Script for Seed WTP Experiments – Nicaragua 2017

For villages where both BDM and RCE will be conducted

NOTE: *All text in italics are instructions for the enumerator*. All **text not in italics** must be read to the farmer.

This experiment/survey will be performed at field days in 12 villages in Nicaragua. Each village has 1 field experiment (FE) and the field days will be run in all 12 villages. During each field day, farmers (who attended the first field day and were surveyed) will participate in a willingness-to-pay (WTP) auction experiment and a real choice experiment. A FE consists of one field split into 3 plots. All the plots contain the same variety of beans, but were planted using different qualities of seed – Semilla Certificada(CS), Semilla Apta (SA) or Grano Comercial (GC). The plots are labeled □, ○, and Δ and farmers and extension agents do not know (and should not be told) which quality of seed was used for which plot.

After a brief welcome to the field day and running through the criteria and plot ranking exercise – including a question regarding WTP per lb for each seed type. The script below is for the enumerator and helpers running the WTP auctions and RCE.

Step 1: Introduction/consent

The enumerator will introduce his or herself and read the consent script to the farmers and record their verbal consents to participate.

Step 2: Overall description of Exercise

ENUMERATOR:

Ok, thank you for being willing to participate. To begin with, let me give you an overall description about what we will be doing. We are interested in getting an idea about how much you would be willing to pay for the three types of seed that was used to grow each of the 3 plots that you looked at earlier. To make your decisions more realistic, we are going to give you C$40 that you can use towards the purchase of one lb bag of one of the seed types used to grow these plots. We will be performing two types of exercises today. The first involves you providing the maximum price you are willing to pay for each of these three seed types, and the second involves you selecting one of the seed type to purchase under different scenarios that we will present. In both these exercises, please determine your willingness to pay for one lb of seed based on your observations of the performance of these three types of seed qualities in the field you just visited.

[how we will decide which exercise becomes binding]

At the end of both these exercises, one of these two types of exercises will be chosen to give you a chance to actually purchase the seed. . This will be decided by flipping a coin so that either exercise will be chosen at random and will have equal probability of being chosen. We will flip a coin to decide whether the first exercise or second exercise will be chosen to be carried out through to purchase. We will let you all decide which Exercise is heads and which will be tails. This will be explained further on.

Before we begin with the two primary exercises, we would like to do a practice of the first exercise. For this practice exercise, we will give each of you C$10 to bid on purchasing a bar of soap like this one.

Hold up bar of soap

Let's do the practice auction first, and then we will explain more about the seed auction, ok?

Do you have any questions? (answer questions)
Should we begin?

Step 3: Practice Auction

The enumerator will begin explaining the practice auction.

ENUMERATOR:

Ok, so one of the exercises you will participate in today is a seed auction. We want you to understand how the seed auction will work, so we want to run a practice auction first.

For this practice auction each of you will be given C$10 to bid on one bar of soap. Unlike in most auctions, or in auctions you may have participated in the past, in this type of auction, it is possible for **everyone** to win and thus everyone might purchase a bar of soap using part or all of their C$10.

Let me explain how you bid and how we determine who wins and buys a bar of this soap.

First, we will hand out a bidding sheet like this one.

Hold up bidding sheet.

On this bidding sheet you will write down the maximum amount you would be willing to pay for this bar of soap, which could range from C$0 to C$9. Please note down this amount in increments of C$1. For example, the amount you are willing to pay for this bar of soap could be C$0, 1, 2, 3, 4, 5, 6, 7, 8, or 9. The maximum bid you can make is C$9. Once everyone has done this, we will collect the bidding sheets and move on to determine how many of you win and will buy a bar of soap.

To determine who wins we will simply choose a random price between 0 and C$9 – we will explain how this will be done in a moment.

If the price you bid is **greater than or equal to** this random price, then you win, ***BUT*** you pay the random price – not what you bid. This means that if you win, you pay a lower price for the soap than your bid (unless the random price is the same as your bid).

On the other hand, if the price you bid is **less than** this random price, then you do not purchase the soap and you can keep the money (C$10).

If you win, we will give you a bar of soap **and** the balance amount of your C$10; that is, C$10 minus the random price.

For example, if you bid C$5 and the random price is C$4, then you would pay C$4 for the soap and get it, along with the remaining C$6.

If you do not end up buying the soap, you do not spend any of your C$10 buying soap and we will give you C$10.

So, for example, suppose that "*name an enumerator1 in the room*" bids 6, I bid 4 and "*name an enumerator2 in the room*" bids 1. Now suppose that the random price is 3…in this case, *enumerator1* would buy the soap, but would pay C$3, not his/her bid of C$6. He/she would get a bar of soap and 10-3=C$7. I would also buy the soap and pay C$3 (my bid was C$4) so I would also get a bar of soap and 10-3=C$7. *Enumerator2* would not buy the soap since his/her bid of 1 is less than 3 so he/she would just get C$10.

[Best strategy explanation]

Before we hand out the practice round bidding sheets, let me explain the best strategy in this type of auction. The BEST thing to do is to bid the MAXIMUM amount you are willing to pay. This is because it is very likely you will actually pay LESS if you win.

However, bidding <u>less</u> than what you would be willing to pay might mean that you miss out on buying the soap at a price lower than what you would be willing to pay. For example if you are willing to pay C$7 and you only bid C$3 and the random price is C$4 then you will not purchase the soap at C$4.

Similarly, bidding <u>more</u> than what you would be willing to pay might mean that you end up having to pay more for the soap than you really want to. For example, if you are willing to pay a maximum of C$3, but you bid C$5 and the random price ends up being C$4, then you would pay C$1 – more than you were willing to!

Overall, your best strategy is to bid the MAXIMUM amount you are willing to pay.

Ok, let's go ahead and hand out the bidding sheets.

Are there any questions?

We will determine the random price as follows:

There are 10 possible options for the random price of this soap to be. The random price can be either a 0, 1, 2, 3, 4, 5, 6, 7, 8, or 9. We will thus roll this 10-sided die to determine which it is…if the die comes up 1, 2, 3, 4, 5, 6, 7, 8, 9 that will be the price of the soap, if we roll a 10 than that will be C$0

Overall, we will end up with one of the following numbers: 0, 1, 2, 3, 4, 5, 6, 7, 8, or 9; and that number will determine the random price. If your bid on the sheet is higher or equal to that random price, you will purchase the soap at the random price, if it is lower, then you will not purchase the soap and can keep the C$10. .

Are there any questions so far?

Ok, let's go ahead and hand out the bidding sheets.

[Hand out bidding sheets]

Ok, go ahead and write down your ID number from your name tag – this helps us keep track of who to pay how much) and your bid for a bar of soap. Please do not talk with others until we have collected the bids.

[Collect bidding sheets, making sure that bids and numbers are entered and legible and that the bid is in C$1 increments (i.e., 1.35 is not a valid bid).]

Ok, now let's go ahead and determine the random price.

[Determine random price as outlined above while writing it down on board. A helper should record this number on one of the bidding sheets so we have this information. We can allow farmers to flip coin/role die as long as it is tossed sufficiently to make it random.]

Ok, so this is the price (*say the random price*) – if you bid more than or equal to this price, you buy a bar of soap at this price (*say the random price*). If your bid was less than (*say the random price*) you will not buy a bar of soap, but will receive the C$10.

[It might be a good idea to briefly say "if you feel comfortable sharing, raise your hand if you bought a bar of soap. "If they are willing to reveal, they can even say how much they bid.]

Ok, so we will pay you and give you the soap, if you bought one, after the other exercises have completed.

Step 4: Seed Auction

The enumerator will begin explaining the seed auction.

ENUMERATOR:

Ok, so hopefully you have a better idea about how this seed auction will operate. It will be very similar to the practice auction you just did, except for a few things:

First, you will be bidding to purchase a one lb bag of the seed that was used to plant the plots in the field Exercise you just looked at. Specifically, you will be making 3 bids – one for each plot (labeled □, ○, and Δ). HOWEVER, even though you are bidding for each type, ONLY ONE type will actually have a random price determined and will be bought/sold. You will not know which type is available until after you bid, so you should bid as if each one might be the one chosen.

Second, instead of C$10, we are now giving you C$40 to use to bid. Just as before, your bid should be in increment of C$1. And as before, any amount you do not use to purchase seed, will be given to you after we are done.

Third, the random price can be between 0 and C$39 and will be determined as follows:

Enumerator: Write on a board two spaces

_____ _____

the first digit can be a 0, 1, 2, or 3. We will roll a 4 sided die to determine this first digit. If the die lands on 1, 2, 3 the first digit will be that number, but if it comes up 4, it will be a 0. Then a second 10 sided die will be rolled, the second digit can be 0, 1, 2, 3, 4, 5, 6, 7, 8, or 9. If the die rolls a 10 than the second digit will be 0.
Overall, we will end up with a number between 0 and C$39 in C$1 increments. As before, each number between 0 and 39 is equally likely.

Are there any questions?

[remind them of the strategy]

Ok, before we hand out the bidding sheets, let me just remind you that your best strategy is to bid the MAXIMUM amount you are willing to pay for each seed type represented by a symbol that was used in the field plots your just saw. Remember, since we are only going to determine a random price for ONE of the seed type, you do NOT need to try and spread your C$40 across the three seed types – in fact you can bid C$40 for each quality and not have to worry about spending more than C$40.

Any final questions?

As before, please do not talk with others until we have collected the bids.

[Hand out seed bidding sheets.]

Ok, go ahead and write down your ID number (from the card) and bids for all three seed qualities. Remember that this is for a 1 lb bag of the seed type used to plant the indicated plot (□, ○, and Δ). Also, please keep bids to C$1 increments ranging from 0 to 39.

[Collect bidding sheets, making sure that bids and numbers are entered and legible and that all bids are in C$1 increments.(i.e., C$10.48 is not a valid bid)

This ends our first Exercise. We will now begin the second Exercise.

Step 5: RCE

In this second exercise we will split into four groups. Your group leader will show you 12 different ellecions with different types of seed available in the market at different prices. Based on this information, you will be asked to select one option in each scenario. You will record your selection on a the sheet we will hand out to each one of you. Please fill out the information required as per the instruction of your group leader (e.g., Id code, Village code, name and choice set letter)

(Example RCE)
Each option will look like this one (show example sheet of RCE), but with seeds and different prices. As you can see, there are two different products with two different prices as well as a ninguna option.

(Explain Strategy)

When you are shown each set, we want you to choose which of the two seeds you would purchase if you were at the market to buy seed. If you wouldn't buy either then choose ninguna. It is in your best interest to choose the option you would choose in a market setting. If you are not willing to pay for either but you choose one of them, you may have to pay that price for that seed later. If you choose ninguna, then you will keep the C$40 but purchase neither seed.

Again, your best strategy is to choose the seed you are willing to pay for. For example, if you choose Seed □ for C$34, but you were only willing to pay C$27 than you would spend C$7 more than you would be willing to pay. So therefore your best option would be to choose the seed and the price as if you were purchasing between these seeds at a market.

Are there any questions?

Before we begin, it is important to note that if this second exercise is chosen to count, only one of the 12 set of options will be chosen for payment and purchase. We will decide by rolling a 12-sided die like this one (hold it up). Since only one set of options will be chosen, there is no need to spread your C$40 over all your choices – in fact, you could choose the highest price seed in every choice and not worry about spending more than your C$40.

We would like you to not talk to others about what choice you are making while we go through this task. Ok, so let's go ahead and split up into 4 groups.

[Separate participants into 4 groups and]

Group Leaders:

Ok, please go ahead and fill out the Id code, Village code, your name and the choice set letter.

[group leaders should provide the codes and the choice set letter]

Ok, so here is the first choice

[group leaders show the first choice and make sure everyone fills in their choice. Continue for all 12 choices.]

[Collect all the choice sheets]

Step 6: Choosing the binding choice

Ok, now we will flip a coin to decide whether the first or second exercise will be chosen to be carried out through to purchase. We will let you decide which one will be heads and which one will be tails.

[flip coin]

(if BDM)

Ok, since the first exercise was selecedwe will now reveal which seed quality was selected for today's auction. For this group, the seed type is [□, ○, and Δ as previously determined.]

Ok, so now that we know which quality, let's go ahead and determine the random price.

[Determine random price as outlined above while writing it down on board. A helper should record this number on one of the bidding sheets so we have this information. We can allow farmers to flip coin/role die as long as it is tossed sufficiently to make it random.]

Ok, so this is the price – if you bid more than or equal to this price, you won and will buy a 1 lb bag of this quality seed at this price. If your bid was less than this price you will not buy seed, but will receive the C$40.

(If RCE)

Ok, since the second Exercise was selected, we will now roll a 12-sided die to decide which Ellecion will be chosen. For example, if 5 is rolled than Ellecion 5 will be selected, and you will purchase the seed as per the choice you made in Ellecion# 5 . If you chose a seed then you will purchase that seed type at the price stated under that seed. If you had selected ninguna, then you will keep C$40. The choice will be random and each Ellecion has equal chance to be selected

[Roll the die]

This is the choice that is chosen you will now purchase the seed type you chose in that Elleccion number at that given price. If you chose niguna for this choice you will not purchase anything and you will keep the C$40.

[Closing Statements]

Ok, so we will call you up one or two at a time to give you the seed/soap if you bought them and however much we owe you in Cordobas.

Thank you and please do not discuss this with the other group of farmers until they have completed the exercises.

Thank you!