

HHID: _____

PART A:			
A1. HHID:		A2. Date ____ / ____ / 2015	
Checked by:		A3. Enumerator Name:	
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	
<p style="text-align: center;">CROP CODES</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><u>MAIZE</u></p> <p>1 = Local Maize</p> <p>2 = Newly Acquired Maize Hybrid</p> <p>3 = Saved Maize Hybrid</p> <p>4 = OPV/Composite Maize</p> <p><u>LEGUMES</u></p> <p>5 = Pigeon Pea / nadolo</p> <p>6 = Groundnut / mtedza</p> <p>7 = Soya Bean / soya</p> <p>8 = Common Bean / Nyemba</p> <p>9 = Cowpea / Khobwe</p> <p>10 = Velvet Bean / Kalongonda</p> <p>11 = Bambara nut / Nzama</p> <p>88 = Other Legume (specify)</p> </div> <div style="width: 45%;"> <p><u>OTHER CROPS</u></p> <p>12 = Sorghum / Mapira</p> <p>13 = Cassava / Chiningwa</p> <p>14 = Sweet Potato / Mbatata za kholowa</p> <p>15 = Millet</p> <p>16 = Pumpkin</p> <p>17 = Sugarcane</p> <p>18 = Tobacco</p> <p>19 = Cotton / thonje</p> <p>80 = FALLOW</p> <p>99 = Other Crop (specify)</p> </div> </div>			

HHID: _____

HIGH FERTILITY PLOT

ENUMERATORS:

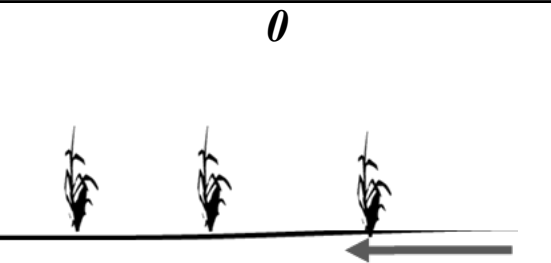
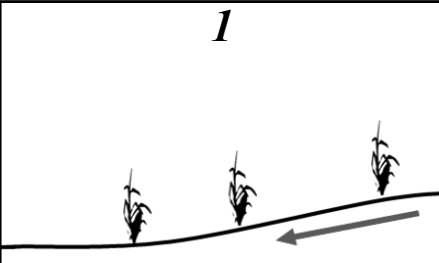
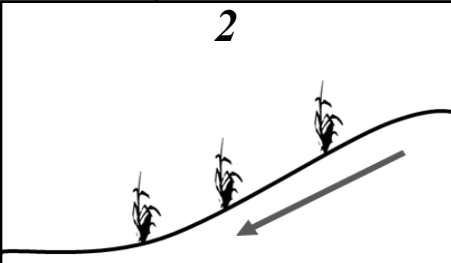
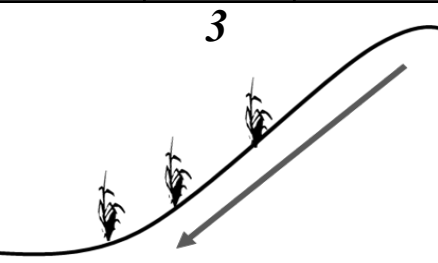
1) The following questions and measurements pertain only to the part of the plot which was FERTILIZED.

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 (<i>write corresponding slope</i>) _____		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? (<i>circle one</i>) 1 2 3
B8. What was the typical time spent weeding each day by a family member in this plot? (<i>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</i>) _____

HHID: _____

PART C.

HIGH FERTILITY PLOT

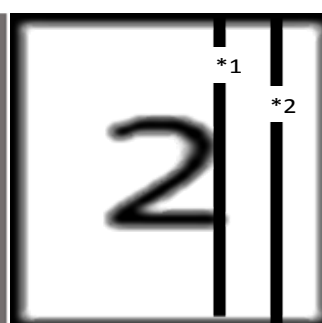
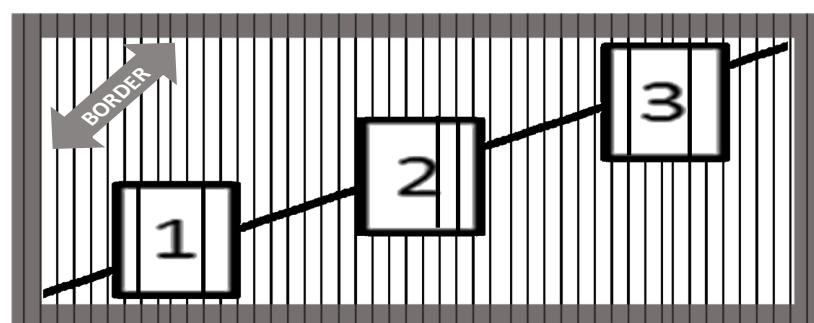
C1. Fill out which crops are present in the field below. This will allow you to identify **MAIN** crops and organize.
(Use crop codes from part A) DO NOT forget to list all additional crops that will not be sampled and **FALLOW**.

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 METERS

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

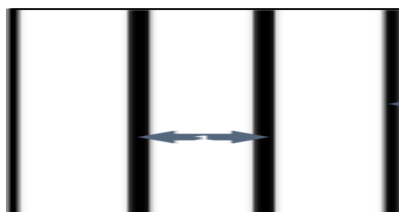
STEP 1) Avoid edge effect by choosing a location at least two (2) ridges (RIDGE SPACING) in from the field border. ALL locations must be at least 2 ridges apart. In LARGE fields this will be easy BUT be cautious in smaller fields.	STEP 2) Choose three (3) random locations along a diagonal transect	STEP 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.
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SPACING BETWEEN RIDGES MEASUREMENTS

RIDGE SPACING
HIGH

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



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

**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
a) TOTAL Plants
2m X 2m section
[4 meters]

2
b) TOTAL Plants
2m X 2m section
[4 meters]

3
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

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*)

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).

REMOVE TAG &
ADD TO SAMPLE

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>): 1 = INTERCROPPED 2 = SOLE CROPPED		
LEGUME (1) ONLY			
HIGH LEGUME (1)	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)			
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)			
E5. TIED STOVER RATING & WEIGHTS 1=completely DRY 2=more DRY than GREEN 3=more GREEN than DRY 4=all GREEN			
E6. 9 PODS SHELLED GRAIN MOISTURE ★			
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)			
E8. CROP CODE: _____	E9. Is this crop intercropped or sole crop? (<i>circle one</i>): 1 = INTERCROPPED 2 = SOLE CROPPED		
FIELD LOCATION			
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)			
E7. WEIGHT OF 4 LITER ★ SUBSAMPLE (KG): _____			
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: 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>)			
TAKE OFF PUT IN SAMPLE			
LEGUME STOVER LEGUME (1) NAME (WRITTEN IN): _____ HHID: _____ High Date ____/____/2015 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]
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) ★	e) number harvested	f) weight (KG) ★
G5. 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) ★
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)			
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	
	TAKE MEASUREMENTS IN ORDER OF QUESTIONS ONLY	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]
<div>LEGUME STOVER</div> <div>LEGUME (2) NAME (WRITTEN IN): _____</div> <div>HHID: _____ HIGH</div> <div>Date ____/____/2015</div>			

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): _____

TAKE OFF PUT IN SAMPLE

REMOVE TAG &
ADD TO SAMPLE

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>)	
		1	2	3		
		a) rating	b) rating	c) rating		
		a) rating	b) rating	c) rating		
	H1. WITCH WEED RATING (RIDGE) 0, 1, 2, 3 0 = 0 1 = witchweed < weeds 2 = witchweed = weeds 3 = witch weed > weeds					
	H2. WEED RATING <i>includes witch weed</i> (RIDGE) 0, 1, 2, 3 0 = 0 1 = soil > weeds 2 = soil = weeds 3 = soil < weeds					
	H3. 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						
HIGH FURROW	FURROW WEEDS ONLY	FIELD LOCATION			TAKE OFF PUT IN SAMPLE RIDGE WEEDS HHID: _____ HIGH Date ____/____/ 2015 ANY COMMENTS: _____	
		1	2	3		
		a) rating	b) rating	c) rating		
		a) rating	b) rating	c) rating		
	H5. WITCH WEED RATING (RIDGE) 0, 1, 2, 3 0 = 0 1 = witchweed < weeds 2 = witchweed = weeds 3 = witch weed > weeds					
	H6. WEED RATING <i>includes witch weed</i> (RIDGE) 0, 1, 2, 3 0 = 0 1 = soil > weeds 2 = soil = weeds 3 = soil < weeds					
	H7. WEED BIOMASS <i>all above ground biomass including WITCH WEED</i>	a) weight (KG)	b) weight (KG)	c) weight (KG)		

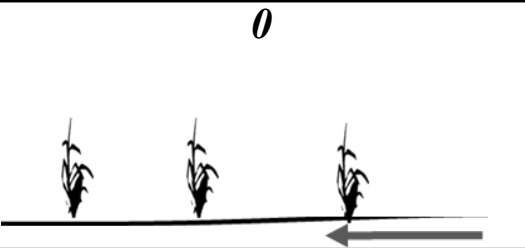
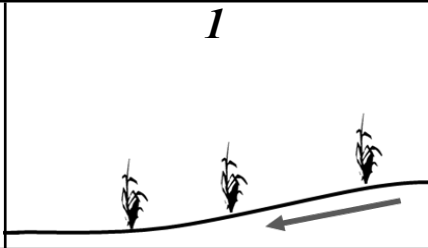
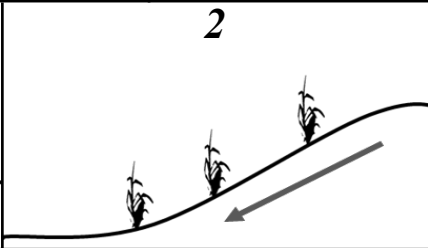
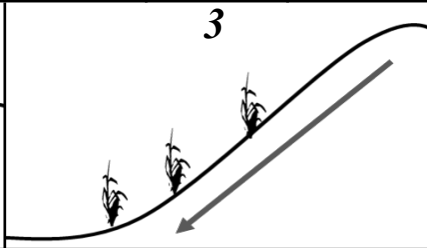
HHID: _____

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	LOW FERTILITY PLOT	I1. NAME OF PLOT: _____		I2. GPS OF PLOT	S	○	'	"
	MICRO-TOPOGRAPHY		E					
				○	'	"		
			I3. SLOPE OF PLOT (write corresponding slope) _____		I4. Are these the same coordinates as your list?			1 = YES 2 = NO
								
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) _____								

HHID: _____

PART J.

LOW FERTILITY PLOT

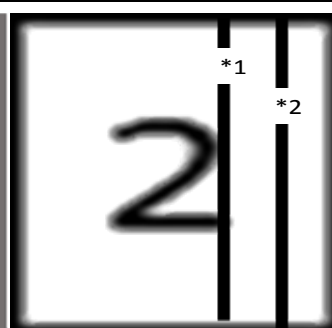
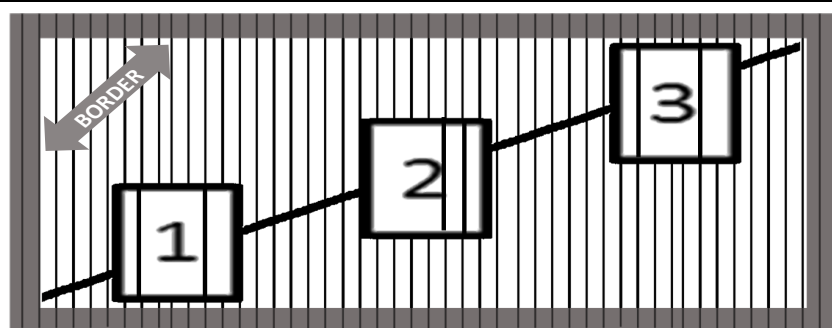
C1. Fill out which crops are present in the field below. This will allow you to identify MAIN crops and organize.
(Use crop codes from part A) DO NOT forget to list all additional crops that will not be sampled and **FALLOW**.

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 METERS

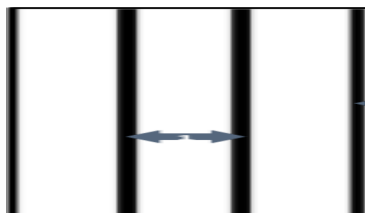
2 METER SECTION
OF A RIDGE
*X 2 (MAIZE)
*X 1 (LEGUME & OTHERS)

STEP 1)	STEP 2)	STEP 3)	STEP 4)
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.	Choose three (3) random locations along a diagonal transect across field for measurements.	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)	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 K.

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

: If **YES**, fill out section K 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 K and fill out subsequent applicable section(s).

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**

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

MAIZE ONLY

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 (**K11**),
- 6) placing subsample in sample bag provided
- 7) labeling **outside** of bag with below information (MAIZE, HHID, DATE, LOW)
- 8) labeling and placing provided label **inside** the bag (use pencil)

K3. CROP CODE: _____

K4. Is this crop intercropped or sole crop? (circle one):
 1 = INTERCROPPED
 2 = SOLE CROPPED

TAKE MEASUREMENTS IN ORDER OF QUESTIONS ONLY

IN - FIELD LOCATION

K5. 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
 a) TOTAL Plants
 2m X 2m section
 [4 meters]

2
 b) TOTAL Plants
 2m X 2m section
 [4 meters]

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

K6. TOTAL NUMBER OF COBS HARVESTED IN **2 METER X 2 METER**
 (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) ★

K7. 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) ★

K8. 3 COBS SHUCKED GRAIN MOISTURE ★

a) ★ meter reading

K11. WEIGHT OF 4 LITER ★ SUBSAMPLE (KG): _____

TAKE OFF PUT IN SAMPLE

MAIZE STOVER

HHID: _____

LOW

Date ____/____/2015

YOU WILL ONLY SHUCK 3 OF THE TOTAL NUMBER OF HARVESTED COBS IN **LOCATION 2** FOR GRAIN MOISTURE MEASUREMENTS (K8).

REMOVE TAG & ADD TO SAMPLE

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? (<i>circle one</i>):				1 = INTERCROPPED 2 = SOLE CROPPED					
	LEGUME (1) ONLY										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: 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 (M7), 6) placing subsample in sample bag provided 7) labeling <i>outside</i> of bag with below information (CROP NAME, HHID, DATE, LOW) 8) labeling and placing provided label <i>inside</i> the bag (<i>use pencil</i>) M7. WEIGHT OF 4 LITER ★ SUBSAMPLE (KG): _____	
	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) ★	e) number harvested	f) 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) ★	e) rating (1-4)	f) 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)												
OTHER CROP 1 (NOT MAIZE OR LEGUME)												
LOW OTHER (1)	M8. CROP CODE: _____		M9. Is this crop intercropped or sole crop? (<i>circle one</i>):				1 = INTERCROPPED 2 = SOLE CROPPED					
	TAKE MEASUREMENTS IN ORDER OF QUESTIONS ONLY		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]					
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		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		
	LEGUME (2) ONLY										
	TAKE MEASUREMENTS IN ORDER OF QUESTIONS ONLY		FIELD LOCATION								TOTAL LEGUME PLANTS OF 1 RANDOMLY CHOSEN IN-FIELD LOCATION (WHOLE LEGUME PLANTS WITHOUT PODS) ★ 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 (N7), 6) placing subsample in sample bag provided 7) labeling <i>outside</i> of bag with below information (CROP NAME, HHID, DATE, LOW) 8) labeling and placing provided label <i>inside</i> the bag (<i>use pencil</i>)
	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)		1		2		3				
			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	f) weight (KG) ★			
	N5. 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) ★			
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)										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		LEGUME STOVER LEGUME (2) NAME (WRITTEN IN): _____ _____ HHID: _____ _____ Date ____/____/2015		
	TAKE MEASUREMENTS IN ORDER OF QUESTIONS ONLY										
			FIELD LOCATION								
	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)		1		2		3		TAKE OFF PUT IN SAMPLE		
		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 P.

		RIDGE WEEDS 1 QUADRAT SECTIONS IN-FIELD MEASUREMENTS			SAMPLE INSTRUCTIONS	
LOW 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 (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>)	
		1	2	3		
		a) rating	b) rating	c) rating		
		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					
	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	FIELD LOCATION			TAKE OFF PUT IN SAMPLE RIDGE WEEDS HHID: LOW Date ____/____/ 2015 ANY COMMENTS:	
		1	2	3		
		a) rating	b) rating	c) rating		
		a) rating	b) rating	c) rating		
	P5. WITCH WEED RATING (RIDGE) 0, 1, 2, 3 0 = 0 1 = witchweed < weeds 2 = witchweed = weeds 3 = witch weed > weeds					
	P6. WEED RATING <i>includes witch weed</i> (RIDGE) 0, 1, 2, 3 0 = 0 1 = soil > weeds 2 = soil = weeds 3 = soil < weeds					
	P7. WEED BIOMASS <i>all above ground biomass including WITCH WEED</i>	a) weight (KG)	b) weight (KG)	c) weight (KG)		

REMOVE TAG & ADD TO SAMPLE