE MEASUREMENTS IN
 ORDER OF QUESTIONS
 ONLY**

IN - FIELD LOCATION

D5. TOTAL NUMBER OF PLANTS
 STANDING IN **2 METER X 2
 METER SECTION** BEFORE HARVEST
 [4 METERS TOTAL]
 (*includes all plants in each station*)
 (*IF HARVESTED, look for stubble or ask farmer to
 demonstrate where planted*)

1		2		3	
a) TOTAL Plants 2m X 2m section [4 meters]		b) TOTAL Plants 2m X 2m section [4 meters]		c) TOTAL Plants 2m X 2m section [4 meters]	

D6. TOTAL NUMBER OF COBS
 HARVESTED IN
2 METER X 2 METER SECTION
 (*if not ready to harvest, count the number
 of total cobs present in sample area*)

a) number harvested	b) weight (KG) ★	c) number harvested	d) weight (KG) ★	e) number harvested	f) weight (KG) ★

D7. TIED STOVER
 RATING & WEIGHT
 1=*completely DRY*
 2=*more DRY than GREEN*
 3=*more GREEN than DRY*
 4=*all GREEN*

a) rating (1-4)	b) weight (KG) ★	c) rating (1-4)	d) weight (KG) ★	e) rating (1-4)	f) weight (KG) ★

D8. 3 COBS SHUCKED
 GRAIN MOISTURE ★

a ★	meter reading

D11. WEIGHT OF
 4 LITER ★
 SUBSAMPLE (KG): _____

TAKE OFF PUT IN SAMPLE

MAIZE STOVER

HHID: _____	HIGH
-------------	-------------



Date ____/____/2015

YOU WILL ONLY SHUCK 3 OF THE TOTAL NUMBER OF HARVESTED COBS IN **LOCATION 2** FOR GRAIN MOISTURE MEASUREMENTS (D8).

HHID: _____

PART E.

★ = CANNOT DO IF **NOT** READY TO HARVEST

LEGUME CROP 1		SAMPLE INSTRUCTIONS		
E1. CROP CODE: _____	E4. Is this crop intercropped or sole crop? (<i>circle one</i>):		<p>IF PLOT IS DIVIDED INTO SOLE CROPPING OF DIFFERENT CROPS: ** FOCUS ONLY ON THE FERTILIZED CROP</p> <p>IF ALL SOLE CROPS ARE FERTILIZED OR ALL UNFERTILIZED: ** CHOOSE 3 SECTIONS WITHIN EACH INDIVIDUAL SOLE CROP FOR MEASUREMENTS</p> <p>TOTAL LEGUME PLANTS OF 1 RANDOMLY CHOSEN IN-FIELD LOCATION (WHOLE LEGUME PLANTS WITHOUT PODS)</p> <p style="text-align: center;">★</p> <p>HOMOGENIZE by:</p> <ol style="list-style-type: none"> 1) collecting all stover in chosen location, 2) chopping into ~ 10 cm size pieces, DO NOT MIX WITH SOIL OR OTHER RESIDUE 3) mixing together, 4) collecting a 4 liter subsample, 5) WEIGHING the subsample (E7), 6) placing subsample in sample bag provided 7) labeling <i>outside</i> of bag with below information (CROP NAME, HHID, DATE, HIGH) 8) labeling and placing provided label <i>inside</i> the bag (<i>use pencil</i>) <p>E7. WEIGHT OF 4 LITER ★ SUBSAMPLE (KG): _____</p>	
LEGUME (1) ONLY				
TAKE MEASUREMENTS IN ORDER OF QUESTIONS ONLY	FIELD LOCATION			
E3. TOTAL NUMBER OF PLANTS STANDING IN 2 METER (X 1) SECTION BEFORE HARVEST [2 METERS TOTAL] (includes all plants in each station) (IF HARVESTED, look for stubble or ask farmer to demonstrate where planted)	1	2		3
	a) TOTAL Plants 2m section [2 meters]	b) TOTAL Plants 2m section [2 meters]		c) TOTAL Plants 2m section [2 meters]
E4. TOTAL NUMBER OF PODS HARVESTED IN 2 METER (X 1) SECTION (if not ready to harvest, count the number of total PODS present in sample area)	a) number harvested	b) weight (KG) ★		c) number harvested
	d) weight (KG) ★	e) number harvested		f) weight (KG) ★
E5. TIED STOVER RATING & WEIGHTS 1=completely DRY 2=more DRY than GREEN 3=more GREEN than DRY 4=all GREEN	a) rating (1-4)	b) weight (KG) ★	c) rating (1-4)	
	d) weight (KG) ★	e) rating (1-4)	f) weight (KG) ★	
E6. 9 PODS SHELLED GRAIN MOISTURE ★	a) ★ meter reading			
YOU WILL ONLY SHELL 9 OF THE TOTAL NUMBER OF HARVESTED PODS IN LOCATION 2 FOR GRAIN MOISTURE MEASUREMENTS (E6)				
OTHER CROP 1 (NOT MAIZE OR LEGUME)		TAKE OFF PUT IN SAMPLE		
E8. CROP CODE: _____	E9. Is this crop intercropped or sole crop? (<i>circle one</i>):		<p style="text-align: center;">LEGUME STOVER</p> <p style="text-align: center;">LEGUME (1) NAME (WRITTEN IN): _____</p> <p style="text-align: center;">HHID: _____</p> <p style="text-align: center; border: 1px solid black; padding: 2px; display: inline-block;">HIGH</p> <p style="text-align: center;">Date ____/____/2015</p>	
FIELD LOCATION				
1	2	3		
E10. TOTAL NUMBER OF PLANTS STANDING IN 2 METER (X 1) SECTION BEFORE HARVEST [2 METERS TOTAL] (includes all plants in each station) (IF HARVESTED, look for stubble or ask farmer to demonstrate where planted)	a) TOTAL Plants 2m section [2 meters]	b) TOTAL Plants 2m section [2 meters]	c) TOTAL Plants 2m section [2 meters]	
	TAKE OFF PUT IN SAMPLE			

REMOVE TAG & ADD TO SAMPLE

HHID: _____

PART G.

★ = CANNOT DO IF **NOT** READY TO HARVEST

LEGUME CROP 2

SAMPLE INSTRUCTIONS

HIGH LEGUME (2)	G1. CROP CODE: _____		G4. Is this crop intercropped or sole crop? (circle one):		1 = INTERCROPPED 2 = SOLE CROPPED	
	LEGUME (2) ONLY					
	TAKE MEASUREMENTS IN ORDER OF QUESTIONS ONLY		FIELD LOCATION			
			1	2	3	
	G3. TOTAL NUMBER OF PLANTS STANDING IN 2 METER (X 1) SECTION BEFORE HARVEST [2 METERS TOTAL] (includes all plants in each station) (IF HARVESTED, look for stubble or ask farmer to demonstrate where planted)		a) TOTAL Plants 2m section [2 meters]	b) TOTAL Plants 2m section [2 meters]	c) TOTAL Plants 2m section [2 meters]	
	G4. TOTAL NUMBER OF PODS HARVESTED IN 2 METER (X 1) SECTION (if not ready to harvest, count the number of total PODS present in sample area)		a) number harvested	b) weight (KG) ★	c) number harvested	d) weight (KG) ★
G5. TIED STOVER RATING & WEIGHTS 1=completely DRY 2=more DRY than GREEN 3=more GREEN than DRY 4=all GREEN		a) rating (1-4)	b) weight (KG) ★	c) rating (1-4)	d) weight (KG) ★	
G6. 9 PODS SHELLED GRAIN MOISTURE ★		a) ★ meter reading				
YOU WILL ONLY SHELL 9 OF THE TOTAL NUMBER OF HARVESTED PODS IN LOCATION 2 FOR GRAIN MOISTURE MEASUREMENTS (G6)						

IF PLOT IS DIVIDED INTO SOLE CROPPING OF DIFFERENT CROPS:
** FOCUS **ONLY** ON THE FERTILIZED CROP

IF ALL SOLE CROPS ARE FERTILIZED OR ALL UNFERTILIZED:
** CHOOSE **3 SECTIONS** WITHIN EACH INDIVIDUAL SOLE CROP FOR MEASUREMENTS

TOTAL LEGUME PLANTS OF 1 **RANDOMLY** CHOSEN IN-FIELD LOCATION (WHOLE LEGUME PLANTS WITHOUT PODS)

★
HOMOGENIZE by:

- collecting all stover in chosen location,
- chopping into ~ 10 cm size pieces, DO NOT MIX WITH SOIL OR OTHER RESIDUE
- mixing together,
- collecting a 4 liter subsample,
- WEIGHING** the subsample (G7),
- placing subsample in sample bag provided
- labeling *outside* of bag with below information (CROP NAME, HHID, DATE, HIGH)
- labeling and placing provided label *inside* the bag (use pencil)

G7. WEIGHT OF 4 LITER ★ SUBSAMPLE (KG): _____

OTHER CROP 2 (NOT MAIZE OR LEGUME)

HIGH OTHER (2)	G8. CROP CODE: _____		G9. Is this crop intercropped or sole crop? (circle one):		1 = INTERCROPPED 2 = SOLE CROPPED	
	FIELD LOCATION					
			1	2	3	
	G10. TOTAL NUMBER OF PLANTS STANDING IN 2 METER (X 1) SECTION BEFORE HARVEST [2 METERS TOTAL] (includes all plants in each station) (IF HARVESTED, look for stubble or ask farmer to demonstrate where planted)		a) TOTAL Plants 2m section [2 meters]	b) TOTAL Plants 2m section [2 meters]	c) TOTAL Plants 2m section [2 meters]	

TAKE OFF PUT IN SAMPLE

LEGUME STOVER

LEGUME (2) NAME (WRITTEN IN):

HHID: _____

HIGH

Date ____/____/2015

TAKE OFF PUT IN SAMPLE



HHID: _____

PART H.

		RIDGE WEEDS 1 QUADRAT SECTIONS IN-FIELD MEASUREMENTS			SAMPLE INSTRUCTIONS	
HIGH RIDGE	RIDGE WEEDS ONLY	FIELD LOCATION			TOTAL RIDGE WEED BIOMASS IN QUADRAT OF 1 RANDOMLY CHOSEN IN-FIELD LOCATION HOMOGENIZE by: 1) collecting all above ground weed biomass in chosen location, 2) chopping into ~ 10 cm size pieces, DO NOT MIX WITH SOIL OR OTHER RESIDUE 3) mixing together, 4) collecting a 4 liter subsample, 5) WEIGHING the subsample (H4), 6) placing subsample in sample bag provided 7) labeling <i>outside</i> of bag with below information (RIDGE, HHID, DATE, HIGH) 8) labeling and placing provided label <i>inside</i> the bag (<i>use pencil</i>) H4. WEIGHT OF 4 LITER SUBSAMPLE (KG): _____	
		1	2	3		
	H1. WITCH WEED RATING (RIDGE) 0, 1, 2, 3 0 = 0 1 = witchweed < weeds 2 = witchweed = weeds 3 = witch weed > weeds	a) rating	b) rating	c) rating		
	H2. WEED RATING <i>includes witch weed</i> (RIDGE) 0, 1, 2, 3 0 = 0 1 = soil > weeds 2 = soil = weeds 3 = soil < weeds	a) rating	b) rating	c) rating		
	a) weight (KG)	b) weight (KG)	c) weight (KG)			
FURROW WEEDS 1 QUADRAT SECTIONS IN-FIELD MEASUREMENTS						
HIGH FURROW	FURROW WEEDS ONLY	FIELD LOCATION			TAKE OFF PUT IN SAMPLE RIDGE WEEDS HHID: _____ HIGH Date ____/____/ 2015 ANY COMMENTS: _____	
		1	2	3		
	H5. WITCH WEED RATING (RIDGE) 0, 1, 2, 3 0 = 0 1 = witchweed < weeds 2 = witchweed = weeds 3 = witch weed > weeds	a) rating	b) rating	c) rating		
	H6. WEED RATING <i>includes witch weed</i> (RIDGE) 0, 1, 2, 3 0 = 0 1 = soil > weeds 2 = soil = weeds 3 = soil < weeds	a) rating	b) rating	c) rating		
	a) weight (KG)	b) weight (KG)	c) weight (KG)			

REMOVE TAG & ADD TO SAMPLE

HHID: _____

LOW FERTILITY PLOT

ENUMERATORS:

- 1) The following questions and measurements pertain only to the part of the plot which was FERTILIZED.
If none of it was, these questions pertain to the entire plot.**
- 2) If the plot is FALLOW only answer I1, I2, I3, I4, I6 and PART P. WEEDS for the plot**

PART I.

**LOW
FERTILITY
PLOT**

I1. NAME OF PLOT: _____

**I2.
GPS OF
PLOT**

S

o

'

"

MICRO-TOPOGRAPHY

E

o

'

"

I3. SLOPE OF PLOT (write corresponding slope) _____

**I4. Are these the same coordinates
as your list?** _____

1 = YES
2 = NO

0

1

2

3



I5. Did you use HERBICIDES in this plot THIS (2014-2015) year? _____ 1 = Yes 2 = No If **YES**, name of herbicide: _____

I6. Did you use HERBICIDES in this plot LAST (2013-2014) year? _____ 1 = Yes 2 = No If **YES**, name of herbicide: _____

I7. How many WEEDINGS were done in this plot THIS year? (circle one) 1 2 3

**I8. What was the typical time spent weeding each day by a family member in this plot?
(number of hours per day spent by person pimarly responsible for weeding this plot 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10) _____**

LOW FERTILITY

PART J.

LOW FERTILITY PLOT

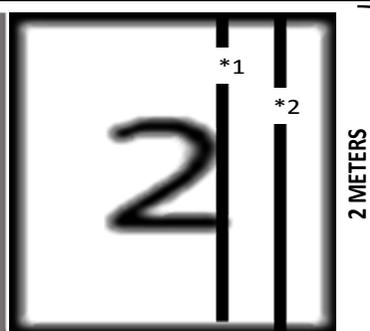
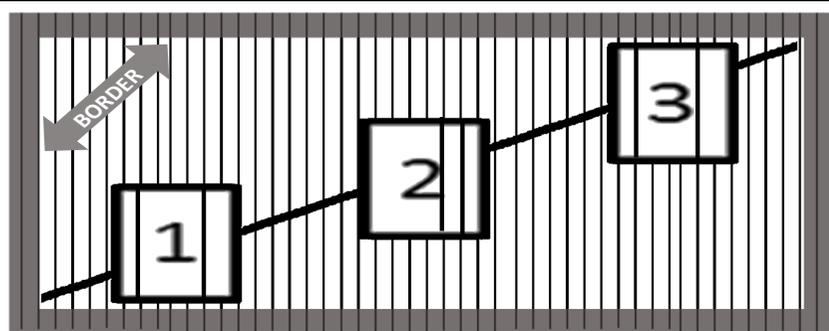
C1. Fill out which crops are present in the field below. This will allow you to identify MAIN crops and organize.
 (Use crop codes from part A) DO NOT forget to list all additional crops that will not be sampled and **FALLOW**.

FOCUS ON THE **MAIN CROPS** WHICH ARE PRESENT IN THE **FERTILIZED** AREA OF THE FIELD OR THE **ENTIRE PLOT** IF UNFERTILIZED. IF THERE ARE MORE THAN 5 CROPS (INCLUDING MAIZE 4 CROPS IF NO MAIZE), **IGNORE** THE 6TH AND 7TH CROPS WHICH ARE PRESENT IN SMALL AMOUNTS.

IF (a) YES, STEP 4

SAMPLING INSTRUCTIONS & CROPS IN FIELD

a) IS PLOT FALLOW?	b) MAIZE CROP	c) MAIZE ready to harvest?	d) LEGUME (1)	e) LEGUME (1) ready to harvest?	f) LEGUME (2)	g) LEGUME (2) ready to harvest?	h) OTHER (1)	i) OTHER (2)
circle one 1 yes 2 no		circle one 1 yes 2 no		circle one 1 yes 2 no		circle one 1 yes 2 no		



2 METER SECTION OF A RIDGE
 *X 2 (MAIZE)
 *X 1 (LEGUME & OTHERS)

STEP 1)
 Avoid edge effect by choosing a location at least two (2) ridges (RIDGE SPACING) in from the field border. ALL locations must be at least 2 ridges apart. In LARGE fields this will be easy BUT be cautious in smaller fields.

STEP 2)
 Choose three (3) random locations along a diagonal transect across field for measurements.

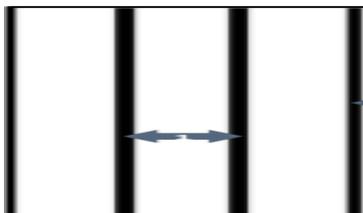
STEP 3)
 For each crop in the field fill out the corresponding information.
 Maize = Maize LOW
 Legume(s) = Legume (1 & 2*) LOW
 OTHER(S) = OTHER (1&2*) LOW
 (* if applicable. IF more than two of either pick the most dominate two)

STEP 4)
 If **FALLOW**, skip to WEEDS LOW section. Do steps 1 & 2 taking weed measurements.

SPACING BETWEEN RIDGES MEASUREMENTS

RIDGE SPACING HIGH

Measure from **CENTER** of one ridge **CENTER** of the adjacent



j2.
 DISTANCE BETWEEN 2 RIDGES AT EACH LOCATION WITHIN THE FIELD
 (example: 1.2 meter OR 0.75 meter)

FIELD LOCATION		
1 a)	2 b)	3 c)
_____ meter	_____ meter	_____ meter

HHID: _____

PART M.

★ = CANNOT DO IF **NOT** READY TO HARVEST

LEGUME CROP 1

SAMPLE INSTRUCTIONS

LOW LEGUME (1)	M1. CROP CODE: _____		M4. Is this crop intercropped or sole crop? (circle one):		1 = INTERCROPPED 2 = SOLE CROPPED	
	LEGUME (1) ONLY					
	TAKE MEASUREMENTS IN ORDER OF QUESTIONS ONLY		FIELD LOCATION			
			1	2	3	
	M3. TOTAL NUMBER OF PLANTS STANDING IN 2 METER (X 1) SECTION BEFORE HARVEST [2 METERS TOTAL] (includes all plants in each station) (IF HARVESTED, look for stubble or ask farmer to demonstrate where planted)		a) TOTAL Plants 2m section [2 meters]	b) TOTAL Plants 2m section [2 meters]	c) TOTAL Plants 2 section [2 meters]	
	M4. TOTAL NUMBER OF PODS HARVESTED IN 2 METER (X 1) SECTION (if not ready to harvest, count the number of total PODS present in sample area)		a) number harvested	b) weight (KG) ★	c) number harvested	d) weight (KG) ★
M5. TIED STOVER RATING & WEIGHTS 1=completely DRY 2=more DRY than GREEN 3=more GREEN than DRY 4=all GREEN		a) rating (1-4)	b) weight (KG) ★	c) rating (1-4)	d) weight (KG) ★	
M6. 9 PODS SHELLED GRAIN MOISTURE ★		★	a) ★ meter reading		★	
YOU WILL ONLY SHELL 9 OF THE TOTAL NUMBER OF HARVESTED PODS IN LOCATION 2 FOR GRAIN MOISTURE MEASUREMENTS (M6)						

IF PLOT IS DIVIDED INTO SOLE CROPPING OF DIFFERENT CROPS:
** FOCUS **ONLY** ON THE FERTILIZED CROP

IF ALL SOLE CROPS ARE FERTILIZED OR ALL UNFERTILIZED:
** CHOOSE **3 SECTIONS** WITHIN EACH INDIVIDUAL SOLE CROP FOR MEASUREMENTS

TOTAL LEGUME PLANTS OF 1 **RANDOMLY** CHOSEN IN-FIELD LOCATION (WHOLE LEGUME PLANTS WITHOUT PODS)

★
HOMOGENIZE by:

- collecting all stover in chosen location,
- chopping into ~ 10 cm size pieces, DO NOT MIX WITH SOIL OR OTHER RESIDUE
- mixing together,
- collecting a 4 liter subsample,
- WEIGHING** the subsample (M7),
- placing subsample in sample bag provided
- labeling *outside* of bag with below information (CROP NAME, HHID, DATE, LOW)
- labeling and placing provided label *inside* the bag (use pencil)

M7. WEIGHT OF 4 LITER ★ SUBSAMPLE (KG): _____

OTHER CROP 1 (NOT MAIZE OR LEGUME)

LOW OTHER (1)	M8. CROP CODE: _____		M9. Is this crop intercropped or sole crop? (circle one):		1 = INTERCROPPED 2 = SOLE CROPPED	
	FIELD LOCATION					
			1	2	3	
	M10. TOTAL NUMBER OF PLANTS STANDING IN 2 METER (X 1) SECTION BEFORE HARVEST [2 METERS TOTAL] (includes all plants in each station) (IF HARVESTED, look for stubble or ask farmer to demonstrate where planted)		a) TOTAL Plants 2m section [2 meters]	b) TOTAL Plants 2m section [2 meters]	c) TOTAL Plants 2m section [2 meters]	

TAKE OFF PUT IN SAMPLE

LEGUME STOVER

LEGUME (1) NAME (WRITTEN IN):

HHID: _____

LOW

Date ____/____/2015

TAKE OFF PUT IN SAMPLE

REMOVE TAG & ADD TO SAMPLE

HHID: _____

PART N.

★ = CANNOT DO IF NOT READY TO HARVEST

LEGUME CROP 2

SAMPLE INSTRUCTIONS

LOW LEGUME (2)	N1. CROP CODE: _____		N4. Is this crop intercropped or sole crop? (circle one):		1 = INTERCROPPED 2 = SOLE CROPPED		
	LEGUME (2) ONLY						
	TAKE MEASUREMENTS IN ORDER OF QUESTIONS ONLY		FIELD LOCATION				
			1	2	3		
	N3. TOTAL NUMBER OF PLANTS STANDING IN 2 METER (X 1) SECTION BEFORE HARVEST [2 METERS TOTAL] (includes all plants in each station) (IF HARVESTED, look for stubble or ask farmer to demonstrate where planted)		a) TOTAL Plants 2m section [2 meters]	b) TOTAL Plants 2m section [2 meters]	c) TOTAL Plants 2 section [2 meters]		
	N4. TOTAL NUMBER OF PODS HARVESTED IN 2 METER (X 1) SECTION (if not ready to harvest, count the number of total PODS present in sample area)		a) number harvested	b) weight (KG) ★	c) number harvested	d) weight (KG) ★	e) number harvested
N5. TIED STOVER RATING & WEIGHTS 1=completely DRY 2=more DRY than GREEN 3=more GREEN then DRY 4=all GREEN		a) rating (1-4)	b) weight (KG) ★	c) rating (1-4)	d) weight (KG) ★	e) rating (1-4)	f) weight (KG) ★
N6. 9 PODS SHELLED GRAIN MOISTURE ★		★		a) ★ meter reading		★	
YOU WILL ONLY SHELL 9 OF THE TOTAL NUMBER OF HARVESTED PODS IN LOCATION 2 FOR GRAIN MOISTURE MEASUREMENTS (N6)							

IF PLOT IS DIVIDED INTO SOLE CROPPING OF DIFFERENT CROPS:
** FOCUS ONLY ON THE FERTILIZED CROP

IF ALL SOLE CROPS ARE FERTILIZED OR ALL UNFERTILIZED:
** CHOOSE 3 SECTIONS WITHIN EACH INDIVIDUAL SOLE CROP FOR MEASUREMENTS

TOTAL LEGUME PLANTS OF 1 RANDOMLY CHOSEN IN-FIELD LOCATION (WHOLE LEGUME PLANTS WITHOUT PODS)

★
HOMOGENIZE by:

- collecting all stover in chosen location,
- chopping into ~ 10 cm size pieces, DO NOT MIX WITH SOIL OR OTHER RESIDUE
- mixing together,
- collecting a 4 liter subsample,
- WEIGHING** the subsample (N7),
- placing subsample in sample bag provided
- labeling *outside* of bag with below information (CROP NAME, HHID, DATE, LOW)
- labeling and placing provided label *inside* the bag (use pencil)

N7. WEIGHT OF 4 LITER ★ SUBSAMPLE (KG): _____

OTHER CROP 1 (NOT MAIZE OR LEGUME)

LOW OTHER (2)	N8. CROP CODE: _____		N9. Is this crop intercropped or sole crop? (circle one):		1 = INTERCROPPED 2 = SOLE CROPPED	
	FIELD LOCATION					
			1	2	3	
N10. TOTAL NUMBER OF PLANTS STANDING IN 2 METER (X 1) SECTION BEFORE HARVEST [2 METERS TOTAL] (includes all plants in each station) (IF HARVESTED, look for stubble or ask farmer to demonstrate where planted)		a) TOTAL Plants 2m section [2 meters]	b) TOTAL Plants 2m section [2 meters]	c) TOTAL Plants 2m section [2 meters]		

TAKE OFF PUT IN SAMPLE

LEGUME STOVER

LEGUME (2) NAME (WRITTEN IN): _____

HHID: _____

LOW

Date ____/____/2015

TAKE OFF PUT IN SAMPLE

REMOVE TAG & ADD TO SAMPLE

HHID: _____

PART P.

		RIDGE WEEDS 1 QUADRAT SECTIONS IN-FIELD MEASUREMENTS			SAMPLE INSTRUCTIONS				
		FIELD LOCATION			<p>TOTAL RIDGE WEED BIOMASS IN QUADRAT OF 1 RANDOMLY CHOSEN IN-FIELD LOCATION</p> <p>HOMOGENIZE by:</p> <ol style="list-style-type: none"> 1) collecting all above ground weed biomass in chosen location, 2) chopping into ~ 10 cm size pieces, DO NOT MIX WITH SOIL OR OTHER RESIDUE 3) mixing together, 4) collecting a 4 liter subsample, 5) WEIGHING the subsample (P4), 6) placing subsample in sample bag provided 7) labeling <i>outside</i> of bag with below information (RIDGE, HHID, DATE, LOW) 8) labeling and placing provided label <i>inside</i> the bag (<i>use pencil</i>) <p>P4. WEIGHT OF 4 LITER SUBSAMPLE (KG): _____</p>				
LOW RIDGE	RIDGE WEEDS ONLY	1	2	3					
	a) rating	b) rating	c) rating						
	P1. WITCH WEED RATING (RIDGE) 0, 1, 2, 3 0 = 0 1 = witchweed < weeds 2 = witchweed = weeds 3 = witch weed > weeds								
	P2. WEED RATING <i>includes witch weed</i> (RIDGE) 0, 1, 2, 3 0 = 0 1 = soil > weeds 2 = soil = weeds 3 = soil < weeds	a) rating	b) rating	c) rating					
	P3. WEED BIOMASS <i>all above ground biomass including WITCH WEED</i>	a) weight (KG)	b) weight (KG)	c) weight (KG)					
FURROW WEEDS 1 QUADRAT SECTIONS IN-FIELD MEASUREMENTS									
LOW FURROW	FURROW WEEDS ONLY	1	2	3	TAKE OFF PUT IN SAMPLE				
	a) rating	b) rating	c) rating	RIDGE WEEDS					
	P5. WITCH WEED RATING (RIDGE) 0, 1, 2, 3 0 = 0 1 = witchweed < weeds 2 = witchweed = weeds 3 = witch weed > weeds				HHID:	LOW			
	P6. WEED RATING <i>includes witch weed</i> (RIDGE) 0, 1, 2, 3 0 = 0 1 = soil > weeds 2 = soil = weeds 3 = soil < weeds	a) rating	b) rating	c) rating	Date ____/____/ 2015				
	P7. WEED BIOMASS <i>all above ground biomass including WITCH WEED</i>	a) weight (KG)	b) weight (KG)	c) weight (KG)	ANY COMMENTS:				

REMOVE TAG & ADD TO SAMPLE