



United States
Department of
Agriculture

National Agricultural
Statistics Service

Agricultural Statistics
Board

Washington
D.C. 20250

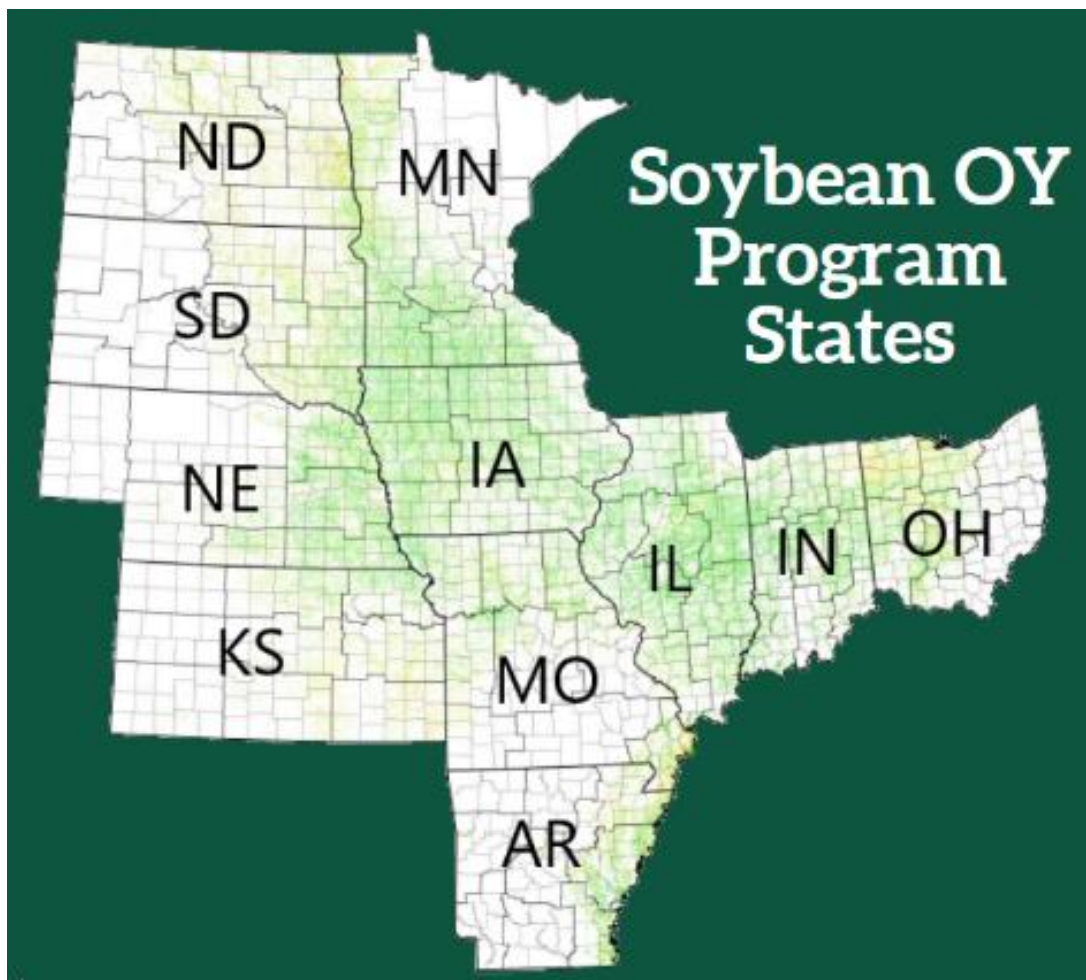
June 2025



2025 Soybean Objective Yield Guidebook

Project Code: 102

The Soybean Objective Yield Guidebook is quick reference resource to review when working on soybean objective yield samples.



OBJECTIVE YIELD FORM OVERVIEW

Form A:

- 1 completed per sample -- collect first
- Identifies correct operator of the field and obtains permission

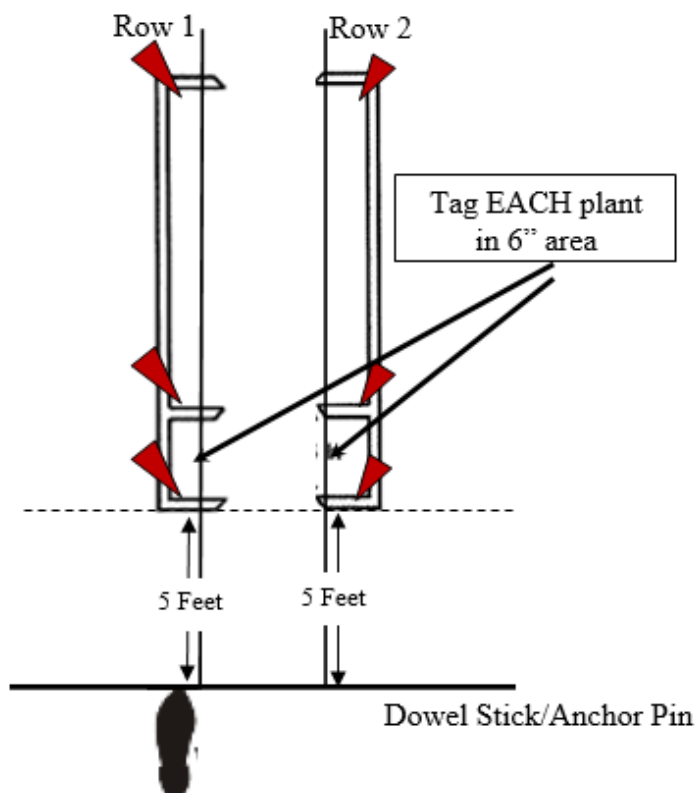
Form B:

- 1 completed per sample each month until harvest
- Contains information to layout sample units
- Collect measurements and counts
- Maturity determines what questions to complete on the back page
- Harvest and weighing instructions are located on Form B

ENTER FORM A & FORM B DATA IN CAPI THE DAY IT WAS COLLECTED

Soybean - Laying Out the Sample

- 1) Walk Rows and Paces designated on the Unit Location Sheet
- 2) Mark spot with dowel stick or anchor pin.
- 3) Measure R1 to R2 width, then R1 to R5 width
- 4) Measure 5 ft buffer zone
- 5) Insert florist stake at 5 ft
- 6) Insert Soybean Frame, from outside of unit
- 7) Insert florist stake at each end, inside the 3 foot area tine
- 8) Flag each plant in the 6 inch area
- 9) Repeat for Row 2
- 10) Repeat for Unit 2, Rows 1 & 2



Soybean Form B Highlights

Maturity Determination:

- Select maturity code for each unit separately
- If you are undecided on the maturity stage, classify in the lower stage

Plant Counts:

- Count ALL plants, alive or dead.
 - Make notes regarding dead plants such as, “3 of 5 plants are dead” or “2/7 plants broken off at the ground”

Nodes:

- Enlarged region of stem to which blooms, pads, trifoliate leave and lateral branches are attached
- Generally spaced 2” apart, but closer together towards top of the stem
- Include the growing tip as a node in the node count

Lateral Branches have at least one of each of the following:

- Leaf or scar where a leaf was previously connected
- Node
- Bloom, dried flower, or a pod

Harvest Pod Counts, Items 14-16:

- Always use pods from Unit 1, if possible
- Sort and count developed and undeveloped pods from one unit (again, use Unit 1, if possible)
- Place pods back into the paper bag



CODE 2: This covers all plant growth stages until the pods are full. All leaves will still be green. Flowers may or may not be present.

CODE 3: The leaves are turning yellow on nearly all plants, although green leaves may still be more numerous. Most pods are full and some are ripening.

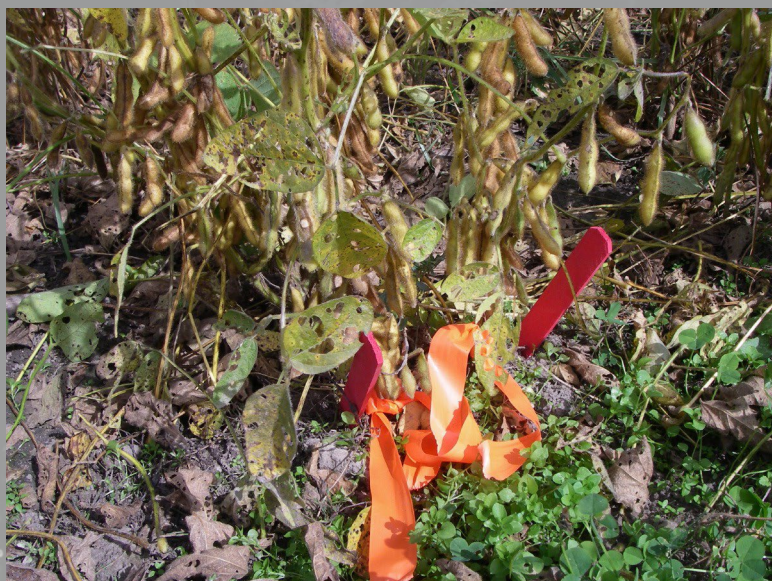
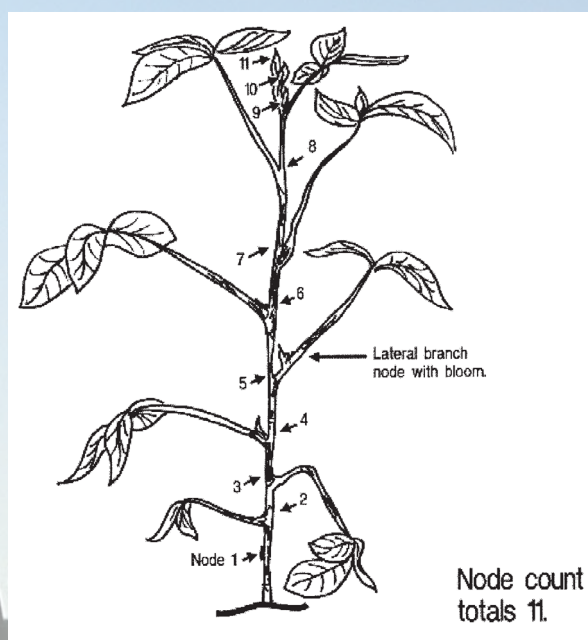


CODE 4: Leaves have turned yellow and some have fallen. The pods are full size and are going from green to brown, but many pods will still be green. Beans are not firm and have not completely shrunk inside the pods.



CODE 5: The pods are brown and open easily. The beans have shrunk inside the pods. Most or all of the leaves have been shed by the plants.

Count all nodes on the main stems of the plants inside the 6-inch row section. Several nodes may be found at the top of the main stem; count as many of these as you can without taking the tip apart. In a few rare cases, the main stem may fork and form two main stems; if this occurs, treat them both as the main stem.



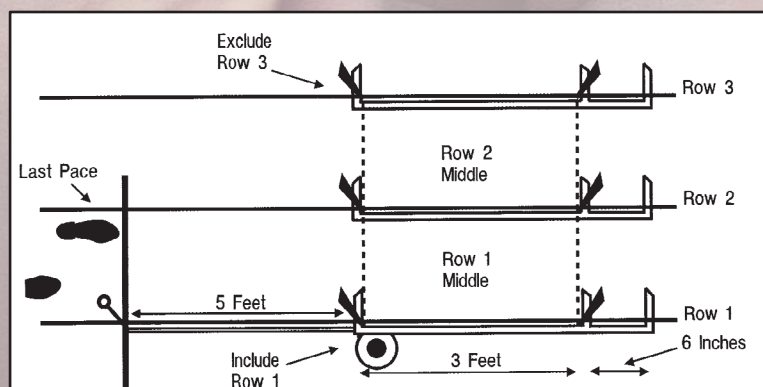
The first and last plants of the 6-inch row section are marked with red plastic ties or flagging ribbon. Count all soybean plants inside this section, regardless of their size or physical condition.

Count all blooms, dried flowers, and pods (all shown on same plant in this picture) 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.



Lateral branches that are counted in the 6-inch section must have at least one leaf, one node, and one bloom or pod.

Pick up all beans and pods inside the gleaning unit outlined by the four red stakes. Do **not** exclude pods which in your judgement would pass through the combine and not be harvested. Beans and pods missed by the farmer during harvest will indicate harvesting losses.



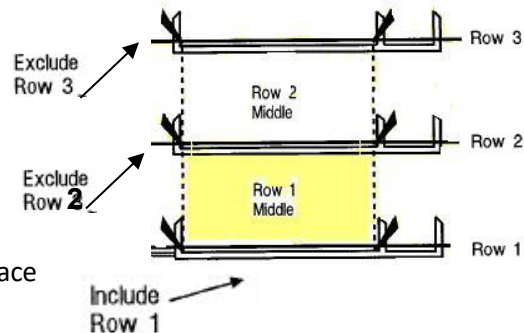
Soybean PRE-HARVEST Sample to St Louis lab

When is it done?

- When sample unit maturity is in stage 5 -OR-
- When operator could harvest within next 3 days

Now what?

Unit 1: Harvest ALL pods from ALL plants in the 3-foot section of Row 1 for each unit in stage 5. Also, pick up all beans & loose pods in Row 1 middle. Place all beans and pods in brown paper bag.



Unit 2: Using separate brown paper bag, Harvest ALL pods from ALL plants in the 3-foot section of Row 1 for each unit in stage 5. Also, pick up all beans & loose pods in Row 1 middle.

Complete a PINK sample ID tag for each unit and securely attach to the respective sample unit bag using orange rubber bands.

- 9-digit POID
- Sample Number
- Form B or Form E Date (MUST match actual form)
- Enumerator Name and 5-digit ID number
- Place paper bags in a GREEN TYVEK envelope

SOYBEAN SAMPLE I.D. TAG
STATE: IOWA
POID: 101 202 200
SAMPLE NO: 123
FORM B DATE: 10/03/2013
FORM E DATE: _____
ENUMERATOR: BOY INCHUCK 19999
PRE-HARVEST
PODS, LOOSE BEANS & PIECES (Row 1 - 3 Foot Unit)
A. UNIT NUMBER (Circle One): 1
B. Were pods collected? YES ☒ NO ☐
if NO, state reason: _____
POST HARVEST
(Unit 1 and 2 Combined into 1 Bag)
PODS, LOOSE BEANS & PIECES - Check ☐
SHIP SAMPLE TO NATIONAL LAB

Take all sample shipments to a UPS pickup location within 24 hours of completing fieldwork.



NOTE: Always complete & mail two pink sample ID tags even if only one unit is mature enough and has pods. If only one unit is harvested, include a second loose, completed pink sample ID tag representing the missing unit showing the reason for its absence (lost to harvest, not planted, drowned out, not yet mature, harvested last month, etc.).

Form E & Soybean GLEANING Sample to St Louis lab

For which samples?

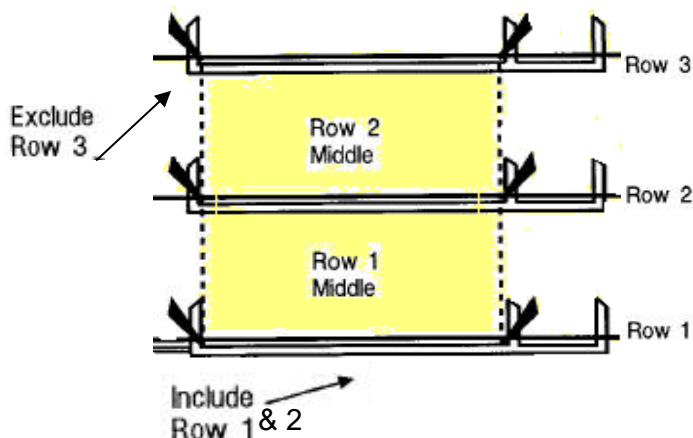
- Every 4th sample, kit envelope says “Gleaning,” and a Form E will be in the kit envelope

When?

- Within 3 days after the operator has harvested

Now what?

- Using the rows and paces on Form E, locate the sample unit. It will be five paces and five rows past the sample unit you previously laid out. Make your measurements, fill out Form E.
- Prepare gleaning sample. Include the following (*from both rows in both units*) in one paper sack:
 - All pods with beans attached to plants.
 - Loose pods with beans in each row middle.
 - Whole beans & pieces of beans in each row middle.
- Fold paper sack and securely attach a completed pink sample ID tag using rubber bands.
- Verify the sample # is correct on the Form E and pink sample ID tag. Place paper sack **AND Form E** in a GREEN TYVEK envelope.



What if sample post-harvest observations cannot be made for valid reasons?

- Notify your enumerator coach if no alternative field was available for gleaning. The coach will provide the survey statistician with the sample status update.