United States Department of Agriculture

National Agricultural Statistics Service

Agricultural Statistics Board

Washington D.C. 20250

June 2025

2025 Soybean Objective Yield Survey

Interviewer's Manual

Chapter 1 – Soybean Objective Yield Survey

General

You are one of about 300 enumerators in 10 States employed to obtain information from farmers about their soybean fields and to make a series of observations on these fields. This Objective Yield Survey is a part of an overall program to provide estimates of crop yields and acreages. Objective Yield Surveys have been conducted for many years and have provided reliable indications of yield.

The 11 States participating in the Soybean Objective Yield program include AR, IL, IN, IA, KS, MN, MO, NE, ND, OH and SD. In these States, interview and field work will be completed for all samples.

The importance of your work will become apparent as you read how these surveys operate. Briefly, your job consists of interviewing designated farm operators and making some monthly observations in one or more of their soybean fields. The operators were selected from the June Agricultural Survey conducted in early June. Monthly visits to the fields start in late August and continue until each field reaches maturity. On the first contact, you will talk to the operator, identify the sample field(s), and complete an interview for each sample field. These observations are recorded on Form A.

In the sample field, you will mark off two small plots called "units" in which you will make plant, and fruit counts each month during the growing season. These field observations are recorded on Form B.

When the crop is mature, you will harvest part of the sample units and ship a small sample of the crop to a lab where it will be weighed and tested for moisture content. Soon after the crop is harvested, you will glean some of the fields. Form E is used for gleaning observations and is completed for one-fourth of the samples.

The terms "Objective Yield Survey" and "Objective Yield Forecasts" are used frequently in this work. The term "objective" means that the basic information is based upon actual counts and measurements. Objective Yield Surveys are scientifically designed; and field observations and measurements must be made precisely according to prescribed procedures given in this manual. Objective yield forecasts are based on counts and measurements of a crop after it has emerged and before it is mature. The accuracy of each crop production forecast depends directly upon your performance and the performance of all other enumerators working on this survey.

Purpose

The purpose of the Soybean Objective Yield Survey is to provide:

1. Counts and measurements on this crop which can be used to forecast or estimate crop yields per acre on September 1, October 1, November 1, and at the end of the season.

2. Counts and weight of soybeans left in the field after harvest to estimate harvesting loss per acre.

3. Changes in acreage intended for harvest resulting from fields being plowed or destroyed after the June Agricultural Survey, but before harvest.

Following procedures for this survey, you and other enumerators will obtain counts of plants growing in specified areas of sample fields throughout your State. Mature soybeans growing within the sample units will be harvested according to prescribed procedures. The various counts and measurements you obtain on the monthly surveys are combined and used with forecasting formulas to predict yields per acre. Estimates of yield are obtained at harvest time when you harvest the sample units. Objective Yield Survey results have shown that these various field counts and measurements provide reliable forecasts and estimates of yield for individual States and for the Nation. The sample units are too small, however, to provide reliable yield estimates for an individual field.

In late August, you and the other enumerators in the 11 States will enter soybean fields to mark off objective yield units. It is most important to locate these units properly and make all counts and measurements accurately.

2024 Soybean Objective Yield Survey Statistics

Number of States in Program	11
Estimate Samples Laid Out	1,530
Total Acreage in Sample Units	1.0
Harvested Acres in OY States	69,290,000
Percent of U.S. Acres Harvested	80.5%
Percent of U.S. Crop Production	82.3%

From the table above you can understand why careful, accurate field work is so vital to this survey.

Farmer Benefit

The purpose of the objective yield survey is to accurately predict the production of soybean crops at the State, Regional and National levels beginning with the September 1 forecast in the September Crop Production report.

As you know, the size of these crops and any potential change in the size are crucial information needed by many people involved in agriculture. Therefore, our reports make national news as these crops near harvest time.

The individual needing this information the most is the farmer, for only with accurate statistical information about the size of these crops can the farmer make knowledgeable decisions about:

1. Marketing Strategies – Information used to sell early using forward contracts, to hedge on the futures markets, to sell on the cash market, or to use any of these in combination.
2. Farm Business Practices – Information used to make decisions on various aspects of farm business operations, such as: Using On-Farm storage in place of selling and/or storing at the local elevator or changing intended usage of a planted crop.

The information the objective yield survey provides is a tool farmers can use to make knowledgeable business decisions. This tool is needed by any farmer who sells soybeans.

Development of Objective Yield Surveys

The National Agriculture Statistics Service (NASS) has forecasted and estimated the yield of major crops for many years. Although crop acreage changes from year to year, some of the largest variations in crop production are caused by fluctuations in yield. For nearly a century NASS based its yield forecasts on voluntary producer appraisals of expected yield. Objective field measurement surveys were developed to compliment grower surveys and allow statisticians to fine-tune crop forecasts.

Work using objective yield measurements on wheat and corn began in the late 50s. The increasingly important soybean crop was added in the early 60s.

Forecasts and estimates using objective yield procedures are based on:
Actual counts and measurements made in sample fields by trained enumerators.
Data obtained by technicians making laboratory analyses of fruit from the crops.

Two components of objective yield data:
Weight of the fruit and number of fruit (pods, ears, etc.) are used to calculate a biologically based yield.
Post-harvest gleanings data is used to estimate harvest losses. The gleanings estimate is subtracted from the gross yield estimate derived from pre-harvest sample data to obtain a net yield estimate for each state.

Use of Reports Issued by USDA
Reports issued by the Department of Agriculture provide reliable and timely information for use by farmers, bankers, credit associations, buyers, agricultural economists, policy makers, etc. When all participants in the industry are accurately and equally informed by an unbiased source, no one has the advantage of rumors or other special information that could unfairly influence prices.

These reports may reach the farmer through farm magazines, commodity news service reports, Internet, television, radio, newspapers, etc. Virtually all these reports are based on NASS crop reports. In addition, farmers and other data users can request reports through their Regional Field Office.

Sometimes farmers feel that USDA reports only drive prices down. It is true that prices may change based on crop reports. In the long run, however, it's the actual supply entering the market along with demand that determines prices received by farmers. Reports have had a positive effect on prices as often as a negative effect over the years.

Remember, if unbiased crop reports were not available to all parties, industry reports would be the only data available for farmers to use.

USDA Reports from Objective Yield Surveys

September Crop Production.....September 12, 2025
- Acreage, Yield and Production *(forecast)*

October Crop Production ..... October 9, 2025
- Acreage, Yield and Production *(forecast)*

November Crop Production ..... November 10, 2025
- Acreage, Yield and Production *(forecast)*

Annual Summary .....January 9, 2026
- Acreage, Yield and Production (*final, all crops*) ..... (*Tentative Date*)

The Sample

The soybean fields selected for the Objective Yield Survey are sampled from operations that reported soybean acreage during the June Agricultural Survey. The sample is drawn so that the probability of any field being chosen is proportional to the size of that field. A 40-acre field is twice as likely to be selected as a 20-acre field. The sample includes small fields as well as large ones. In some cases, a large field is chosen two or more times. This field will have two or more objective yield samples assigned to it.

How Rows and Paces are Determined for Objective Yield

There is an upper limit on the field acres which are used to determine rows and paces. For corn and soybean surveys, the acres are set to 80 if there are more than 80 acres in the field. For all the wheat OY crops, the maximum field acres used are 128 acres. The field is assumed to be rectangular, and the width is calculated as 5/8 of the length. These numbers are converted to paces and random numbers used to generate row and pace counts.

When corn and soybean row and pace counts are generated, an adjustment is made so that the sample falls within 1/4 of the field (using the maximum field size described above). For wheat, when the number of rows and paces are generated, an adjustment is made so the unit 1 sample falls within 1/4 of the field if field acres are ≤60 acres, and within 1/9 of the field if field acres are >60.

These adjustments limit how many rows and paces the enumerators need to walk into the fields. For corn and soybean surveys, the maximum number of rows possible is 296 and the maximum number of paces is 473. (Unit 2 is then calculated as Unit 1 + 30 more paces). For wheat, the maximum number of rows for unit 1 is 409 and the maximum number of paces for unit 1 is 256. (Unit 2 is then calculated as Unit 1 + 30 more paces).

Equipment

The items of equipment and supplies which will be used on the Soybean Objective Yield Survey are listed below. Your supervisor is responsible for furnishing all your necessary supplies and equipment; you are responsible for the proper use and care of all items provided. If your supplies run low or equipment becomes unusable, notify your supervisor immediately.

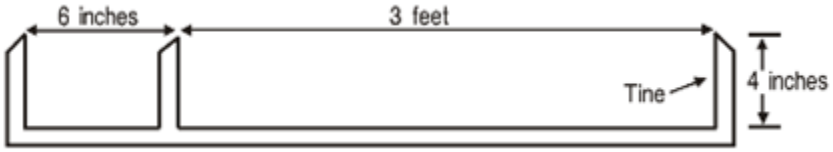
List of Equipment and Supplies

☑	ITEM
☐	Interviewer's Manual
☐	Identification Card
☐	Form NAS-011 (Time and Mileage)
☐	Motor Vehicle Accident Report Kit
☐	EPA booklet "Protect Yourself from Pesticides"
☐	First Aid Kit
☐	County Maps
☐	State Highway Map
☐	Clipboard
☐	Sample Field Kit Envelopes
☐	Extra Copies of Forms
☐	Pencil
☐	Ball Point Pen
☐	Black Permanent Marker
☐	Canvas Satchel or 5-Gallon Bucket
☐	Tape, 50-foot in tenths of feet
☐	Four-foot Wooden Dowel Stick
☐	Anchor Pin
☐	Hand Tally Counter
☐	Red Florist Stakes
☐	Blue Florist Stakes
☐	Flagging Ribbon

☑	ITEM
☐	Soybean Frame
☐	Red Florist Stakes
☐	Blue Florist Stakes
☐	Unit Location Marking Stakes/Poles
☐	Corner Marking Stakes/Poles
☐	Flagging Ribbon
☐	Red Plastic Plant Tags
☐	Paper Lunch Bags
☐	Rubber Bands
☐	Sample ID Tags
☐	UPS Shipping Labels or Address Tags
☐	Tyvek Envelopes

Soybean Frame

The one piece soybean frame is made of steel bar stock to measure precisely 6 inches between the long sides of the first 2 tines and 36 inches inside the other tines. Avoid any misuse of the frame that might cause it to bend, changing the area to be measured.



Proper use of the soybean frame is most important as are all counts made within each unit. To illustrate: suppose the average soybean row width for all samples was 9.0 inches. Using the 42 inch soybean frame times a 9.0 inch row width gives an area of 10.5 square feet per sample or less than 1/3 acre of soybeans that is measured and counted to represent all soybeans in the United States. This is why careful, accurate field work is so vital in the survey.

Quality Control and Supervision

The Objective Yield Quality Control program is designed to aid in the supervision of enumerators, detect faulty equipment, and to assure that proper survey procedures are followed. A good quality control program will improve the results of the Objective Yield Survey.

The Survey Statistician is responsible for the overall objective yield program. The Survey Statistician provides most of the training at your State Workshop and the necessary equipment and supplies needed for you to complete your assignments.

The Enumerator Coach is your immediate supervisor. Your coach will provide much of the "on-site" field training you will need to complete your assignments. Your coach will also spend several hours with each enumerator during the first few days of each survey period. New enumerators will be visited first and if necessary, revisited after they have completed samples on their own.

Each coach will complete at least one quality control Form Q-1 for each enumerator under their supervision for each crop assigned. Upon receipt of completed Form B records, the Survey Statistician will inform the coach of the samples selected for quality control. Samples previously worked with the coach will be excluded. Whenever possible, the coach and the enumerator should return to the sample field together while the coach completes the Q-1 check of the enumerator's counts. The coach and enumerator must discuss any differences in counts and the reason for these differences. These differences will be resolved with the enumerator and documented on Form Q-1.

Pesticide Safety Precautions

Organophosphorus insecticides have been in common use for several years. Organophosphorus insecticides are used on most crops. Extreme caution must be taken to avoid overexposure to these insecticides.

A comprehensive pesticide safety program has been developed for all employees who may be exposed to pesticides while working on the Soybean Objective Yield Survey. The program is designed to protect you from the possibility of overexposure to harmful pesticides.

Overexposure to pesticides, particularly insecticides, could result from home, garden and farm use, as well as unrestricted work in objective yield fields. Objective yield survey work, however, will pose little or no danger to your health when the safety precautions listed in these instructions are followed. Consult your copy of the EPA booklet, "Protect Yourself from Pesticides - Guide for Agricultural Workers", for additional information.

The safety program provides for monitoring and restricting exposure to organophosphorus insecticides. These insecticides are highly toxic to humans within several hours after application. The toxicity drops over time, but the rate of decline depends on the product used, application rate, weather factors and other variables.

Determining Use of Organophosphorus Pesticides

You will ask if any pesticide with organophosphorus content has been applied in the past month. If yes, you will obtain the name of the pesticide and the latest application date. You should explain to the operator that you work in many fields on many different farms during a short period of time and that the sole purpose of the question is to ensure that you will not be unnecessarily exposed to harmful insecticides. Informative notes, such as: "The operator will not apply a pesticide;" "He will apply some later;" The name of the pesticide applied, and the last application date should be recorded on the kit envelope for future reference.

Be sure and ask the operator where the information on pesticide spraying will be posted, so you can check it every month before you enter the sample field. Enter the location on the kit envelope.

The symptoms of pesticide poisoning may resemble fatigue or other common symptoms of illness. However, you can protect yourself by knowing and being alert to the early warning signs of poisoning.

Common Symptoms of Pesticide Poisoning

- Breathing difficulty
- Coma
- Cramps
- Diarrhea
- Dizzy spells
- Headaches
- Heavy sweating
- Nervousness
- Pupils of the eye reduced in size
- Seizures
- Sick stomach
- Sudden weakness
- Vomiting

Medical Attention

Go to the nearest qualified physician if poisoning symptoms appear. Explain your symptoms to your doctor and inform them you have been working in fields where insecticides may have been applied. Use information recorded on your Form A, Form B or Kit Envelope to determine the names of insecticides applied to fields where you have recently worked. Give this information to the doctor. Notify your Survey Statistician immediately. Do not return to work on Objective Yield Surveys unless you receive the doctor's approval and the Survey Statistician is notified.

Notify your Enumerator Coach immediately any time medical attention is required!

A list of organophosphorus insecticides that are commonly used in soybean production is provided on the next page. The list includes the common names of recommended insecticides along with many trade names. If a trade name is not listed, you should determine the common name of the insecticide from the farm operator, insecticide dealer or County Extension Service. If an insecticide does not appear on the lists, the insecticide dealer or your County Extension Service should be able to tell you if it is an organophosphorus insecticide.

If on the initial Form A or Form B the operator informs you, they will not apply any pesticide with organophosphorus content, you should put a note to that effect on the kit envelope. But, if you arrive at the sample field and it appears the operator has applied a pesticide (due to odor in the air, residue on leaves, spraying or dusting machinery or other evidence), contact the operator before continuing your observations.

If the operator applied a pesticide or is undecided, you should contact him each month to check on the application date and follow the field re-entry intervals specified below.

Field Re-Entry Intervals

The **field re-entry interval** is the amount of time that MUST pass after pesticides are applied before entering the field. The intervals must be observed without exception to safeguard your health. The intervals provided are not expected to interfere with completion of your assignment unless some extremely unusual pest management practices are followed.

Guidance for Field Re-Entry Following Chemical Applications

Chemical Type:	**Any Chemical**	**Organophosphorus Chemical**	
Timing of Application:	Previous 24 hours	Previous 72 hours	Previous 30 days
Entry Restrictions:	**Do Not Enter Field**	**Do Not Enter Field**[1]	Follow Safety Requirements[2]

[1] Field re-entry is permitted 72 hours after application was made.

[2] Prior to entering fields treated with an organophosphorus chemical application within the last 30 days, you must:

a) Wear a long-sleeved shirt, long trousers and head covering.
b) Never wear any clothing more than one day without laundering.
c) Limit work time to a maximum of 6 hours per day in these fields.
d) Thoroughly wash all exposed skin (hands, face, etc.) that may have come into contact with plant foliage during the field visit.

Protection Against Pesticide Exposure

Protective Clothing

Wear a long-sleeved shirt, long trousers and head covering when working in fields that have had organophosphorus pesticides applied within the past 30 days. Do not wear clothing exposed to organophosphorus residues for more than one day. Take care in storing and laundering clothing to avoid possible cross-contamination of other clothing. When plant foliage is wet, wear water resistant or waterproof protective gear to prevent absorption of insecticides.

Soap and Water for Decontamination

Each enumerator must carry water and bath soap when they work in fields that have had applications of organophosphorus insecticides. Upon completing work in such a field, thoroughly wash all exposed skin areas (hands, face) that may have contacted plant foliage.

Organophosphorus Chemicals Commonly Used in Soybean Production

Trade Name(s)	Common Name
Orthene	Acephate
Lorsban	Chlorpyrifos
Cygon, Dimethoate	Dimethoate
Cythion, Malathion	Malathion
Penncap-M, Methyl Parathion	Methyl parathion
Thimet	Phorate
Pyrethroids	
Asana	Esfenvalerate
Warrior	Lambda-cyhalothrin
Ambush, Pounce	Permethrin
Carbamates	
Temik	Aldicarb
Sevin	Carbaryl
Furadan	Carbofuran
Lannate, Nudrin	Methomyl
Larvin	Thiodicarb
Other Organophosphorus Compounds	
Dimilin	Diflubenzuron
Tracer	Spinosad

Sample Field Kits

Enumerators will be given a sample field "kit envelope" for each sample field they have been assigned. The kit envelope is used to organize the forms and sample ID tags they will use for each respective sample field they have been assigned. The number and kind of forms a sample field kit envelope requires will vary according to the month each sample is laid out.

The front of the kit envelope features several fillable fields for identifying the sample that the contents are associated with.
Fields relevant to

- State
- Crop
- Variety
- Sample number(s)
- County
- Operator's name, address and phone number
- Expected harvest date – *determined at Form A interview*
- Sample field pesticides use and application schedule – *determined at Form A interview*
- Sample unit location information – *determined at first Form B field visit*
- Survey date each sample is to be laid out

Enumerators should refer to their CAPI assignment listing and/or supply packing list/sample listing as the resource for completing the labels on the kit envelopes for their assigned samples for the items listed above.

Please disregard the fields on the envelope for recording Segment Number, Tract, and Lives in segment Yes/No on the kit envelope, as their use has been discontinued beginning with the 2025 survey.

The organization of your work for the entire survey year is dependent upon completing this step before starting kit envelope assembly. It is also important to have it completed in the chance someone else has to work on the respective samples in the absence of the enumerator the work was initially assigned to.

The remainder of this section provides a description of the field kit contents, quantity needed for each item, and instructions on how to assemble sample field kits for each assigned field.

Field Kit Contents

- **1 - enumerator labeled kit envelope –** keep and organize all forms and field sample ID tags for the sample in this folder
- **1 - Labeled Form A –** Form A is the only form with sample identifying information printed on it.
- **4 - Form B –** 4 copies needed, one for each forecast period (*September 1, October 1, November 1, December 1*)
    - Fill out the Form B label information identifying the State, POID and fieldwork date for each sample form completed. This information will be needed for callbacks when sample data comes into question.
- **1 - Form E –** 1 copy needed for gleaning samples only. Gleaning samples are completed for all samples numbered in multiple for 4 (*Samples 4, 8, 12, 16, 20, etc.*). Gleaning samples will also appear in Form E assignments in the enumerator's CAPI assignment listing. The CAPI Form E assignment listing is used for reference purposes only. Form E data is recorded on paper and submitted with the respective gleaning sample shipment to the NOD OY lab.
    - Fill out the Form E label information identifying the State, POID and fieldwork date and record gleaning unit row space measurements for each gleaning sample completed. Submit completed Form E with the respective gleaning sample shipment to the NOD OY lab.
- **1- Unit Location Sheet/Objective Yield Grid Map** (2-sided print)
  Unit Location Sheet – randomly generated row/pace counts based on sample field acreage; used for determining sample unit locations. The Unit location sheets replaced rows/paces labels used on OY Forms B and E prior to 2025.
  Grid Map – When you make your first visit to each field, sketch a map on the Objective Yield Grid Map/face of the kit envelope showing the sample field, starting corner and unit locations. Make the map sketch as large and clear as possible. If for any reason you are unable to complete your work, your coach or another enumerator should be able to return to the sample field and locate the units without difficulty by using your map sketch. Indicate highway or farm road numbers and approximate mileage to the sample field.

Field Kit Assembly

The Objective Yield supply distribution model changed in 2025 to maximize NASS staffing efficiencies. The NOD Lab is now the Objective Yield supply distribution hub for the survey program. All Objective Yield survey materials, supplies and equipment will be sent directly from the NOD Lab to enumerative staff.

The paper materials in this shipment will be used to assemble the field kits for every sample assignment. The following list outlines the most efficient procedure for field kit assembly. Laying out 6 stacks of individual items in order from left to right and using an assembly line process working right to left is the ideal way to organize and assemble field kits.

Pull the following materials from the supply shipments and organize them from left to right into stacks of each item in the order listed below:

Far left:	**Stack 1:**	Kit Envelopes – *labels will be hand-written*
	Stack 2:	Lab Sample ID Tags
	Stack 3:	Form E – *only required for post-harvest gleaning samples (every 4th sample: 4, 8, 12, etc.*)
	Stack 4:	Form B
	Stack 5:	Unit Location Sheet/Objective Yield Grid Map
Far right:	**Stack 6:**	Form A

Field Kit Assembly Instructions

1) Use the supply packing list/assignment list as a checklist to verify delivery of listed items.
   a) Immediately notify your coach of any missing items or faulty equipment so they may be replaced promptly.
2) Prepare Kit Envelopes for labeling:
   a) Refer to CAPI Form A assignment list and fill out the sample identifying information label area on a kit envelope for each sample assigned.
   Minimum Info Requirement: Sample Number, Operator's Name, Address, Phone Number, and County
   (*The remaining fields will be filled out after the Form A interview is completed*)
3) Organize labeled kit envelopes in sample number order and return them to the far left stack of your work area.
4) Starting at Stack 6 (*far right*), take 1 Form A. Keep the Form A on the top of the field kit materials as you move through each stack, adding materials. The information printed on Form A will be important for identifying if the sample requires a Form E for post-harvest gleaning and help make sure the materials are placed in the correct kit envelope.
5) Move left to Stack 5, and take 1 Unit Location Sheet/Objective Yield Grid Map and place it under the Form A. The Unit Location Sheet/Objective Yield Grid Map is printed with the Unit Location information on one side of the page and the Objective Yield Grid Map printed on the opposite side of the page.
6) Move left to Stack 4, and take 4 Form Bs and place them under the Unit Location Sheet/Objective Yield Grid Map. Form B does not come with a pre-printed sample label. Enumerators will fill out the State, POID, Sample Number, and Forecast Month on the Form B every field visit.
7) Move left to Stack 3, and take 1 Form E if the Form A sample number is a multiple of 4 (*sample numbers: 4, 8, 12, 16, etc.*) and place it under the Form Bs. If the Form A sample number is not a multiple of 4, proceed to next step without taking a Form E.
8) Move left to Stack 2, and take 5 Lab Sample ID tags and place them under the Form E.
9) Move left to Stack 1 (*far left*), Check the sample number on Form A on the top page of the materials gathered in steps 4 through 9 and place them into the kit envelope labeled for the sample materials gathered.
10) Repeat steps 4 through 9 for all remaining samples assigned.

Item Layout Order **First Item** → **Layout Direction** → **Last Item**

Stack #	1	2	3	4	5	6
Field Kit Item	**Kit Envelope**	**Lab Sample ID Tags**	**Form E**	**Form B**	**Unit Location Sheet/ OY Grid Map**	**Form A**
Quantity/Sample	1	5	1	4	1	1
Assembly Order	**Last**	**5th**	**4th**	**3rd**	**2nd**	**First**

Finish ← **Assembly Direction** ← **Start**

Sample Field Kit Envelope

UNITED STATES DEPARTMENT OF AGRICULTURE
NATIONAL AGRICULTURAL STATISTICS SERVICE
Washington, D. C. 20250

Official Business

STATE _____ Crop _____

Variety _____
Sample Field

County _____

Segment No. _____ Tract and Field Code _____

Lives in Segment? ( ) YES ( ) NO

LSF POID _____

Operator's Name _____

Address _____

Phone ( ) _____

Expected Harvest Date _____

Sample Field
Pesticide Use Name _____

Schedule _____

NOTES: _____

_____

_____

FIELD SKETCH

SAMPLE UNIT LOCATION

Sample No. _____ To be laid out _____ (Month)		
	Unit 1	Unit 2
Rows/Paces along edge		
Paces into field		
Sample No. 1/ _____ To be laid out _____ (Month)		
	Unit 1	Unit 2
Rows/Paces along edge		
Paces into field		
Sample No. 1/ _____ To be laid out _____ (Month)		
	Unit 1	Unit 2
Rows/Paces along edge		
Paces into field		
Sample No. 1/ _____ To be laid out _____ (Month)		
	Unit 1	Unit 2
Rows/Paces along edge		
Paces into field		

1/ Additional sample in this sample field

North

Guidelines for Completing the Form A Questionnaire

When contacting the operator, introduce yourself and tell him that you are working with National Association of State Departments of Agriculture (NASDA) for the U.S. Department of Agriculture (USDA). Explain that the USDA is conducting a yield survey and that this farm has been selected for study. Comment on the Objective Yield cover letter on the following page to the operator before the interview starts. Reference the segment image that was sent with the letter.

1. Entries must be legible and made in black lead pencil.

2. Put all entries in the boxes provided. Note the preprinted decimal. Do not write in any bold outlined office use box unless instructed to do so.

3. Write notes in the margins or blank spaces to clarify or explain entries.

4. Record all acreage entries to the nearest tenth acre. If whole acres are reported, enter a zero to the right of the decimal point.

Locating the Sample Operators

First, review your CAPI Objective Yield assignment list to identify the operations you have been assigned to contact for the survey. The CAPI assignment list has all of the contact information necessary for scheduling Form A interviews with respondents that reported soybean acreage on the June Agricultural Survey.

Your first contact attempt should be made by telephone. Try to complete for A during this contact. If that is not possible, try to set up an appointment to meet with the operator. If no contact by phone is possible, then there is a need to locate the farm operator.

After contacting the operator, introduce yourself and state that you are working with the National Association of State Departments of Agriculture (NASDA) for the U.S. Department of Agriculture (USDA). Explain that the USDA is conducting a yield survey and that this farm has been selected for the survey. Comment on the Objective Yield cover letter on the following page to the operator before the interview starts.

Producer Letter Example

United States Department of Agriculture
National Agricultural Statistics Service
[Your] Regional Field Office

[Date]

Dear Producer:

For more than 50 years, the Objective Yield Survey has played an integral part in U.S. crop production forecasts. USDA's National Agricultural Statistics Service (NASS) combines field measurements with farmer-reported survey data to publish monthly crop production estimates.

Information from the Objective Yield Survey will help you and other American farmers make informed business decisions on your operations.

The Objective Yield Survey will begin in late August for corn and soybeans. During this timeframe, a NASS representative will visit you and other selected producers to verify crop acreage reported on previous NASS surveys. This visit will take 15 to 25 minutes of your time. With your permission, we will then enter your field(s) at the end of each month during the growing season to collect plant and fruit counts and measurements. Our monthly follow-up visits, if required, will not require your time.

Thank you in advance for your support of our programs and [State] agriculture. If you have any questions or concerns, please contact me at (800) xxx-xxxx.

Sincerely,

[Director's Name]
Director, [Regional] Field Office
U.S. Department of Agriculture National Agricultural Statistics Service

Enclosure

Mailing Address · City, State Zip
(000) 111-1111 · (000) 111-1111 FAX · www.nass.usda.gov

USDA is an equal opportunity provider and employer.

The purpose of this survey is to forecast and estimate crop yields based on counts and measurements from sample plots in selected fields. The operator's cooperation will be helpful. A number of the operators have had fields in the Objective Yield Survey in past years, so this will not be new to them. For the new operators, a further explanation of the purpose as outlined earlier in this chapter may be necessary. Remember that the operator is not required by law to participate in the survey.

Interview the farm operator using a conversational tone and answer any questions they may have. If the farm operator is not at home, arrange to call back later. If the operator is not expected in time for you to make a call back before the survey period is concluded, you may obtain the information from some other informed person. In the event no informed person can be found to give the information, note this on the Form A. Do not enter a field to lay out a unit without permission **even if** you know the operator personally. When it is impossible to obtain an interview during the assigned month, continue to attempt to interview the operator through the next survey period.

Timing of Form A Completion and Setting Up Sample Plots

Once enumerator training been completed with your Enumerator Coach, you may begin attempting Form A enumeration. Once a Form A is complete and you have permission to enter the field, you may find and set up your sample plots. Do not take counts, unless the sample plot is being set up during the data collection period for Form B completion, stated below.

Turning in Completed Soybean Samples

You will be working from your home, but in close contact with a coach. Much of your work will be entered into CAPI or sent to the Lab. Thoroughly review your work for each sample before submitting it. Be sure that all required data are entered. Make notes explaining problems and unusual situations. Always enter the data into CAPI and submit it on the same day the work was done. Also, be sure to send the Form B pre-harvest and final harvest samples and the Form E post-harvest gleaning samples within 24 hours of collection.

When samples are shipped to the laboratory, verify that each sample is properly identified with a completed identification tag fastened to the outside of the bag record the complete 18-digit tracking number on the Form B that corresponds with the shipment. When you ship the post-harvest sample (Gleaning) to the National Laboratory, send the completed E-form within the same Tyvek.

Monthly Objective Yield Survey Program

The following table presents survey dates and forms to be completed.

Survey Date	Date Fieldwork Begins	Forms to be Completed
September 1	August 25	A & B[1]
October 1	September 24	B
November 1	October 25	B
After November 1	Just prior to final harvest	B
Post-harvest	Within 3 days after harvest	E[2]

[1] Forms A and B will be completed for all samples for September 1.
[2] Form E will be obtained for every fourth sample.

September 1 Survey

All Form As must be completed by the end of the September data collection period. This means you must complete all samples and any assigned samples before and during the September 1 survey. Make field observations and record counts and measurements on all Form B samples. A field visit may be necessary earlier than the survey work week to assure field observations are made before farmer harvest.

October 1 Survey

Field observations will be recorded on Form B for each sample in unharvested sample fields. Each unit judged to be in Stage 5 (Pods Brown, Almost Mature or Mature) will be harvested. A field visit may be necessary earlier than the survey work week to assure field observations are made before farmer harvest.

November 1 Survey

Field observations will be recorded on Form B for each sample in unharvested sample fields. Each unit judged to be in Stage 5 (Pods Brown, Almost Mature or Mature) will be harvested. A field visit may be necessary earlier than the survey work week to assure field observations are made before farmer harvest.

Final Pre-harvest

Field observations will be recorded on Form B for each sample in unharvested sample fields. Each unit judged to be in Stage 5 (Pods Brown, Almost Mature or Mature) will be harvested.

Sample fields to be harvested by the farmer after November 1 should be visited just ahead of harvest in order to complete a Form B and collect samples.

As farmer harvest of the sample field nears, maintain close contact with the operator. This is extremely important since the final preharvest observations should be made as close to farmer harvest as possible.

Post-harvest Gleanings Survey

Form E must be completed within 3 days following farmer harvest. It is important to glean the sample units immediately following harvest to avoid the risk of gleanings being disturbed by birds and rodents, or destroyed by post-harvest tillage operations.

There may be a few instances where extremely bad weather immediately after harvest makes the field inaccessible for a period of time. Close contact should be maintained with the operator to determine when you can enter the field.

Chapter 2 – Terms & Definitions

General

Enumerators working on the Soybean Objective Yield Survey should be familiar with the definitions of the terms listed below. To gain the most benefit from training, enumerators should review the definitions of these terms.

Common Objective Yield Survey Terms

Enumerator	Objective Yield Sample
Field	Operator
June Agricultural Survey	Sample Field
Lost Sample	Starting Corner
NASDA Coach	Survey Statistician
NASDA Manager	Unit

Enumerator Coach – The Enumerator Coach is responsible for survey field activity of assigned enumerators. They have authority to switch assignments, hire and evaluate enumerators, etc. in coordination with the Survey Statistician. Enumerator Coaches are also responsible for assisting enumerators with quality control and technical questions related to surveys assigned to enumerators.

Enumerator Manager – The Enumerator Manager is responsible for leading human resources functions and survey management for a team of coaches and enumerators in an assigned region.

June Agricultural Survey – An acreage survey conducted by NASS in early June. The sample fields in the Objective Yield Survey are selected from this survey.

Narrow Row Soybeans – Soybeans planted with a planter setting of 18 inches or less between rows.

Objective Yield Sample – Consists of two units which are always identified as Unit l and Unit 2. Each sample is identified by a unique number.

Survey Statistician – Statistician charged with responsibility of a survey - including enumerator training materials, office edit and processing of objective yield data, and interpreting survey results.

Chapter 3 – Form A Interview

General

There are several purposes of the Initial Interview (Form A). Form A data is used to update the soybean acreage intended for harvest since the June Agricultural Survey. The Form A is used to identify the sample field for the Objective Yield Sample, determine acres to be excluded when locating the sample units, obtain permission to locate sample units, obtain intentions to use pesticide(s) with organophosphorus content, and for some states - determine if the sample field is irrigated.

Form A Data Collection

Form A will be completed for **all** samples during the **September 1** survey.

Names and addresses of the farm operators are provided in the CAPI assignment list.

The Form A interview is designed to obtain changes in acreage of soybeans to be harvested for beans. If all or a portion of the original operation has had a change of operators, the Form A acreage still refers to the land area enumerated during the June Agricultural Survey. If this occurs, the new operator will be interviewed to obtain acreage changes. If the sample field is operated by a new person, update all the necessary information on the sample field kit envelope.

When an operation is selected for more than one sample, it is not necessary to complete all items on all initial interview forms during the interview. To avoid asking the operator duplicate questions during the initial interview, complete forms as follows:

- Form A, Items 1 & 2 – one for each operator
- Form A, Items 3-12 – one for each sample field

This provides the necessary initial interview data regardless of how many samples there are in the sample field. As soon as possible after the interview is over, copy data to Form A for additional samples as required.

Handling Operations with Multiple Samples

When an operation is selected for more than one sample, there will be a separate Kit Envelope and set of forms for each sample. Each labeled Form A for that operation will list all samples they are selected for in Table A. The first row in Table A will list the sample number that Form A is for, followed by any other samples the operation is selected for in the rows below it.

When completing the Form A for operations with multiple samples, Item 1 (soybean acres planted) and Item 2 (soybean acres to be harvested for beans) refer to the whole operation and will be the same on each Form A. These questions only need to be asked once and can be copied over to subsequent Form A's for the operation.

Complete a row in Table A for each assigned sample.

The remaining questions of the Form A apply to the sampled field, and information may differ for each sample. Therefore, it is necessary to ask these questions for each sample field selected and be recorded on their respective Form A.

For smooth interviews and to reduce respondent burden, it is important to review your assigned samples and be aware of operations with multiple samples.

When an operation has multiple samples, Table A will list all selected samples for the operation. A cardinal direction will be assigned to each sample number in order to assign the samples to the operation's soybean fields. Identify the sampled field for each sample number using the cardinal direction indicator. If the operation has more than one soybean field, there should only be one sample placed per field until there are no more fields available. For example, if they are selected for two samples and have three soybean fields, use the direction indicator to assign the samples to two soybean fields. If they are selected for three samples, but only have two soybean fields, use the direction indicator to assign the first two samples, and place the third sample in the same field as the first sample.

Most operations selected for the objective yield survey will only have one sample. Please discuss with the survey statistician for additional guidance is needed on operations with more than one sample.

All acreage recorded on the Form A questionnaire must be recorded to the nearest tenth of an acre (*single decimal place*).

For example:

VALUE REPORTED	**ENTER VALUE AS**
25	25.0
25.25	25.3 (When rounding a 5, always round up.)
25.12	25.1
25.75	25.8 (When rounding a 5, always round up.)
25.68	25.7
None	(–)

All States

You will use Form A for the initial interview of all soybean growers selected. Items 1 and 2 pertain to reported soybean acreage planted or to be harvested for beans on the entire operation. The remainder of the questions on Form A pertain to the sample field.

The names and addresses of the selected operations you are to contact are provided in the CAPI assignment list and supply packing list/sample listing. Instructions for copying the information to the respective kit envelopes was outlined in Chapter 1 – Sample Field Kits. It is very important that you verify this information in the Form A interview. Any changes in name or address such as spelling, box or route number, ZIP code, etc., should be noted on the field kit envelope and on the Form A data submission.

If the operation is known by a farm, ranch or business name, this should also be noted. Listed below are examples of common corrections which should be made:

Mayes	~~Hayes~~, Arthur Rt. 1 Red Oakes, YS 46725	Cody, John Rt. 1, Box 608 ~~Pinetown~~, YS 54670 ***Bear Poplar, YS 54690***
	Sanders, Tom and ~~Rob~~ ***Bob*** No. 2 Cove Road Jamesville, YS 46652	Flying J. Ranch MGR ~~Merle King~~ ***Bob Gray*** Rt. 1 Box 608 Edenton, YS 46647
SOLD	*Ridgeview Farms, Inc.* ~~Twin Ranch~~ MGR Tony Mills Evergreen, YS 46104	Paul Gum R.R. 5 Elkin, YS 46520 Farm name - Hill High ~~Ranch~~ ***Farm***

The operator may have changed the acreage of soybeans to be planted since intentions were reported during the June Agricultural Survey. This will mean that Item 2 will differ from Item 1. Never change Item 1, but write notes so that the office staff understands the situation.

Example 1: The operator does not currently operate the entire acreage reported as soybeans in June. For example, part or all of the land was sold, leased, or rented to someone else.

Procedures:

1. Include the land that has changed hands in with the original operator's acreage.
2. Select the sample field(s) based on the total acres reported in June. If the sample field(s) is controlled by the original operator, obtain permission to enter the field. If the sample field is now operated by a different person, you will need to contact this new operator for permission.
3. Obtain the name, address and phone number of the new operator regardless of whether you need to make contact on this survey.

Example 2: The operator currently operates more land than reported in June. The additional land, bought or leased, may have soybeans planted on it already.

Procedures:

1. Exclude this new acreage.
2. Select the sample field(s) and proceed with interview.

Example 3: The operator still operates the land reported in June and has not acquired additional acreage. The difference between Item 1 and Item 2 is due to:

1. A respondent or enumerator error on the June Agricultural survey
2. The actual planted acres changed from the intentions reported in June.

Questionnaire Procedures

Procedures:

1. Record the date on the front page of the Form A.
2. Do not change June Planted Acres printed on the form, even if you determined the figure is incorrect. Write notes explaining any difference.

	JUNE PLANTED ACRES
Earlier this season, the number of soybean acres you planted or intended to plant for all purposes on all the land you operate was:.....	.____
	DO NOT CHANGE

The total acres of soybeans planted or intended to be planted on the entire operation was reported on the June Agricultural Survey and has been printed on the questionnaire above Item 1.

DO NOT CHANGE ENTRY IN ITEM 1 (JUNE PLANTED ACRES) OR PRE-PRINTED ENTRIES IN TABLE A.

1. Now I want to update this soybean acreage information. What is the current number of soybean acres you planted for all purposes on all the land you operate	**ACRES**	112
2. What are the total acres of soybeans to be harvested for beans on all the land you operate? (If total equals zero, end interview).....	**ACRES**	102

Item 1 is asked to verify or get an updated number of soybean acres planted for all purposes on the entire operation. Record the data as reported in the interview. If the number of acres varies from the June Planted Acres printed in the cell above, provide a comment explaining the difference.

Item 2 is asked to determine how many of their planted acres will be harvested for beans. For the purpose of the objective yield survey, we will be interested in the acres that will be harvested for beans. If the total equals zero, i.e., they will not be harvesting any of their soybeans for beans, conclude the interview, record respondent name, enumerator and supervisor IDs, and submit the record in CAPI using status code 13- No Soybean for Harvest as Beans on Entire Farm on Form A for all samples for the corresponding respondent. If the respondent has soybean acreage to be harvested for beans, proceed with the interview according to the remaining instructions.

Now, I need to identify one (or more) of your soybean field(s) on the operation and get their acreage.

Notes:

- For the Sample Field(s) on the operation, complete Table A for the soybean field(s) based off the cardinal directions indicated on the label (e.g., northernmost field)

To verify, ask: *"What are the total farm acres of soybeans planted or to be planted on the land you operate?"*

This question will serve as an introduction to Table A. The reason for mapping the sample fields is to have a way of finding the sample field(s). Complete the table numbering the fields from lowest to highest sample number.

Table A

SAMPLE NUMBER and DIRECTION	**TOTAL ACRES IN FIELD**	**ACRES in USE or CROPS OTHER THAN SOYBEANS to be HARVESTED for BEANS** (*For example: silage, ditches, fence rows, waterways, roads, other crops, etc.*)		**LOCATION DESCRIPTION/ INTERSECTION OF FIELD** (E.g., landmarks, features, street intersections)
		USE	**ACRES**	
1	**2**	**3**	**4**	**5**
	. ____		. ____	
	. ____		. ____	
	. ____		. ____	
	. ____		. ____	
	. ____		. ____	
	. ____		. ____	
	. ____		. ____	
	. ____		. ____	

Sketch the sampled field on the Objective Yield Grid Map.

The purpose of the grid map is to help locate the soybean sample. You will want to start by locating the homestead in the grid. The home location should be in the middle of the grid. Have the operator describe any roads, landmarks, and natural boundaries that will help you identify and keep track of the fields. Use the grid to sketch the roads, landmarks, etc... Use of a county highway map in conjunction with the grid map may also help you as you and the operator identify the sampled field. Scale is not important; however, the relative location is critical.

If you have problems drawing the grid map because the farms fields are spread out over many counties, consult your coach for instructions.

Sample Number and Direction

The samples will be labeled with a letter that represents a cardinal direction.
N = North
NE = Northeast
E = East
SE = Southeast
S = South
SW = Southwest
W = West
NW = Northwest

If a sample is marked with the direction "N" or North, have the operator identify their northernmost field. If two fields are the same distance in the labeled direction, select the field furthest clockwise. If there are two fields that are the same distance North, select the field furthest to the East for the sample. Similarly, if the selected direction is West, select the field that is furthest North.

Select one Field per sample until there are no more fields, then go back to the first field and continue the same process until there are no more samples.

Required entries in Table A, Columns 2-5

For each field, record the data required in Table A:

1. Total Acres in Field (Column 2):
    - Record all acreage in the field. Be sure to match the sample number assigned on the grid to the sample number in Table A.
2. Acres in Other Uses (Columns 3 and 4):
    - Used to indicate any areas in the field from which soybeans will not be harvested. If the field was completely tilled and not replanted to soybeans, the acreage would be recorded in Columns 3 and 4.
3. Location Description/Intersection of Field (Column 5):
    - Record landmarks, features, and street or road intersections to help identify where the field is located.

The direction variable will determine in which field the sample will be laid out. One sample is selected for one field. There will only be one sample per field listed in Table A, unless there are fewer fields in the operation then the number of samples selected for the operation. After selecting the sample field, you will complete the interview by asking Items 3-8 for each sample field using Form A.

The remaining questions on Form A refer specifically to this field assigned to the sample number identified on the front page of the Form A.

If the sample field is already harvested, do not select an alternate field.

All questions below apply to this SAMPLE.

3. For the Sample Field, subtract Column 4 from Column 2 for the total acres of soybeans to be harvested for beans. Report these acres here: ..... **ACRES** 103 ._____

Copy the sample field acres to be harvested for beans in the appropriate places in Item 3. Make sure the farmer understands which field is the sample field. It may be necessary to point out the field on the ground or describe its location in terms of other physical features. In all cases, the number of acres entered in Item 3 should agree with the acreage for that same field as entered in Table A.

4. What was the row width (planter setting) for the soybeans in the sample field? ..... **INCHES** 110

Ask the operator what the row width setting was on the equipment used to plant the field. Use this information to determine if the field is a narrow row field. If the operator reports the field was planted in twin rows record the measurement from center to center of each twin row as the planter row width setting.

NOTE: If the sample is located in a field of **broadcast seeded** soybeans enter **999.9** in Item 4.

5. On what date was planting completed in this soybean field? **MM DD** 107

Record the actual date planting was completed in the sample field. If the sample field has been replanted, record the date the field was replanted. If the farmer does not remember exactly, use their best estimate. Use the MMDD format. (Example: April 29 = 0429)

Kansas and Nebraska Only for Item 6

6. Has this field been (or will it be) irrigated? 1 ☐ Yes 3 ☐ No 2 ☐ Don't Know **CODE** 114

Kansas and Nebraska enumerators need to determine if the operator has irrigated, or plans to irrigate, any portion of the sample field. For those states only, enter code “1" for yes if water has been or will be applied by irrigation to all or part of this field at least one time. A code 2, don’t know, should only be used if the farmer is unavailable for an interview.

Arkansas Only for Item 7

7. What Maturity Group are the soybeans in the selected field?..... | 2= Group II
3= Group III
4= Group IV
5= Group V | 6= Group VI
7= Group VII
8= Don't Know | ..... **CODE** 108

Item 7 is to be asked in **ARKANSAS ONLY**. Typically, maturity groups are indicated using roman numerals. The lower the number a maturity group is, the shorter the length of time required for reaching the R1 (beginning bloom) stage of reproductive maturity. Maturity group numbers increase as a seed variety's number of days to reach R1 stage of maturity increases.

Record the numeric code of the maturity group of the soybeans planted in the selected field. If the farmer is unable to tell you the exact maturity group of the soybeans in the selected field, probe for some information. Notes as to whether the field is an "early maturing" or "full season" group are helpful.

8. With your permission I will go out to the field and mark off two small plots to be used in making plant and fruit counts. I will return to the plots each month until harvest to make counts and measurements, and harvest and weigh a few beans. Would that be all right?

☐ Yes - Continue. (Inform respondent what day/approximate time you intend mark off two small plots to be used in making plant and fruit counts)

☐ No - Conclude interview, enter data into CAPI, and go to item 10.

The purpose of Item 8 is to obtain and record the farmer's cooperation to let you make the pre-harvest objective yield counts and the post-harvest gleanings. Use a conversational tone in explaining your monthly visits to the field and answer any questions which the farmer may have about the field work.

Do not enter sample fields without permission. Check the appropriate YES or NO response.

9. Have you or will you apply pesticides with organophosphorus content to the sample field?

☐ Yes ☐ No ☐ Don't Know

If yes, enter latest application date _____ and name of pesticide _____

The purpose of Item 9 is to check if the operator has applied or intends to apply pesticides with organophosphorus content to the sample field. If yes, be certain to copy the information to the sample kit envelope and the Form B. Check back with the operator during future visits regardless of the answer given for Item 9. The operator may need to spray if an infestation occurs.

NOTE: If this is a gleaning sample, tell the operator,
"After harvest, I will also lay out two small plots to determine harvest loss."

For post-harvest gleaning samples, tell the operator you would like to glean the sample fields to determine harvest loss. The Form E will be completed within 3 days of farmer harvest if permission is granted. Ask the operator to inform you when they intend to harvest the field and/or perform any post-harvest tillage work.

If the response is a refusal, conclude the interview, submit Forms A & B via CAPI as a refusal and the survey statistician will update Form E status for the record. Hold all paper survey forms for all samples through the end of the survey year so they will be available for reference if the survey statistician has questions about a sample.

11. Respondent Name: _____

PLEASE CHECK THE FOLLOWING:		
• Review the form for completeness • Sign name • On the kit envelope, record operator's Telephone number Expected harvest date Pesticide intentions (Item 8), and	**Enumerator Number**	190
	Supervisor Number	191
	Evaluation	193

12. Enumerator Name: _____ **STATUS CODE** 180

Enter the respondent's name and thank the respondent for cooperating.

It is important that you maintain contact with the operator so you will know when the sample field will be harvested. This knowledge on harvest will enable you to obtain the final pre-harvest observations as near harvest as possible, and to obtain post-harvest gleanings and interview within three days after harvest.

Answer all questions the farm operator has about the role of the National Agricultural Statistics Service. If the operator is interested in obtaining Soybean production estimates, enter the e-mail address in the space provided. The State office will see that the information is sent. The operator can access the full report at www.nass.usda.gov/results.

You should leave the farm operator with all questions answered and in a cooperative mood. Remember, the operator may be contacted again for another survey and your actions will greatly influence a willingness to cooperate.

Review the form in detail to be sure all items are complete and sign your name. Enter your ID number and your supervisor's ID number in the boxes provided.

Form A Completion Checklist

Follow the checklist below after you have interviewed the farmer but before you make the field counts:

1. If an operation has more than one field is sampled, copy the data from Items 1-2, including Table A information to Form A for all other samples. The remainder of the questions on Form A pertain to the sample field only.

2. Copy the information regarding pesticide application in Items 9 to the kit envelope and Form B.

3. Check any notes you have made on the forms to make sure they are clear. If it was impossible to obtain Form A, note this on the face of the form and on the front of the kit envelope. Plan to interview the operator during the next survey period to obtain permission to lay out the sample units and obtain the cropping practices data.

4. Review Form A for completeness. Enter the data into the iPad. Please hold all paper survey forms for all samples through the end of the survey year so they will be available for reference if the survey statistician has questions about a sample.

5. If the operator will not cooperate and provide an interview, you should still record the date and times that you attempted the interview.

Soybean Form A

FORM A SOYBEAN YIELD SURVEY - 20XX

OMB No.: 0535-0088
Approval Expires: 6/30/20XX
Project Code: 102
Survey ID: 1965

USDA United States Department of Agriculture

NATIONAL AGRICULTURAL STATISTICS SERVICE

Please make corrections to name, address and ZIP Code, if necessary. Date: _____

The information you provide will be used for statistical purposes only. Your response will be kept confidential and any person who willfully discloses ANY identifiable information about you or your operation is subject to a jail term, a fine, or both. This survey is conducted in accordance with the Confidential Information Protection and Statistical Efficiency Act of 2018, Title III of Pub. L. No. 115-435, codified in 44 U.S.C. Ch. 35 and other applicable Federal laws. For more information on how we protect your information please visit: https://www.nass.usda.gov/confidentiality. Response to this survey is voluntary.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB number is 0535-0088. The time required to complete this information collection is estimated to average 20 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Earlier this season you gave a representative from our office information about the soybean acreage on your farming operation. We are now collecting information to help determine soybean production in (*Your State*) and the United States.

Soybean Form A (*continued*)

2

JUNE PLANTED ACRES

Earlier this season, the number of soybean acres you planted or intended to plant for all purposes on all the land you operate was:..... .___

DO NOT CHANGE

1. Now I want to update this soybean acreage information.What is the current number of soybean acres you planted for all purposes on all the land you operate?..... **ACRES** 112 .___
2. What are the total acres of soybeans to be harvested for beans on all the land you operate? (If total equals zero, end interview.)..... **ACRES** 102 .___

Now, I need to identify one (or more) of your soybean field(s) on the operation and get their acreage.

Notes:

- For the Sample Field(s) on the operation, complete Table A for the soybean field(s) based off the cardinal directions indicated on the label (e.g., northern most field)

Table A

SAMPLE NUMBER AND DIRECTION	TOTAL ACRES IN FIELD	ACRES in USE or CROPS OTHER THAN SOYBEANS to be HARVESTED for BEANS (*For example: ditches, fence rows, waterways, roads, other crops, etc.*)		LOCATION DESCRIPTION/ INTERSECTION OF FIELD (E.g., landmarks, features, street intersections)
		USE	ACRES	
1	2	3	4	5
	. ___		. ___	
	. ___		. ___	
	. ___		. ___	
	. ___		. ___	
	. ___		. ___	
	. ___		. ___	

Soybean Form A (*continued*)

3

FORM A: SOYBEANS - Continued

All questions below apply to this SAMPLE.

3. For the Sample Field, subtract Column 4 from Column 2 for the total acres of soybeans harvested for beans. Report these acres here:..... **ACRES** 103 ._____

4. What was the row width (planter setting) for the soybeans in the sample field?..... **INCHES** 110 ._____

5. On what date was planting completed in this soybean field?..... **MM DD** 107

Kansas and Nebraska Only for Item 6

6. Has this field been (or will it be) irrigated? 1 ☐ Yes 3 ☐ No 2 ☐ Don't Know **CODE** 114

Arkansas Only for Item 7

7. What Maturity Group are the soybeans in the selected field?..... | 2=Group II | 3=Group III | 4=Group IV | 5=Group V | 6=Group VI | 7=Group VII | 8=Don't Know | ..... **CODE** 108

8. With your permission I will go out to the field and mark off two small plots to be used in making plant and fruit counts. I will return to the plots each month until harvest to make counts and measurements, and harvest and weigh a few beans. Would that be all right?

☐ Yes - Continue. (Inform respondent what day/approximate time you intend to mark off two small plots to be used in making plant and fruit counts.)

☐ No - Conclude interview, enter data in to CAPI, and then go to Item 10. Return all forms after item 10.

9. Have you or will you apply pesticides with organophosphorus content to the sample field?

☐ Yes ☐ No ☐ Don't Know

If yes, enter latest application date _____ and name of pesticide _____.

NOTE: If this is a gleaning sample, tell the operator,
"After harvest, I will also lay out two small plots to determine harvest loss."

10. Respondent Name: _____

PLEASE CHECK THE FOLLOWING:

- Review the form for completeness
- Sign name
- On the kit envelope, record operator's
  - Telephone number.
  - Expected harvest date.
  - Pesticide intentions (Item 9).

Enumerator Number 190

Supervisor Number 191

Evaluation 193

11. Enumerator Name: _____

STATUS CODE 180

Soybean Form A (*continued*)

4

NOTES:

Operator Email:

9929	9917 Check to receive results by email ☐

Operator Phone:

9918 ( ) _____	check if cell phone ☐

Operation Email: (if different from above)

9937	9920 Check to receive results by email ☐

Operation Phone:

9936 ( ) _____	check if cell phone ☐

Respondent Name:

Respondent Phone (if different from above)

9912 _____	9911 ( ) _____	check if cell phone ☐	9910 MM DD YY Date: __ __ __ __ __ __

This completes the survey.

Chapter 4 – Unit Location

General

Two units are laid out for each sample at the first field visit. These units will be used each month during the growing season to make plant and fruit counts. The units are located and laid out according to specific procedures to assure randomness. Enter the field at the first corner you reach when approaching the field. If the field has no definite corners, enter the field from the point which is most accessible by vehicle.

However, your starting corner must allow an opportunity for the units to fall anywhere in the sample field boundaries. If the field has been selected for more than one sample, the second (or third) closest corner to the starting corner will be used as the starting corner for the second (or third) sample number.

Unit Location and Layout

The number of rows for locating Unit 1 and Unit 2 are printed on the Unit Location Sheet. The Unit Location Sheet is used in replacement of the pre-printed row and pace counts on the labels previously used on Objective Yield forms prior to 2025.

Each Sample Field Kit should have 1 Unit Location Sheet in the packet of forms included for enumerating the sample. The opposite side of the Unit Location Sheet has the Objective Yield Grid Map printed on it, which will be used for marking sample unit locations in the field sketch after the sample units have been laid out.

The row and pace count, on the Unit Location Sheet are randomly generated number as described previously in the How Rows and Paces are Determined for Objective Yield section in this chapter. The Unit Location Sheet has 4 acreage ranges listed along the top (*less than 10 acres, 10 to 19.9 acres, 20 to 39.9 acres, and greater than or equal to 40 acres*). The unit locations of the sample are dependent on which range the acreage of the field falls within, as depicted below:

Soybean Unit Location Row/Pace Counts

If Field =	< 10 Acres	10-19.9 Acres	20-39.9 Acres	>=40 Acres
Unit 1				
Rows=	55	120	144	176
Paces=	147	173	142	284
Unit 2				
Rows=	85	150	174	206
Paces=	177	203	172	314

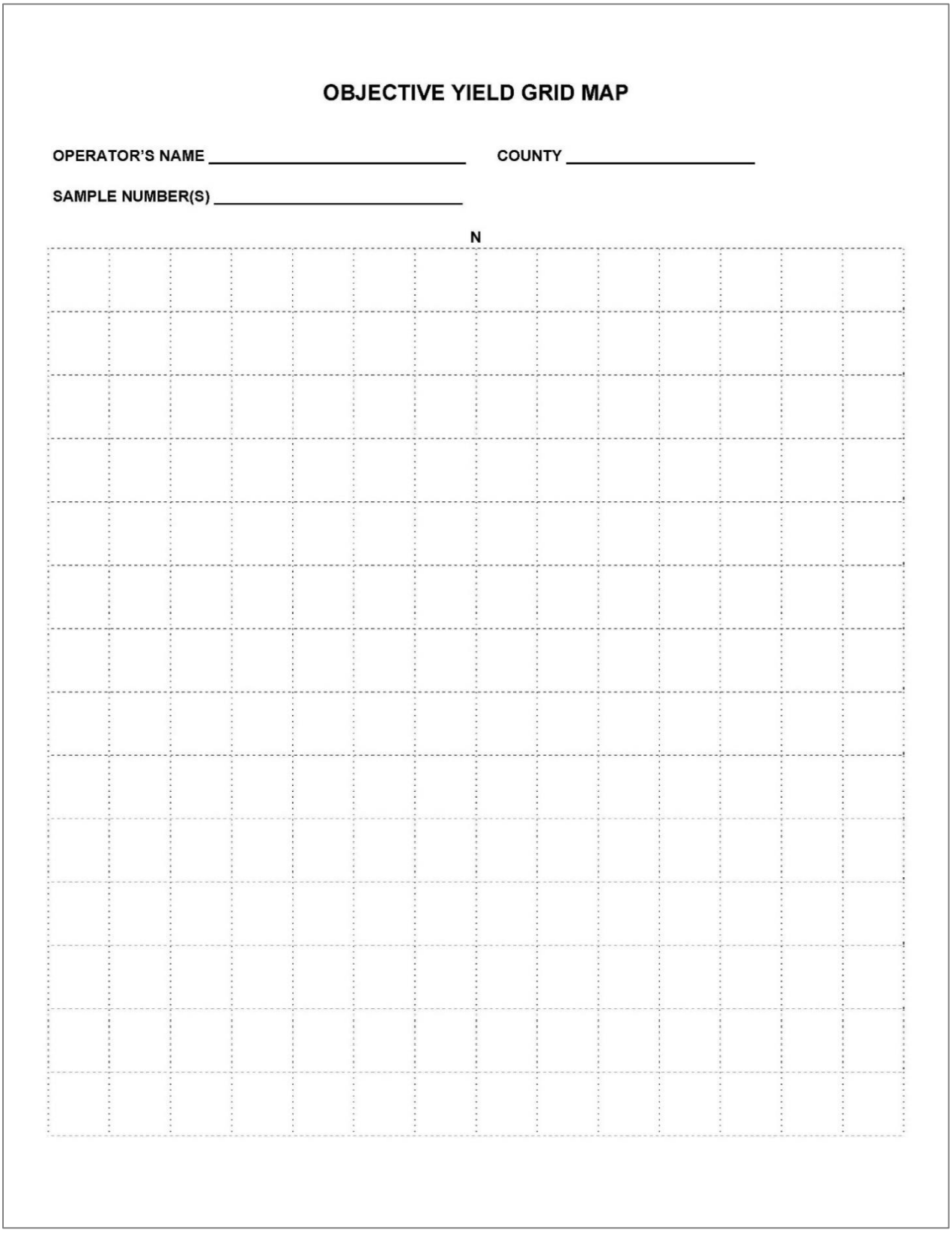
REMINDER: Unit 1 row and pace counts +30= Unit 2 location. This information is helpful to remember when locating field sample units.

Soybean Unit Location Sheet

Soybean Unit Location Row/Pace Counts

If Field =	< 10 Acres	10-19.9 Acres	20-39.9 Acres	>= 40 Acres
Unit 1				
Rows=	55	120	144	176
Paces=	147	173	142	284
Unit 2				
Rows=	85	150	174	206
Paces=	177	203	172	314

Objective Yield Grid Map



Unit 1 will be laid out before Unit 2. After the initial layout, the location of the rows used to determine sample maturity will be used to determine which unit to work first.

The following outlines procedures for locating and laying out sample units.

Locating Unit 1

The following steps outline procedures for locating and laying out sample units.

Step 1: Mark the starting corner or point of entry so it will be clearly visible on later visits. Tie a piece of red plastic flagging ribbon to a fence or some nearby object or drive a large stake in the ground and attach the ribbon. Make a note of the location and type of marking used on the kit envelope field sketch.

Step 2: Walk along the end of the crop rows until you have counted the number of crop rows indicated for Unit 1. This will be Row 1 of Unit 1. Tie a piece of flagging ribbon on the first plant in Row 1. This will help you find the same row on subsequent visits to the sample field. The next row in the direction of travel will be Row 2.

If the sample field has been planted in narrow rows (four row space measurement less than or equal to 5 feet), substitute paces for rows when counting along the edge of the field.

Step 3: Walk the required number of paces into the field between Row 1 and Row 2. Start your first pace about one and one half feet outside the plowed end of Row 1. This starting point applies even if plants are not growing to the plowed end of Row 1.

If you cross any of the area deducted as "Other Uses" on the Form A (*Table A, Columns 3 & 4*) while you are counting rows or paces into the field, stop counting at the start of each such area and resume counting at the other side. However, any blank or unplanted areas in the field that were not deducted on Form A should be included in the row and pace count (see examples in the *Special Problems in Laying Out Units* instructions later in this chapter).

Step 4: After you have taken the last of the required paces, lay the dowel stick down so that it touches the toe of your shoe, across Row 1 and Row 2, and at right angles (perpendicular) to the direction of the rows. Lay out Unit 1 in the direction of your travel when you counted your last pace.

Step 5: Anchor the zero end of the 50-foot tape just beyond the dowel stick and directly alongside the plants in Row 1. Work from outside of the unit to avoid damaging the plants. The zero end of the tape must be anchored firmly and close to the ground so it will not move when the measurements are being made. Mark the sample number on a florist stake and insert it at the anchor point.

A 4 to 5-foot long bamboo stick (or something similar) with a length of flagging ribbon tied near to the top of it should be used to mark the general location of each unit.

Step 6: In Row 1 place a starting florist stake, marked "U1-R1", exactly 5 feet from the anchor point, making sure that the measuring tape is pulled tight and is flat on the ground. The florist stake should be beside the row about 2 inches from the base of the plants.

Step 7: Working from outside the unit, carefully insert the soybean frame into Row 1 with the inside edge of the first tine of the double-tined end of the frame touching the florist stake just placed beside Row 1. The 3 tines should extend through the plants with the back of the frame parallel to the row. Be sure that the inside edge of the tine is touching the florist stake.

If the point of any tine strikes a soybean plant, slide the soybean frame toward the starting point just far enough for the point of the tine to clear the plant.

Step 8: Keeping the frame stationary, move the starting stake from beside the row and insert it into the row. Then insert 2 more florist stakes in the row against the long side of the other 2 tines so that the stakes will separate the plants in the unit from those outside.

Step 9: Tie 4-feet long pieces of flagging ribbon near the tops of the first and last plants of the 3-foot row section being careful not to damage any blooms or pods.

Step 10: In Row 2, anchor the 50-foot tape just beyond the dowel stick alongside the plants in Row 2. DO NOT place a stake at this anchor point.

Step 11: In Row 2 place a starting florist stake, marked "U1-R2", exactly 5 feet from the anchor point making sure that the measuring tape is pulled tight and is flat on the ground. The florist stake should be beside the row about 2 inches from the base of the plants.

Step 12: Working from outside the unit, carefully insert the soybean frame into Row 2 with the inside edge of the first tine of the double-tined end of the frame touching the florist stake just placed beside Row 2. The 3 tines should extend through the plants with the back of the frame parallel to the row. Be sure that the inside edge of the tine is touching the florist stake.

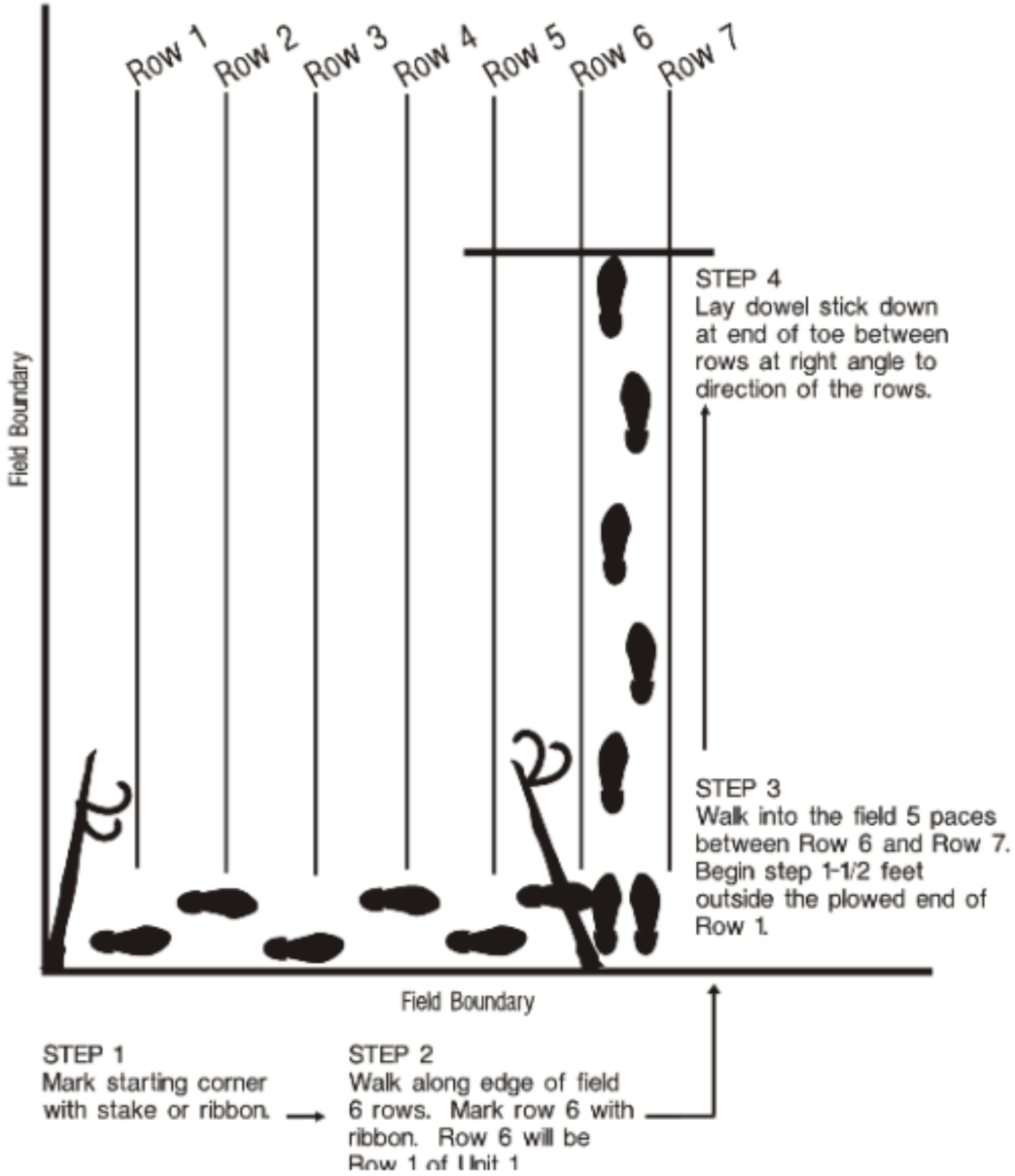
If the point of any tine strikes a soybean plant, slide the soybean frame toward the starting point just far enough for the point of the tine to clear the plant.

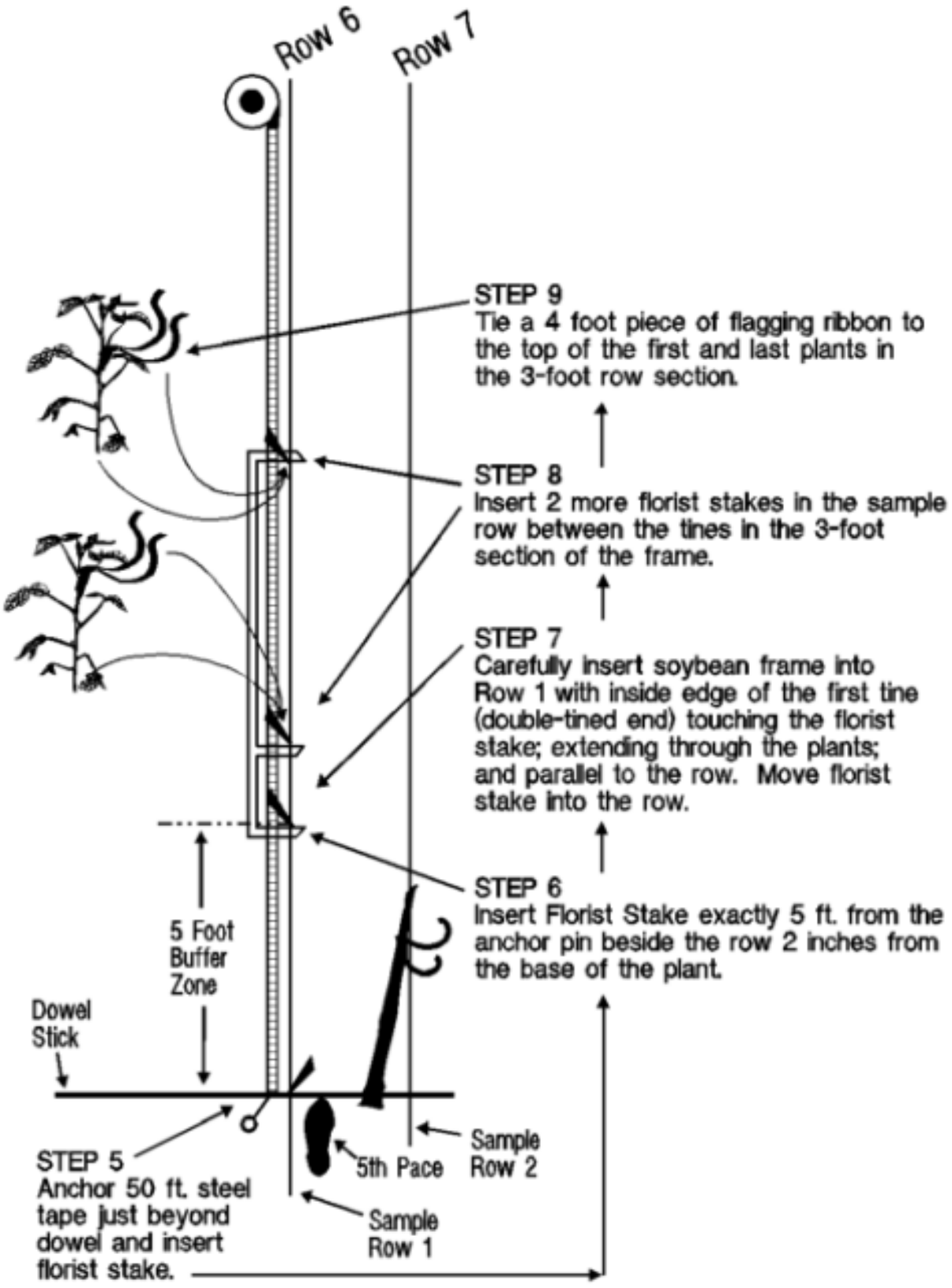
Step 13: Keeping the frame stationary, move the starting stake from beside the row and insert it into the row. Then insert 2 more florist stakes in the row against the long side of the other 2 tines so that the stakes will separate the plants in the unit from those outside.

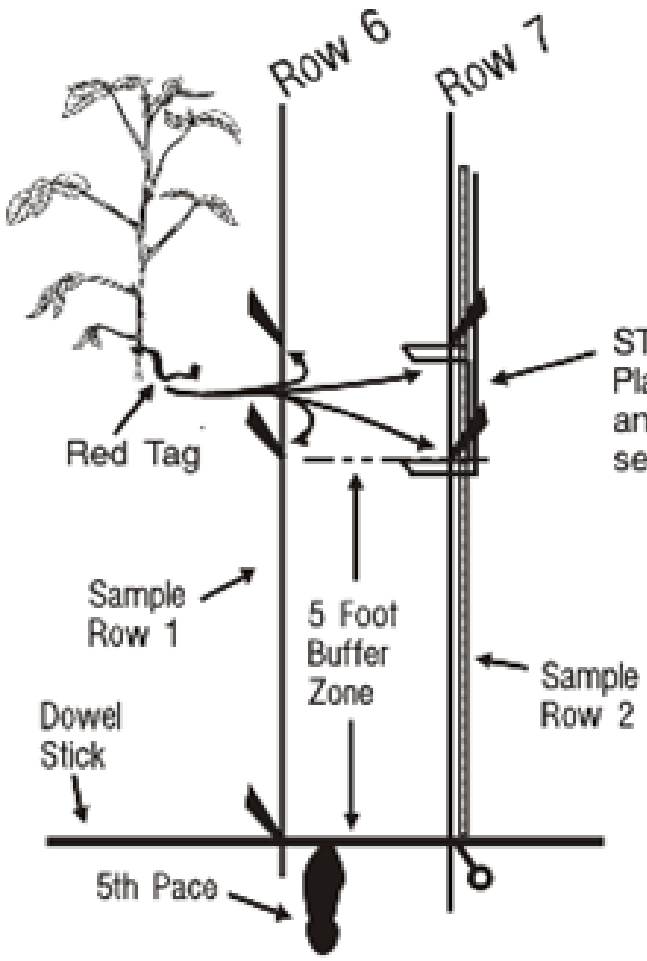
Step 14: Tie 4-foot pieces of flagging ribbon near the tops of the first and last plants of the 3-foot row section being careful not to damage any blooms or pods.

Step 15: Place a red plastic tag around the base of the first and last plant in each of the 6-inch sections of Row 1 and Row 2.

Example: Unit 1 located 6 rows along the edge of the field and 5 paces into the field:




Row 6
Row 7
STEP 9
Tie a 4 foot piece of flagging ribbon to the top of the first and last plants in the 3-foot row section.
STEP 8
Insert 2 more florist stakes in the sample row between the tines in the 3-foot section of the frame.
STEP 7
Carefully insert soybean frame into Row 1 with inside edge of the first tine (double-tined end) touching the florist stake; extending through the plants; and parallel to the row. Move florist stake into the row.
STEP 6
Insert Florist Stake exactly 5 ft. from the anchor pin beside the row 2 inches from the base of the plant.
5 Foot Buffer Zone
Dowel Stick
STEP 5
Anchor 50 ft. steel tape just beyond dowel and insert florist stake.
5th Pace
Sample Row 2
Sample Row 1



STEP 15
Place a red plastic tag around the first and last plant in each of the 6- inch sections of Row 1 and Row 2.

Locating Unit 2

After completing the Form B observations in Unit 1, start from the row for Unit 1 and walk 30 more rows in the same direction that you were travelling in when you located Unit 1. Then turn and walk into the field for the number of paces from Unit 1 PLUS 30 more paces. At that spot, locate, lay out and mark Unit 2. For example, if Unit 1 was 50 paces into the field, Unit 2 should be 80 paces into the field (50+30). Remember to stop counting paces when walking through a deducted area (refer to Table A on Form A)

The same steps apply in laying out Unit 2 as were used in laying out Unit 1 except florist stakes will be marked U2-R1 and U2-R2.

Preparing Sketch of Sample Unit Locations

When the work for Unit 2 is completed, a field sketch as large and detailed as possible should be prepared on the Objective Yield Grid Map or sample field kit envelope so that the starting corner and unit locations can be found on later visits. For samples where the bounce-back technique has been used, indicate the direction of the units, so you won't walk through them on subsequent visits.

The sample unit sketch does not need to be of artistic quality, but should never be ignored. This sketch will not only be useful to you, but it will be extremely helpful in the event someone else has to perform fieldwork on the sample field in your absence at any point in the survey year.

Broadcast Seeded Field Procedures

When no rows can be distinguished, substitute paces for rows when locating the units. This procedure should be used for both pre-harvest and post-harvest visits. The soybean frame will be used to mark off a 36” x 36” square unit and a 36" x 6" adjacent count unit. Follow the procedures outlined in Locating Unit 1, Steps 1 through 3 in this chapter, except substitute paces for rows.

Step 4: Insert a florist stake marked "Sample _____" so that it touches the toe of your shoe at the dowel stick after you have taken the last of the required paces.

Step 5: Anchor the zero end of the 50-foot tape immediately beyond the florist stake.

Step 6: Insert a starting florist stake labeled with the unit number exactly 5 feet beyond the anchor stake.

Step 7: Place the soybean frame on the ground with the double tined end touching the florist stake and the single tined end away from you.

Step 8: Insert 2 more florist stakes against the long side of the other 2 tines.

Step 9: In the direction traveled along the edge of the field, use the soybean frame to lay out the 4 sides of the unit -- a 36 inch by 36 inch area with an adjacent 36 inch by 6 inch area. Carefully place each stake so the outside edges mark the corners.

Step 10: As a check, in the 36-inch square area make sure the diagonal measurements are equal. Both diagonal measurements should be 50.9 inches. If not, it will be necessary to move 1 or more stakes to make the area perfectly square.

Step 11: Divide the unit in half (18 inches), marking it off with florist stakes and flagging ribbon. See the diagram on the next page.

Step 12: Mark off the 6" area with flagging ribbon.

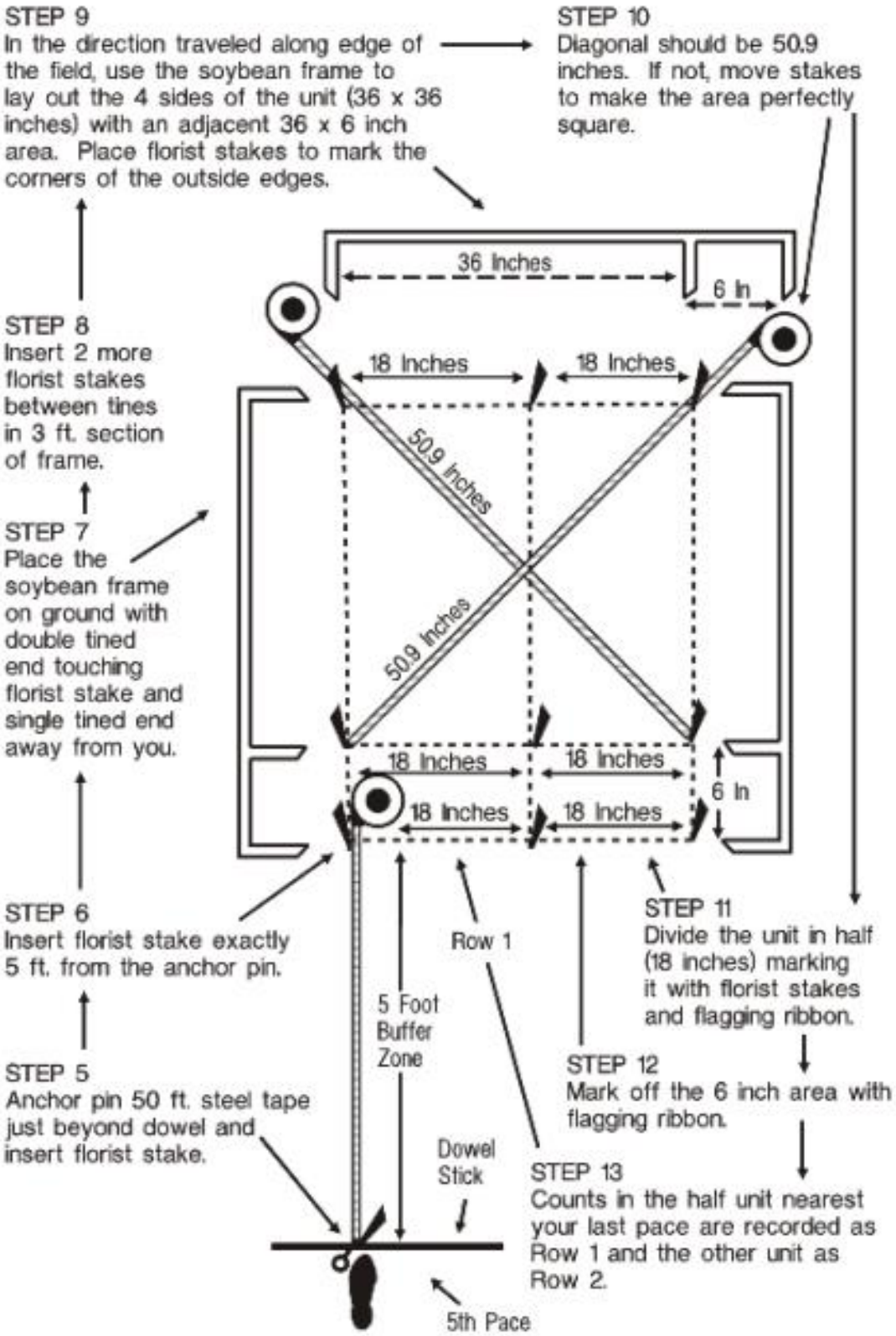
Step 13: Counts in the half unit nearest your last pace should be recorded as Row 1 and the other half as Row 2.

After you have completed all counts in Unit 1, locate Unit 2.

Tape Measure Conversion for Broadcast Seeded Soybeans

18 inches	=	1.5 ft
50.9 inches	=	4.3 ft
6 inches	=	0.5 ft

Laying Out Soybean Sample in Broadcast Seeded Soybeans



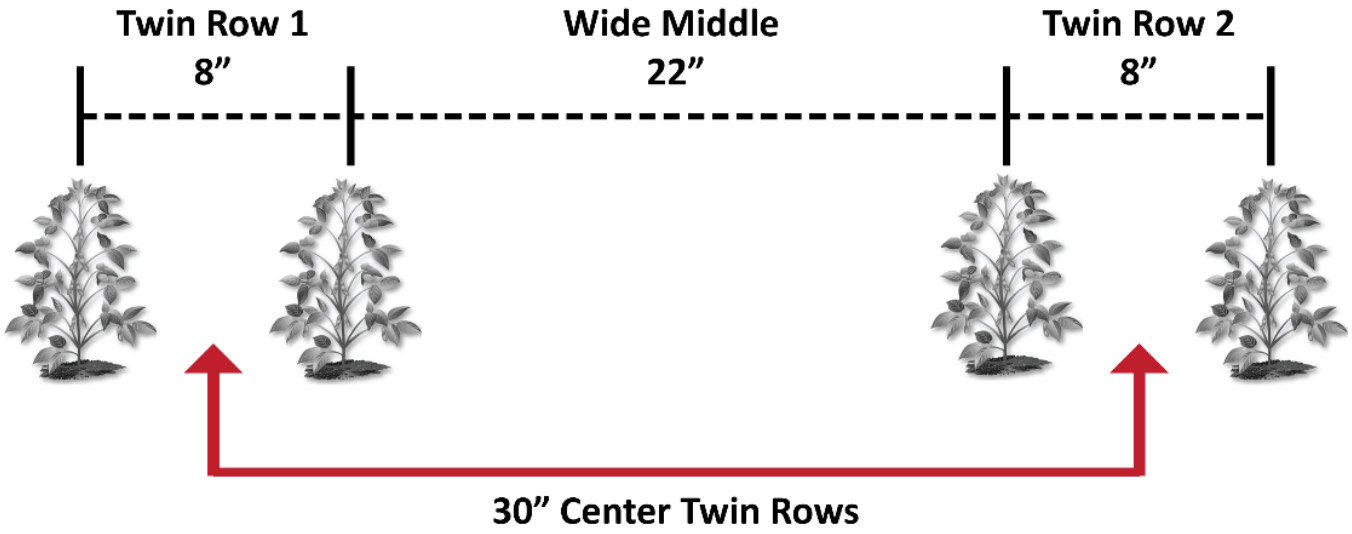
Twin Row Procedures

In a twin row planting configuration, soybeans are planted in paired rows, usually 7 or 8 inches apart, on 30-inch centers (*narrow/wide/narrow arrangement*). In cases where flood irrigation practices are in use they will be planted in a formed seedbed, elevated above the wider irrigation furrows. The twin row configuration presents challenges for counting rows, determining row space measurements, and recording plant & fruit counts for the purposes of the Objective Yield Surveys.

Twin Rows Sample Unit Location

Each twin row sample unit is comprised of 2 pairs of twin rows. When counting rows along the field's edge to locate the first row of a sample unit, count the pairs of twin rows as individual sample unit rows.

When counting twin rows planted on formed beds, be sure to count only the pairs of twin planted rows and not count the formed beds. This is the best practice to prevent miscounting in cases where more than one pair of twin rows are planted on the same formed bed or when bed widths are non-uniform.



Twin Row Space Measurements

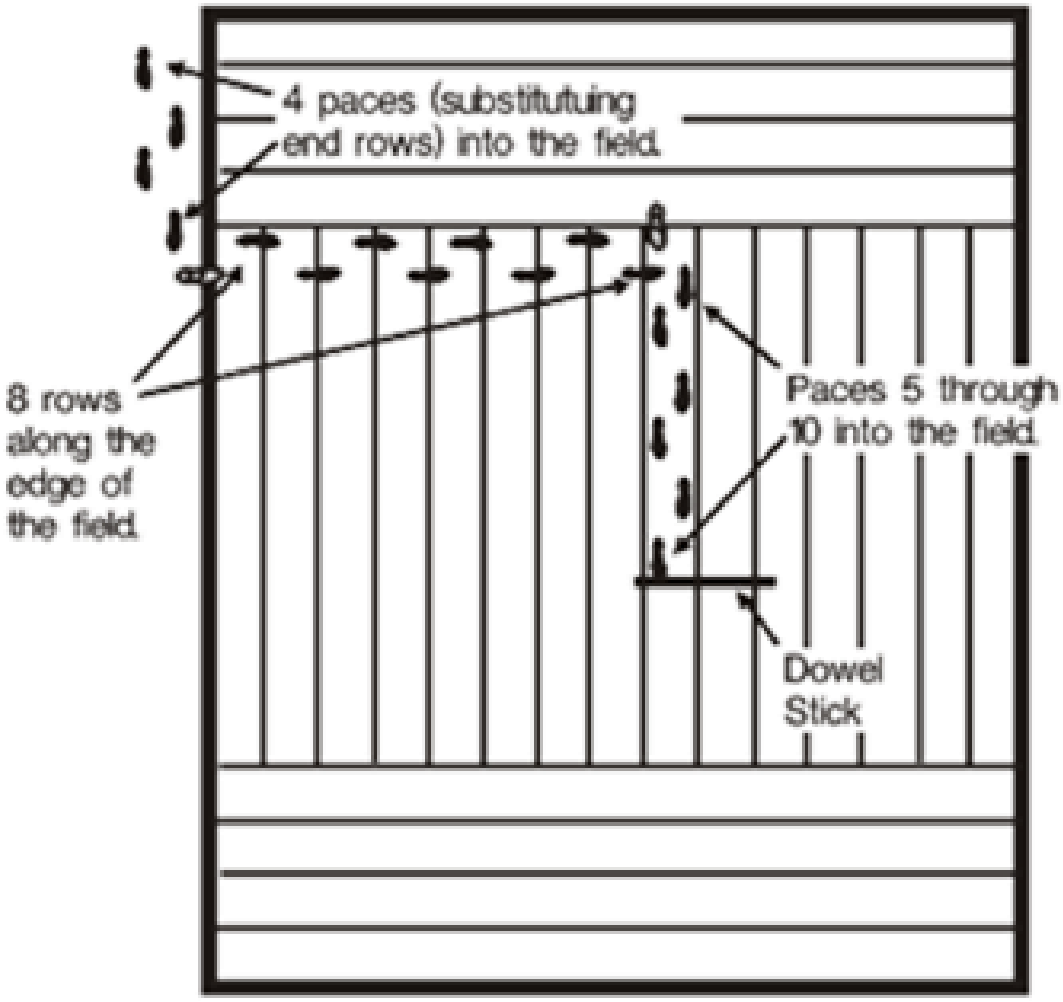
In the direction of travel, measure from the center of the first pair of twin rows in the selected row to the center of the second pair of twin rows (*across 1 wide middle rows*). Continue the measurement from the center of the first pair of twin rows further on to the center of the fifth pair of twin rows (*across 4 wide middle rows*).

Laying Out Twin Row Units

Twin row units will be laid out using the same practices used when measuring fields planted in a uniform, single row configuration. The only difference between the single and twin row units is the twin row unit uses the plants in the two twin rows for each unit row (4 individual rows of plants per sample unit = 8 individual rows per sample). Mark and flag all twin row sample units with the inclusion of the twin row.

Special Problems in Laying Out Units

Locating Units in Fields with End Rows

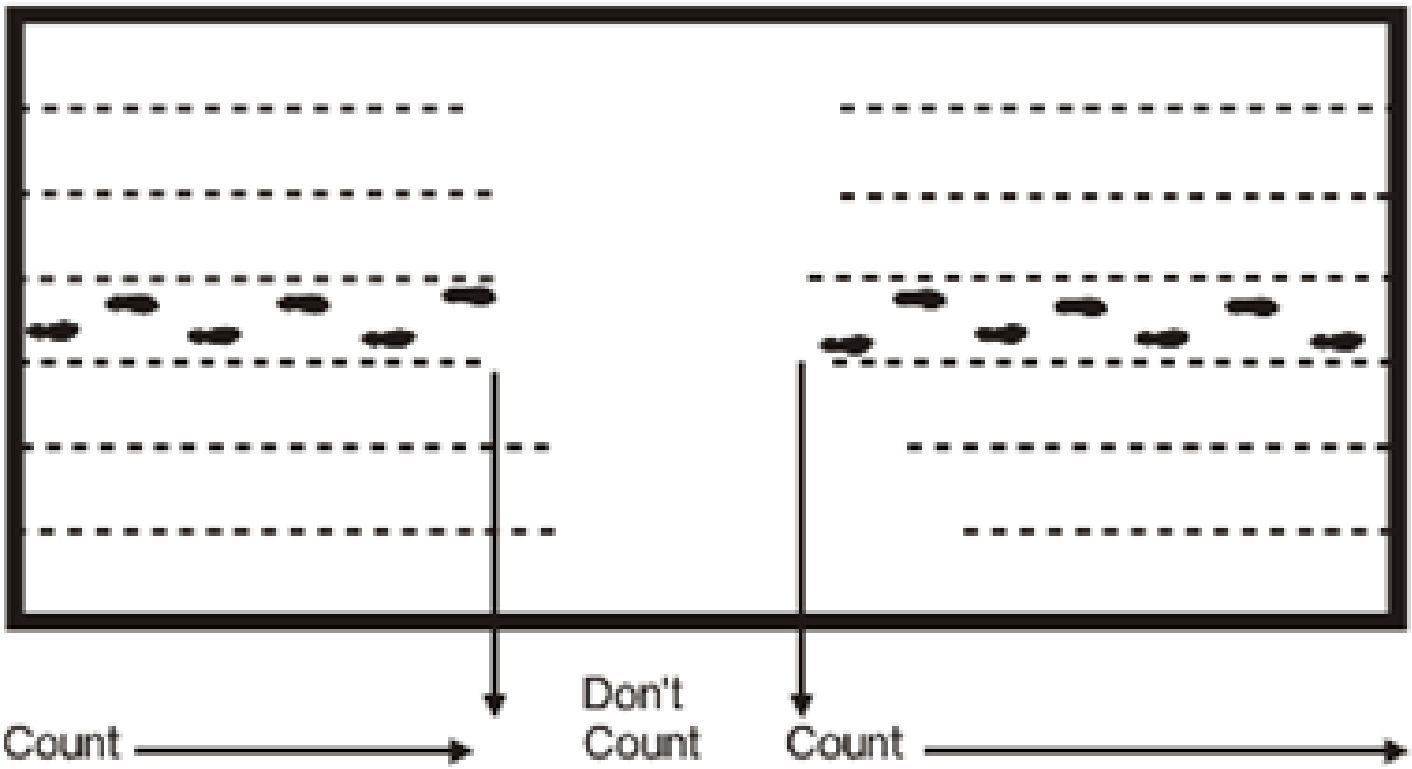


If a field has end rows, you should make a note of how many there are, but do not include them in the count of rows. To begin counting "rows along the edge of the field", walk along the ends of the regular rows inside the field, counting them to find Row 1 of Unit 1.

After finding Row 1 of the unit, start your pacing into the field from the end of Row 1, but count the end rows as paces. For example, if there are 4 end rows, you will start your pace count with 5 and continue into the field the required number of paces.

If the pace count is something less than the number of end rows, the unit will be laid out in the end rows. A unit will be laid out in end rows when the number of paces is less than the number of end rows. When the unit falls in end rows, always lay out the unit away from the starting corner. If in this example the number of paces is exactly 4, then Row 1 of the unit would be end row 4 and Row 2 of the unit would be end row 3.

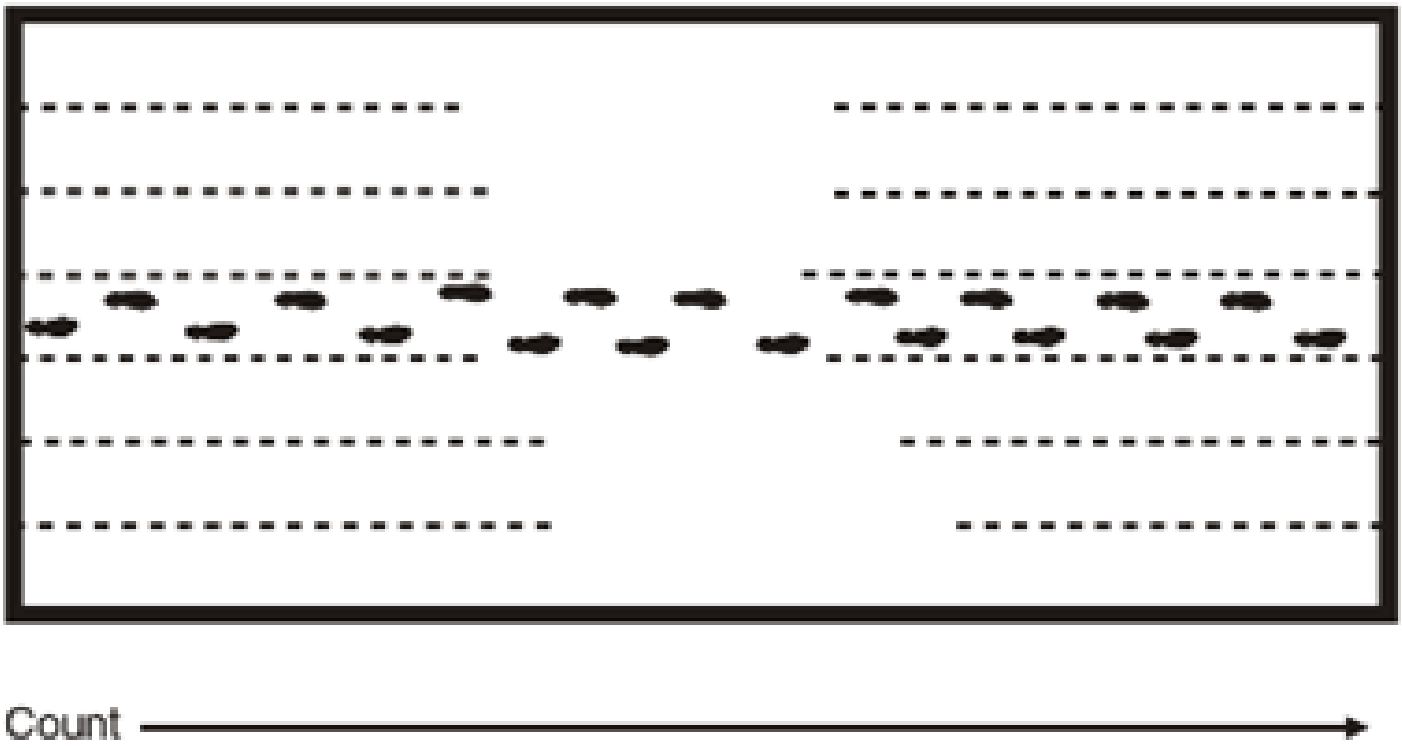
Blank Area Deducted on Form A



Sample units are never located in "excluded" areas or in any other areas reported as acreage in "Other Uses" in Table A of Form A.

If, when counting paces into the field, you cross an area which was deducted from the acreage to be harvested (not planted, abandoned, to be harvested for some other use, planted to another crop, etc.) during the Form A interview, you will stop your count (paces) at the start of such area and resume the count on the other side of the area.

Blank Area or Other Crop Not Deducted on Form A



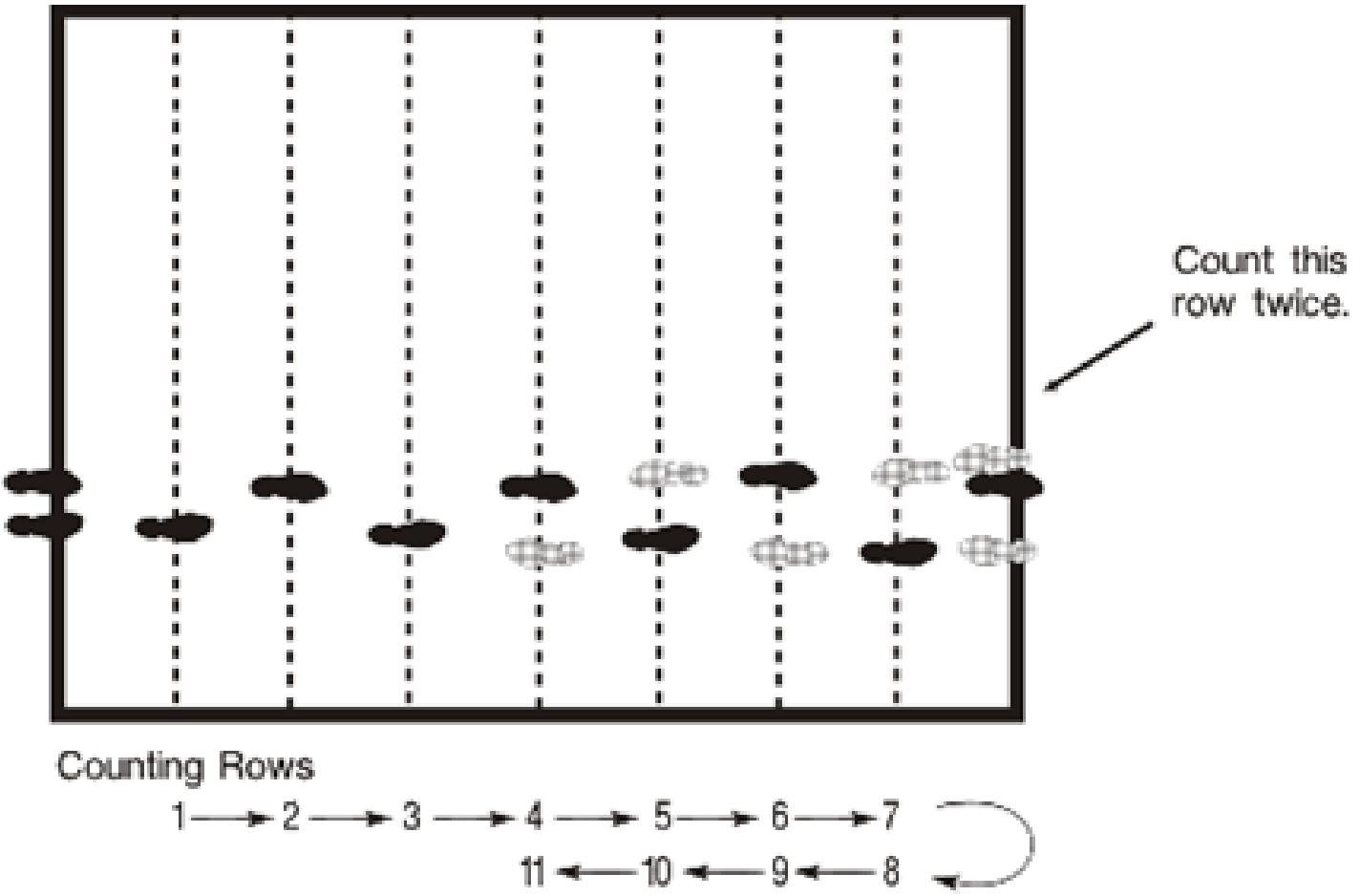
If you cross a blank area or other crop which was not deducted from the acreage to be harvested during the Form A interview, you should continue to count paces through this area. Usually, such areas are small drowned-out spots or skips due to poor seed germination and plant survival. If the last pace falls in this blank area, the unit must be laid out even if no plants are present.

If only one unit falls in a blank area, continue to make monthly counts on the other unit. Enter zeros in the appropriate box for the unit located in the blank area.

In case both units fall in a blank area (no plants standing in either of the sample rows) which was not deducted from the net acreage standing for beans (Table A) the units will be laid out. Note for future reference on the kit envelope that the units fell in a blank area, complete a Form B entering zeroes where appropriate. Note on the Form B that both units were blank and hold all forms for the remainder of the survey year.

If both sample units fall in blank spots with zero plant counts in both the 6-inch and 3-foot sections, no further pre-harvest visits will be made to the sample. However, a post-harvest gleaning visit for every fourth sample (using Form E) still must be obtained.

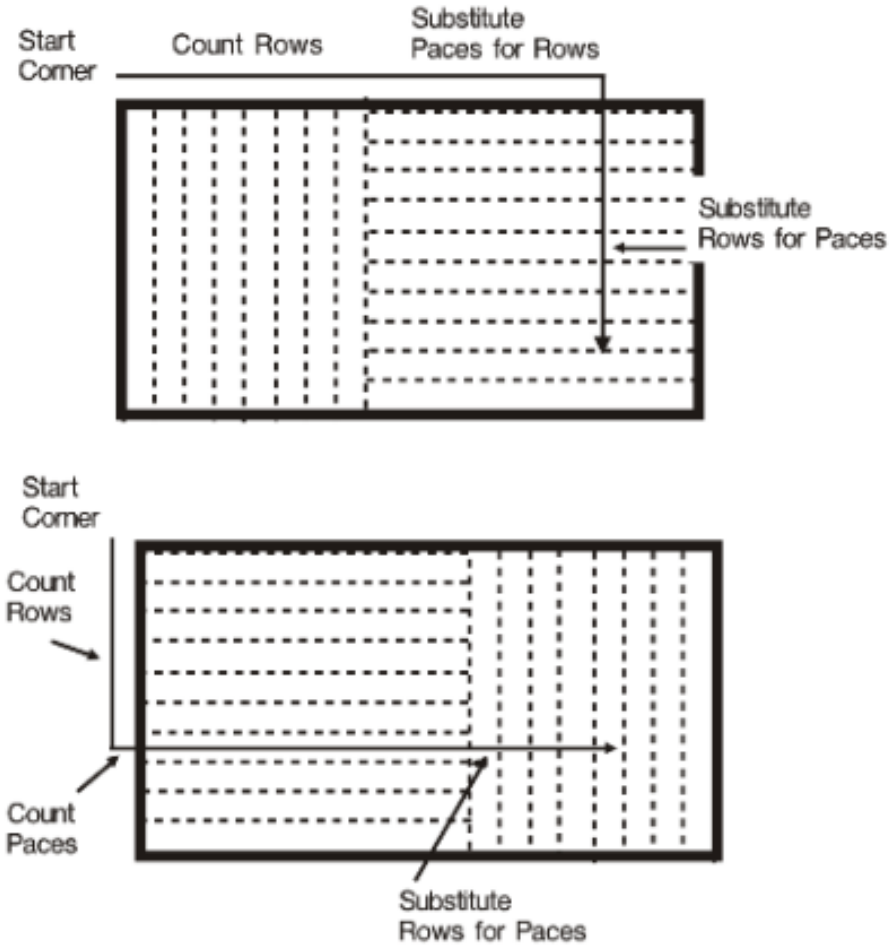
Bounce Back Technique



In counting rows, if you reach the opposite edge of the field and still have not counted the designated number of rows, turn around and walk back in the direction from which you came until the required number is counted. The last row is counted twice– once as you go out of the field and again as you start back into the field. Always take the next row in direction of travel for Row 2. In counting rows, if Row 1 of the unit falls on the last row of the field, then Row 2 becomes the next row in the direction of travel after bounce back.

In counting paces, if you reach the end of the field and still have not counted the required number of paces, turn around and walk back in the direction from which you came until the required number of paces is counted. Lay down the dowel stick and lay out the unit in the same direction that you were traveling when you counted the last pace.

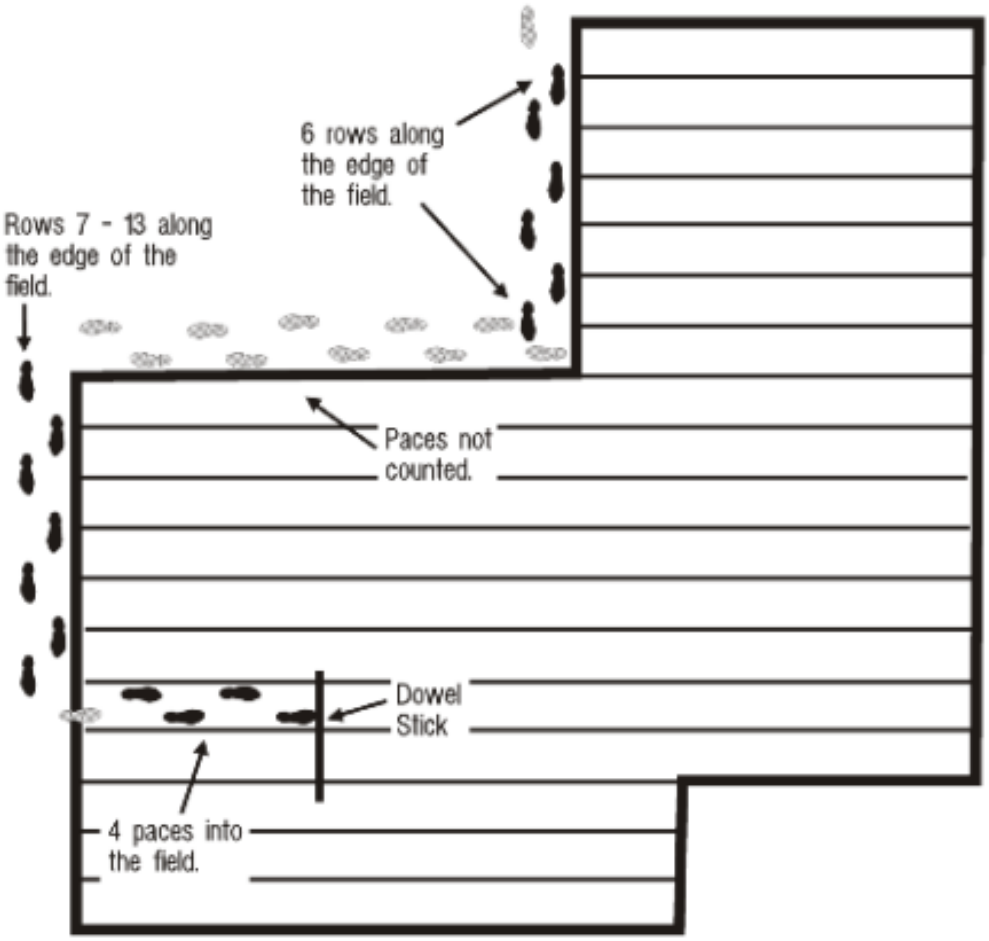
Rows Change Directions



In counting rows, when the direction of the rows changes at right angles, or when there is no definite direction to the rows, or when it is otherwise impossible to count rows, continue in the same direction along the edge of the field and substitute an equal number of paces for rows. Make a note of such changes on the form and on the sample field kit envelope beside the sample number so that this fact will be recorded for later visits.

In counting paces, when the direction of the rows changes at a right angle, substitute an equal number of rows for paces. When laying out units and rows change direction, always lay out the unit away from the starting corner.

Locating Units in Odd Shaped Fields

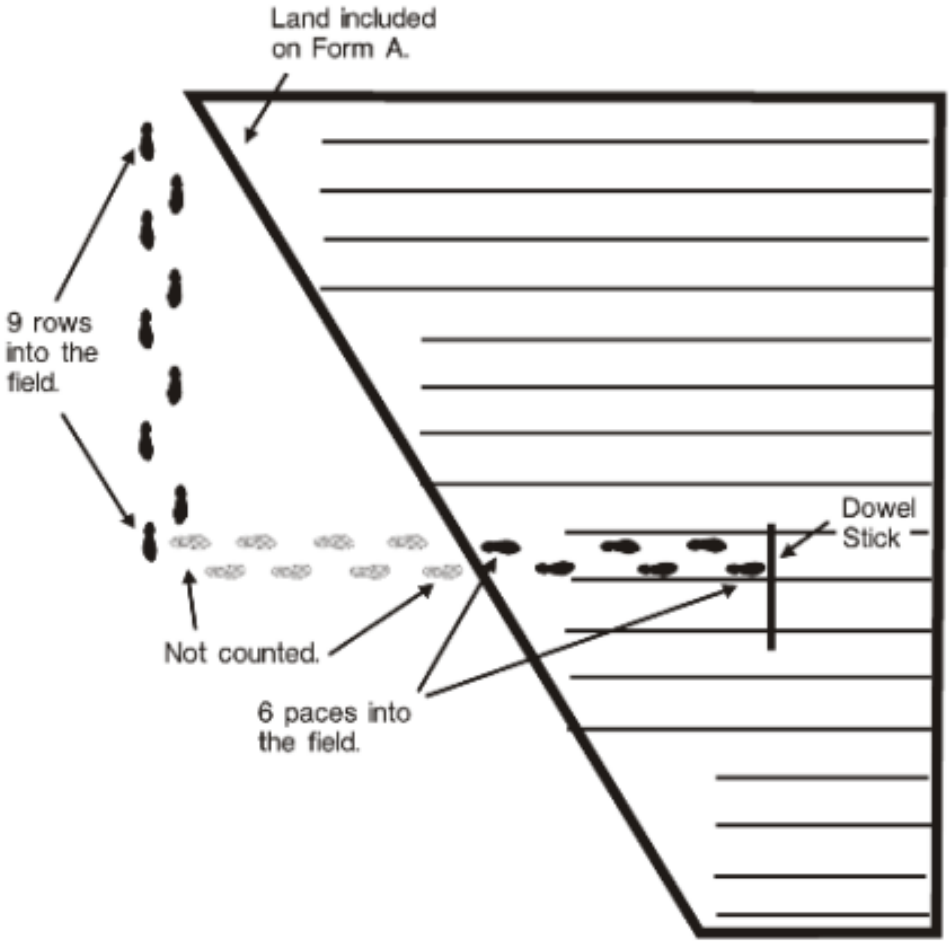


When locating units in odd shaped fields the same rules apply that we have discussed previously. In the illustration above the enumerator pauses counting when walking to the beginning of row 7, then resumes the row count until Unit 1, Row 1 is reached, and the pace count begins.

When laying out samples in odd-shaped fields the main things to remember are:

1) Starting corner
2) Direction of travel
3) Deducted and non-deducted areas

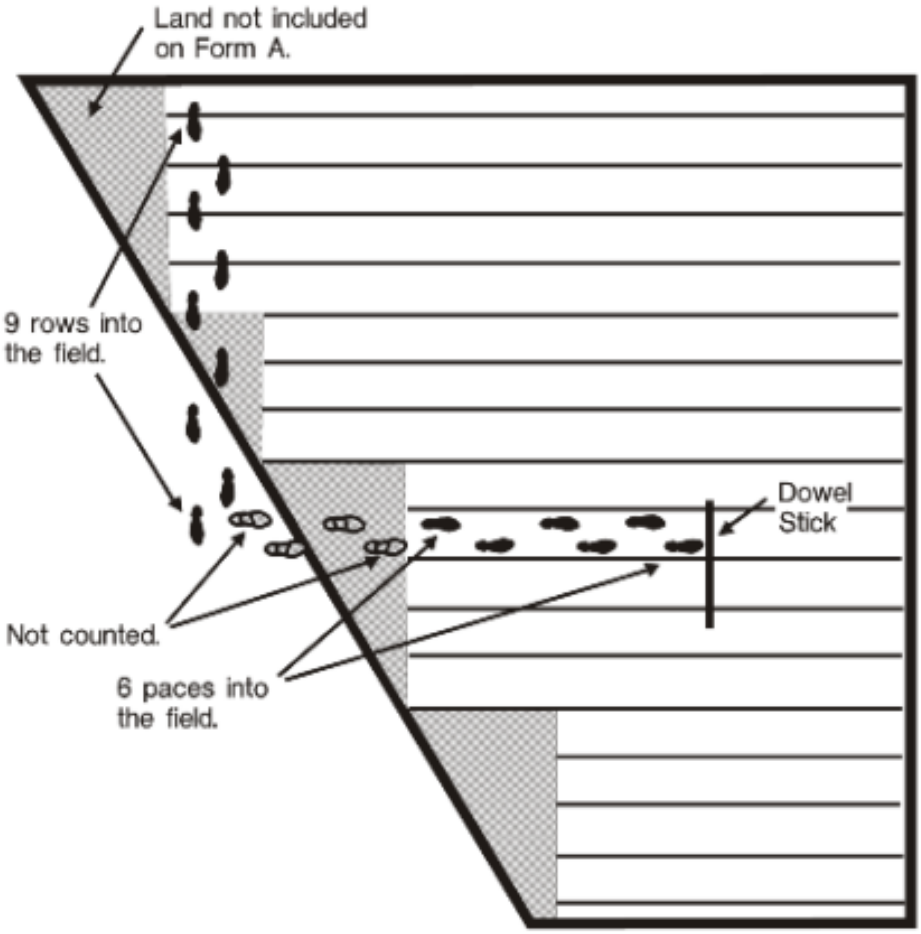
Field with Blocking and Blank Area Not Deducted



Fields with angular boundaries tend to have an unplanted area measuring the width of planting equipment used for seeding he field (blocking effect) as the end of the row approaches the boundary. In the case illustrated above the distance from the actual start of plants in row 9 might be 50 feet or so from the starting point of row 8.

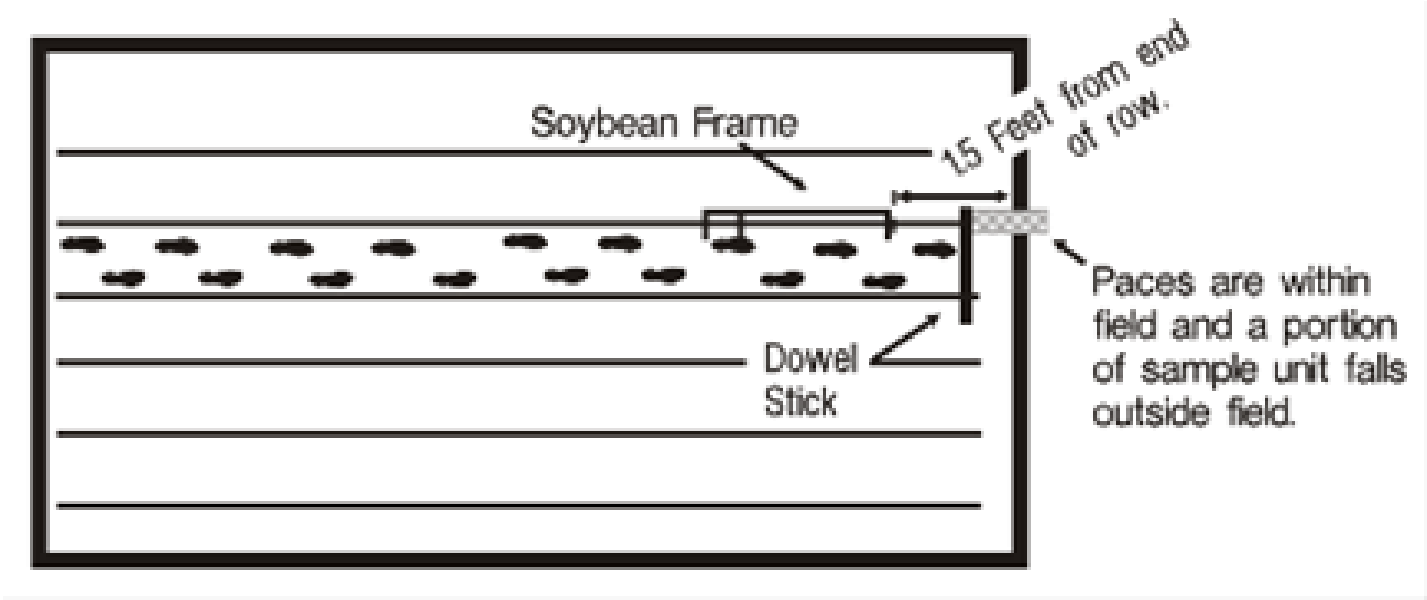
If row 8 is the selected Row 1 of the unit and the blank area was not deducted from the acreage harvested for beans on the Form A the unit would be laid out 3 paces into the field from the beginning of row 8 and the unit Row 2 would fall in the area with no plants present in row 9.

Field with Blocking and Blank Area Deducted



For this example, assume rows= 9 and paces= 6. If the blank area from row 9 to row 13 was deducted from the acreage for harvested for beans on the Form A, the unit would be laid out 6 paces into the field from the beginning of row 9. Field row 9 would be unit row 1 and field row 10 would be unit row 2.

Units Fall Beyond End of Field

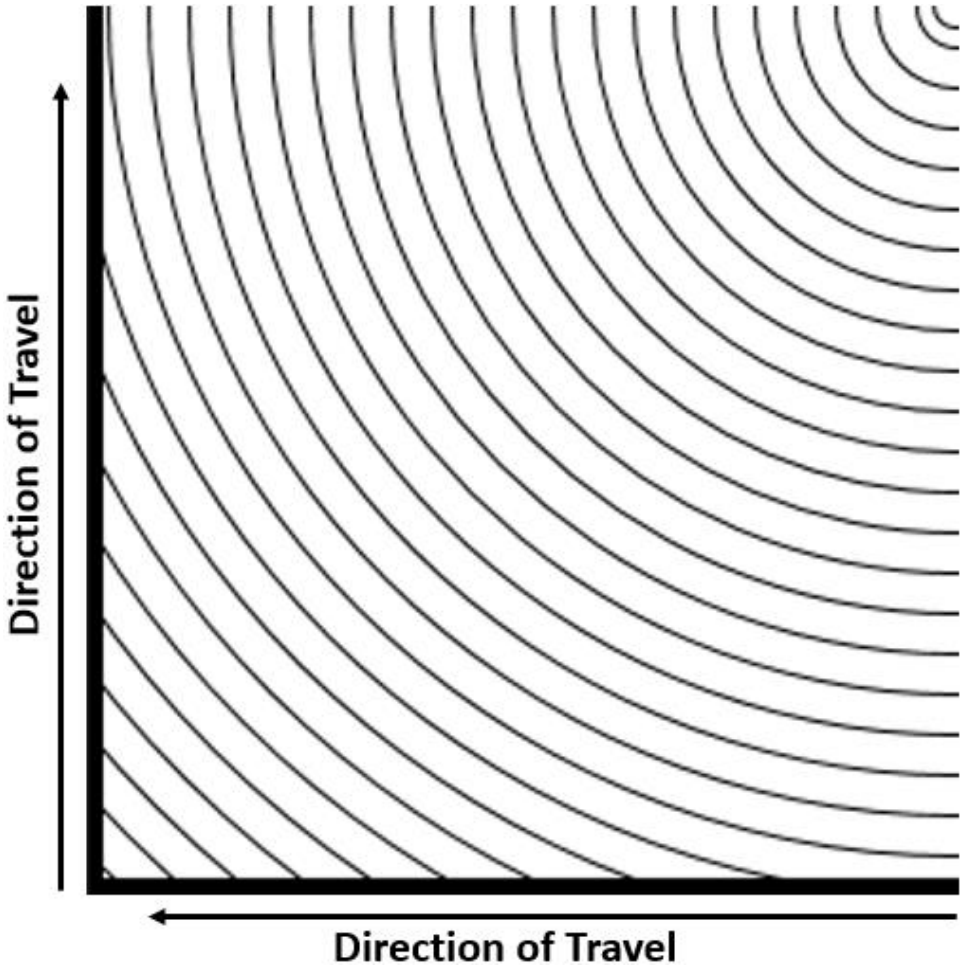


If a unit location falls partly within an area which was deducted from the acreage for harvest during the interview (grass waterway, etc.) move the unit back until it is located wholly on acreage planted to soybeans with the end point of the unit one and one-half feet from the deducted area. This also applies when part of the unit falls beyond the edge of the field.

If the unit location falls partly in end rows after you have taken your last pace, pick up the dowel stick and back up until you are 1.5 feet from the center of the plants in the first end row. **(Do not lay out a unit across rows).**

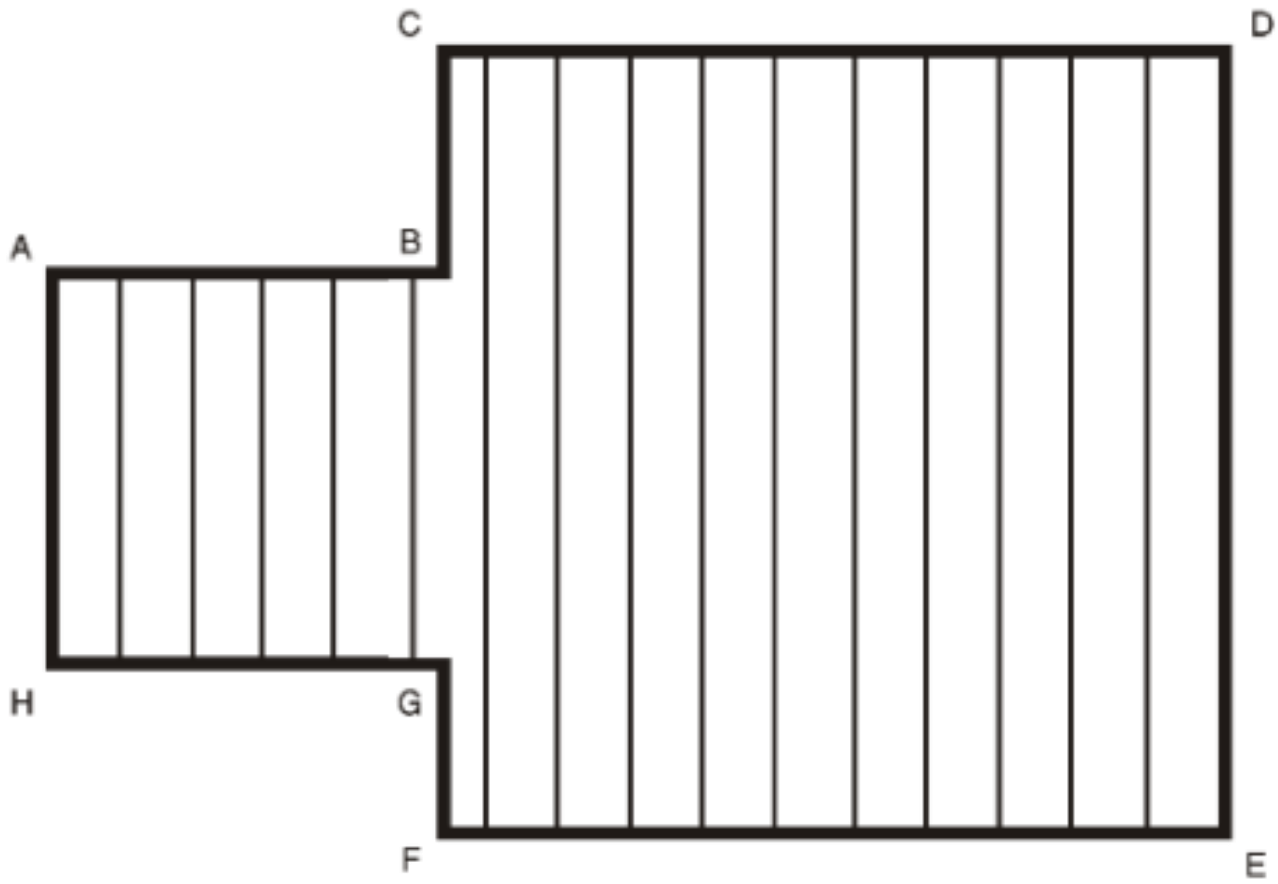
This also applies when a unit falls partially within an area which was deducted from the acreage for harvest as beans on the Form A. Move the unit back until it is located wholly on acreage planted for beans with the endpoint of the unit 1.5 feet from the deducted area.

Sample Falls in Field with Curved Corners



Handle the same as you would a circular field. Count down the side of the field while straight and when the corner curves, continue in a straight line to a point equal to the edge of the field. Turn towards the field at a 90 degree angle and count in that direction. If the corner of the field outside the curve was included as crop on the Form A, include it in your counts. If the area was excluded on the Form A, exclude it in your counts.

Odd Shaped Fields – Starting Corner



Field 1

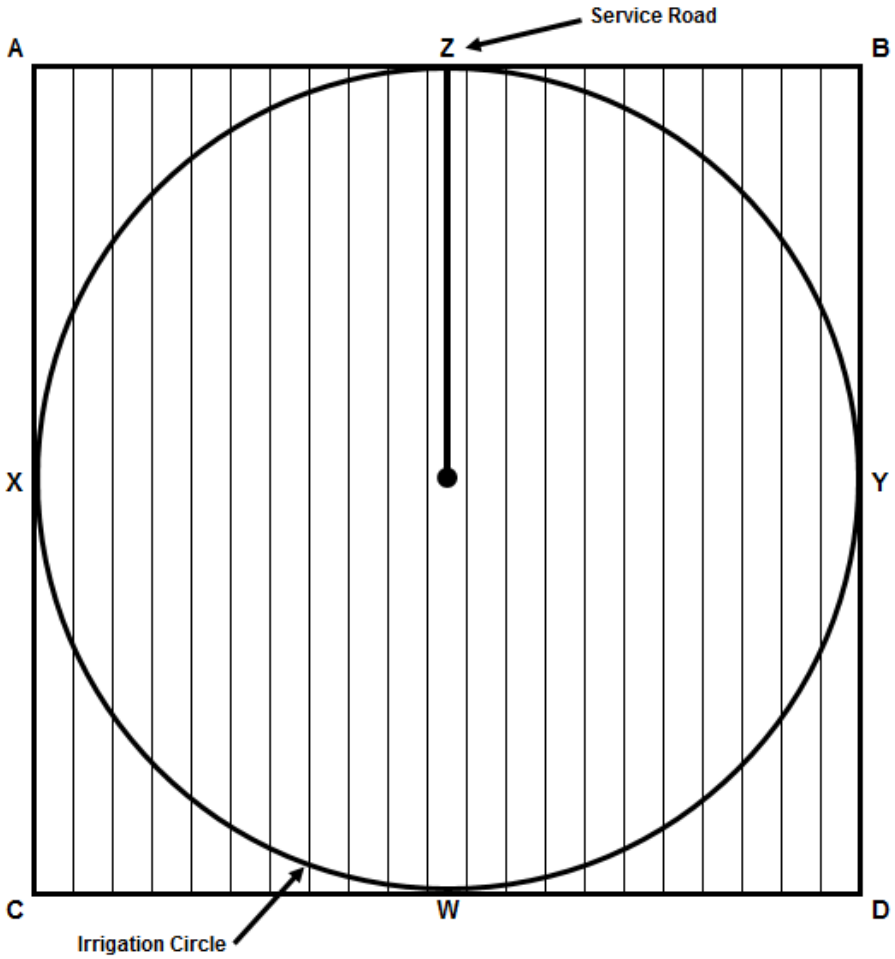
Corners A, D, E or H could be the starting corner under the "unit location" principle because the sample unit would have equal chance of falling anywhere in the field.

Corners B, C, F, or G cannot be the starting corner because the unit has less chance of falling in the areas of the field marked by Corners A, B, G, H. For example, if “corner B” was chosen as the starting corner and counted rows towards “corner A”, rows B to A would have a chance to be in the sample twice before rows B to D had a chance to be in the sample once.

Drilled Fields

When drilled fields have no distinguishable rows, substitute paces for rows when laying out the unit for both pre-harvest and post-harvest visits.

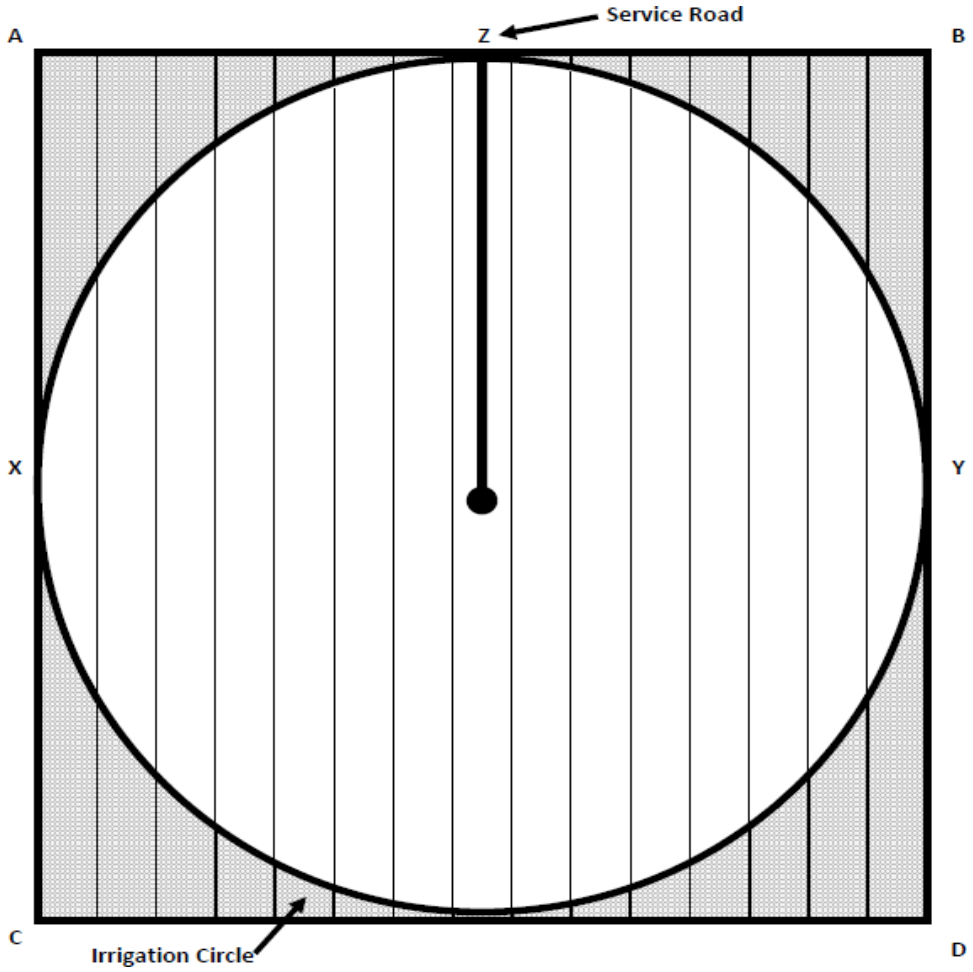
Center Pivot Irrigated Fields - Starting Corners



Scenario 1

The entire field, including corners, is planted to soybeans. For all states except Nebraska, the correct choices for starting corners are A, B, C, and D even though the access road is at point Z. In most cases, the most accessible starting corners will be A and B since the service road can be accessed from the same side of the field. Paces along the edge of the field and into the field will be counted in the usual manner. Because Nebraska differentiates between irrigated and non-irrigated plantings for soybeans, the correct starting corner for this field in Nebraska would be point Z. While standing at point Z, unit 1 will be laid out to the right (towards point X). After completing the Form B observations in Unit 1, start from the last pace required for Unit 1 and walk 30 paces parallel with the longer side of the field and in the same direction that you were traveling when you located Unit 1. Then turn at a right angle and walk 30 more paces into the field, to locate, lay out and mark Unit 2.

Center Pivot Irrigated Fields (*continued*)

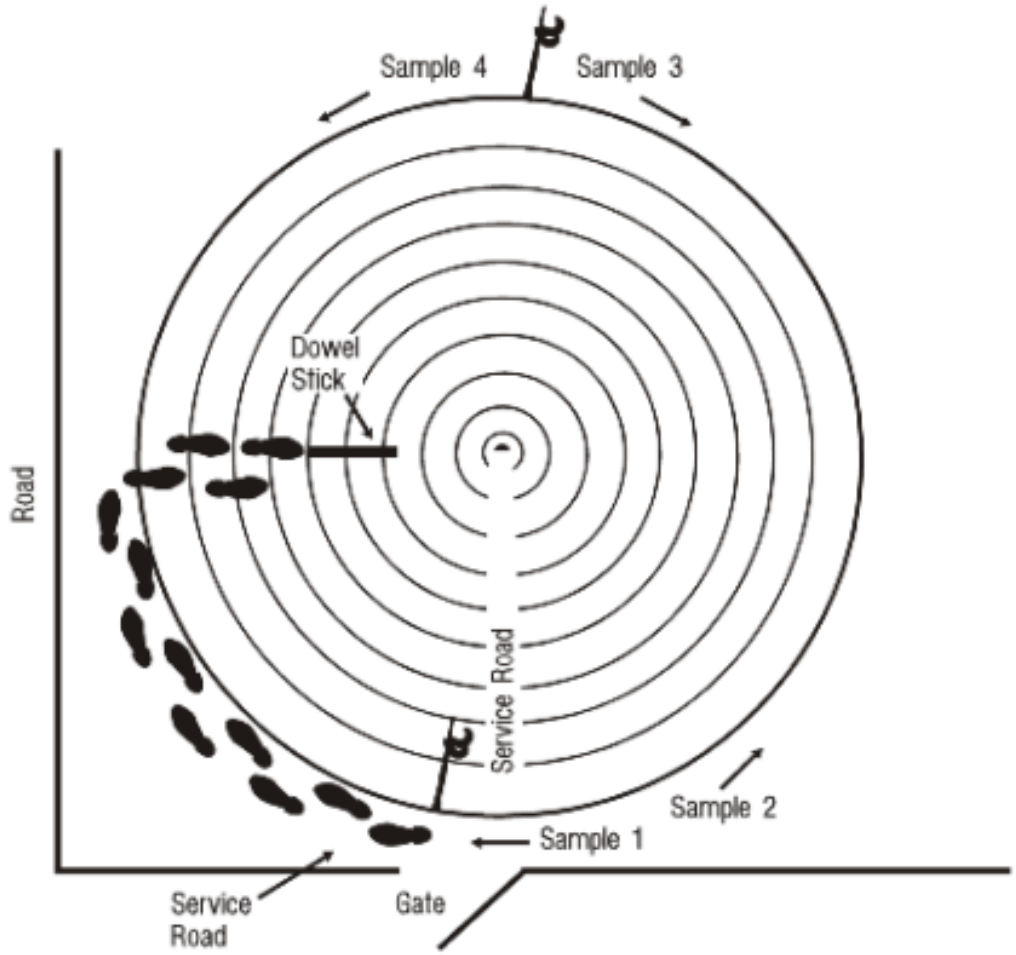


Scenario 2

The circle only, not including the shaded corners, is planted to soybeans. Since the service road (point Z) is the most accessible corner, it in most cases is considered the starting point. While standing at point Z, unit 1 will be laid out to the right (towards point X). After completing the Form B observations in Unit 1, start from the last pace required for Unit 1 and walk 30 paces parallel with the longer side of the field and in the same direction that you were traveling when you located Unit 1. Then turn at a right angle and walk 30 more paces into the field, to locate, lay out and mark Unit 2.

In scenario 2, as well as irrigated fields in Nebraska from scenario 1, if you have more than one sample to lay out in the field, the starting point for the second sample would be point X. The starting corner for a third sample would be point W and a fourth sample would start at point Y.

Spiral or Circular Planted Fields



The starting point will be that point first reached when arriving at the field. To locate sample units in spiral fields, use paces as shown on the Form B when walking clockwise along the edge of the field. Then use the number of rows shown on the Form B to count rows into the field. Be sure your diagram on the sample kit envelope is complete and is easy to follow in locating the sample units in the circular field.

A second sample in a spiral field would be located in a counter-clockwise direction from the original starting point. If a third sample was selected, go to the opposite side of the field from the original starting point and locate the third sample in a clockwise direction, and if a 4th sample, locate in a counter-clockwise direction.

When Units Have Been Destroyed, Harvested or Cannot be Located on Later Visits

When returning to samples for the second, third, or fourth monthly visits, you will generally find the sample units with no problem. However, for a few samples you may not be able to find a unit for the following reasons. Correct each of these problems with the appropriate procedure indicated below.

Problem: The crop is still standing in field, but you cannot find a sample unit(s).

Procedure: Lay out a new sample unit(s) using the same number of rows along edge and paces into the field as is shown on the Form B and also on the kit envelope for sample unit(s). Start from the same corner of the field as when the sample units were first laid out. On the Form B enter code "2" for unit relocated this month. Re-measure the row space and enter on the Form B.

Problem: Part of field has been destroyed by farmer before harvest (plowed, disked, mowed, etc.) including the area where one or both sample units were located.

Procedure: Record dashes for each unit that was destroyed. Write "Unit(s) _____ Destroyed" on margin of Form B. If only one unit was destroyed, complete all items for the remaining unit as usual. When laying out the sample units on the post-harvest visit, you would not count any paces when crossing the part of the field that was destroyed.

Problem: The entire field has been harvested, cut for hay, plowed, disked, etc.

Procedure: Write "Field (harvested, cut for hay, plowed, etc.)" on Form B. Complete Form E if field was harvested and not yet plowed, or if an alternate field on the same operation is available.

Problem: Part of soybean field has been harvested for beans, including one unit.

Procedure: Leave entries blank for unit that was harvested and write "Unit harvested for beans" on margin of Form B. Complete all items for remaining unit as usual.

Chapter 5 – Form B

General

The Form B counts and measurements are used to forecast yield per acre. The components of this forecast are number of plants, number of pods per plant, and weight of beans per pod. This information along with the Form A acreage information is then used to forecast soybean production in your State. Therefore, each item counted and measured is a very important component of this yield forecast and only by carefully completing each item can a reliable forecast be made.

Lay out all samples during the September 1 survey period. Unit 2 will be worked before Unit 1 during the November 1 survey periods because maturity is determined from ears beyond Unit 2. After the September 1 and October 1 survey period, work Unit 1 first.

Two units will be laid out for each sample on the first visit to the field. Since the same units will be used each month, proceed directly to the units by the most accessible route on successive monthly visits.

If the field counts cannot be made, complete a Form B in CAPI, with a comment explaining the reason the sample could not be laid out. The sample will be laid out the following month if the field is still standing for harvest. Every effort should be made to complete all B forms each month.

All notes concerning the field that may be useful to you, or your coach should be recorded on the field kit envelope.

Scheduling Final Pre-harvest Visits

Where fields in an area are expected to be ready for harvest prior to a regular survey period, you should schedule the final pre-harvest visit early so you can gather the mature pods from the unit before the field is harvested. Remember, if a harvest date is known, the regular procedure should be followed in order to gather the mature pods. If harvest date is not known, as a general rule, a sample field which was in maturity Stage 4 at the time of the monthly survey should be revisited in 7 to 14 days for the final pre-harvest observation. A field in maturity Stage 3 should be revisited in about 13 to 21 days.

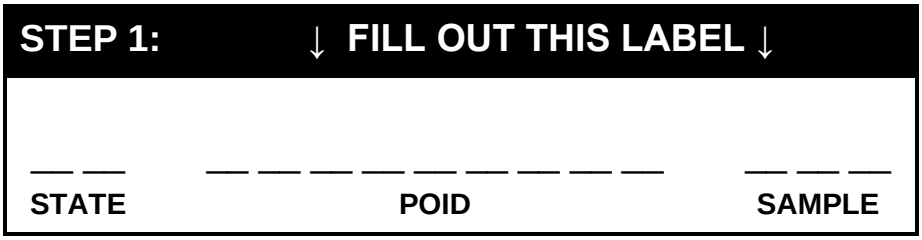
If the crop has been harvested upon arriving at the field, but has not been plowed, disked, etc., make a note of this on Form B. The Form E, post-harvest gleaning, should be completed for gleaning samples. If the field has been harvested and then plowed before the final pre-harvest counts, state this clearly on the Form B. For gleaning samples, the Form E, post-harvest gleaning fieldwork should be completed on an alternate field, if available on the entire operation.

Form B Sample Identification

An ID label for recording the State FIPS, POID, sample number, and forecast month has been pre-printed on the Form B. Use the sample ID information recorded on the Kit Envelope (as instructed in Chapter 1, Field Kit Assembly Instructions) to complete the Form B label each time fieldwork is done.

Please note, the area above the label is an instruction that reads: "**STEP 1: FILL OUT THIS LABEL**" in bold capital letters. This instruction is in place to indicate the importance of completing the label before beginning any data collection on the sample.

Failing to properly ID the form creates the risk of misreporting sample data on multiple samples.



(Circle Forecast Month)

Forecast Month: Sep 1 / Oct 1 / Nov 1 / Dec 1

After recording the sample identification information in the label, the date fieldwork was completed on the line provided on the right edge of the From B.

Unit Location

Follow the instructions on Unit Location and Layout in Chapter 4 for locating the sample units.

UNIT LOCATION	UNIT 1		UNIT 2
1. Number of rows along edge of field		+ 30	
2. Number of paces into field		+ 30	

Two units will be laid out for each sample. Soybean units consist of two rows, each 3 feet long, plus two adjacent 6-inch row sections. Since the same units will be used each month, you may proceed directly to the units by the most accessible route on successive monthly visits.

If for some reason the field counts cannot be made, complete a Form B in CAPI, with a comment explaining the reason the sample could not be laid out. In such a case, the sample would be laid out the following month if the field is still standing for harvest. Every possible effort should be made to complete all assigned B Forms each month.

All notes concerning the field that may be useful to you, or your coach, should be recorded on the field kit envelope.

Pesticide Safety

Form B has a question just beneath the identification box asking if the operator has applied pesticides with organophosphorus content to the sample field. This will require contact with the farm operator or some other knowledgeable person. This question must be checked **YES** or **NO** for each Form B. If **YES** is checked the date of latest application and name of pesticide must be entered in the space provided.

3. Has operator applied pesticides with organophosphorus content to the sample field?

☐ Yes ☐ No ☐ Don't know

If yes, enter latest application date _____ and name of pesticide _____

Exercise extreme caution to avoid exposure to dangerous pesticides. **Never enter any field that has been treated with a chemical application in the previous 24 hours**. Be sure to follow the Pesticide Safety Precautions described in Chapter 1.

			UNIT 1	UNIT 2
4. UNIT LOCATION CODE	1 First sample count 2 Unit relocated this month 3 Sample counted previously	Enter Code	350	351

If code = 3, skip to Item 6

A unit location code will be recorded for each unit visited each month. Enter a code 1 for the first month the units are laid out. On later visits, if you find the unit you laid out earlier, enter code 3. If you are unable to locate the unit laid out earlier and it is necessary to stake out a new unit again this month, you will enter code 2 for the unit.

Row Space Measurement

The row space measurements obtained on the Form B are a very important part of the yield forecast. The forecast is expanded to a per acre basis with the row space measurements you obtain.

5. **ROW SPACE MEASUREMENTS**		UNIT 1	UNIT 2
a. Measure distance from plants in Row 1 to plants in Row 2	**Feet & Tenths**	301 ._____	303 ._____
b. Measure distance from plants in Row 1 to plants in Row 5	**Feet & Tenths**	304 ._____	305 ._____

The measurements of row spaces will be made on the first visit to the sample units. (When you lay out the sample unit.) These measurements will be skipped on later visits unless a sample unit must be relocated for any reason. Record all distances in feet and tenths of feet -- not in feet and inches.

Measuring distance from plants in Row 1 to plants in Row 2

At the dowel stick, measure the distance across the first-row space with the 50-foot tape. Anchor the zero end of the 50-foot tape at the center of the plants in the first row in the unit and measure to the center of the plants in the second row in the unit. Record this distance in feet and tenths of feet.

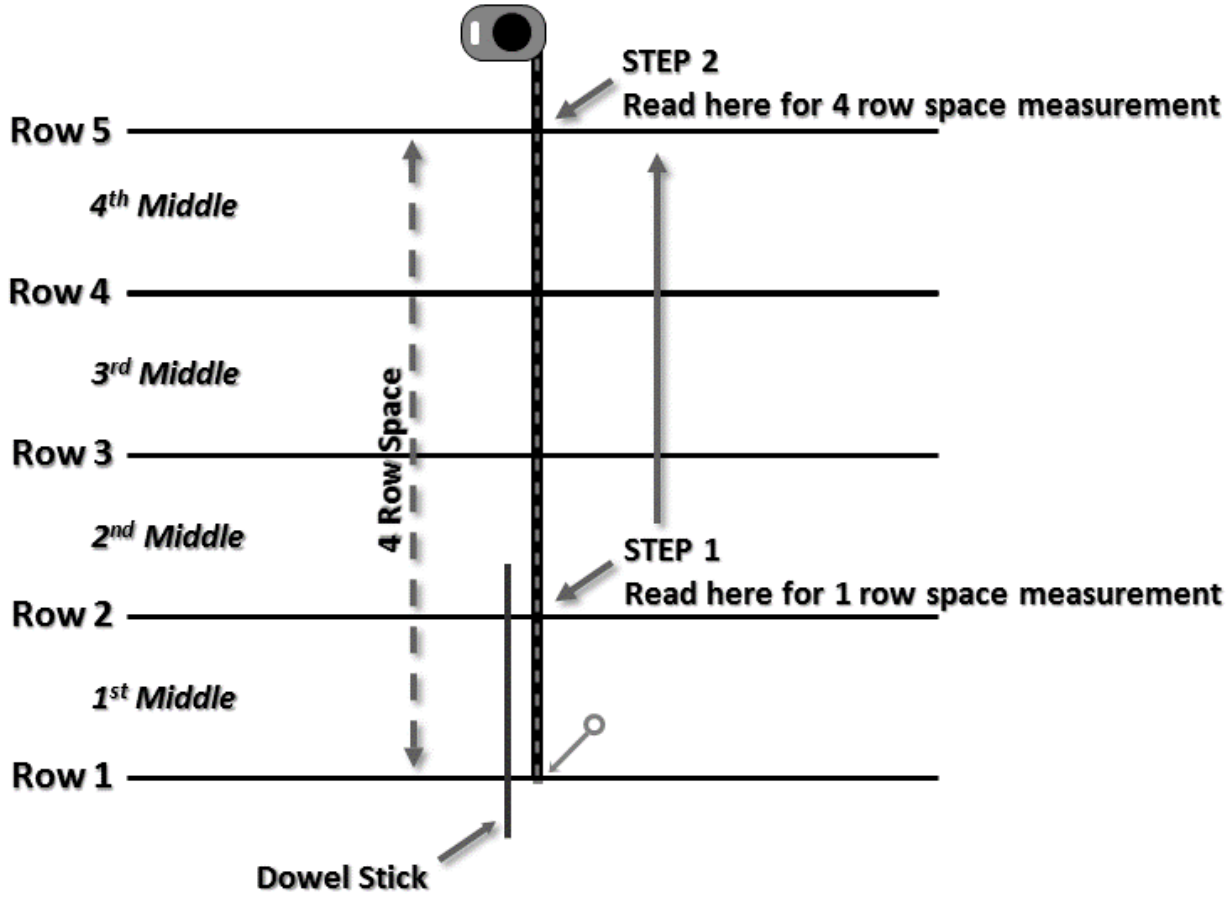
Measuring distance from plants in Row 1 to plants in Row 5

At the dowel stick, measure from the center of the plants in Row 1, in the direction of and to the center of the plants in Row 5. This is the distance across 4 row spaces.

If a sample is in a field of broadcast seeded soybeans or a unit falls in an area where no drill rows can be distinguished, do not complete Items 5a and 5b for that unit. Be sure to give the reason for no measurements in the margin.

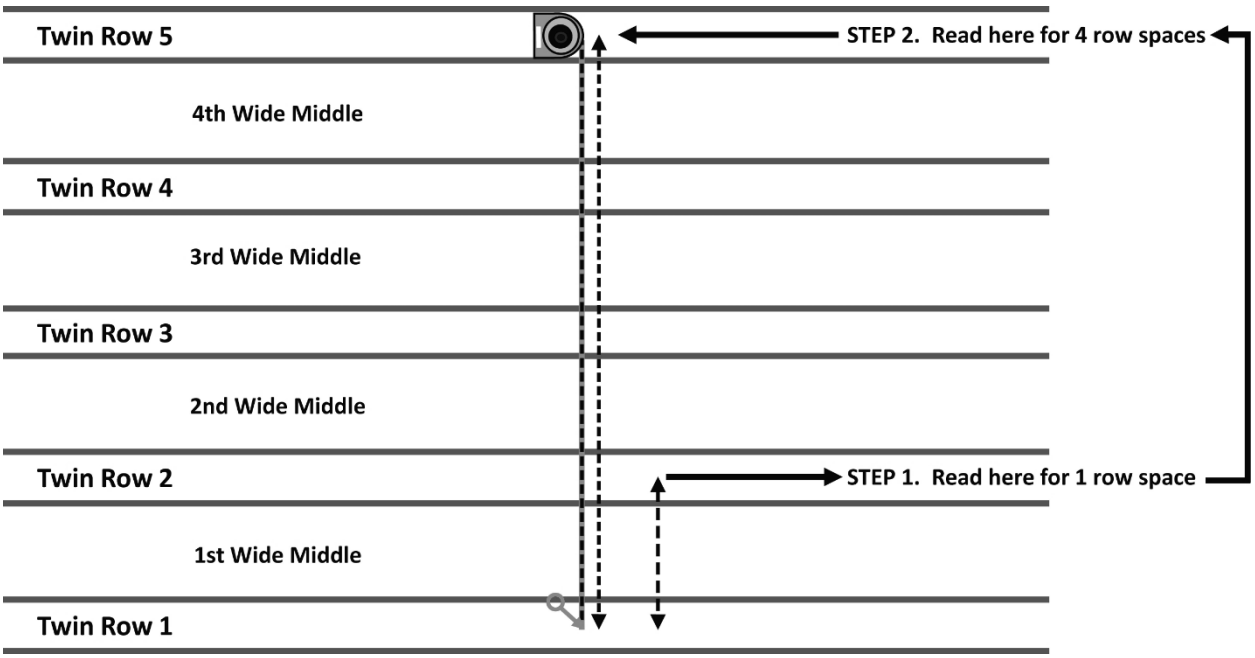
If there are not enough rows remaining in the field to get a 4-row space measurement, measure from the middle of Row 2 in the direction of Row 1 across 4 row spaces.

Single Row Planted Row Space Measurements



Twin Row Planted Row Space Measurement

If a field is planted in twin rows, i.e., two pairs of narrow rows separated by a wide middle, (Example: a 7-inch middle followed by a 30-inch middle), the one-row space measurement recorded in Item 5a is the distance between the center of twin row 1 and center of twin row 2. The entry in Item 5b is the measurement from the center of twin row 1 to the center of twin row 5.



In all cases of unusual row spacing (very narrow, very wide, or non-uniform row space arrangement), or when the unit falls in a blank area of the field and no row space measurement can be made, write an explanatory note in the margin of the form.

Counts Within Areas

Accuracy in making the counts in all our objective yield work is of great importance. Counting often becomes a tedious task in soybeans because of the relatively high counts which may occur and the small size of items to be counted. Use your hand counter for all counts.

Observations Within 3-Foot Units

Items 6 and 7 are to be determined each month for each unit. Be certain to read all the items carefully each month.

OBSERVATIONS WITHIN 3-FOOT UNITS	UNIT 1		UNIT 2	
	ROW 1	ROW 2	ROW 1	ROW 2
6. Number of plants in row	306	307	308	309

Count and record the number of plants in each 3-foot row section. Count all soybean plants (including dead plants) regardless of size, physical condition or the presence or absence of fruit. Make this count by physically touching the base of each plant in the row and using your hand counter.

In some cases, one plant will separate below ground level giving the appearance of two plants. Special care should be taken that these plants are not counted as two plants.

Remember, plants in the Row 1 middle get counted in Row 1 and plants in the Row 2 middle get included in the Row 2 counts.

Do not damage plants in the unit. If necessary, examine a few plants of similar development outside the unit to assist you in determining the maturity.

Making Counts in Twin Row Units

All Form B plant & fruit counts and maturity code classifications made for sample units planted in twin planted rows will include all plants in the twin planted rows of each unit row.

Soybean Maturity Codes

7. Stage of maturity. Circle Maturity Code for each unit.

   Always classify the unit in the lower stage of maturity when in doubt.

	Pods Set, Leaves Still Green or Earlier	Pods Filled, Leaves Turning Yellow	Pods Turning Color, Leaves Shedding	Pods Brown, Almost Mature or Mature
UNIT 1	300 **2**	300 **3**	300 **4**	300 **5**
UNIT 2	302 **2**	302 **3**	302 **4**	302 **5**
	For each unit in Stage 2, complete items 8, 9, 10, 11 & 12 only.	For each unit in Stage 3 or 4, complete items 8 and 12 only.		For each unit in Stage 5, complete items 8, 12,13 & 14 only.

Use the descriptions below as criteria for determining the maturity codes of each unit. The stage of maturity for each unit must be determined separately. There will be cases when you are undecided on the maturity stage of the unit. When this occurs, classify the unit in the lower stage of maturity.

Maturity Code 2 – Pods Set, Leaves Still Green, or Earlier

This covers all plant growth stages until the pods are full. All leaves will still be green. Flowers may or may not be present.

Maturity Code 3 – Pods Filled, Leaves Turning Yellow

Leaves will be yellowing on nearly all plants, but green leaves may still be more numerous on the plants than yellow or partially yellow leaves. Almost all the pods will be filled, and some will be ripening.

Maturity Code 4 – Pods Turning Color, Leaves Shedding

All leaves will have turned yellow, and some will have fallen. The pods will have their full size. Pods will be changing color from green to brown, but most pods will still be green. The beans are not firm, and they have not completely shrunk inside the pods.

Maturity Code 5 – Pods Brown, Almost Mature or Mature

Virtually all pods will be brown and easily opened so the beans can be removed. The beans are brown and have shrunk inside the pod. Most of or all the leaves have been shed by the plants.

In classifying a unit maturity stage 4 or 5, if most leaves have shed and some pods are still green then the unit should be classified in stage 4. The difference between stage 4 and 5 is that in stage 5 the pods are brown, whereas in stage 4 some may be brown, but most are still green. Again, if there is any doubt about the maturity stage, classify the unit in the lower stage.

Counts for 6-inch Row Sections

- For Units in Stage 2, complete Items 8 through 12 only.
- For Units in Stage 3 or 4, complete Items 8 and 12 only.
- For Units in Stage 5, complete Items 8, 12, 13, and 14 only.
- If no plants are present, enter dashes (--) for Items 8 through 12.
- In each unit complete all items for Row 1 before starting on Row 2.
- When counting blooms, dried flowers, and pods, under no circumstances do you try to determine whether the fruit will mature and be harvested before counting.

Counts for Item 8 are made for each unit through maturity.

	UNIT 1		UNIT 2	
	ROW 1	ROW 2	ROW 1	ROW 2
8. Number of **plants**	310	311	312	313

All soybean plants in the 6-inch row section of each row are to be counted even though a plant may be dead or have no fruit of any kind.

On the initial visit, the first and last plants in the 6-inch row section are to be tagged with a red plastic tag attached near the bottom of the stalk.

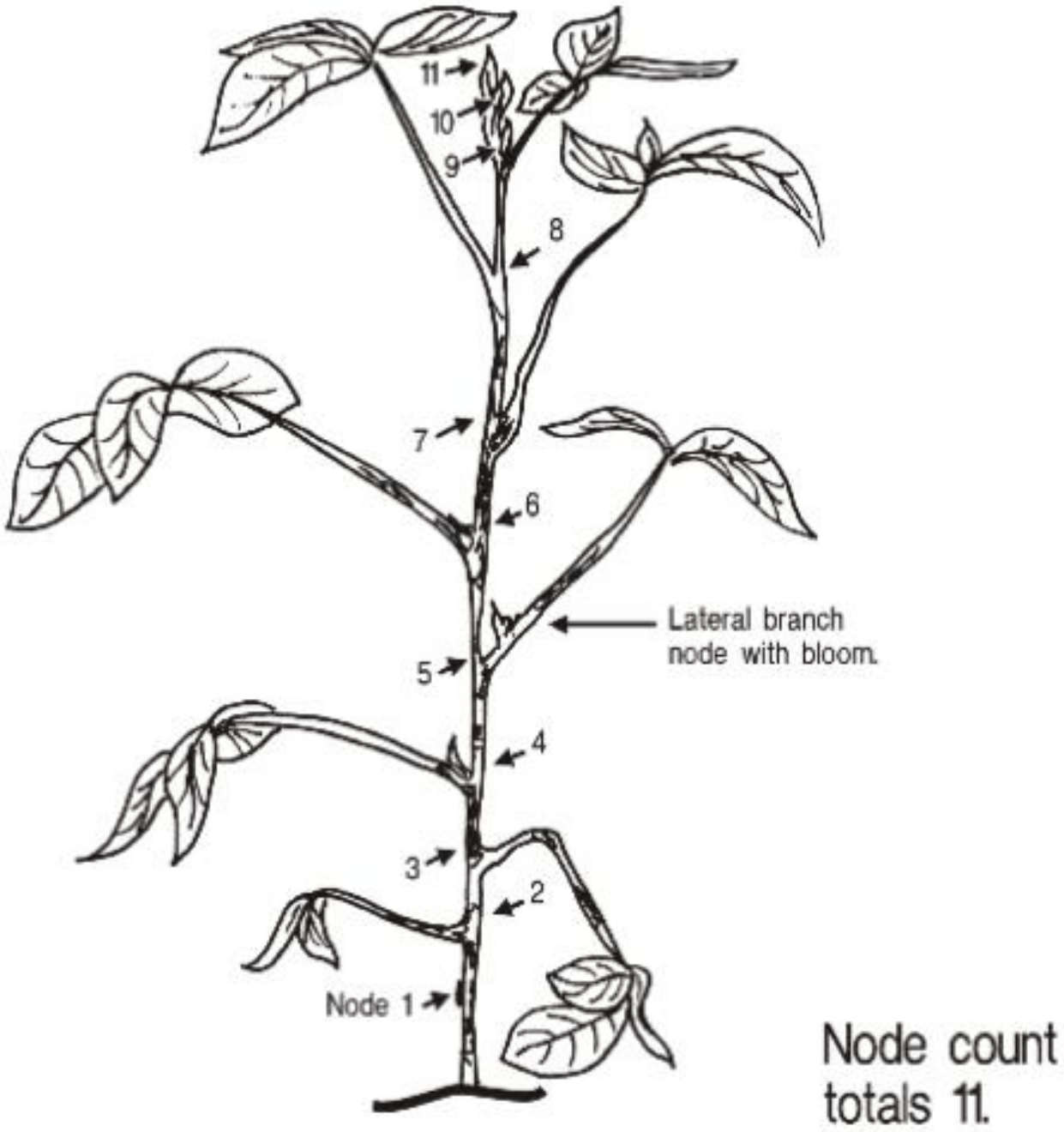
Counts for Item 9 are completed for each unit in maturity stage 2.

9. Number of **nodes** on main stem of plants	314	315	316	317

Record the number of nodes on the main stem above the ground on all plants (including dead plants) in the 6-inch row section. Do not attempt to count nodes below ground level or do not begin with a count of one at ground level. There must be at least one node per plant. Even though the plant is dead, count nodes on the plant. There will be a cluster of pods (blooms or dried flowers), a leaf or a lateral branch off the main stem for each node that is not barren. For some node positions there may not be a lateral branch or a cluster of pods to identify it; however, a scar will be visible, or a roughening of the main stem can be felt at the node. There will be an obvious flattening or change in the shape of the stem for such nodes. Occasionally, a single leaf or fruiting stalk may be present at the node; all such nodes should be included in the count.

A node normally will be found about every two inches along the main stem, but will form closer together near the top (or end) of the main stem. Several nodes may be found at the top of the main stem. Count as many of these as you can see without taking the tip apart.

In a few rare cases, the main stem may fork and form two main stems. If this should occur, treat them both as the main stem.



After counting as many nodes as can be seen and felt on the main stem, add one node for the growing tip. However, by the October 1 survey period in most States the soybean plant has reached its maximum height. The tip is no longer growing, and the plant is in the ripening stages. When the growing tip can no longer be identified as such, do not add an extra node to the Item 9 counts.

Counts for Item 10 are completed for each unit in maturity stage 2.

10. Number of **lateral branches** with blooms, dried flowers, or pods.	318	319	320	321

Branches which bear blooms (and later pods) are called lateral branches for purposes of objective yield counting. Lateral branches that are counted must have at least (a) one leaf or a scar where a fallen leaf was attached, (b) one node and (c) one bloom or pod.

Counts of lateral branches with blooms, dried flowers or pods will be inaccurate unless a careful distinction between lateral branches with fruit and fruiting stalks is made.

Fruiting stalks grow from a node on the main stem. They are usually 1 to 3 inches long and do not contain nodes. In addition, they do not support a leaf. If a leaf is growing from the same node of the main stem as a fruiting stalk, the leaf is on the main stem, not on the fruiting stalk. Depending on the month you observe it, a fruiting stalk will contain only flower buds, flowers, or pods.

Lateral branches with fruit have nodes and may be several inches long or as short as a fruiting stalk. A lateral branch contains one or more leaves, but these may have already shed when you make your observation. If so, you can see the scar at the node where the leaf was attached to the lateral branch.

Branches with fruiting positions only (green flower buds) should not be counted. The branch must contain blooms or pods to be counted as laterals. Also, the growing tip is not a lateral branch and should not be counted.

Counts for Item 11 are completed for each unit in maturity stage 2.

11. Number of **blooms, dried flowers, and pods**	326	327	328	329

Record the actual count of all the blooms, dried flowers, and pods on all parts of all plants within each 6-inch section. Consider as blooms any buds which have the white or purple petals of the flower showing, even though they have not started to unfold or have only partially unfolded.
Note that counts of blooms, dried flowers, and pods on lateral branches and on main stems are combined for this item.

Counts for Item 12 are made for each unit regardless of maturity stage.

12. Number of **pods** with beans (include all pods in which beans have begun to form regardless of size or condition of beans)	346	347	348	349

Count and record the number of pods in which one or more beans are forming. You should be able to see the bulges in the pod corresponding to the individual embryo seeds indicating that bean development is taking place. You may have to carefully feel the pod with your fingers for the presence of beans.

Soybean development becomes noticeable at different times for different varieties. Developed beans become noticeable in pods of some varieties while the pods are still quite small. In other varieties, bean development will not be noticeable until after the pod is over an inch long. On most plants, development is further advanced at the lower part of the stem.

When the beans are just starting to form, it is difficult to be certain if development has started. When in doubt, go outside the unit and check pods of similar size to see whether soybeans are being formed.

Do not include pods which aborted soon after fertilization and have no noticeable beans in the pod.

Harvesting Mature Beans

13. When MATURITY is in Stage 5 Only:
Harvest all pods (all sizes with or without beans) from all plants in the 3-foot section of Row 1 for each unit in Stage 5.

- Pick up all beans and loose pods in Row 1 middle.
- Deposit the pods and beans from each unit in separate paper bags.
- Always complete and SHIP TWO ID TAGS even if ONE UNIT is not mature enough or has no pods.
- Attach ID tags and ship soybeans to the National Lab.

Pods harvested should include pods of all sizes regardless of whether beans are present. Do not exclude pods which in your judgment would pass through the combine and not be harvested. If there is any doubt as to whether the unit is in maturity stage 5, it should be coded maturity stage 4 and should not be harvested. If both sample units are maturity stage 5, harvest all pods from all plants in the 3-foot section of Row 1 of both sample units. When harvesting pods from plants, be careful not to damage pods to ensure an accurate count of pods at the National Lab. Also, pick up any loose pods or beans found on the ground in Row 1 middle for the sample unit(s).

The "middle" associated with Row 1 extends up to but does not include the plants in the second row. Row 2 is not harvested. Deposit the pods (small pods, blank pods, and pods with beans) from each unit in a separate paper bag.

If only one unit is classified in maturity stage 5, harvest all pods (all sizes with or without beans) from all plants in Row 1 of the 3-foot section for the mature unit only. Send two ID tags to the National Lab; one for the mature unit, along with the harvested beans, and one for the immature unit, with an explanation of why the unit was not harvested. Another visit will have to be made to the other unit when it is mature.

If that portion of the field containing one or both units have a possibility of being farmer harvested between monthly survey periods, close contact must be maintained with the farmer to ensure that the final pre-harvest observations can be made, and the lab sample taken.
Before leaving the field, check the form to be certain that all items are completed.

Twin Row Sample Final Pre-Harvest

The final pre-harvest procedures used for twin row planted fields are conducted using the same procedures used for the single row planted samples with the inclusion of the twin row.

Split Sample Final Pre-Harvest

Whenever one unit is harvested, and no pods are harvested from the other unit do to it being immature, or for any other reason, a second ID tag representing the unharvested sample must be included in the sample shipment. The sample ID tag for the unharvested sample must be filled out completely with a reason stating why it was not harvested and included in the sample shipment. The ID tag representing the unit that was not harvested informs the National Lab another unit from this sample should be arriving in the future.

Counting soybean pods; How to identify developed, underdeveloped and aborted pods

After harvesting the pods as instructed in Item 13 for Row 1 of either unit, count the pods and report the observation on Form B, then place the pods in a paper bag, seal and attach an ID tag. Then place all paper bags for a sample in the same shipping sack addressed to the National Lab. If a second bag is required to hold all the pods from Row 1 of a unit, attach a second ID tag to the second bag and clearly mark each bag "1 of 2" and "2 of 2" as appropriate.

When counting soybeans, you will count developed and undeveloped pods separately, do not count aborted pods.

14. Unit used (Always use pods from Unit 1, if possible)	Unit Code	352
15. Number of pods with developed beans (Developed beans are at least 50% of the mass of normal beans in that field. Generally, they are thicker than a nickel.)	Number	353
16. Number of pods with undeveloped beans	Number	351

- NOTE: Special care should be taken so that pods are not damaged to ensure an accurate count of pods at the National Lab

If counts were NOT completed for one or both units, give reason in comments.

A developed soybean pod is a pod containing beans whose mass is at least 50% of the mass of normal beans in the sample field. Developed pods will normally hold beans with a thickness greater than that of a nickel. Beans thinner than a nickel may have a circumference almost as large as normal beans, but since they are so flat or thin, their mass is usually less than 50% of the mass of normal beans.

When in doubt, assume the pod has developed beans. Any pods which were shelled out before reaching the lab are counted as pods with developed beans. Remember, 2 halves make up 1 pod. A pod with both developed and undeveloped beans should be counted as a developed pod. A pod with undeveloped beans is defined as a pod with beans less than 50% of the mass of normal beans.

TOP ROW: Developed pods, **BOTTOM ROW:** Underdeveloped pods

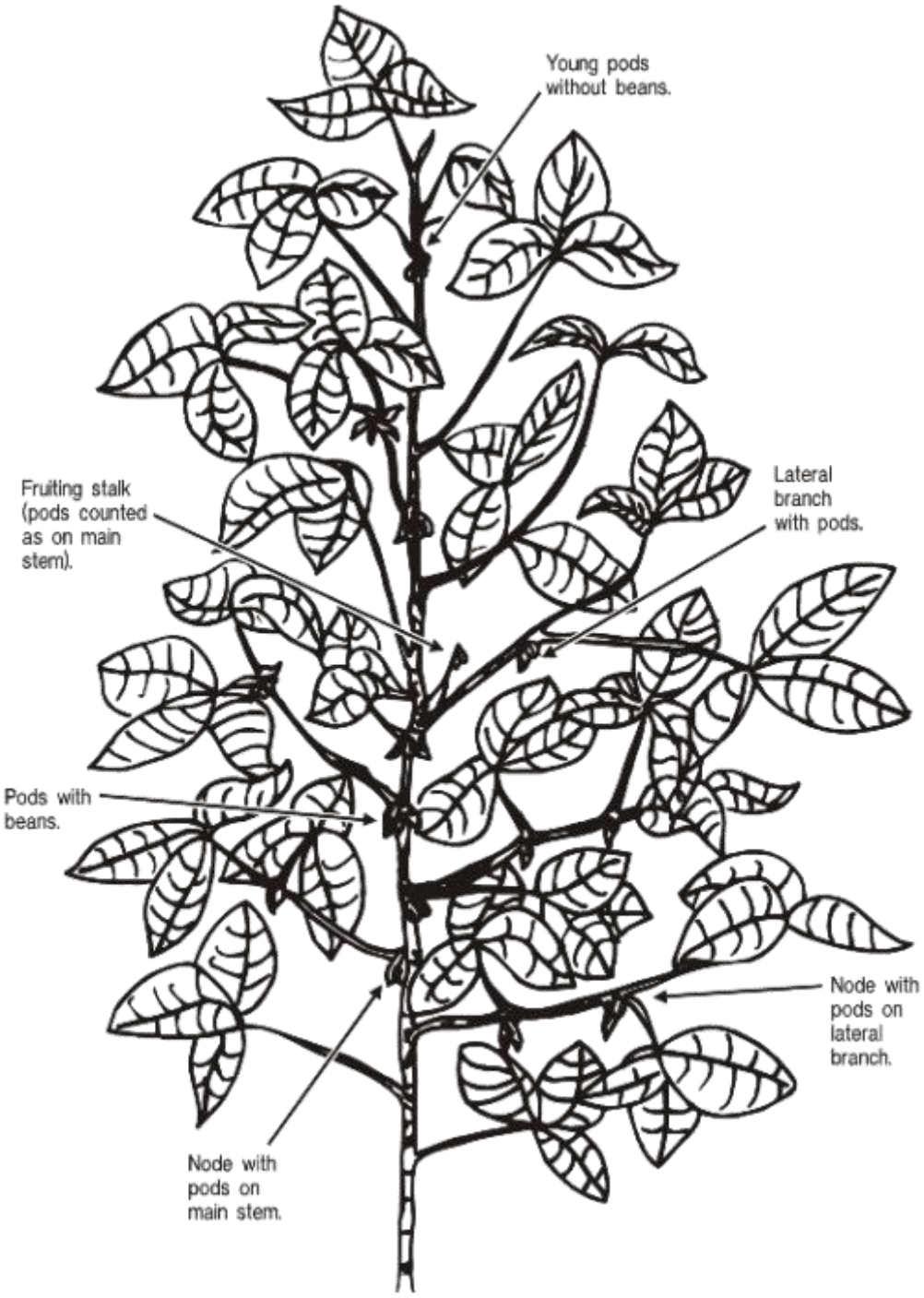
An aborted pod is a very small pod where fertilization occurred, but **beans failed to develop properly**, resulting in a flat or empty pod. This occurs when the soybean plant, under stress, prioritizes resources towards the most viable pods, shedding or failing to fully develop others. These pods usually fall from the plant prior to reaching harvest maturity. However, some may remain in a cluster of normal pods on a plant. The aborted pods are not to be included in any counts or measurements.

Because of the large volume of samples to be handled by the National Lab, it is important that the samples be packaged and shipped as they are completed. Do not hold several samples to be shipped at one time. Try to avoid shipping from country or small-town post offices where pickups are limited to once every other day.

Once the unit is enumerator harvested (maturity stage 5) no further counts are made in that unit.

Enter both your number and your supervisor's number in the boxes provided.

Soybean Plant with Pods Set



Soybean Form B

FORM B SOYBEAN YIELD COUNTS - 20XX

STEP 1: ↓ FILL OUT THIS LABEL ↓

STATE _ _ POID _ _ _ _ _ _ _ _ _ SAMPLE _ _ _

(Circle Forecast Month)

Forecast Month: Sep 1 / Oct 1 / Nov 1 / Dec 1

OMB No.: 0535-0088
Approval Expires: 6/30/20XX
Project Code: 102
Survey ID: 3228

USDA **United States Department of Agriculture**

NATIONAL AGRICULTURAL STATISTICS SERVICE

Date: _____

UNIT LOCATION

		UNIT 1		UNIT 2
1.	Number of rows along edge of field		+ 30	
2.	Number of paces into field		+ 30	

3. Has operator applied pesticides with organophosphorus content to the sample field?

☐ Yes ☐ No

If YES, enter latest application date _____ and name of pesticide _____

			UNIT 1	UNIT 2
4.	UNIT LOCATION CODE	1 First sample count 2 Unit relocated this month 3 Sample counted previously	Enter Code 350	351

If code = 3, skip to Item 6

			UNIT 1	UNIT 2
5.	ROW SPACE MEASUREMENTS			
a.	Measure distance from plants in Row 1 to plants in Row 2	Feet & Tenths	301 .___	303 .___
b.	Measure distance from plants in Row 1 to plants in Row 5	Feet & Tenths	304 .___	305 .___

OBSERVATIONS WITHIN 3-FOOT UNITS

		UNIT 1		UNIT 2	
		ROW 1	ROW 2	ROW 1	ROW 2
6.	Number of plants in row	306	307	308	309

7. Stage of maturity. Circle the Maturity Code for each unit.

When in doubt, classify the unit in the lower stage of maturity.

	Pods Set, Leaves Still Green or Earlier	Pods Filled, Leaves Turning Yellow	Pods Turning Color, Leaves Shedding	Pods Brown, Almost Mature or Mature
UNIT 1	300 **2**	300 **3**	300 **4**	300 **5**
UNIT 2	302 **2**	302 **3**	302 **4**	302 **5**
	For each unit in Stage 2, complete items 8, 9, 10, 11 and 12 only	For each unit in Stage 3 or 4, complete items 8 and 12 only.		For each unit in Stage 5, complete items 8, 12, 13, 14, 15 and 16 only

Soybean Form B (*continued*)

2

FORM B: SOYBEANS - *continued*

COUNTS for 6-INCH ROW SECTIONS (in front of 3-foot units)

If no plants are present, enter dashes (-) for items 8 thru 12. In each unit, complete all items for Row 1 before starting on Row 2. Perform the check after completing item 12.

	UNIT 1		UNIT 2	
	ROW 1	ROW 2	ROW 1	ROW 2
8. Number of plants	310	311	312	313
9. Number of nodes on main stern of plants	314	315	316	317
10. Number of lateral branches with blooms, dried flowers, or pods	318	319	320	321
11. Number of blooms, dried flowers, and pods	326	327	328	329
12. Number of pods with beans (include all pods in which beans have begun to form regardless of size or condition of beans)	346	347	348	349

FOR ANY ROW, if item 12 is greater than item 11, recount 11 and 12.

STAGE 5 MATURITY OR FARMER HARVEST WITHIN 3 DAYS

13. When MATURITY is in Stage 5 Only:
Harvest all pods (all sizes with or without beans) from all plants in the 3-foot section of Row 1 for each unit in Stage 5.
- Pick up all beans and loose pods in Row 1 middle.
- Deposit the pods and beans from each unit in separate paper bags.
- Always complete and SHIP TWO ID TAGS even if ONE UNIT is not mature enough or has no pods.
- Attach ID tags and ship soybeans to the National Lab.

14. Unit used (Always use pods from Unit 1, if possible).....	Unit Code	352
15. Number of pods with developed beans (Developed beans are at least 50% of the mass of normal beans in that field. Generally, they are thicker than a nickel.).....	Number	353
16. Number of pods with undeveloped beans.....	Number	354

- NOTE: Special care should be taken so that pods are not damaged to ensure an accurate count of pods at the National Lab

If counts were NOT completed for one or both units, give reason in comments.

ENUMERATOR COMMENTS: _____

ENUMERATOR: _____

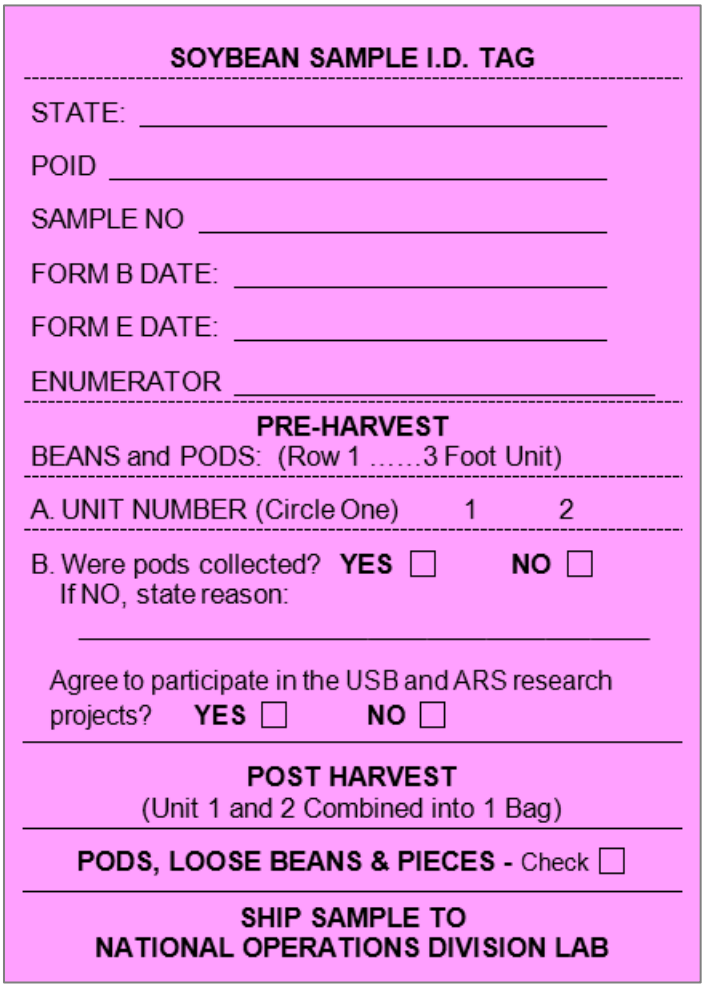
Enumerator Number	390
Supervisor Number	391
Evaluation	393

UPS TRACKING NUMBER: _____

(For soybean samples sent to National Laboratory)

	UNIT 1	UNIT 2
STATUS CODE	380	381

Soybean Pre-Harvest and Post-Harvest Sample ID Tag



SOYBEAN SAMPLE I.D. TAG

STATE: _____

POID _____

SAMPLE NO _____

FORM B DATE: _____

FORM E DATE: _____

ENUMERATOR _____

PRE-HARVEST

BEANS and PODS: (Row 1 ……3 Foot Unit)

A. UNIT NUMBER (Circle One) 1 2

B. Were pods collected? YES ☐ NO ☐

If NO, state reason:

_____

Agree to participate in the USB and ARS research projects? YES ☐ NO ☐

POST HARVEST

(Unit 1 and 2 Combined into 1 Bag)

PODS, LOOSE BEANS & PIECES - Check ☐

SHIP SAMPLE TO
NATIONAL OPERATIONS DIVISION LAB

All soybean lab samples (pre-harvest and post-harvest) must be properly identified by attaching a completed sample ID tag **to the outside of each paper bag**. These tags maintain the identity of the soybean samples from the time they leave the field until they reach the final step of National Lab processing. The data entered or checked on the tag are essential for orderly and timely processing in the lab.

A total of five ID tags per sample could be needed for sample data collection. Please double-check your sample kit envelopes to ensure you have an adequate supply of sample ID tags for sample enumeration.

Completing Soybean Sample ID Tags

All lines of the ID section must be completed for proper identification of the sample. The lab will need this information to properly record data for the sample as it flows through lab processing stations.

Copy sample identification info from Form B, Form E or the Sample Kit Envelope. The sample ID tag date must match the fieldwork date on the corresponding Form B or Form E it pertains to.

Circle the appropriate units from which the pods were picked. If no pods were picked from a unit during this visit, state the reason (i.e., split sample pre-harvest) on the line provided.

Always complete two ID tags for each sample (one for each sample unit) even though beans may have been picked from only one of the sample units. The ID tag representing the unit that was not picked informs the lab another unit from the sample should be arriving in the future.

Only one tag will be completed for post-harvest gleaning samples. All pods, loose beans and pieces of beans go into one bag.

Verify the Tyvek envelope is properly addressed to the National Lab.

Packaging Samples to Send to the National Objective Yield Lab

1. Label each sample unit bag with the sample and unit number before harvesting the pods from the 3-foot section of unit row 1.
2. After all of the pods from the 3-foot section of row 1 have been deposited in the paper bag, gently shake or jiggle the bag to help the pods settle to the bottom. This helps condense the size of the package and protects against rupturing in shipping.
3. Pinch the bag closed at the top of the fill level of the bag.
4. Fold the remaining head space/slack out of the unfilled portion of the top of the bag.
5. Wrap a single rubber band around the bag in a way that will keep it from coming open during shipment. If the package is not too large it may be necessary to stretch the rubber band around the package a second time to hold it tightly shut. Only rubber bands are to be used to hold sample bags shut.

*****NEVER USE TAPE, STAPLES, ADHESIVES, ETC. FOR CLOSING SAMPLE BAGS. USE RUBBER BANDS ONLY!*****

Failing to follow this instruction can cause damage sample packaging which renders the field sample unusable when it arrives at the National Lab. Rubber banding soybean sample bags is sufficient closure and enables lab processing to continue without interruption. Use of alternative closure methods significantly interrupts sample processing.

6. After the bag has been banded closed, slide the completed sample ID tag underneath the rubber band with the printed side facing outward so the sample can be readily identified upon opening the package. Do not put the sample ID tag inside the bag.

7. Record the 18-character UPS tracking number from shipping label on the Tyvek envelope that will be used for shipping the sample to the National Lab on the respective sample's Form B. It is also a good practice to record the full 18-character UPS tracking number on the sample's kit envelope in case the sample goes missing after you have dropped the package off at the UPS pick-up facility.
8. Place the packaged sample bags into the Tyvek envelope.
9. Try to draw the slack out of the top of the envelope before affixing the adhesive flap to close it.
10. After the Tyvek envelope has been sealed closed it is now ready for drop-off at a UPS pick-up facility.

NOTE: UPS representatives recommend placing a single strip of tape over the closing flap as an extra precaution.

The image below is an example of how soybean sample bags should be packaged for shipment to the National Lab.

Shipping Samples to the Objective Yield National Lab

Good Shipping Procedures:

- Reduce transit time
- Reduce loss of samples whenever a shipping tag is destroyed in transit
- Improve sample quality received in the lab
- Do not interrupt lab workflow

Shipping Samples in Tyvek Envelopes:

- Include both units if available and if both will fit into one Tyvek envelope. Include an ID tag with each unit. If only one unit is being shipped, include a second loose ID tag for the missing unit showing the reason for its absence (lost to harvest, not planted, drowned out, blank area, etc.)

  RFOs should place a shipping label on the Tyvek envelope and seal it for shipping to the NOD.

There are two procedures for shipping samples to the National Lab. Field enumerators should utilize UPS shipping when available.

UPS 2nd Day Air or UPS Next Day Air Option

- The samples should be taken to a UPS drop off location or a UPS store. If approved, you may also request a pickup by UPS.

USPS Option

- The samples should be taken to the front desk of a post office or sub-station that is still open, unless you have made previous arrangements with the post office where you drop the samples off. The post office may be apprehensive if they find the Tyvek envelope in an outside drop box without their prior knowledge.

The Dos & Don'ts of Packaging and Shipping Soybean Samples

Do: Make specific notes such as, "Unit 1 harvested by farmer before sample could be taken".

Do: Use paper bags for post-harvest gleanings and enclose the Form E with them in the sample shipment.

Do: Completely fill out the ID tag, making sure that the date and POID on the ID tag matches the fieldwork date and POID on the Form B or Form E. The lab will use the date on the ID tags for completing the lab forms.

Do: Place sample ID tag on the outside of paper bag. Secure bag with rubber bands.

Do: Ship only one sample (2-units) per Tyvek envelope.

Do: Ship samples as soon as possible after taking them from the field. Do not hold longer than 24 hours.

Do: Hold completed Form B for all samples through the end of the survey year.

Do: Inform your coach of all gleaning samples that were refusals or lost samples. This information will be communicated with the survey statistician to get them removed from the CAPI assignment listing.

Don't: Use red pencil or pen on ID tags.

Don't: Leave long, sharp stems on pods harvested from plants or picked up from gleanings units.

Don't: Use tape of any kind on paper bags containing field samples. Closing sample unit bags with tape critically interrupts sample processing workflow at the national laboratory.

NEVER: Use poly bags for packaging soybean pre-harvest or gleaning samples

Chapter 6 – Form E

General

The purpose of the Form E is to collect data to determine harvest loss. This is subtracted from gross yield obtained from Form B counts and measurements to arrive at a net yield.

The post-harvest field gleanings must be completed for all gleaning samples. Your responsibility is to find out when harvest is expected by maintaining contact with the operator. Delaying the post-harvest observations longer than three days results in beans left on the ground being destroyed or carried off by wind, rodents, birds, etc.

If the sample field has been plowed, disked or pastured between harvest and the time you arrive for the post-harvest observations, you should select the closest field harvested for beans on the operation for the post-harvest observations. If no alternate field is available, record this information and what happened to the original sample field under Item 7. In such cases, the gleaning sample is lost, and no post-harvest observations will be made.

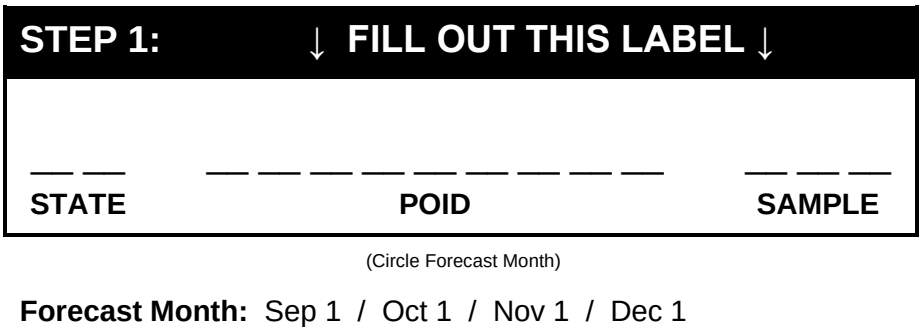
If farmer harvest in that portion of the sample field containing one or both pre-harvest units is not complete when you arrive and will not be completed that day at all, or will not be completed before the cutoff date, post-harvest observations can be made in the harvested portion of the sample field. If you use another part of the sample field, start your count of rows and paces in the harvested area nearest to the starting corner. Use the bounce back technique, if necessary.

Form E Sample Identification

Alike Form B, Form E also has an ID label for recording the State FIPS, POID, sample number, and forecast month has been pre-printed on the form. Use the sample ID information recorded on the Kit Envelope (as instructed in Chapter 1, Field Kit Assembly Instructions) to complete the Form E label each time fieldwork is done.

Please note, the area above the label is an instruction that reads: "**STEP 1: FILL OUT THIS LABEL**" in bold capital letters. This instruction is in place to indicate the importance of completing the label before beginning any data collection on the sample.

Failing to properly ID the form creates the risk of misreporting sample data on multiple samples.



After recording the sample identification information in the label, the date fieldwork was completed on the line provided on the right edge of the From E.

Form E Data Collection

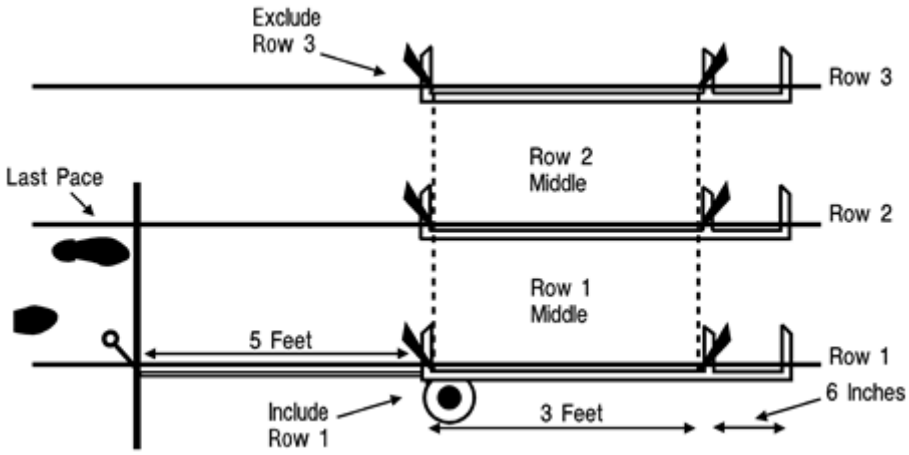
Record the date in the space provided at the top of the Form E.

UNIT LOCATION	UNIT 1	UNIT 2
1. Number of rows along edge of field	+ 5	+ 5
2. Number of paces into field	+ 5	+ 5

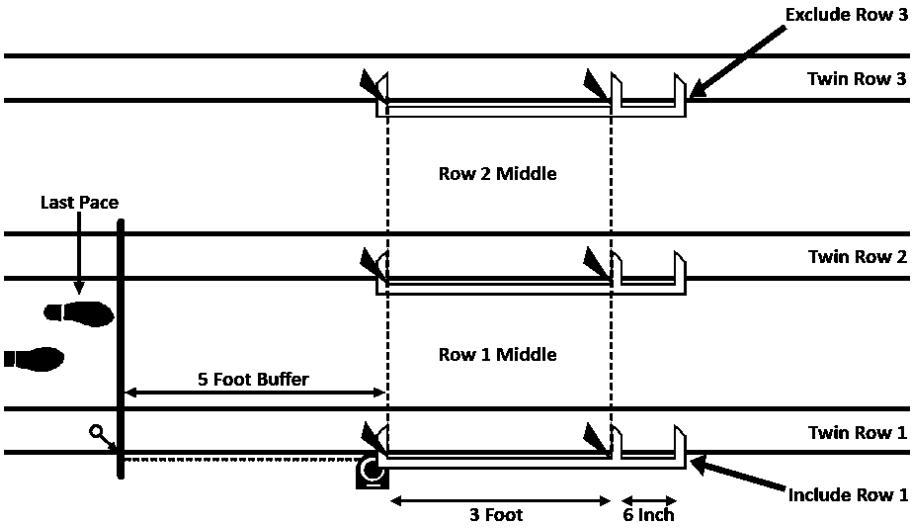
To locate the sample units, you will follow the unit location procedures in Chapter 4. The post-harvest units will be located five rows farther along the edge of the field and five paces beyond the location of the units observed on the pre-harvest visits. Do not mark them permanently, as you will not return to these units.

The sample field will contain two sample gleaning units, each consisting of two 3-foot row sections and the associated middles. Post-harvest gleanings do not include the 6-inch count section. The frame will have to be positioned in Row 3 as well as Rows 1 and 2 in order to mark the corners of the unit including the Row 2 middle. See the illustration on the following page for laying out the units.

Post-Harvest Gleaning Unit with Identifiable Rows



Post-Harvest Gleaning Unit in Twin Row Planted Fields



Twin Row Gleaning Samples

Post-harvest gleaning samples in twin row planted fields will be laid out using the same procedures used for laying out single row planted field gleaning sample units with some minor exceptions:

- The twin row gleaning unit will include the first twin planted row, and the following wide row middle, the second twin planted row and the following wide row middle up to the leading edge of the third row. Exclude plants third twin row plants from the gleanings unit.
- Row space measurements are recorded from the center to center of twin planted rows
- Place gleaning unit boundary stakes on the leading edge of the first row of the first set of twin rows and on the leading edge of the first row of the third set of twin rows then tie ribbon around the perimeter of the stakes to establish the gleaning unit boundary lines

FIELD OBSERVATIONS

		UNIT 1	UNIT 2
3. Measure distance from plants in Row 1 to plants in Row 2 . . .	**Feet and Tenths**	701 . ____	702 . ____
4. Measure distance from plants in Row 1 to plants in Row 5 . . .	**Feet and Tenths**	703 . ____	704 . ____

At the dowel stick, measure the distance across one row space. The distance will be from the center of the plants in Row 1 of the unit to the center of the plants in Row 2. Enter the distance in feet and tenths of feet.

Measure the distance from the center of the plants in Row 1 of the unit to the center of the plants in Row 5. Enter the distance in feet and tenths of feet.

Post-Harvest Gleaning Units in Broadcast Seeded Soybeans

This unit will be laid out the same as the broadcast seeded unit for the pre-harvest sample, except the 6-inch sections are not included in the layout. Record row space measurements as **999.9** in Items 3 and 4 for broadcast seeded units. Enter **888.8** in Items 3 and 4 when units are blank.

Gleanings in 3-Foot Units

Be sure to glean the plants and ground thoroughly in the gleaning area. Four beans per square foot equals a loss of about one bushel per acre.

Pick up all pods of all sizes regardless of whether beans are present. Do not exclude pods which in your judgment would pass through the combine and not be harvested.

		UNIT 1		UNIT 2	
		ROW 1	ROW 2	ROW 1	ROW 2
5. Pick all **pods** with beans attached to plants, and loose pods with beans in each row middle and deposit in a paper bag	**Check**	☐	☐	☐	☐

No counts are recorded. Pick up the pods from the plants in each row and put them in a paper lunch bag. Pick up all pods, even though they may not have more than one soybean or even a piece of a soybean and put them in the paper bag. After the pods have been gleaned from the row middles, check the appropriate boxes to indicate this part of the gleaning operation was completed.

The "middle" associated with Row 1 will always be in the direction of the second row in the unit and will extend up to, but will not include the plants in the second row. Similarly, the "middle" associated with Row 2 will begin with the plants in Row 2 and will extend up to, but will not include the plants in Row 3.

6. Pick up all **whole** beans and pieces of beans in each row middle and deposit in the same paper bag used for above item	**Check**	☐	☐	☐	☐

Pick up all whole soybeans found loose on the ground, and all pieces of soybeans found on the ground in the row middles and put them in the same paper bag used for pods. Most of the pieces will be split or half bean pieces. However, each piece, regardless of size, is to be picked up. Clear away all trash to expose the ground and any beans that may have been "hidden".

Check the appropriate box to indicate this part of the gleaning work was completed.

7. Was an alternate field used for making post-harvest observations?

☐ **YES —** (Indicate in Field Notes) ☐ **NO**

Check the appropriate answer. If no alternate field was available, explain the reason for not completing post-harvest observations in the lines under "FIELD NOTES". Remember to sign your name. Enter both your number and your supervisor's number in the boxes provided.

THE BACK OF FORM E IS FOR OFFICE USE ONLY.

Shipping Gleaning Samples

After the gleaning work is completed from both units, you will have one bag with soybeans. Attach a completed ID tag to the bag with a rubber band. Place the Form E and the bag in a Tyvek envelope and ship to the National Lab within 24 hours of sample collection.

Record the UPS Tracking Number on the Kit Envelope. Having the tracking number available after the sample has left your possession will be helpful in assisting the survey statistician locate the shipment if delivery to the OY Lab gets delayed or if the sample goes missing in transit.

Soybean Form E

FORM E SOYBEAN YIELD SURVEY - 20XX

STEP 1: ↓ FILL OUT THIS LABEL ↓

STATE	POID	SAMPLE
__ __	__ __ __ __ __ __ __ __ __	__ __ __

OMB No.: 0535-0088
Approval Expires: 6/30/20XX
Project Code: 102
Survey ID: 3229

United States Department of Agriculture

NATIONAL AGRICULTURAL STATISTICS SERVICE

(Circle Forecast Month)

Forecast Month: Sep 1 / Oct 1 / Nov 1 / Dec 1

Please make corrections to name, address and ZIP Code, if necessary.

Date: ______________________

UNIT LOCATION

	UNIT 1	UNIT 2
1. Number of rows along edge of field........	+ 5	+ 5
2. Number of paces into field........	+ 5	+ 5

FIELD OBSERVATIONS

		UNIT 1	UNIT 2
3. Measure distance from plants in Row 1 to plants in Row 2..............	Feet and Tenths	701 ._____	702 ._____
4. Measure distance from plants in Row 1 to plants in Row 5..............	Feet and Tenths	703 ._____	704 ._____

GLEANINGS IN 3-FOOT UNITS

Put all pods from both units and all whole beans and pieces from both units in the same paper bag

CHECK EACH BOX AS COMPLETED

		UNIT 1 ROW 1	UNIT 1 ROW 2	UNIT 2 ROW 1	UNIT 2 ROW 2
5. Pick all pods with beans attached to plants, and loose pods with beans in each row middle and deposit in a paper bag	Check	☐	☐	☐	☐
6. Pick up all whole beans and pieces of beans in each row middle and deposit in the same paper bag used for above item.............................	Check	☐	☐	☐	☐

7. Was an alternate field used for making post-harvest observations?

☐ Yes - (Indicate in Field Notes) ☐ No

FIELD NOTES: If post-harvest observations cannot be made, given reasons here.

____

____

Soybean Form E (*continued*)

2

FORM E: SOYBEANS - *continued*

8. Did a supervisor assist you in working this sample? ☐ Yes ☐ No

ENUMERATOR:_____

Enumerator Number 790

Supervisor Number 791

SHIPPING INSTRUCTIONS:

- Attach completed ID tag to the paper bag(s) containing gleanings.
- Place bag(s) and this Form E in a Tyvek envelope.
- Ship Tyvek envelope to the National Lab.
- Record the UPS Tracking Number on the Kit Envelope.

STATUS CODE 780

NATIONAL LABORATORY DETERMINATIONS

Date sample received in lab (MM DD) _____

Discard any pods with undeveloped beans. Thresh and hull all other pods from bag; combine with loose whole beans and pieces of beans.

9. Total weight of threshed and loose beans immediately before moisture test..... Grams to Hundredths 714 .____ ____

10. Moisture content of beans, rounded to tenths [1/]..... Percent 715 .____

[1/] *If sample weight is too small for moisture test, sufficient beans of known moisture content will be added to the sample so that a moisture test can be made. The moisture content of the sample can then be derived using the following formula.*

$$E = \frac{(A + B)D - (B \times C)}{A}$$

Where A = Weight of small sample (*item 9*) ..... . ___ ___ Grams

B = Weight of additional beans required for moisture test ..... . ___ ___ Grams

C = Moisture percent of B ..... . ___ Percent

D = Moisture percent of A + B combined ..... . ___ Percent

E = Result: Moisture percent of small sample (*enter in item 10*) ..... . ___ Percent

Lab Technician(s) _____ Date Analysis Completed _____

MM DD

Chapter 7 – CAPI Data Entry

General

CAPI will be used for data entry for Form A and Form B records. All data will be recorded on the paper forms during the Form A interview with the operator and monthly Form B counts and measurements in the field. After the field visit is complete the enumerator will access their assignment listing on the iPad and enter the data for their samples into the CAPI forms exactly as it was recorded on the paper forms in the field and submit the record after data entry has been completed.

*****IMPORTANT: NEVER take the iPad into a field under any circumstance.*****

To take full advantage of the mobile data collection technology developed for this survey, enumerators are recommended to enter and submit the data immediately after they have exited the field or by the end of the day the fieldwork was completed.

Please hold all paper survey forms for all samples through the end of the survey year so they will be available for reference if the survey statistician has questions about a sample.

The survey statistician will provide specific instructions on how they wish to handle the completed paper forms for samples entered and submitted via CAPI after the survey has concluded for the year.

Survey Designer and Edit System

The CAPI instruments, developed using the Survey Designer System, incorporate survey-specific conditional restrictions (edits) to ensure data quality. These edits, based on administrative survey parameters, limit data entry to expected items only. This approach ensures that only necessary data is entered for completing a record for final submission. Additionally, the edits in the CAPI instrument alert users to any required corrective actions before they can proceed with data entry.

Examples of Edits in Place:

- Fieldwork Date must be set before entering any other data in the form.
- A unit Status Code must be selected before proceeding to the next page.
- When Unit Location = 1 or 2, Row space measurement is required before proceeding.
- When Unit Location = 3- Unit Laid out Previously, the row space measurement cells are hidden.
    - This is in place because the row space measurement does not change in a sample unit from month to month without first relocating it to a new position in the sample field.
- Enumerator and Supervisor fields must be complete before proceeding.

OY CAPI USER TIP: Always review your work before data entry and final submission!
Errors made on paper forms will also be errors when they are loaded to the survey edit system.
Edits do not correct data entry errors. They are only in place to limit data entry to be available for expected items.
It is imperative for the CAPI user to review their work on the paper form before beginning data entry and verify keyed data with the paper form before submission.

CAPI Form A and B Status Codes

Prior to the implementation of CAPI data collection in the Objective Yield Survey status codes were determined by the survey statistician based on the data reported by the enumerator who completed the form.

The status code is used to identify the sample unit's status for the current enumeration period based upon recorded observations.

A status code must be selected by the user in CAPI for each Objective Yield Sample form before proceeding.

Please read the selections from the drop-down menus carefully before selecting the code that identifies the current status of the sample being enumerated.

*****Status codes differ across all Objective Yield forms for all crops*****

Soybean Form A Status Code Definitions:

1- Complete

First Visit: The enumerator was able to get permission to visit the field, lay out the sample units and complete the Form A.

Minimum data requirement for Status Code 1:

- Interview date must be entered
- Questions 1-5 must be positive where applicable (102-105)
- Enumerator and supervisor number must be entered
- Status Code 1 must be selected (180)

7- Refusal

Any Visit: The farmer refused to participate in the survey in the Form A interview or decided they do not want samples laid out in the field.

Future Visits: No future visits will be required.

Minimum data requirement for Status Code 7:

- Interview date must be entered
- Status Code 7 must be selected (180), no other data is required.
- Enumerator and supervisor number must be entered.
    - Submit Form B and E (if applicable) as refusals as well

13- No Soybean for Harvest as Beans on Entire Farm

First Visit: No Soybean was planted for harvest as beans on the entire farm at the time the Form A interview was conducted.

Future Visits: No future visits will be required.

Minimum data requirement for Status Code 13:

- Interview date must be entered
- Status Code 13 must be selected (180), no other data is required
- Enumerator and supervisor number must be entered
    - Submit Form B and E (if applicable) as No Soybeans as well

When Soybean Form A Status Code is:	Is Form A Expected Next Month?
1- Complete (Form A expected next visit)	**NO**
7- Refusal	**NO**
13- No soybeans for harvest as beans on entire farm	**NO**

Form A CAPI Response Coding and Where to Enter Comments

After Form A data entry is completed select the following response codes in the submission screen. See below for comments entry example.

Item	Response Coding Used for OY Surveys
Response:	Completed
Respondent:	(Who Responded)
Respondent Name:	(Leave Empty)
Respondent Mode:	Telephone on iPad
Enumerator:	Auto coded from Assignment Listing
Comments:	General survey comments from the paper form should be entered via the comments icon. Comments that are related to a particular cell or item can be entered in item level comments, accessible via calculator icon.

Soybean Form B Status Code Definitions

1- Complete (Form B expected Next Visit)

The sample field is standing for harvest and sample unit measurements have been recorded. A Form B will be expected next month.

First Visit: Complete Form B to meet minimum data requirements for Status Code 1.

Future Visits: The enumerator will return to the sampled field to record measurements for both units and complete Form B accordingly each month until the sample units are mature enough to perform pre-harvest procedures and send the final pre-harvest sample to the national laboratory for processing.

Minimum Data Required for Status Code 1:

- Record Fieldwork Date
- Unit Location Codes must be 1-3 (350, 351)
- Row Space Measurements must be empty when Unit Location Code = 3 (301, 304, 303, 305)
- 3-foot area plant counts are positive where applicable (306, 307, 308, 309)
- Maturity code is 2-4 (300, 302)
- Number of plants is positive where applicable (310, 311, 312, 313)
- Number of nodes on main stem ≥ number of plants in 6-inch count area (314, 315, 316, 317)
- Number of lateral branches < number of nodes in unit row (318, 319, 320, 321)
- Number of blooms, flowers, and pods ≥ number of plants in unit row (326, 327, 328, 329)
- Number of pods with beans ≥ number of plants in unit row, and ≤ number of blooms, flowers, and pods in unit row (346, 347, 348, 349)
- Status Code 1 must be selected for respective unit(s) (380, 381)
  Form B **is expected** next month.

2- Farmer Harvested Before Unit Was Laid Out

The sample field was harvested for beans before the sample was laid out. No alternate field is available on the entire operation.

First Visit: Add comment explaining the situation on Form B/in Enumerator Comment area of CAPI instrument.
If a Gleanings sample, add fieldwork date and comment explaining the situation on Form E.
Complete Form B to meet minimum data requirements for Status Code 2.

Future Visits: No future visit will be required.

Minimum Data Required for Status Code 2:

- Record Fieldwork Date
- Status Code 2 must be selected for respective unit(s) (380, 381), no other data is required
  Form B is **not expected** next month.

3- Farmer Harvested for Beans

Sample units were laid out but were harvested by the farmer before the current month's observations could be completed.

First Visit: Add comment explaining the situation on Form B/in Enumerator Comment area of CAPI instrument.
If a Gleanings sample, add fieldwork date and comment explaining the situation on Form E.
Complete Form B to meet minimum data requirements for Status Code 3.

Future Visits: No future visit will be required.

Minimum Data Required for Status Code 3:

- Record Fieldwork Date
- Status Code 3 must be selected for respective unit(s) (380, 381), no other data is required
  Form B is **not expected** next month.

4- Enumerator Harvested or Both Units Are Blank (No future Form B expected)

Soybeans in sample unit were Maturity Code 5 and were harvested by the enumerator.

Pre-Harvest: Complete Form B to meet minimum data requirements for Status Code 4.

Future Visits: Gleanings samples (*sample numbers that are a multiple of 4, i.e. 4, 8, 12...*) will only require a future visit; within 3 days of farmer harvest.
No future visit will be required for non-gleanings samples.

Minimum Data Required for Status Code 4:

- Record Fieldwork Date
- Unit Location Codes must be 1-3 (350, 351)
- Row Space Measurements must be empty when Unit Location Code = 3 (301, 304, 303, 305)
- Number of plants in 3-foot area is positive where applicable (306, 307, 308, 309)
- Maturity code is 5 (300, 302)
- Number of plants in 6-inch count area is positive where applicable (310, 311, 312, 313)
- Number of pods with beans (where applicable) ≥ number of plants in unit row (346, 347, 348, 349)
- Status Code 4 must be selected for respective unit(s) (380, 381)
  Form B is **not expected** next month.

6- Lost Sample – Field NOT Harvested for Beans

The sample field was NOT harvested for beans. During the initial interview, the farmer indicated the field would be harvested for beans and the sample units were laid out by the enumerator. However, since the initial visit, the entire sample field was destroyed, plowed, pastured, or abandoned by the farmer.

Do not use status code 6 if the sample field has been harvested for beans but the field was plowed, grazed, etc. before the final pre-harvest observations could be made, use status code 3.

Any Visit: Confirm the field will not be harvested for beans with producer and complete Form B accordingly. Add comment explaining the situation on Form B/in Enumerator Comment area of CAPI instrument.
If a Gleanings sample, add fieldwork date and comment explaining the situation on Form E.
Complete Form B to meet minimum data requirements for Status Code 6.

Future Visits: No future visit will be required.

Minimum Data Required for Status Code 6:

- Record Fieldwork Date
- Status Code 6 must be selected (380, 381)

Form B is **not expected** next month.

7- Refusal

The farmer refused to participate in the survey in the Form A interview or decided they no longer wish to participate after samples were laid out in the field.

First Visit: Add comment explaining the situation on Form B/in Enumerator Comment area of CAPI instrument.
If a Gleanings sample, add fieldwork date and comment explaining the situation on Form E.
Complete Form B to meet minimum data requirements for Status Code 7.

Future Visit: No future visit will be required.

Minimum Data Required for Status Code 7:

- Record Fieldwork Date
- Status Code 7 must be selected (380, 381), no other data is required
  Form B is **not expected** next month.

8- Inaccessible (Form B expected Next Visit)

Sample units are standing for harvest, but are inaccessible by the enumerator this month. This occurs in instances where enumeration for the survey month was prohibited by weather, field point of access was closed, locked, recent chemical applications, etc.

Form B cannot be inaccessible the last survey month of the year. If no pre-harvest data can be collected, use status code 2 or 3 as the final Form B for the season.

Any Visit: Add comment explaining the situation on Form B/in Enumerator Comment area of CAPI instrument. Complete Form B to meet minimum data requirements for Status Code 8.

Future Visits: Return to field as normally scheduled.

Minimum Data Required for Status Code 8:

- Record Fieldwork Date
- Status Code 8 must be selected (380, 381), no other data is required
  Form B **is expected** next month.

10- Unit Harvested by Enumerator in previous Visit

This sample unit was harvested (status code 4) in a previous visit. The sample unit remaining in the field will be the only unit to have measurements taken because this unit was harvested in a previous visit.

Counts and enumerator harvest were completed earlier for this sample unit, (status code 4 on the previous visit). Form B will be completed for the other unit whether it is mature and harvested or immature.

Any Visit: Add comment explaining the situation on Form B/in Enumerator Comment area of CAPI instrument. Complete Form B to meet minimum data requirements for Status Code 8.

Future Visits: Return to field as normally scheduled if remaining unit has not yet been harvested.

- Record Fieldwork Date
- Unit Location Codes must be blank applicable unit (350, 351)
- Row Space Measurements must be blank for applicable unit (301, 304, 303, 305)
- Number of plants in 3-foot area is blank for applicable unit (306, 307, 308, 309)
- Maturity code is blank for applicable unit (select 0 in CAPI instrument) (300, 302)
- Number of plants in 6-inch count area is blank for applicable unit (310, 311, 312, 313)
- Status Code 10 must be selected for respective unit (380, 381)
  Form B **is expected** for each month a Form B is completed for the remaining sample unit.

11- Sample Field Planted but Not to be Harvested as Beans

Sample field was planted to soybeans but not for harvest for beans. During the initial interview, the farmer indicated that the selected sample field will not be harvested for beans. No sample units were laid out.

First Visit: Add comment explaining the situation on Form B/in Enumerator Comment area of CAPI instrument.
If a Gleanings sample, add fieldwork date and comment explaining the situation on Form E.
Complete Form B to meet minimum data requirements for Status Code 11.

Future Visit: No future visit will be required.

Minimum Data Required for Status Code 11:

- Record Fieldwork Date
- Status Code 11 must be selected (380, 381), no other data is required
  Form B is **not expected** next month.

13- No Soybeans Planted for Harvest as Beans on the entire operation

During the initial interview, the farmer indicated they did not plant any soybeans in the entire segment. No sample field is available to be surveyed.

First Visit: Add comment explaining the situation on Form B/in Enumerator Comment area of CAPI instrument.
If a Gleanings sample, add fieldwork date and comment explaining the situation on Form E.
Complete Form B to meet minimum data requirements for Status Code 13.

Future Visit: No future visit will be required.

Minimum Data Required for Status Code 13:

- Record Fieldwork Date
- Status Code 13 must be selected (380, 381), no other data is required
  Form B is **not expected** next month.

Soybean Form B Status Code Summary:

When Soybean Form B Status Code is:	Is Form B Expected Next Month?
1- Complete	**YES**
2- Farmer Harvested for Beans **before** Units Were Laid Out	**NO**
3- Farmer Harvested for Beans **after** Units were Laid Out	**NO**
4- Enumerator harvested sample unit	**NO**
6- Lost Sample – Field **NOT** harvested for beans	**NO**
7- Refusal	**NO**
8- Inaccessible	**YES**
10- Unit harvested earlier	**NO**
11- Sample field planted to soybeans but not for harvest as beans	**NO**
13- No Soybeans Planted for Harvest as Beans on the entire operation	**NO**

Form B CAPI Response Coding

After Form B data entry is complete and you have clicked the Finish Button at the bottom of the form to submit the record, select the following response codes in the submission screen for each record.

Item	Response Coding Used for OY Surveys
Response:	Completed
Respondent:	Other
Respondent Name:	(Leave Empty)
Respondent Mode:	Face-to-Face on iPad
Enumerator:	Locked out and auto coded from Assignment Listing
Comments:	All OY survey comments should be made in the Enumerator Comments area before ending Form B data entry.