X3. Village Name:_____ **X4. Village ID:**_____ **X5.Farmer Name:**_____ **X6. ID:**_____

FAMER WILLINGNESS TO PAY FOR QUALITY COWPEA SEEDS—BURKINA FASO 2017 SURVEY

INSTRUCTIONS*: Please ask to speak to the person primarily responsible for COWPEA production decisions. If this person is not available, end the interview. If this person is available, read the CONSENT STATEMENT and if he/she agrees to be interviewed, begin the interview starting on question X7.).*

CONSENT STATEMENT

My name is _____. I am assisting the Institute for Environment and Agricultural Research (INERA) from Burkina Faso and Michigan State University (MSU) from the U.S. in conducting a study to document farmers' willingness to pay for different types of cowpea seeds (WTP).

As part of the WTP study, we will be conducting an auction of cowpea seeds in which you will be asked to bid a price you are willing to pay for one kg of cowpea seed of different types. We will explain the rules of this game in detail, and will play a practice game before we start the seed bidding game. Your participation in this game will not involve any out of pocket cost for you. Your participation is voluntary. Your refusal to participate or to withdraw from the study carries no penalty or loss of any benefits. The results of your participation in the game will be used to document what cowpea growers are willing to pay for different types of cowpea seed, when available; which will help us to generate recommendations that may benefit cowpea production in this region.

The interview and experiments will take approximately **45 minutes**. Your participation is **voluntary**. Your **refusal to participate** or to withdraw from the study carries **no penalty** or loss of any benefits. You are **free to not answer any** of the questions I will ask. However, your answers will be valuable to assess the constraints to cowpea production in this country. All information provided by you will be **kept confidential**. Your privacy will be protected to the maximum extent allowable by law.

If you have any **questions or concerns** about your participation in this study, please contact Professor XYZ, Michigan State University, East Lansing, MI 48824, USA, phone ABC, e-mail PQR **or**, Dr. MNO at INERA, Tel: FGH.

By answering my questions, you indicate your willingness to **voluntarily** participate in the study.

NOTES

**Sentences in "italics" are instructions for the enumerator*
*ID = Identification
*sp = Specify / provide details
*HH = Household
*NGO = Non-government Organization

X0. Name of the enumerator completing this survey: _____ **X1. Date:** _____**dd** _____**mm** _____**yyyy**

X. Respondent Identification and information

X2. *First read the Consent Statement. Proceed if the farmer consents to be interviewed. Farmer consented:*		☐ 1-Yes ☐ 2-No	
X7. Are you the **main (or one of the main) decision maker** in your household for **Cowpea cultivation and production practices?**		☐ 1-Yes ☐ 2-No	
X8. Gender ☐ 1-Male ☐ 2-Female	**X9.** Age		**X10.** Number of **years of formal education** completed?
X11. Can you **read and write in French or other language?** [1] No [2] Yes, French only [3] Yes, other language [4] Yes, French and other language			
X12. Mobile phone number (999=does not have a mobile phone)			

X3. Village Name:_____ **X4. Village ID:**_____ **X5.Farmer Name:**_____ **X6. ID:**_____

A. INFORMATION ABOUT THE HOUSEHOLD AND FARMING PRACTICES

A1. Your relationship to head of HH? [1] HH head <A4 [2] Spouse <A4 [3] Son/daughter [4] Other (specify)	**A2.** What is the gender of the Head of this HH? [1] Male [2] Female	**A3.** Age of the Head of this HH?	**A4.** In what languages can the male head/spouse read and write? [1] None or no male head [2] French only [3] Other language (regardless of French)	**A5.** Has the female head/spouse completed first grade? [1] Yes [2] No	**A6.** # household **members**			**A7.** # household members in these **age categories:**				**A8.** Have any household members, in their main occupation in the last seven days, worked in agriculture, animal husbandry, fishing, or forestry?
					a. Total	**b.** Males	**c.** Females	**a**. <15	**b. 1**5-25	**c.** 26-65	**d.** > 65	

A9. What is the farthest anyone in this household has ever travelled? ***(Circle one option)*** 0-never left this village; 1-a village/town in this district; 2-a village/town in other parts of Burkina; 4-another country in Africa; 5-Middle east 6-US/Canada/Australia/Europe; 7-Other (specify)	

A10. Have you ever produced cowpea seeds? 1= Yes 2= No	**A11**. If yes to A10 when was the last time you produced cowpea seeds? YYYY	**A12**. What type of cowpea seeds did you produce? [1] certified seeds [2] Quality declared seeds [99] Other (specify)

A13. Do you **regularly purchase** or have you **ever purchased** cowpea **seed** (not grain) for grain production? [1] Yes, regularly purchase [2] Yes, purchase occasionally [3] No, never purchase 'seed' <A21 [77] Don't know what seed is <A21	**A14.** What is the highest price per kg you have ever paid for cowpea seed for grain production? CFA/kg	**A15.** When was the last time you purchased cowpea seed for grain production? *YYYY*	**A16.** What was the price per kg you paid for acquiring this seed last time? CFA/kg	**A17.** Total quantity of seed purchased? kg	**A18**. **Source** of the last purchased seed for grain production *1-farmer from local community* *2-ASK* *3-other farmer organization* *4- seed vendor in the market* *5-Input dealer* *6-Seed company* *7 own seed production* *99-Other (specify)*	**A19**. What type of seed was it? *1-Certified* *2-non-certified but came in a package with labeling (QDS)* *3-Came with no label or package* *77-don't know/remember*	**A20.** Name of the seed variety purchased *77-don't know / remember*	**A21.** In a normal year, what **percent (%)** of your cowpea **harvest** do you **sell?**	**A22.** In a normal year, what **percent (%)** of your **HH income** comes from **cowpea sales?**
								Record the response on a scale of 0 to 100 (approx. value is fine)	

Which are the two most important crops on your household's farm in terms of…. [1] maize [2] millet [3] sorghum [4] rice [5] Cowpea [6] groundnut [7] soybean [8] cotton [9] vegetables [10] fruit crops [99] Other (sp.)						**A26.** Total amount of **land area owned by your HH?**	**A27. Units** for land area [1] Acres [2] Hectares [99] Other (specify)	**A28.** Using <u>same units</u>, **total land** area **cultivated with <u>all crops</u>** during the **last** production **season (2016)?**	**A29. Total number of field plots** (separate pieces of land) owned by the HH?	**A30. Total number of field plots** (separate pieces of land) **planted** with **cowpea** in the last production season **(2016)**?
A23. Total **area** planted?		**A24. Purchased inputs** devoted for production?		**A25.** Source of **cash income**?						
(a) 1st	**(b) 2nd**	**(a) 1st**	**(b) 2nd**	**(a) 1st**	**(b) 2nd**					

X3. Village Name:_____ **X4. Village ID:**_____ **X5.Farmer Name:**_____ **X6. ID:**_____

B. **INFORMATION ON COWPEA PLOTS** ***(Enumerator, read to the farmer: For each of the cowpea FIELDS planted in the last planting season, please tell me…)***

B0	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**B8**	**B9**	**B10**	**B11**
Field ID	**Total area** of this field?	Units [1] Acres [2] Hectares [99] Other (specify)	Was cowpea **inter-cropped**? [1] Yes [2] No	What percentage of this field was planted to cowpea? *Record the response on a scale of 0 to 100 (approx. value is fine)*	Total quantity of cowpea seed planted on this field? (kg)	Total quantity of cowpea grain harvested	Units [1] Lbs [2] Kg [99] Other (specify units & weight)	Did you apply any **fertilizer** on this field? [1] Yes [2] No	Did you apply any **chemical pesticides** on this field? [1] Yes [2] No	Did you apply any **bio-pesticides** on this field? [1] Yes [2] No	Did you apply any other types of pest control products on this field? [1] Yes [2] No
F1											
F2											
F3											
F4											
F5											

C. INFORMATION ON COWPEA VARIETIES PLANTED IN THE LAST GROWING SEASON

C0. In the last season, how many cowpea varieties did you plant? _____ *For each of these varieties, please tell me….*

C1	C2	C3	C4	C5	C6	C7	C8
Variety ID	**Name** of the cowpea **variety planted in the last growing season** 77=don't know	**Source of seed planted for grain in this last planting season** *[1] Saved from own grain harvest* *[2] saved from own production of seeds* *[3] purchased **as grain** from others/market* *[4] purchased **as seed** from a farmer in the community* *[5] purchased as seed from the market* *[6] Given by NGO/Govt. program* *[99] Other (specify)*	How would you rate the seed quality? [1] excellent [2] good [3] bad [77]don't know/ no opinion	Was this a **traditional or an improved** variety? [1] traditional/local [2] improved [77] don't know	How many years have you planted this variety on your farm? *(write approximate number of years, if farmer doesn't remember the exact #)*	When was the last time you obtained fresh seed of this variety from outside your own farm production? *(write approximate yyyy if don't remember)*	Source of seeds for grain productionwhen you last obtained fresh seeds from outside *[1] Given by family/friends* *[2] purchased as grain from others/market* *[3] purchased as seed from a farmer in the community* *[4] purchased as seed from the market* *[5] Given by NGO/Govt. program* *[99] Other (specify)*
V1							
V2							
V3							
V4							

X3. Village Name:_____ **X4. Village ID:**_____ **X5.Farmer Name:**_____ **X6. ID:**_____

D. FARMER'S KNOWLEDGE, PERCEPTIONS, OPINIONS ON SEED TYPES, SEED QUALITY, AND INSECT DAMAGE

D1. Do you have easy access to good quality seeds of cowpea, If you wanted to purchase it? *[1] Yes* *[2] No <D3*	**D2.** Where is the nearest source of such good quality seed of cowpea? *[1] from a seed producing farmer within or nearby village* *[2] from a seed trader/vendor in the market* *[3] Farmer organization (e.g. ASK)* *[99] Other, specify*	**D3**. Do you have easy access to certified seeds of any crops? *[1] Yes* *[2] No* *[88] don't know what is certified seed > D7*	**D4.** Have you ever used or purchased certified seed of any crops? *[1] Yes* *[2] No >D7*	**D5**. For which crops you have used *certified seed*? *List up to 3 crops. See crop codes below* *88=no more*			**D6.** In your opinion what are the two main **advantages** of using certified seed *(see code list)*	
				a. Crop 1	b. Crop 2	c. Crop 3	a. Most important	b. 2nd important

Code for D6
1=high germination rate
2=less disease and pest problem
3=Uniformity in plant growth
4=high quality grain at harvest
5=high yield
99=other (specify)
88=have not used this type of seed; no more, don't know

D5 -- Crop Codes: [1] maize [2] millet [3] sorghum [4] rice [5] Cowpea [6] groundnut [7] soybean [8] cotton [9] vegetables [10] fruit crops [99] Other (sp.)

D7. Have you ever used hybrid seeds of any crop? *[1] Yes* *[2] No*	**D8. What are the two main constraints you face in cowpea farming?** *1-Land* *2-labour* *3-cash constraint* *4-price too low* *5-cannot sell the crop* *6-seeds of preferred varieties not available* *7-insect and disease problem* *8-no information or technical advice on farming practices* *99-other(specify)*		**D9**. What is the current price of cowpea for consumption if you were to sell it? CFA/kg *9999-don't know*	**D10**. What is the current price of cowpea for consumption if you were to buy it? CFA/kg *9999-don't know*	**D11.** Have you ever stopped using a cowpea variety you liked because of lack of access /availability of seed? *[1] Yes [2] No*	**D12.** How often do you purchase or acquire fresh seed of cowpea from outside your farm for planting purpose? *1-every year <skip to D14)* *2-every other year* *3-every 3-5 years* *4-5-10 years* *5-more than 10 years* *6-never <Ask D13, then skip to D15*
	a. Constraint 1	b. Constraint 2				

D13. What would be the main reason you DON'T replace cowpea seed more often than indicated in D12? *(multiple responses possible)* *1-too expensive* *2-don't trust the seed from outside* *3-seed not available* *4-seed variety I like not available* *5-I can maintain good quality seed myself* *6-Don't see any advantage/benefit in getting seed from outside more frequently* *7-seed comes in a large packet than I need* *99-Other (sp.)*			**D14.** What would be the main reason you would replace/change your cowpea seed for grain production and not use your own saved seed? (multiple responses possible) *1-yield decline/drop* *2-don't have any seed left (all sold or consumed)* *3-to try new variety* *4-to get disease free planting material* *5-don't have seed storage facility* *6- when given by a govt. program or an NGO or a research organization* *99-Other (sp.)*			**D15.** In total, how much did you spend on all the cowpea seed you purchased for planting in 2016 season? *Write 0 if no seed purchased*
a. Reason 1	b. Reason 2	c. Reason 3	a. Reason 1	b. Reason 2	c. Reason 3	

X3. Village Name:_____ **X4. Village ID:**_____ **X5.Farmer Name:**_____ **X6. ID:**_____

D16	D17	D18	D19	D20	D21	D22
In a typical year, what are the primary <u>insect pests</u> that damage your cowpea crop? [0] None => ***Go to E1*** [1] Legume pod borer [2] Coreid pod-sucking bugs [3] Groundnut aphids [4] Thrips [77] Don't know [99] Other (specify)			Severity of the damage caused by these <u>insect pests in tha last cowpea season (2016)</u>? *[1] Not very severe* *[2] Somewhat severe* *[3] Very severe*	Comparing this damage to the previous two years, the damage has: *[1] Decreased>D21* *[2] Same* *[3] Increased>D22* *[77] Don't know*	Main reason for decrease in damage: *[1] I am applying more insecticides* *[2] I am applying different/more effective types of insecticides* *[3] There are now more beneficial insects* *[99] Other (specify)* *[77] Don't know*	Main reason for increase in damage: *[1] I am applying less insecticides* *[2] I am applying different type of insecticides* *[3] Change in weather pattern has increased insect population* *[99] Other (specify)* *[77] Don't know*
First	Second	Third				

H. NETWORKING, ASSET OWNERSHIP, AND CHARACTERISTICS OF THE HOMESTEAD

H1. Do you belong to a **farmer group/ organization?** [1] Yes [2] No=>**H3**	**H2. Are you a leader of any of these groups?** *[1] Yes* *[2] No*	**H3.** Does the female head or spouse belong to any group or organization? *[1] Yes* *[2] No*	**H4. Does the household own…** [1] Yes [2] No					**H5.** How many heads of cattle or other large animals does your household own?	**H6.** Have you heard about the following organizations / programs / concepts? 1=Yes 2=No					
			a. Television	b. bed or a mattress	c. Scooter or a motorcycle	**d.** working Mobile Phones	e. Smart phone		a. INERA	b. Integrated Pest Management	c. Farmer Field School	d. Climate change	e. Inter-net	f. Face book

H7. What is the main source of energy for lighting in your house? [1] Firewood or other [2] Candles, kerosene or LPG [3] Electricity, or solar energy	**H8. Type** of toilet facility used by the household? [1] No toilet facility(bush) or other [2] Non-ventilated pit Latrine [3] Ventilated pit latrine or flush to a septic tank	**H9.** When was the last time you interacted with an agricultural extension agent? *(write the response as # of days/weeks or months ago* *1=days 2=weeks 3=months* *77=don't know or never* d/w/m	
		#	

H10. When it comes to adopting new technology, inputs or farming practices, which of the following best describes your behavior: *(Read each one and let farmer select one option)*

1 - I am one of the first ones to adopt NEW technologies
2 – I usually wait until a few farmers I know have used those inputs/technologies/practices, and then based on their experiences I make the decision
3 – I usually wait until most farmers in this village are already using those inputs/technologies/practices, and I am 100% sure that those technologies work
4 – I rarely change my farming practices as I am not comfortable doing new things

H11. What is the distance from your house to the nearest paved road (if the house is next to the paved road, write zero) *km*	
H12. What is the distance from your house to the nearest market where you obtain agricultural inputs (e.g., fertilizer, pesticides, seeds, etc.) *km*	

THANK YOU FOR YOUR PARTICIPATION IN THIS SURVEY

X3. Village Name:_____ **X4. Village ID:_____** **X5.Farmer Name:_____** **X6. ID:_____**

Seed Bidding Recording Sheet

X0. Enumerator Name		*X5. Farmer Name*	
X3. Village name		*X6. Farmer ID*	
X4. Village ID		*X1. Date of interview*	

Pre-test trial Experiment: With Soap

Y1. Soap Bid Amount (FCFA)	
Y4	
Y2. Soap Random Price (FCFA)	
Y3. Did the farmer win the bid? ***(1=Yes if Y1 greater than Y2 2=No, otherwise)***	

If farmer wins -- Farmer gets 300 FCFA minus Random price plus soap
If farmer does not win -- Farmer gets 300 FCFA

Bidding Recording Sheet for Actual Willingness to pay for Seed Experiment

1. *Please show the samples of three seed types and explain the labels. Then ask the farmer Y5 and then Y6 (maximum willingness to pay for 1 kg of each type of seed)*

	Certified Seed	***Uncertified (Quality Declared Seed)***	***Own-saved or Recycled Seed***
Y5. In your opinion, **which is the BEST seed type** (mark one)	☐	☐	☐
Y6. In your opinion, **which is the WORST seed type** (mark one)			
Y7. Bid Amount (CFA)			

2. *Please show the pictures and explain the three plots. Then ask for the farmer's opinion on the best seed plot at the flowering stage and best seed plot at the harvest stage. Then ask for maximum willingness to pay for 1 kg of each type of seed indicated by a letter*

	L	***M***	***G***
Y5. In your opinion, **which is Best seed type** (mark one)	☐	☐	☐
Y5.1 What is the MAIN reason for rating this plot the BEST? ***1-plants look healthy; 2-pods have filled nicely; 3-higher yield; 4-good seed quality; 5-Other (specify)***			
Y6. In your opinion, **which is the WORST seed type** (mark one)	☐	☐	☐
Y6.1. What is the MAIN reason for rating this plot the WORST? ***1-plants look unhealthy; 2-pods have not filled nicely; 3-lower yield; 4-poor seed quality; 5-Other (specify)***			
Y7. Bid Amount (CFA)			

Y8. Seed type selected for auction (circle one) *Certified QDS Recycled L M G*

Y9. Record the Random Price drawn for the seed type selected: _____

Y10. Did the farmer win the bid? _____
(1=Yes if Y7 greater than Y9 for the selected seed type; 2=No, otherwise)

Calculator to determine the payoff amount

1. ***If Farmer WINS the seed*** *(Bid amount greater than randomly drawn price)*

Endowment	***Random price (Y9)***	***Farmer gets 1500 F minus random price***	***Plus***
1500 FCFA	***_____FCFA***	***= _____FCFA***	***Seed***

2. ***If Farmer DOES NOT win the seed*** *(Bid amount less than randomly drawn price)* Farmer gets: 1500 FCFA and NO SEED