



United States Department of Agriculture
National Agricultural Statistics Service



Objective Yield Survey Program & Purpose

2023 Corn and Soybean
Project Code -104 and Project Code 102





Northern Plains Contacts

Christina Dowd – Program Manager
(402) 470-8792
Christina.Dowd@usda.gov

Paul Sueper – Group Leader
(402) 470-8757
Paul.Sueper@usda.gov

Office Phone: (800) 582-6443



NPR Contacts for Corn

Justin Cech – Corn OY Stat

(402) 470-8787

Justin.Cech@usda.gov

David Biar – Corn OY Stat

(402) 470-8768

David.Biar@usda.gov



NPR Contacts for Soybean

Angie Newby – Soybean OY Stat

(402) 470-8786

Angie.Newby@usda.gov

Christina Dowd – Soybean OY Stat

(402) 470-8792

Christina.Dowd@usda.gov

Devin Van't Hof – Soybean OY Stat

(402) 470-8770

Devin.VantHof@usda.gov



Program and Purpose

(VIDEO)



Kit Envelope, Form A, & Pesticide Safety

4 PARTS OF OBJECTIVE YIELD

- FORM A
 - Field selection and permission
 - June Area segment map
- FORM B
 - Counts, Measurements, Weights
 - Multiple forms
- FORM C
 - Lab work in St. Louis - counts and measurements
 - Number of times varies by crop
- FORM E
 - Measures harvest loss

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

Official Business

STATE _____ Crop _____

Variety _____

Sample Field

SOYB SAMPLE: 0004

POID: 100 [redacted]

GLEANING SAMPLE

R/S/D: 1381

[redacted]
[redacted]
[redacted]

(701) [redacted]

() -

() -

STATE: 38, ND

SEGMENT [redacted]

COUNTY: [redacted]

TRACT: C

SUPERVISOR: 38 [redacted]

ENUMERATOR: 38 [redacted]

FIELD [redacted]

Expected Harvest Date _____

Soybean Unit Location Row/Pace Counts
If Field = < 10 Acres 10-19.9 Acres 20-39.9 Acres >= 40 Acres

Unit 1

Rows= 21 90 79 190

Paces= 142 78 95 220

Unit 2

Rows= 65 38 153 220

Paces= 51 60 96 91

FIELD SKETCH

North

****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

Irrigated/Non-irrigated Samples

- Kansas and Nebraska kit envelopes will have a “IRRIGATED” label on irrigated samples. Make sure to fill out the irrigation question on Form A.
 - IRRIGATED sample should select IRRIGATED field
 - NON-IRRIGATED sample should select NON-IRRIGATED field
- In rare cases, the Irrigated/Non-irrigated variable does not match the available sample field.
- Contact the office and the Irrigated/Non-irrigated variable can be switched to the available Sample Field.

Irrigated/Non-Irrigated Samples

Let us know if the field is chosen:

- for **Non-irrigated** and it is actually Irrigated
- for **Irrigated** and it is actually Non-irrigated

IRRIGATED SAMPLES

STATE	CORN	SOYBEAN
Kansas	201-260	N/A
Nebraska	201-300	201-260

KIT ENVELOPE CONTENTS

- 1 – Form A
- 4 – Form B
- 5 – Sample ID Tags
- 1 – Form E (if gleaning)
- 1 - June Area Photo
 - Segment Map
 - County Segment Map

Form A

- Purpose
 - Get permission from farmer
 - Update acreage since the June Area Survey

Form A

- Contact by phone first
 - Complete Form A
 - Select Sample Field
- Face-to-face appointment if cannot complete by phone
- Attempt face-to-face if unable to contact by phone
- CAPI will be used to submit Form A
- No forms sent to Lincoln

Initial Interview

- Respondents mailed July 18:
 - Pre-Survey Letter
 - June Area Segment Map
- Verify planted/harvested acres:
 - June Refusal or Inaccessible and Tract could not be observed
 - Respondent Changed Planting Intention/Intended Use
 - Field Destroyed Due to Weather Event (flooding, hail, etc.)
 - Reporting/recording error in June Area

Field Selection

- Samples will be labeled with cardinal direction
 - Example: “N” have the operation identify the northern-most field in the tract with the target crop.
- If two fields are the same distance in the direction variable, select the field furthest to the east (clockwise).
- Select one field per sample until there are no more fields, then go back to the first field and continue until there are no more samples.
- Select sample field for objective yield:
 - CORN field for CORN sample
 - SOYBEAN field for SOYBEAN sample

Form A – Table A

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
22 N	. ____		. ____	
23 S	. ____		. ____	

Form A - Soybeans

- Questions on Page 3 refer to Sample Field selected in Table A

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 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No 2 <input type="checkbox"/> Don't Know	CODE	114

Form A – Soybeans

- Don't forget to ask United Soybean Board compositional analysis permission in item 8a of the Soybean Form A:

a. The United Soybean Board (USB) has requested permission to use the soybean samples for compositional traits and disease analysis. **Do we have your permission** to provide your soybean sample to USB?

¹ ☐ Yes

³ ☐ No

CODE

Form A – Corn

- Questions on Page 3 refer to Sample Field selected in Table A

FORM A: CORN - Continued

All questions below apply to this SAMPLE.

3. For the Sample Field, subtract Column 4 from Column 2 for the total acres of corn to be harvested for grain or seed. Report these acres here:.....

ACRES

103

4. What was the planter row width setting?.....

INCHES

107

5. On what date was planting completed in this corn field?.....

MM DD

109

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

104

Form A – Corn

- If the Sample Field will be harvested for high moisture corn, make a note so sample is not lost to early harvest.

10. Do you intend to harvest this field as high moisture corn?
(High moisture corn is defined as corn with moisture content of 30 percent or more.)

☐ Yes

☐ No

☐ Don't know

Form A Reminders

- Phone first, limited face-to-face
- Sample drawn from June Area
- Select field with item of interest
- Irrigated/Non-irrigated for Kansas & Nebraska
- CAPI will be used to submit Form A
- No forms sent to Lincoln

PESTICIDE SAFETY

- Organophosphorus pesticides used in corn and soybean production.
- Use extreme caution to avoid exposure.
- Make notes on kit envelope if organophosphorus pesticides have been applied previously or in the future.
- You may want to contact the operator before going out to the field to verify it's safe to enter.

PESTICIDE SAFETY

- Field Re-Entry Intervals 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:

- Wear a long sleeve shirt, long trousers and head covering.
- Not wear any clothing more than one day without laundering.
- Limit work time to a maximum of 6 hours per day in these fields.
- Thoroughly wash all exposed skin (hands, face, etc.) that may have come into contact with plant foliage during the field visit.

PESTICIDE SAFETY

- Protective Clothing
 - Wear a Long Sleeve Shirt
 - Wear Long Pants
 - Wear Head Covering
- Wear Only 1 Day and Launder Separately From Your Other Clothes!



PESTICIDE SAFETY

- Soap and Water For Decontamination
 - Carry Water and Bath/Bar Soap
 - Thoroughly Wash All Exposed Skin Areas



Organophosphorus Chemicals Commonly used in Soybean Production

<u>Trade Name(s)</u>	<u>Common Name</u>
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 Compounds

Dimilin.....	Diflubenzuron
Tracer.....	Spinosad



Organophosphorus Chemicals Commonly Used in Corn Production

<u>Trade Name</u>	<u>Common Name</u>
Fortress	Chlorethoxyphos
Lorsban	Chlorpyrifos
Cygon, Dimethoate	Dimethoate
Di-Syston	Disulfoton
Orthophos, Phoskil.....	Ethyl Parathion
Cythion, Malathion	Malathion
Pennacap-M, Methyl Parathion.....	Methyl Parathion
Thimet.....	Phorate
Aztec	Tebupirimiphos
Counter	Terbufos

Pyrethroids

Capture	Bifenthrin
Baythroid	Cyfluthrin
Asana	Esfenvalerate
Warrior.....	Lambda-cyhalothrin
Ambush, Pounce	Permethrin
Force	Tefluthrin

Carbamates

Temik	Aldicarb
Sevin.....	Carbaryl
Furadan	Carbofuran

PESTICIDE POISONING

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

MEDICAL ATTENTION

- Go to the Nearest Qualified Physician!
- Notify Immediately:
 - Your Supervisor and NASDA Coordinator
- Do Not Return to the Field Without:
 - The Doctor's Written Permission
 - Completing Form NAS-016 (Rev 11/95)

Questions





Corn and Soybean Objective Yield Supplies Unit Location & Layout

(VIDEO)

Form B

Corn Objective Yield Survey



Do NOT Take iPads
Into The Field



COY Form B


- Form B counts are used to forecast production estimates
- Layout **ALL** samples for September 1 survey period
 - Complete all samples each month
- 2 units for each sample



Use The Correct Month's Form & Fill In Date

FORM B CORN YIELD COUNTS - 2023

YEAR	CROP	FORM	MMDD	R/S/D	POID	SAMPLE
343	0	9	03	1311	100233750	0001
STATE	SEGMENT	TRACT				
NE	190352	05				



31100233750050100322400005785420

Forecast Month September 1

OMB No.: 0535-0088
Approval Expires: 3/31/2023
Project Code: 104
Survey ID: 3224



United States
Department of
Agriculture



NATIONAL
AGRICULTURAL
STATISTICS
SERVICE

Date: *September 3*

UNIT LOCATION

1. Number of rows along edge of field.....
2. Number of paces into field.....

UNIT 1

+ 30

+ 30

UNIT 2

Copy Rows & Paces From Kit Envelope

Corn Unit Location Row/Pace Counts				
If Field =	< 10 Acres	10-19.9 Acres	20-39.9 Acres	>= 40 Acres
Unit 1				
Rows=	2	40	87	101
Paces=	127	140	283	120
Unit 2				
Rows=	32	70	117	131
Paces=	157	170	313	150

UNIT LOCATION	UNIT 1		UNIT 2
1. Number of rows along edge of field.....	101	+ 30	131
2. Number of paces into field.....	120	+ 30	150

Note Wide or Narrow Row Middles

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



Yes



No

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

4. UNIT LOCATION CODE.....

- 1 First visit to lay out unit
- 2 Unit relocated this month
- 3 Sample unit laid out previously

	UNIT 1	UNIT 2
Enter Code	302 1	307 1

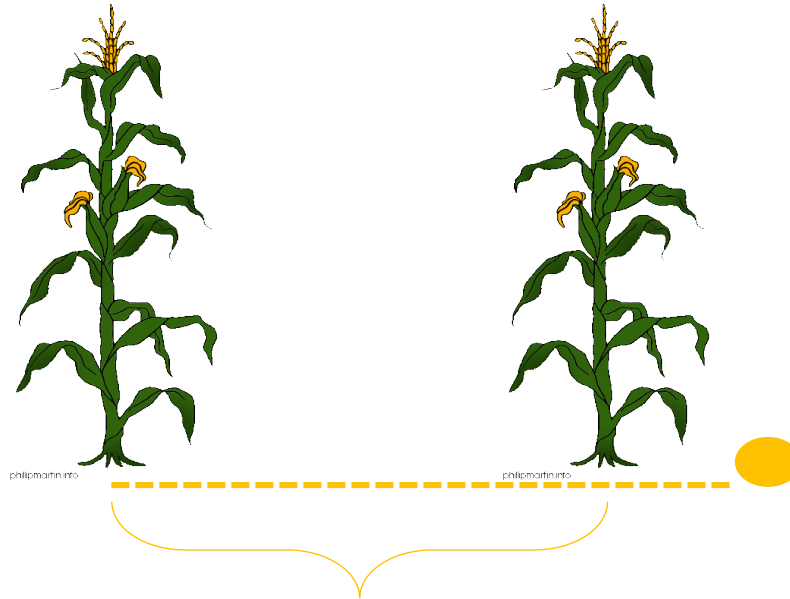
If code = 3, skip to Item 6

5. ROW SPACE MEASUREMENTS

- a. Measure distance from stalks in Row 1 to stalks in Row 2.....
- b. Measure distance from stalks in Row 1 to stalks in Row 5.....

	UNIT 1	UNIT 2
Feet & Tenths	303 2.5	304 2.5
Feet & Tenths	305 10.0	306 10.1

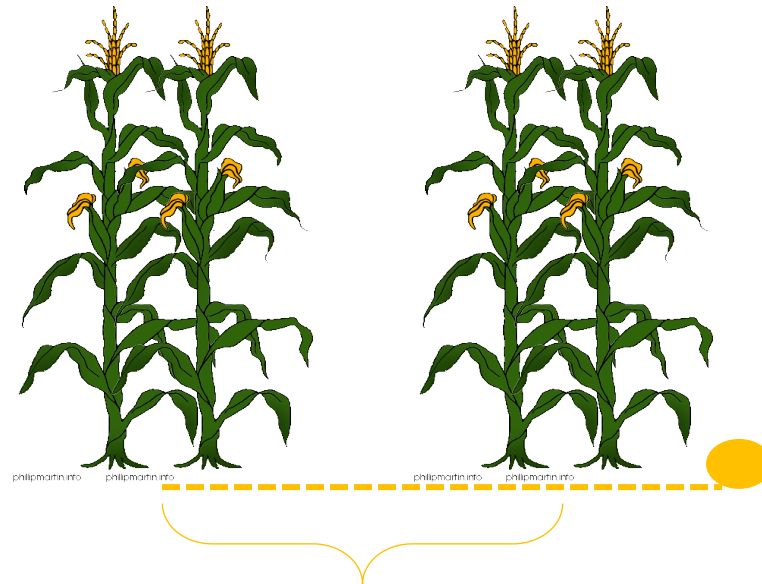
1 Row Space Measurement Record in Feet and Tenths of Feet



Measure From Center of Row 1 to Center of Row 2

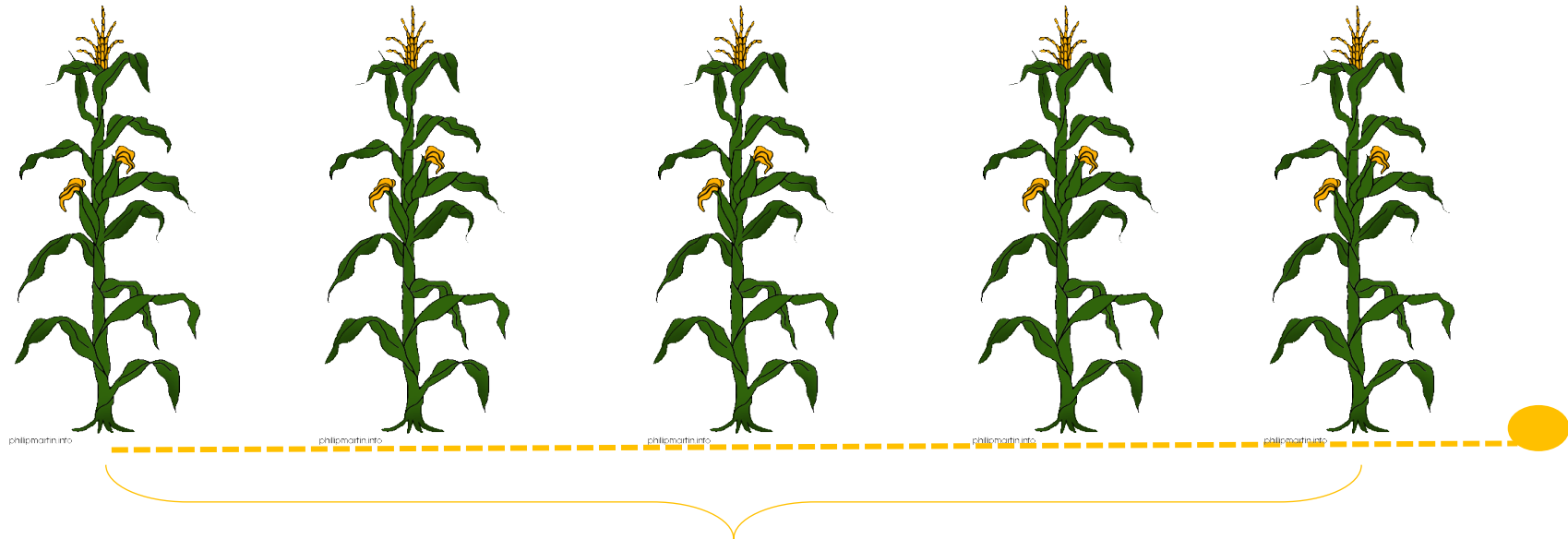
1 Row Space Measurement *TWIN ROWS*

Record in Feet and Tenths of Feet



Measure From Center of Twin Row 1 to Center of Twin Row 2

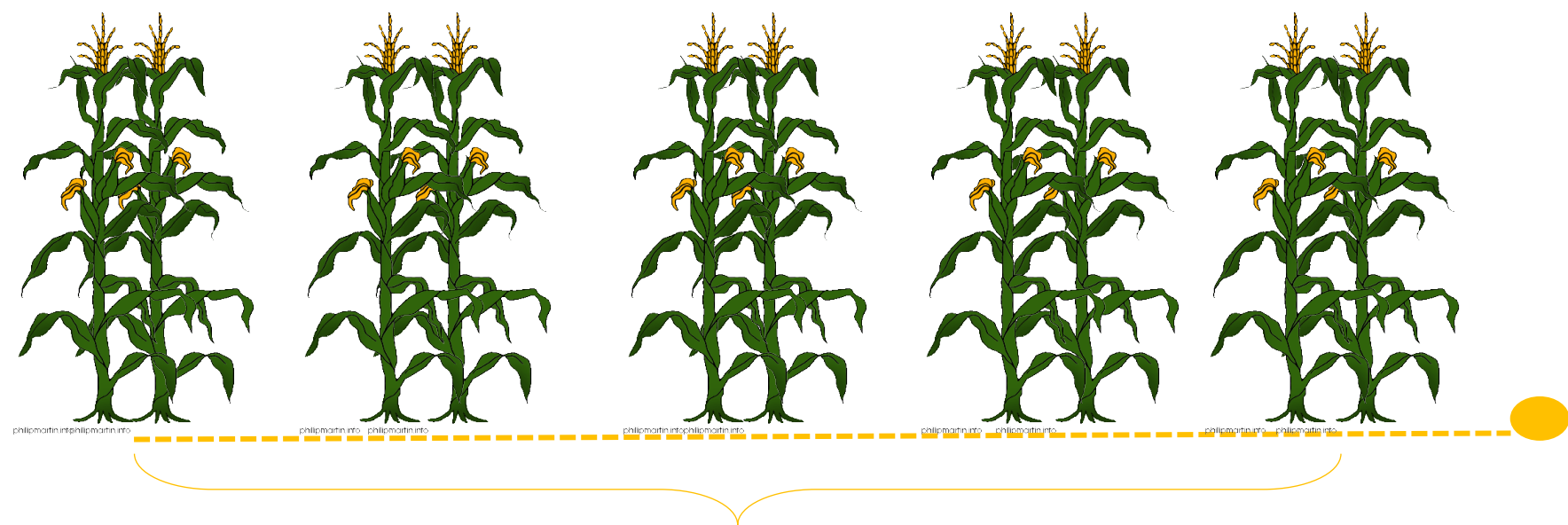
5 Row Space Measurement Record in Feet and Tenths of Feet



Measure From Center of Row 1 to Center of Row 5

5 Row Space Measurement *TWIN ROWS*

Record in Feet and Tenths of Feet



Measure From Center of Twin Row 1 to Center of Twin Row 5

Maturity Code =2

- Pre-Blister Stage
 - Ear shoots are present with some silks showing. Most silks are green, yellow or white in color. Spikelets contain little or no watery, clear liquid.



Maturity Code = 3

- Blister Stage
 - Most silks protruding from the husks are beginning to turn brown. Kernels can be felt through the husk. Spikelets have swollen to form kernels and contain watery, clear liquid.



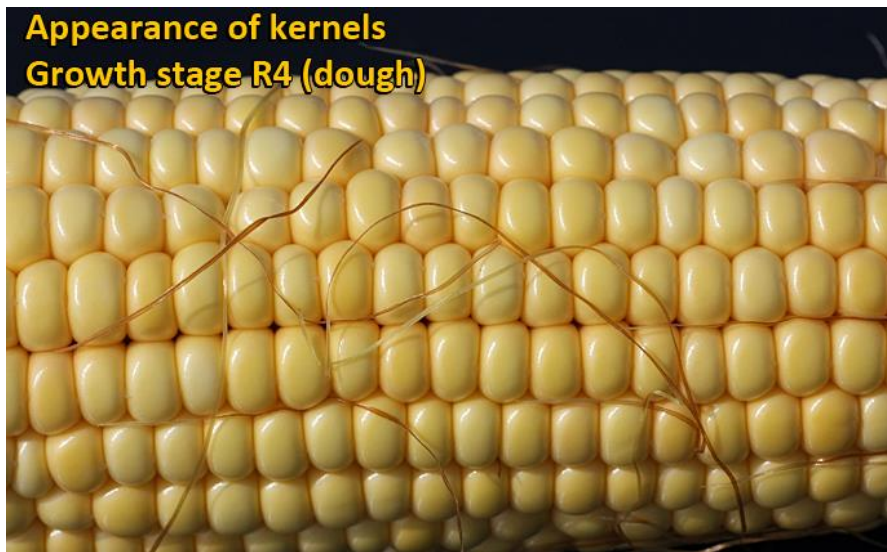
Maturity Code = 4

- Milk Stage
 - Ear silks protruding from the husks have turned brown or dried. Most kernels are full of milk-like substance. Kernels are not fully grown and no sign of denting.



Maturity Code = 5

- Dough Stage
 - Ears are beginning to lean away from the stalk. Visible silk is completely brown and dry. Half of the kernels are dented and contain dough like substance. Maturity line has moved halfway to the cob.



Maturity Code = 6

- Dent Stage
 - Shucks are nearly dry but not open. Most of the ears and stalks are brown. Maturity line has not reached the cob. Ears are firm and solid. Kernels may be hard to scratch at the surface but still soft near the cob.



Maturity Code = 7

- Mature Stage
 - Shucks are dry and beginning to open. Most ears are tipped down towards the ground. Kernels can be shelled off the ear fairly easy. The “black layer” is an area near the tip of the kernel that appears dark.



More than 1 ear/stalk: "TO BE" Rule

Top Odd # Sample Bottom Even # Sample



Designated Measurement Areas:

MATURITY CODES FOR ITEM 6			
For Month	Use Area Beyond	Maturity Code	
Sept. 1	Unit 1, Row 1	2 = Pre-Blister	5 = Dough
Oct. 1	Unit 1, Row 2	3 = Blister	6 = Dent
Nov. 1	Unit 2, Row 1	4 = Milk	7 = Mature

Husk the first 5 ears or silked ear shoots beyond the unit in the designated measurement area and examine for maturity. Enter the maturity code in the box for the corresponding ear, sum the five maturity codes and enter the total in cell 301.

If ears or silked ear shoots are not yet present, Check ☐ and complete Item 11 only.

EAR NUMBER					TOTAL OF 5 EARS
1	2	3	4	5	
4	5	4	5	4	301 22

6. MATURITY CODE of first 5 ears or silked ear shoots

a. Will harvest occur within 3 days?



No - Go to Item 6b



Yes - Complete Items 11, 14, 15, 16 & 17

c. Does Item 301 equal 23 or more?



No - Go to Item 6d



Yes - Complete Items 7, 8, 9, 10, 11 & 14

b. Are three or more ears in maturity code 7?



No - Go to Item 6c



Yes - Complete Items 11, 14, 15, 16 & 17

d. Does Item 301 equal 13 to 22?



No - Complete Items 11, 12, 13 & 14



Yes - Complete Items 7, 8, 9, 10, 11, 12, 13 & 14

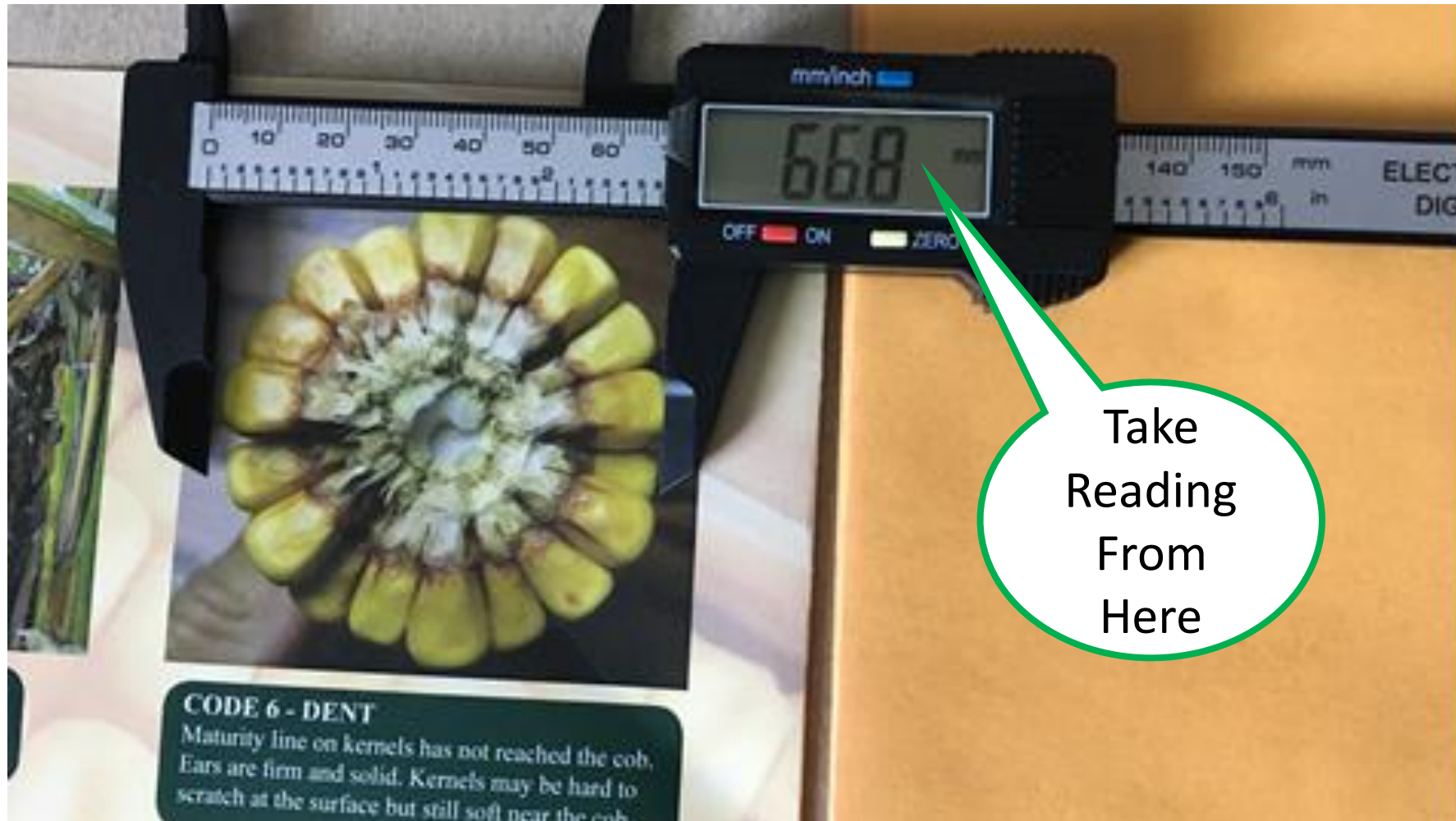
Only Code 3 Ears or Higher

		EAR NUMBER				
		1	2	3	4	5
7.	Maturity code of each of the first 5 ears Code 3 or higher (copy maturity from Item 6. Replace Code 2 ears with next code 3 or higher.)..... Code	320 4	321 5	322 4	323 5	324 4
8.	Average length of kernel rows (Item 7 ears)..... Inches & Tenths	326 7.9	327 8.0	328 7.8	329 8.1	330 7.5
9.	Diameter of the ear one inch from the butt of the cob (Item 7 ears)..... Millimeters & Tenths	336 37.9	337 40.8	338 40.7	339 38.8	340 37.5

Record in Inches and Tenths



Record in Millimeters and Tenths



3 or more Ears maturity code 6 or 7?

10. Are 3 or more ears (*Item 7*) in maturity code 6 or 7?

☐ No - Continue to Item 11

☐ Yes -

1. Harvest the first 5 ears beyond the unit which are coded 6 or 7.
2. Place the third and fourth ears in a cloth bag and attach a completed ID tag to the outside.
3. Place the other three (*first, second and fifth*) ears in a Tyvek envelope.
4. Place the cloth bag containing the third and fourth ears in the envelope with the other three ears.
5. Ship the sealed Tyvek envelope with all 5 ears to the National Lab.
6. Check Here ☐ when complete.

Item 10 is a question. Answer: NO or YES. Then follow instructions.

If Item 10 is NO, Continue to Item 11.

If Item 10 is YES, then complete the Code 6 ears process.

		EAR NUMBER				
		1	2	3	4	5
7. Maturity code of each of the first 5 ears Code 3 or higher (copy maturity from Item 6. Replace Code 2 ears with next code 3 or higher.).....	Code	320 4	321 5	322 4	323 5	324 4
8. Average length of kernel rows (Item 7 ears).....	Inches & Tenths	326 7.9	327 8.0	328 7.8	329 8.1	330 7.5
9. Diameter of the ear one inch from the butt of the cob (Item 7 ears).....	Millimeters & Tenths	336 37.9	337 40.8	338 40.7	339 38.8	340 37.5

10. Are 3 or more ears (Item 7) in maturity code 6 or 7?

☐ No - Continue to Item 11

☐ Yes -

1. Harvest the first 5 ears beyond the unit which are coded 6 or 7.
2. Place the third and fourth ears in a cloth bag and attach a completed ID tag to the outside.
3. Place the other three (first, second and fifth) ears in a Tyvek envelope.
4. Place the cloth bag containing the third and fourth ears in the envelope with the other three ears.
5. Ship the sealed Tyvek envelope with all 5 ears to the National Lab.
6. Check Here ☐ when complete.

How would you answer question 10?

What steps do you do next?

		EAR NUMBER				
		1	2	3	4	5
7. Maturity code of each of the first 5 ears Code 3 or higher (copy maturity from Item 6. Replace Code 2 ears with next code 3 or higher.).....	Code	320 4	321 5	322 4	323 5	324 4
8. Average length of kernel rows (Item 7 ears).....	Inches & Tenths	326 7.9	327 8.0	328 7.8	329 8.1	330 7.5
9. Diameter of the ear one inch from the butt of the cob (Item 7 ears).....	Millimeters & Tenths	336 37.9	337 40.8	338 40.7	339 38.8	340 37.5

10. Are 3 or more ears (Item 7) in maturity code 6 or 7?

☒ No - Continue to Item 11

☐ Yes -

- Harvest the first 5 ears beyond the unit which are coded 6 or 7.
- Place the third and fourth ears in a cloth bag and attach a completed ID tag to the outside.
- Place the other three (first, second and fifth) ears in a Tyvek envelope.
- Place the cloth bag containing the third and fourth ears in the envelope with the other three ears.
- Ship the sealed Tyvek envelope with all 5 ears to the National Lab.
- Check Here ☐ when complete.

Answer NO and Continue to Item 11

		EAR NUMBER				
		1	2	3	4	5
7. Maturity code of each of the first 5 ears Code 3 or higher (copy maturity from Item 6. Replace Code 2 ears with next code 3 or higher.).....	Code	320 6	321 6	322 5	323 6	324 6
8. Average length of kernel rows (Item 7 ears).....	Inches & Tenths	326 8.5	327 8.4	328 8.1	329 8.1	330 8.5
9. Diameter of the ear one inch from the butt of the cob (Item 7 ears).....	Millimeters & Tenths	336 47.9	337 50.8	338 50.7	339 48.8	340 47.5

10. Are 3 or more ears (Item 7) in maturity code 6 or 7?

☐ No - Continue to Item 11

☐ Yes -

1. Harvest the first 5 ears beyond the unit which are coded 6 or 7.
2. Place the third and fourth ears in a cloth bag and attach a completed ID tag to the outside.
3. Place the other three (first, second and fifth) ears in a Tyvek envelope.
4. Place the cloth bag containing the third and fourth ears in the envelope with the other three ears.
5. Ship the sealed Tyvek envelope with all 5 ears to the National Lab.
6. Check Here ☐ when complete.

How would you answer question 10?

What steps do you do next?

		EAR NUMBER				
		1	2	3	4	5
7. Maturity code of each of the first 5 ears Code 3 or higher (copy maturity from Item 6. Replace Code 2 ears with next code 3 or higher.).....	Code	320 6	321 6	322 5	323 6	324 6
8. Average length of kernel rows (Item 7 ears).....	Inches & Tenths	326 8.5	327 8.4	328 8.1	329 8.1	330 8.5
9. Diameter of the ear one inch from the butt of the cob (Item 7 ears).....	Millimeters & Tenths	336 47.9	337 50.8	338 50.7	339 48.8	340 47.5
10. Are 3 or more ears (Item 7) in maturity code 6 or 7?						
<input type="checkbox"/> No - Continue to Item 11						
<input checked="" type="checkbox"/> Yes - <ol style="list-style-type: none"> 1. Harvest the first 5 ears beyond the unit which are coded 6 or 7. 2. Place the third and fourth ears in a cloth bag and attach a completed ID tag to the outside. 3. Place the other three (first, second and fifth) ears in a Tyvek envelope. 4. Place the cloth bag containing the third and fourth ears in the envelope with the other three ears. 5. Ship the sealed Tyvek envelope with all 5 ears to the National Lab. 6. Check Here <input type="checkbox"/> when complete. 						

Answer YES and follow instructions. Send ears to the lab.

See page 1, item 6. It tells you which items need to be answered.



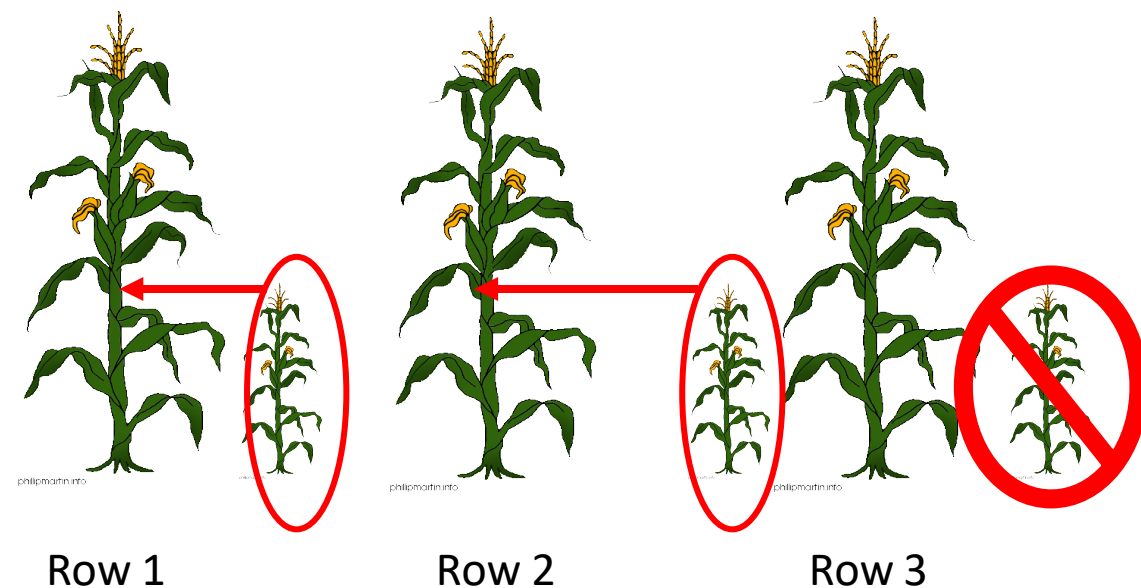
5 Foot Buffer Zone

Take Counts From This 15 Foot Zone

COUNTS WITHIN 15 FOOT UNITS	UNIT 1		UNIT 2	
	ROW 1	ROW 2	ROW 1	ROW 2
11. Number of stalks	331 25	332 23	333 24	334 22
12. Number of stalks with ears or silked ear shoots (Item 12 cannot exceed item 11 for any row.).....	341 25	342 23	343 24	344 22
13. Number of ears and silked ear shoots (Item 13 MUST equal or exceed item 12 for any row.).....	351 25	352 23	353 24	354 22
14. Number of ears with evidence of kernel formation (Item 14 cannot exceed item 13 for any row.).....	361 25	362 23	363 24	364 22



Any volunteer stalks growing in the row space between row 1 and row 2 are included in the count for row 1.
Likewise, stalks between row 2 and row 3 will be included in the count for row 2.



Volunteer stalks growing in the row space between row 1 and row 2 or in between row 2 and row 3 that are in clumps (several stalks originating from the ground in close proximity to each other) should only be counted as one stalk.
Tie a piece of flagging ribbon the entire clump for reference in future months.



Row 1

Row 2

Row 3

Deformities emerging as part of the tassel which resemble a small cob with some kernels are **NOT** considered ears and are not included in the count.



HARVESTING SAMPLE UNITS

15. HUSK and TAG the 3rd and the 4th ears in Row 1 of both units. Husk remaining ears and weigh ALL ears with grain in Row 1 of each unit regardless of maturity stage.

Number of ears husked with grain (include 3rd and 4th ears).....

Verify: Cell 312 equals Item 14 cell 361 and cell 313 equals Item 14 cell 363

	UNIT 1, ROW 1	UNIT 2, ROW 1
Number	<div>312</div> <div>25</div>	<div>313</div> <div>24</div>

16. Weight of ears with grain and any accidentally shelled kernels from Row 1 of each unit (include 3rd and 4th ears, exclude weight of containers).....

Pound & Hundredths

	UNIT 1, ROW 1	UNIT 2, ROW 1
	<div>314</div> <div>9.50</div>	<div>315</div> <div>8.75</div>

17. Place 3rd and 4th ears of Row 1 in separate plastic bags for each unit. After completing Items 15 and 16, send 3rd and 4th ears to the National Lab.

18. Did you leave the ears of corn where the operator requested?

☒ Yes ☐ No

Remember 361 = 312 and 363 = 313, since they are the same!



UPS Tracking Number

ENUMERATOR COMMENTS: _____

ENUMERATOR: _____

19. Did a supervisor assist you in working a sample?

1 ☐ Yes 3 ☐ No

UPS Tracking Number: _____

1317432W0391900645

(For samples sent to National Laboratory)

Enumerator Number 390 46888

Supervisor Number 391 46999

Evaluation 393

STATUS CODE

380



Friendly Reminders

- Record counts on the appropriate month Form B.
- You don't have to fill out Item 3 (Row Space Measurements) after your first visit unless you need to relocate the unit(s).
- Try to measure as straight as possible across rows.
- When in doubt, code down on maturity.
- Package ears appropriately (Code 6 vs Final Harvest) and ship to the lab in a timely manner.
- Leave notes about the units: Big ears, Small ears, Poor stand, Weedy, Hailed on, Looks Good, etc.

FORM B

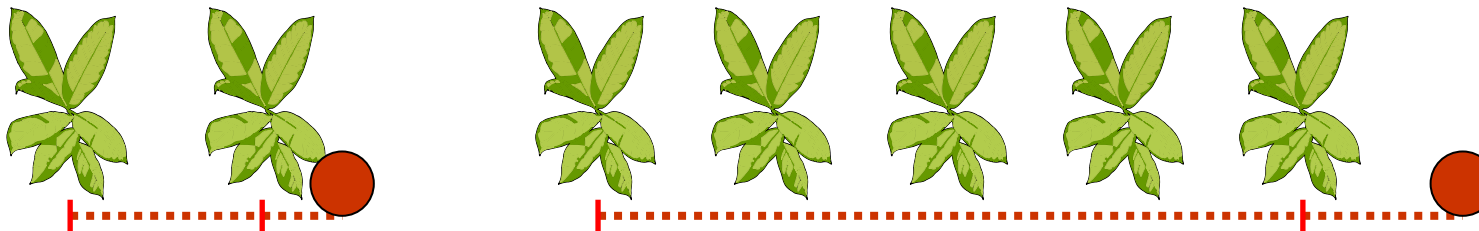
Soybean Objective Yield Survey



Copy Rows & Paces From Kit Envelope

Soybean Unit Location Row/Pace Counts				
If Field =	< 10 Acres	10-19.9 Acres	20-39.9 Acres	>= 40 Acres
Unit 1				
Rows=	30	18	57	262
Paces=	64	113	228	82
Unit 2				
Rows=	60	48	87	292
Paces=	94	143	258	112

UNIT LOCATION	UNIT 1		UNIT 2
1. Number of rows along edge of field.....	262	+ 30	292
2. Number of paces into field.....	82	+ 30	112



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

☐ Yes

☒ No

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

4. UNIT LOCATION CODE.....

- 1 First visit to lay out unit
- 2 Unit relocated this month
- 3 Sample unit laid out previously

Enter Code

UNIT 1

350

1

UNIT 2

351

1

If code = 3, skip to Item 6

5. ROW SPACE MEASUREMENTS

a. Measure distance from plants in Row 1 to plants in Row 2..... Feet & Tenths

UNIT 1

301

2 5

UNIT 2

303

2 5

b. Measure distance from plants in Row 1 to plants in Row 5..... Feet & Tenths

UNIT 1

304

10 1

UNIT 2

305

10 0

- Measurements of row spaces will be made on first visit and skipped on later visits (unless unit has been relocated)
- Record all distances in feet and tenths of feet, NOT feet and inches

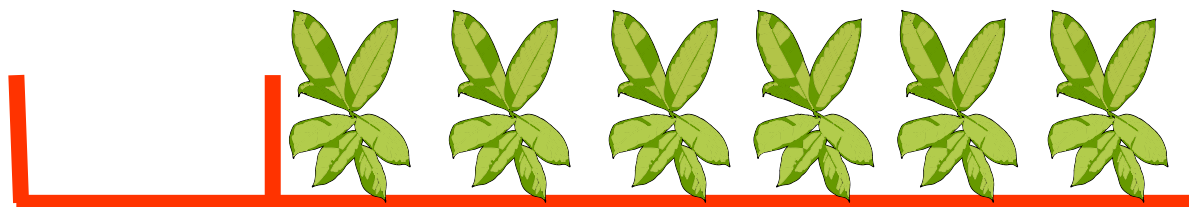
Number of Plants – 3 Foot Area

OBSERVATIONS WITHIN 3-FOOT UNITS

6. Number of plants in row.....

UNIT 1	
ROW 1	ROW 2
306 20	307 17

UNIT 2	
ROW 1	ROW 2
308 25	309 24



- Items 6 and 7 are to be determined each month for each unit
- Count and record the number of plants in each 3-foot row section



Stages of Maturity

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 and 14 only

- Maturity of each unit is determined separately
- When in doubt, always go lower!
- Follow instructions for each Maturity Code

Stage 2

Pods set, Leaves Still Green or Earlier



Stage 3

Pods Filled, Leaves Turning Yellow



Stage 4

Pods Turning Color, Leaves Shedding



Stage 5

Pods Brown, Almost Mature or Mature



Number of Plants – 6-inch Area

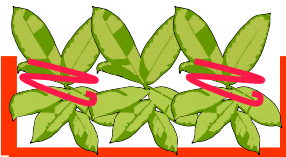
COUNTS for 6-INCH ROW SECTIONS (in front of 3-foot units)

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.

8. Number of plants

UNIT 1		UNIT 2	
ROW 1	ROW 2	ROW 1	ROW 2
310 3	311 2	312 4	313 4

- 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





Number of Nodes

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
- A node normally will be found about every two inches along the main stem
- Add one node for the growing tip unless it is in the ripening stages
- In a few rare cases the main stem may fork and form two main stems. If this happens treat them both as the main stem



Number of Lateral Branches

10. Number of lateral branches with blooms, dried flowers, or pods

318	319	320	321
-----	-----	-----	-----

- These can be a challenge to identify correctly!
- Branches which bear blooms are called lateral branches
- A lateral branches will have at least one node
- The growing tip is not a lateral branch and should not be counted
- If more than **4** lateral branches per plant are counted, make sure leaves are not mistaken as lateral branches

Fruiting Stalk vs. Lateral Branch with Fruit

- **Fruiting Stalk**

- Grow from a node on the main stem
- Usually 1 to 3 inches long
- They do not contain nodes or support leaves
- Only contain flower buds, flowers, or pods
- **NOT** counted as a lateral branch



Fruiting Stalk vs. Lateral Branch with Fruit



- **Lateral Branch**

- Has nodes
- May be several inches long or as short as a fruiting stalk
- Contains one or more leaves or scar where leave was attached
- Has blooms, dried flowers, or pods

Blooms, Dried Flowers & Pods

11. Number of blooms, dried flowers, and pods

326	327	328	329

- Consider as blooms any buds which have the white or purple petals of the flower showing
- Counts of blooms, dried flowers and pods on lateral branches and on main stems are combined for this item



Number of Pods with Beans

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.

- Count and record the number of pods in which one or more beans are forming
- Do not include pods with no noticeable beans in the pod





Mature – Pre-Final Harvest

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. **NOTE:** Special care should be taken so that pods are not damaged to ensure an accurate count of pods at the National Lab.
 - 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.
- If there is any doubt if the unit is in maturity stage 5 then code it stage 4 and don't harvest
 - If the farmer plans to harvest within 3 days, harvest regardless of maturity stage and code as stage 5 to complete final pre-harvest



Mature – Pre-Final Harvest

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

Continued.....

- If only one unit is classified in maturity stage 5 then harvest all pods from all plants in Row 1 of the 3-foot section for the stage 5 unit only. You still must complete an ID tag for both units. Enter the reason why no pods were harvested on the second ID tag.



Ohio & Indiana Pod Counts - skip

- New question for 2023
- Only applies to Ohio & Indiana

Ohio and Indiana soybean counts:

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



UPS Tracking Number

ENUMERATOR:

Enumerator Number

390

20999

Supervisor Number

391

20999

Evaluation

393

UPS TRACKING NUMBER:

1Z17A32W0391900645

(For soybean samples sent to National Laboratory)

- Use the FIPS then your 5-digit enumerator number
- Record the UPS tracking number if lab work sent to St. Louis



Status Codes

- Most common Status Codes:
- 1 – Complete
- 4 – Enumerator harvested sample unit
- 7 – Refusal
- 8 – Inaccessible

	UNIT 1	UNIT 2
STATUS CODE	380	381



Friendly Reminders

- Remember to never take iPad into a field
- Unit location code 3 is used when the sample unit was laid out **and** counted previously
- When in doubt about maturity stage, always go lower
- The counts for the 6-inch section is on the back page, do not confuse number of plants with 3-foot section plants
- There cannot be more lateral branches than nodes and Pods with beans must be less than the total number of blooms, dried flowers, and pods
- Always complete and ship **TWO ID Tags** when maturity is stage 5 even if one unit isn't mature
- If Maturity Code equals 5, the Status Code needs to equal 4

Questions



CAPI

Objective Yield Data Entry on the





CAPI: OY Assignment Listing

Survey Date (will change each month)														
INF	CMT	MAP	ST	CTY	POID	Tra	Sub	OP DOM	SEQ. NUM	DCMS	Name			
FORM B COTTON YIELD COUNTS 2023-08-01 (108)														
<input type="checkbox"/>			48	383	101087340*	1	1	0	598	240	DOE FARMS INC JOHN DOE			
<input type="checkbox"/>			48	383	101087340*	1	2	0	599	240	DOE FARMS INC JOHN DOE			
<input type="checkbox"/>			48	383	101087340*	1	3	0	600	240	DOE FARMS INC JOHN DOE			
<input type="checkbox"/>			48	383	101087340*	1	4	0	601	240	DOE FARMS INC JOHN DOE			
<input type="checkbox"/>			48	383	101087340*	1	5	0	602	240	DOE FARMS INC JOHN DOE			

* = Multi-Sample Operation

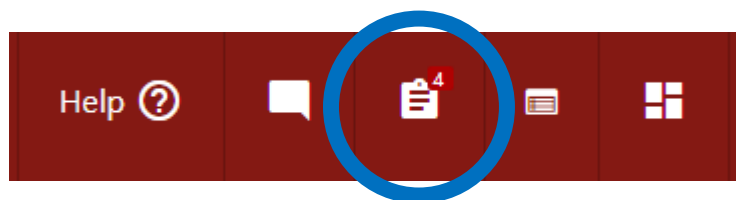
SEQ. NUM = Sample #

CAPI: Multi-Sampled Operations

INF	CMT	MAP	ST	CTY	POID	Tra	Sub	OP DOM	SEQ. NUM	DCMS	Name
FORM B COTTON YIELD COUNTS 2023-08-01 (108)											
<input type="checkbox"/>			48	383	101087340*	1	1	0	598	240	DOE FARMS INC JOHN DOE
<input type="checkbox"/>			48	383	101087340*	1	2	0	599	240	DOE FARMS INC JOHN DOE
<input type="checkbox"/>			48	383	101087340*	1	3	0	600	240	DOE FARMS INC JOHN DOE
<input type="checkbox"/>			48	383	101087340*	1	4	0	601	240	DOE FARMS INC JOHN DOE
<input type="checkbox"/>			48	383	101087340*	1	5	0	602	240	DOE FARMS INC JOHN DOE

***Pay close attention to
Sequence Number =
Sample Number**

Tapping on the POID, then
tapping on clipboard icon
shows count of additional
samples



Survey Title	Seq.	OP DOM	Poid	Status	
FORM B COTTON YIELD COUNTS	599	0	101087340		
FORM B COTTON YIELD COUNTS	600	0	101087340		
FORM B COTTON YIELD COUNTS	601	0	101087340	Enum Started - INTRODUCTION	
FORM B COTTON YIELD COUNTS	602	0	101087340	Enum Started - INTRODUCTION	



CAPI: Data Entry

- Always use “NEXT” button to navigate.
- Do NOT use side menu for OY data entry

United States Department of Agriculture
National Agricultural Statistics Service

Help ?

Sections

INTRODUCTION

FIELD WORK DATE

PESTICIDES

UNIT LOCATION CODE

COUNTS WITHIN 10-FOOT UNITS

WEIGHTS

COUNT SECTION BEYOND ROW

GENERAL

CONCLUSION

INTRODUCTION

FORM B COTTON YIELD COUNTS

FORM B COTTON YIELD COUNTS 2023

The information you provide will be used for statistical purposes only. Your responses 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 provisions of Title V, Subtitle A, Public Law 107-347 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 10 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.

PREVIOUS

NEXT

DOE FARMS INC
JOHN DOE
48 101087340 SEQ:602



CAPI: Form A

- Form A available for data entry on CAPI
- CAPI for Form A will be available throughout the survey period and will close on November 1

CAPI: Form A

- Form A interview should be conducted on paper then the data keyed into CAPI later
- Form A is extremely trimmed down to only capture the data with item codes
 - Field selection table (Table A) is not available in CAPI

Table A

SAMPLE NUMBER and DIRECTION	TOTAL ACRES IN FIELD	ACRES in USE or CROPS OTHER THAN CORN to be HARVESTED for GRAIN or SEED (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

CAPI: Edits

- CAPI uses the Survey Designer to apply edits to prevent submission without key required items being completed
 - Missing Field Work Date / Status Code hard stop
 - Missing Sample Field Acres hard stop
 - Missing Planting Date hard stop
 - Enumerator ID/ Supervisor ID hard stop
 - Unit Location Code / Row Space Measurement locks
 - Maturity Code based calculations or data entry limitations

CAPI: Form A

- Status Code – Hard Stop (required)
- Questionnaire routing is based on status code selected

FIELD WORK DATE

Select a Status Code

380 STATUS CODE

STATUS CODE

- 1 - Complete (Form B expected next visit)
- 2 - Farmer Harvested Before Units were Laid Out
- 3 - Farmer Harvested Before Current Month's Observations
- 4 - Enumerator Expects Final Harvest within 10 Days
- 6 - Lost Sample - Field NOT Harvested for Cotton
- 7 - Refusal
- 8 - Inaccessible (Form B expected next visit)
- 11 - Sample Field Was Planted, But Plowed Up or Abandoned Before First Visit
- 13 - No Cotton Planted in the Tract

CAPI: Form A Edit Examples

- Questions 1 and 2 - harvested acres in question 2 cannot exceed acres planted for all purposes in question 1 (warning will appear)

ACRES

Harvested acres (102) can not be greater than planted acres (100).

- What is the current number of soybean acres you planted for all purposes on all the land you operate in the tract?

114 Acres 

- What are the total acres of soybeans to be harvested for beans on all the land you operate in the tract?

102 Acres 



CAPI: Form A

- Question 3, Sample Field (IC 103) – Hard stop if blank

SAMPLE FIELD

Please respond to continue.

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

* Required Field

<input type="text"/>	Acres
----------------------	-------



CAPI: Form A Edit Examples

- For KS/NE Soybeans, if irrigation question is not answered, a hard stop will appear.

Please respond to continue.

Is this a Kansas or Nebraska Survey?

☒ Yes ☐ No

7. Kansas and Nebraska Only

Has this field been (or will it be) irrigated?

* Required Field

☐ Yes ☐ Don't Know ☐ No



CAPI: Form A Edit Examples

- Enumerator/Supervisor codes – Hard stop (required)

* Required Field

Enumerator Number

390

* Required Field

Supervisor Number

391



CAPI: Form B

- Form B available for data entry on CAPI
- **Never take iPad into fields**
 - Complete fieldwork on paper, then key on iPad and submit to office same day data is entered
 - Enter data into CAPI while at field to review work and save a trip in case of data errors **(OR)**
 - Enter data into CAPI when safely at home, organized and cooler

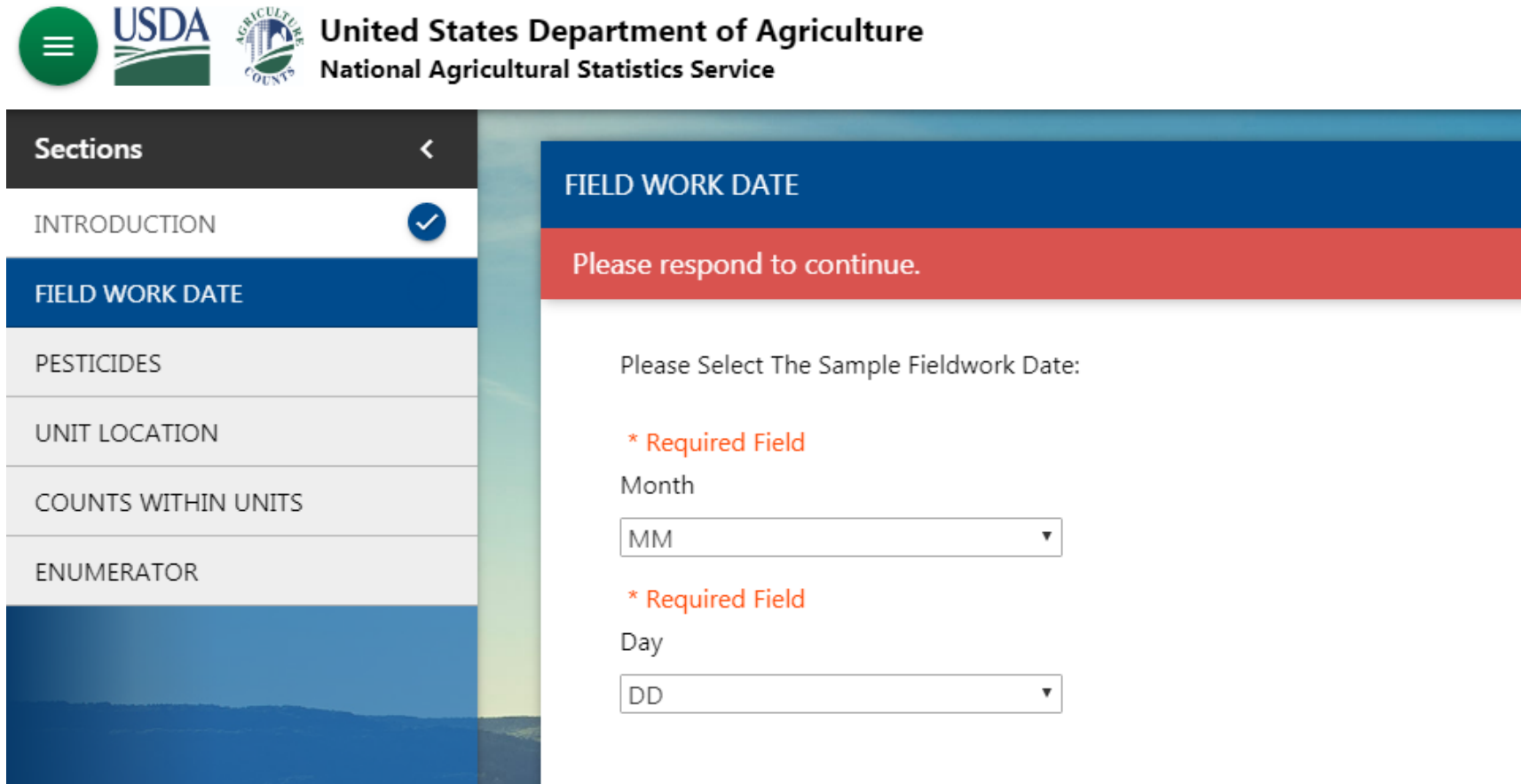


CAPI: Form B

- CAPI for Form B will be available from the first day of data collection through the first day of the following the month
 - Form B must be completed in CAPI during the official survey period
 - Final Pre-Harvest Form B that is completed outside the official survey period must be held until the survey period opens, then submitted in CAPI.

CAPI: Form B Edit Examples

- Fieldwork Date – Hard Stop (Required)



The screenshot displays the CAPI Form B interface. On the left is a sidebar with a 'Sections' menu containing: INTRODUCTION (checked), FIELD WORK DATE (highlighted in blue), PESTICIDES, UNIT LOCATION, COUNTS WITHIN UNITS, and ENUMERATOR. The main content area is titled 'FIELD WORK DATE' and features a red banner with the text 'Please respond to continue.' Below this, a prompt reads 'Please Select The Sample Fieldwork Date:'. There are two required fields, each marked with a red asterisk: 'Month' and 'Day'. The 'Month' field is a dropdown menu currently showing 'MM'. The 'Day' field is a dropdown menu currently showing 'DD'.

CAPI: Form B Edit Examples

- **NEW for 2023** – Row Space Measurement **MAX – MIN** edit

UNIT LOCATION CODE

UNIT 1: 1-Row space unusually small. Please verify entry.

Please Select the Code below:

UNIT 1	
305	1 - First visit to lay out unit

Measure distance from stalks in Row 1 to stalks in Row 2

UNIT 1		
301	0.1	Feet & Tenths

Measure distance from stalks in Row 1 to stalks in Row 5

UNIT 1		
303		Feet & Tenths

UNIT LOCATION CODE

UNIT 1: 4-Row space unusually large. Please verify entry.

Please Select the Code below:

UNIT 1	
305	1 - First visit to lay out unit

Measure distance from stalks in Row 1 to stalks in Row 2

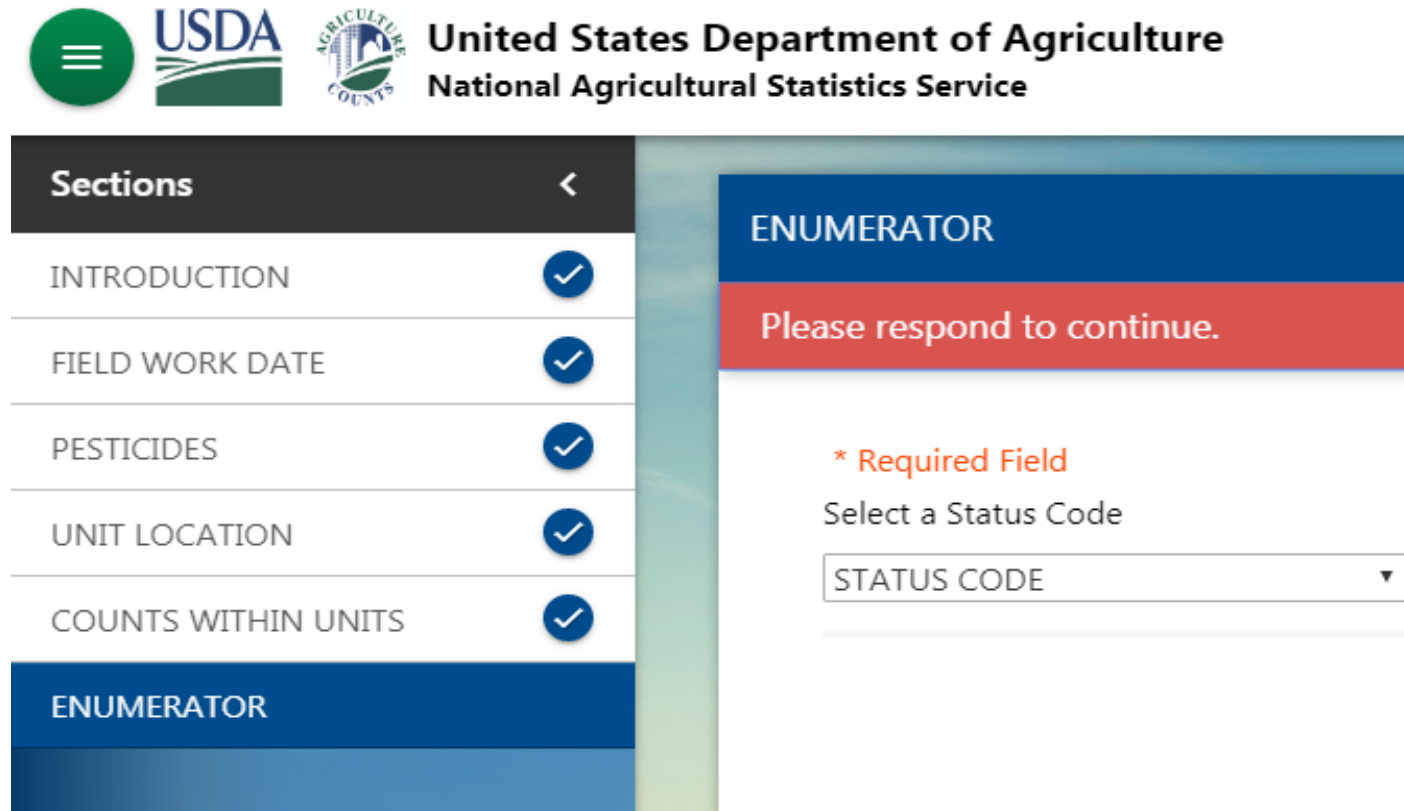
UNIT 1		
301	0.1	Feet & Tenths

Measure distance from stalks in Row 1 to stalks in Row 5

UNIT 1		
303	22	Feet & Tenths

CAPI: Form B Edit Examples

- Status Code – Hard Stop (Required)



The screenshot displays the USDA National Agricultural Statistics Service (NASS) CAPI Form B Edit interface. The top header includes the USDA and Agriculture Counts logos, followed by the text "United States Department of Agriculture National Agricultural Statistics Service". A left-hand sidebar titled "Sections" lists the following sections with checkmarks indicating completion: INTRODUCTION, FIELD WORK DATE, PESTICIDES, UNIT LOCATION, and COUNTS WITHIN UNITS. The "ENUMERATOR" section is currently selected and highlighted in blue. The main content area for the "ENUMERATOR" section shows a red error banner at the top that reads "Please respond to continue." Below this, a red asterisk and the text "* Required Field" are displayed. The label "Select a Status Code" is positioned above a dropdown menu labeled "STATUS CODE".



COY Form A Status Codes

- 1. Complete
- 7. Refusal
- 11. Sample Field Planted to Corn but Not For Harvest as Grain
- 13. No Corn Planted For ANY Purpose in the Tract



SOY Form A Status Codes

- 1. Complete
- 7. Refusal
- 11. Sample Field Planted to Soybeans but Not For Harvest as Beans
- 13. No Soybeans Planted for Harvest as Beans in the Tract



COY Form B Status Codes

1. Complete
2. Farmer Harvested for Grain Before Units Laid Out
3. Farmer Harvested for Grain After Units Laid Out
4. Enumerator Harvested Sample Units
5. Field Partially Destroyed – Both Units Destroyed
6. Lost Sample – Field **NOT** Harvested for Grain
7. Refusal
8. Inaccessible
11. Sample Field Planted to Corn but Not For Harvest as Grain
13. No Corn Planted For ANY Purpose in the Tract

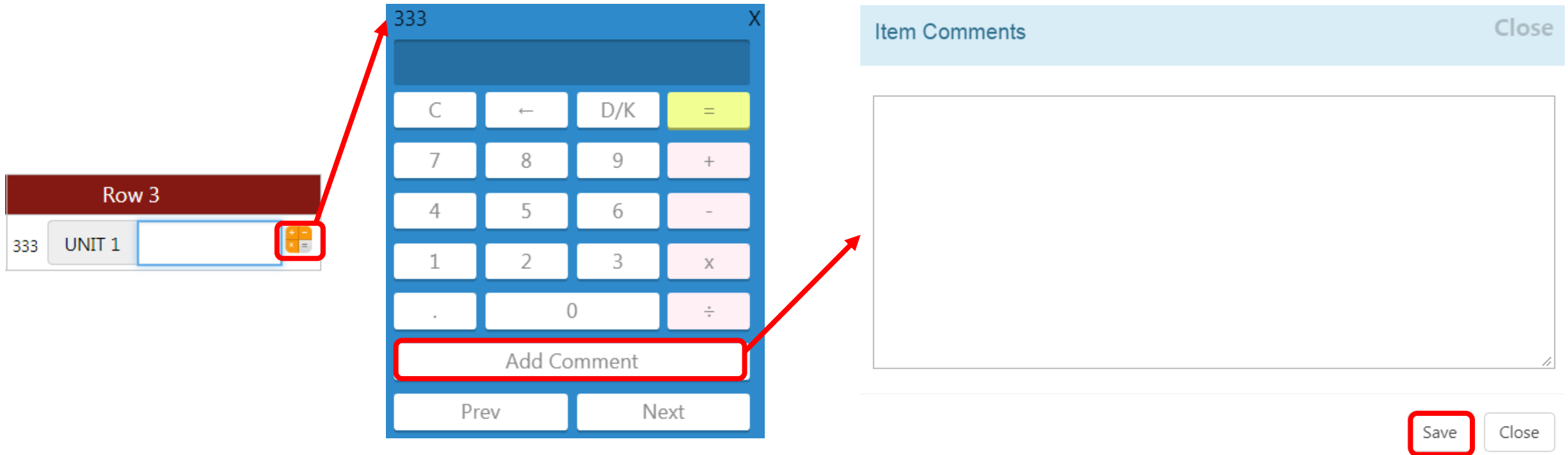


SOY Form B Status Codes


1. Complete
2. Farmer Harvested for Beans Before Units Laid Out
3. Farmer Harvested for Beans After Units Laid Out
4. Enumerator Harvested Sample Unit
6. Lost Sample – Field **NOT** Harvested for Beans
7. Refusal
8. Inaccessible
10. Unit Harvested Earlier
11. Sample Field Planted to Soybeans but Not For Harvest as Beans
13. No Soybeans Planted for Harvest as Beans in the Tract

CAPI: Edit Examples

- Item Code Level Comments



The screenshot illustrates the process of adding a comment at the item code level. On the left, a table shows 'Row 3' with item code '333' and unit 'UNIT 1'. A red box highlights a small icon in the table, with an arrow pointing to a calculator overlay. The calculator has a numeric keypad, function keys (C, ←, D/K, =), and a red-bordered 'Add Comment' button at the bottom. An arrow from this button points to a large text area on the right labeled 'Item Comments' with a 'Close' button. At the bottom right, there are 'Save' and 'Close' buttons, with 'Save' highlighted by a red box.

Row 3		
333	UNIT 1	

333 X

C	←	D/K	=
7	8	9	+
4	5	6	-
1	2	3	x
.	0		÷

Add Comment

Prev Next

Item Comments Close

Save Close



CAPI: UPS Tracking Number

13. Did a supervisor assist you in working this sample? ☐ YES ☐ NO

ENUMERATOR: _____

UPS Tracking Number: 1Z0721AW8495698434

(For samples sent to National Laboratory)

Enumerator Number	390
Supervisor Number	391
Evaluation	393



ENUMERATOR

Did a supervisor assist you in working this sample?

☐ Yes ☐ No

Enumerator Number	Supervisor Number	Evaluation
<input type="text"/>	<input type="text"/>	<input type="text"/>

UPS Tracking Number:



CAPL: Response Coding

Sections

INTRODUCTION

FIELD WORK DATE

PESTICIDES

UNIT LOCATION

COUNTS WITHIN UNITS

ENUMERATOR

ENUMERATOR

Response:

Completed

Respondent:

Other

Responded By (Enter respondent's name, if not the operator):

Respondent Mode:

Face-To-Face on iPad

Enumerator:

9998 98271

PREVIOUS

NEXT

Coding:
Response: **Completed**
Respondent: **Other**
Mode: **Face-To-Face on iPad**

Enumerator ID is autocoded



Corn Objective Yield Ear Length Measurement & Caliper Demonstration



Corn Form B



Kernel Row and Diameter Measurements

The kernel row and diameter measurements are used to forecast grain weight per ear. You may remove the ear from the stalk if doing so makes it easier to make these measurements. Before removing the ear, you must do the following:

1. Husk the ear.
2. Pick a kernel row that intersects an imaginary line that runs through the center of the stalk and the center of the ear.
3. Mark this row with a black marker about one inch away from the butt of the ear.
4. Remove the ear from stalk being careful to not knock off any kernels, especially if the ears will be sent to the lab.
5. Mark on the ear, the order of the ear, i.e., ear 1 through ear 5.
6. Make kernel row length and diameter measurements as described later in this manual. When making the diameter measurement, center the marked row in the jaws of the caliper.

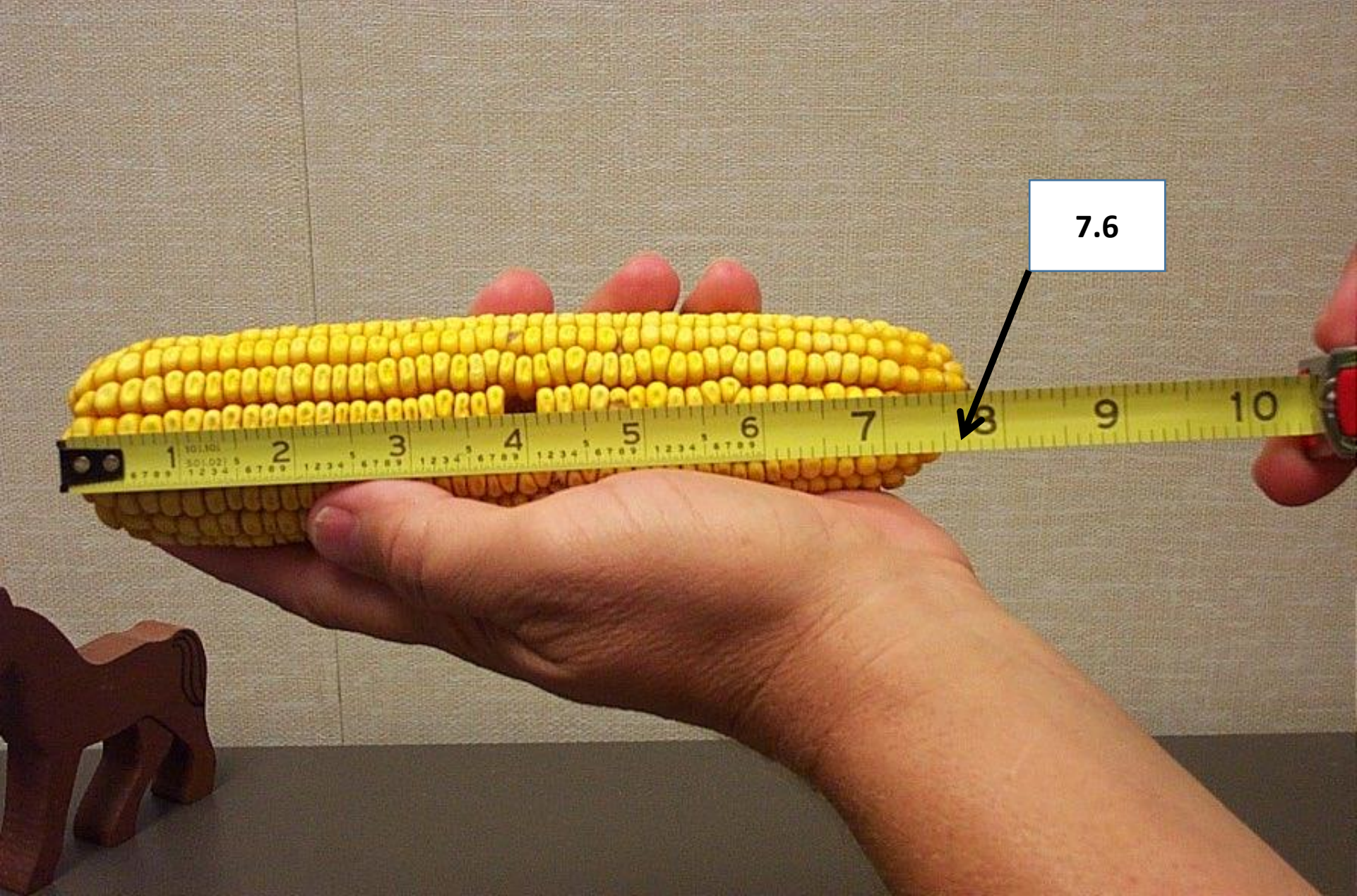


Item 6 – Average length of kernel rows.

- The average length of kernel row will be measured for each of the Code 3 or higher ears listed in item 5.
- Measure the part of the cob covered by kernels.
- At least one kernel must be present to be considered an ear.
- Enter the measurement to one decimal (inches and tenths of inches).

6. Average length of kernel rows (Item 5 ears) Inches & Tenths	326 . _____	327 . _____	328 . _____	329 . _____	330 . _____
--	-------------------	-------------------	-------------------	-------------------	-------------------







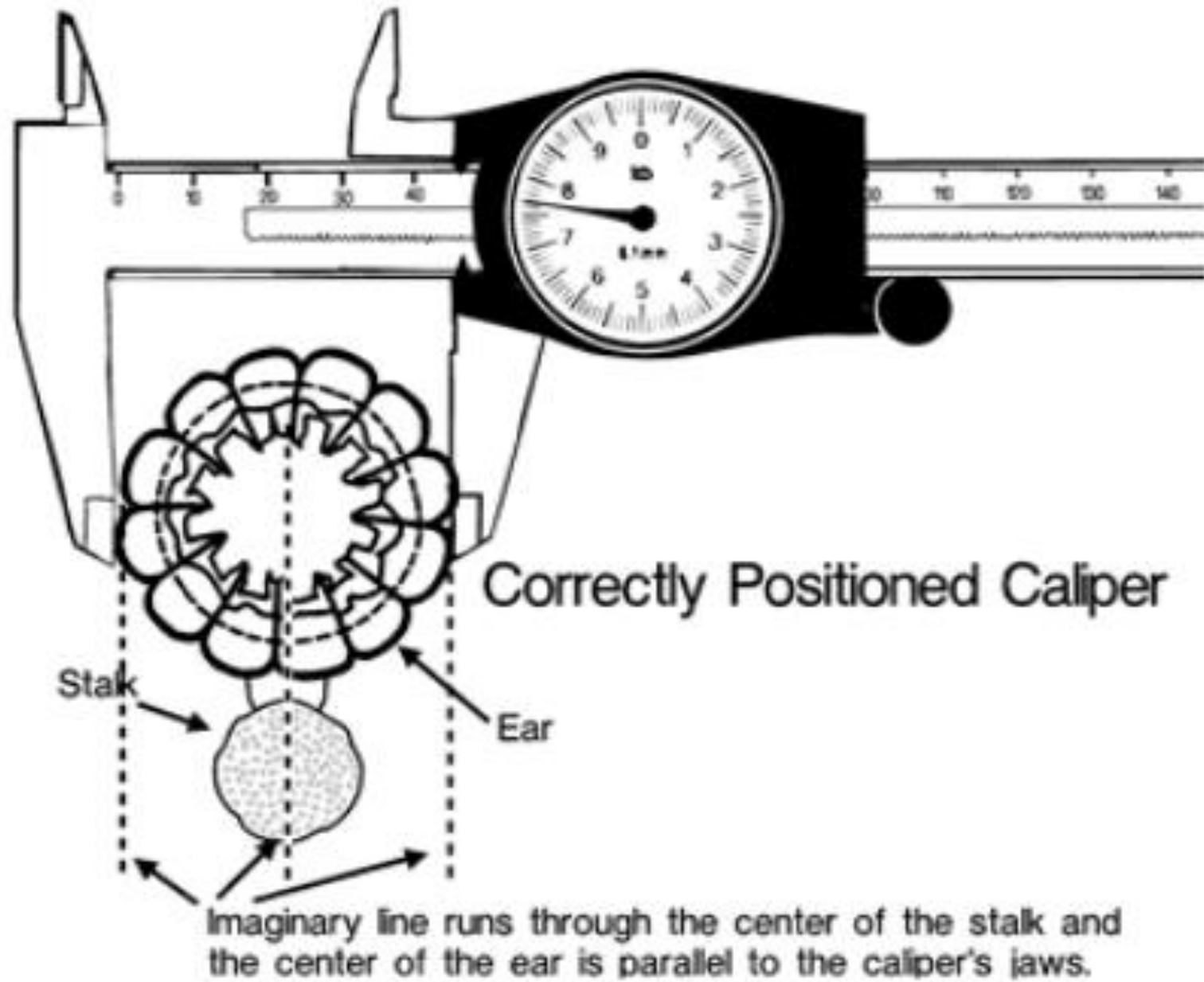
Item 7 – Diameter of the ear.

- Use the caliper to measure the diameters of the same ears used for the kernel row measurements.
- Record the diameter of the ear measured one inch from the butt of the cob.
- Enter the measurement to the nearest tenth millimeter.

7. Diameter of the ear one inch from the butt of the cob. (Item 5 ears) . . . Millimeters & Tenths	336	337	338	339	340
	. ____	. ____	. ____	. ____	. ____

Caliper Use

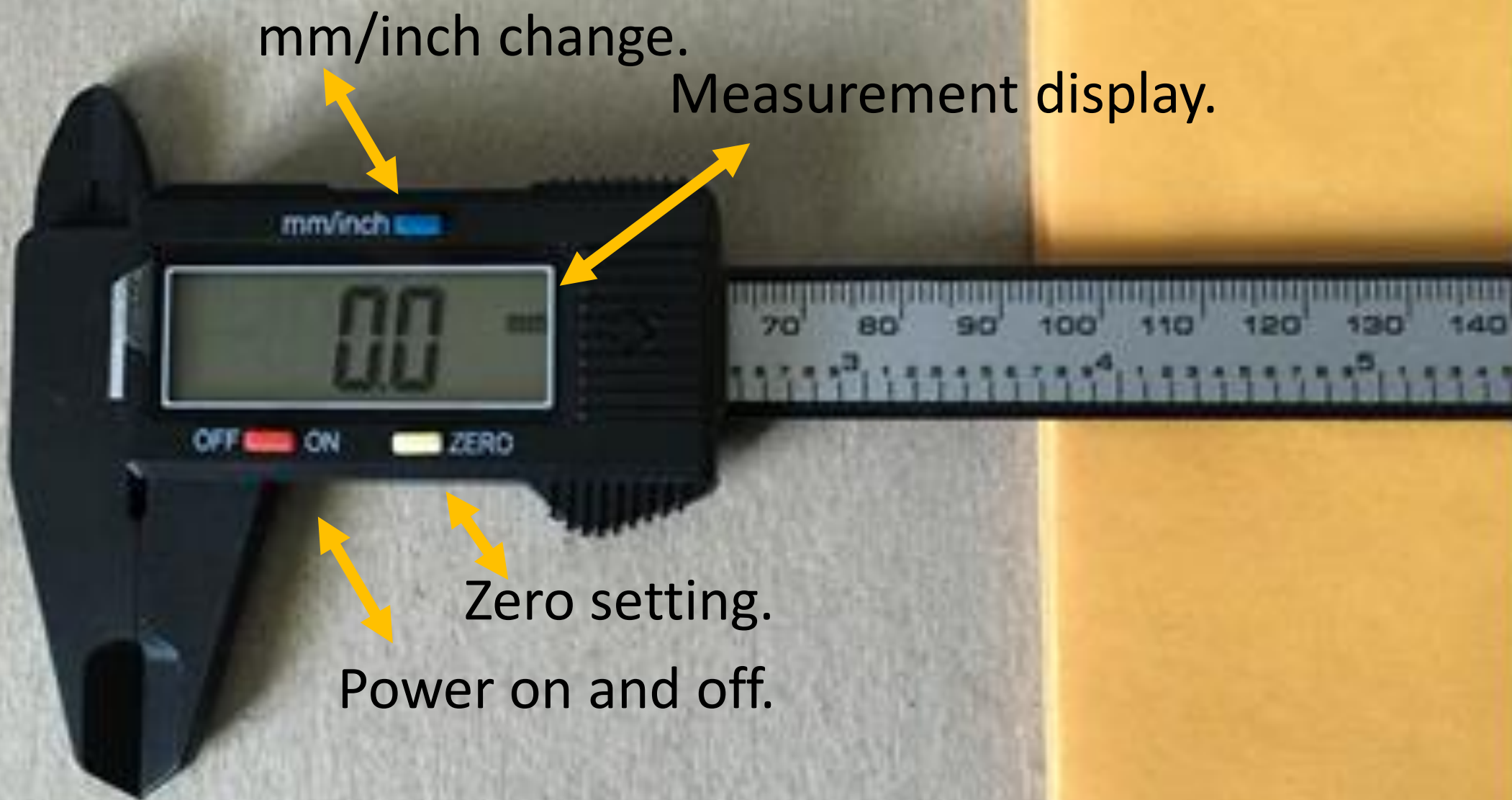
- Husks should not interfere with caliper jaws.
- Measurement taken 1 inch from butt of ear.
- If measuring with the ear on the stock, jaws are pointed toward the stalk at a 90-degree angle.



Digital Calipers



Pull Tab to activate battery.



mm/inch change.

Measurement display.

Zero setting.

Power on and off.



CODE 6 - DENT

Maternity line on kernels has not reached the cob.
Ears are firm and solid. Kernels may be hard to
scratch at the surface but still soft near the cob

Zero the Caliper every sample!!



Zero setting.



Sample ID Tag & UPS Shipping to National Lab

(VIDEO)

FORM E - Gleaning

Corn & Soybean
Objective Yield Surveys





Form E - Gleaning

- What?
 - Form E needs to be turned in regardless, even if gleaning opportunity was lost
- Why?
 - Used to collect information to determine harvest loss so net yield can be determined
- When?
 - Must be completed within 3 days after harvest
- Where?
 - 5 rows and paces from original unit (use row/pace label)
 - If the sample field has been tilled or grazed, rain or snow, an alternative field must be used
- Who?
 - Every 4th sample has been selected
 - Gleanings specified on paper Form A and CAPI Assignment Listing
 - Complete this form even if the final Form B could not be completed



Corn Gleanings

- Find the rows and paces from the chart on the kit envelope. They will be based on the size of the sample field.
- All units are located 5 rows and paces past the original unit. This is accounted for in questions 1-2.

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

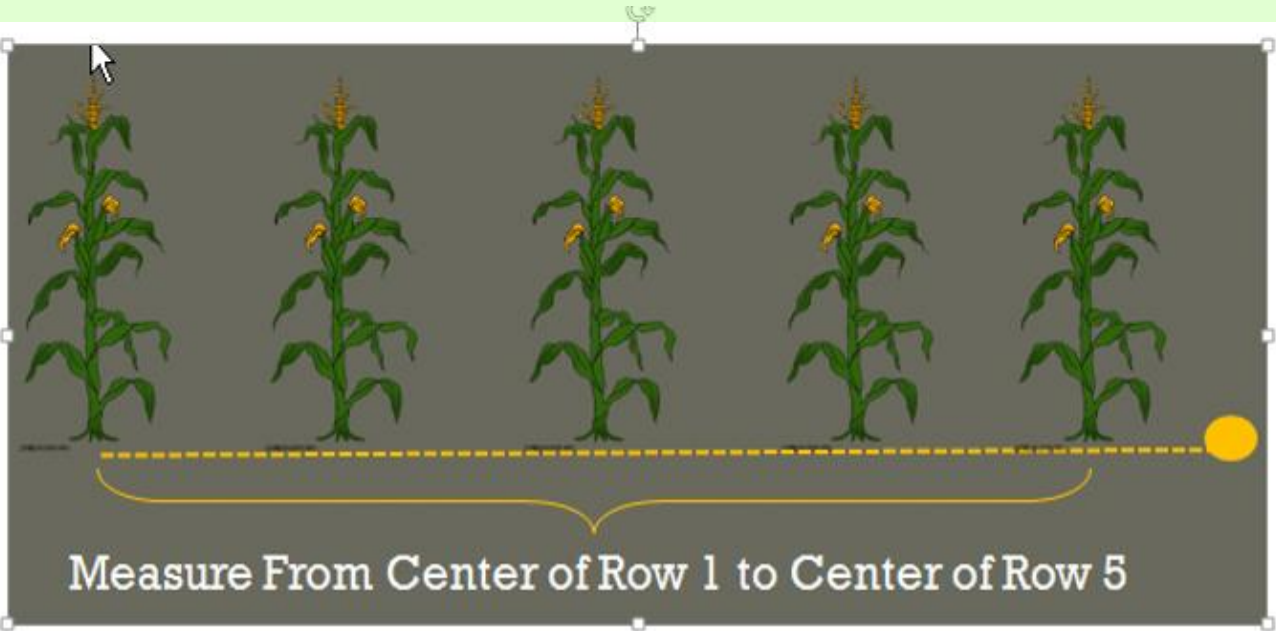
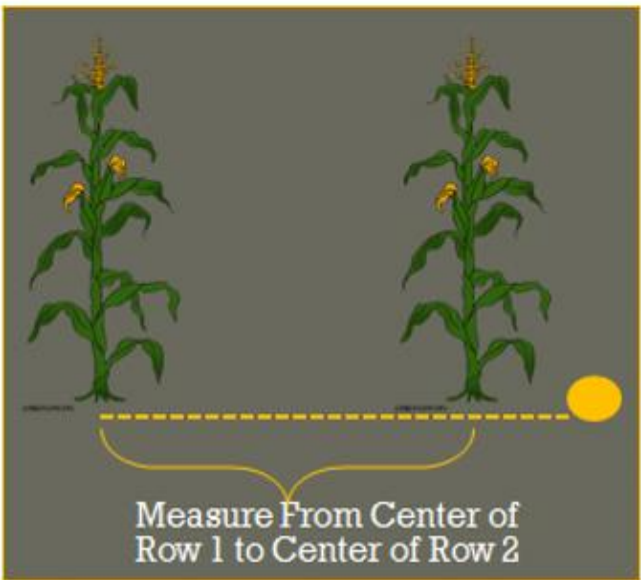
Row Space Measurements

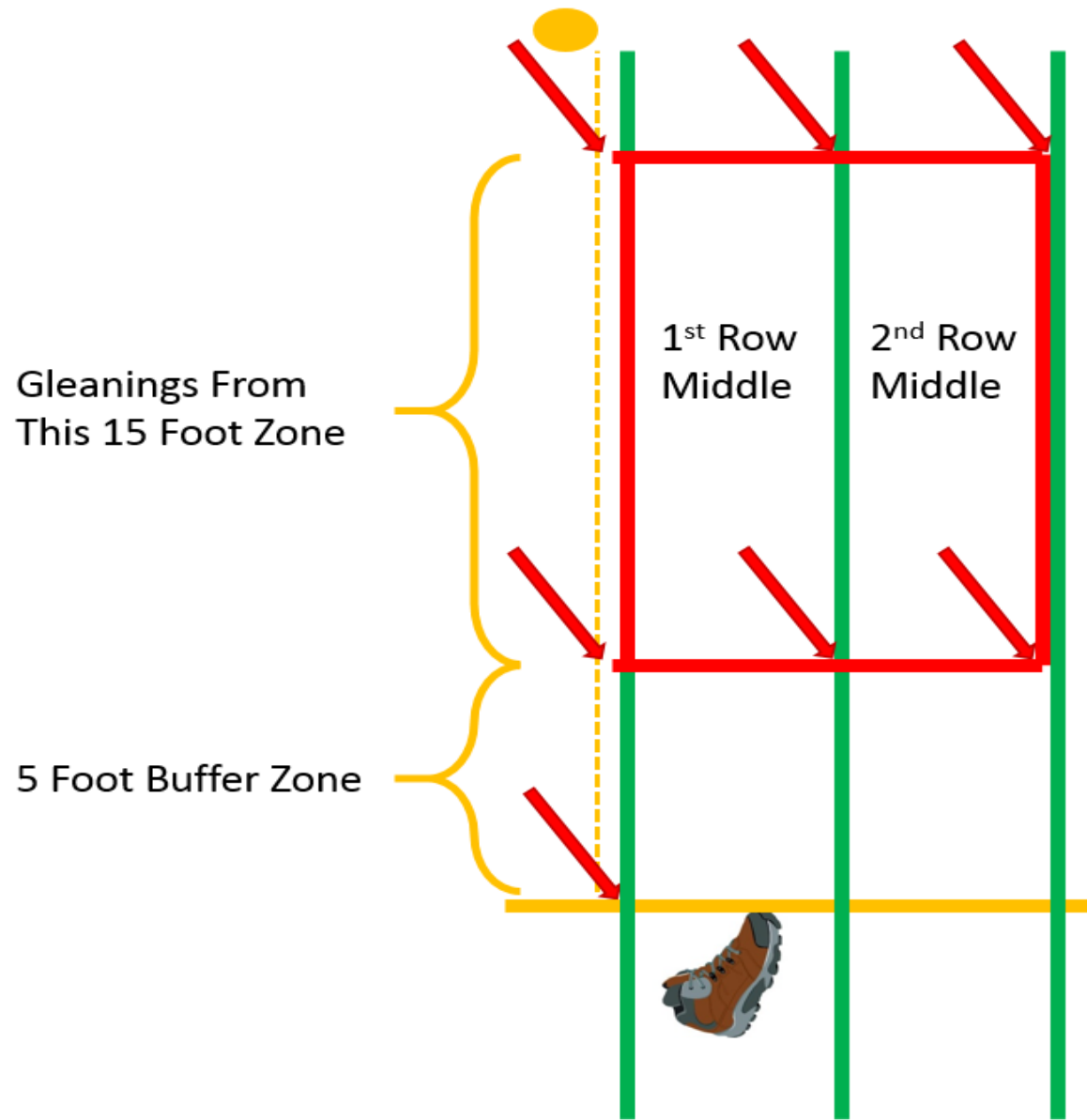
FIELD OBSERVATIONS

- 3. Measure distance from stalks in Row 1 to stalks in Row 2..... Feet and Tenths
- 4. Measure distance from stalks in Row 1 to stalks in Row 5..... Feet and Tenths

UNIT 1	
701	2 <u>5</u>
703	10 <u>0</u>

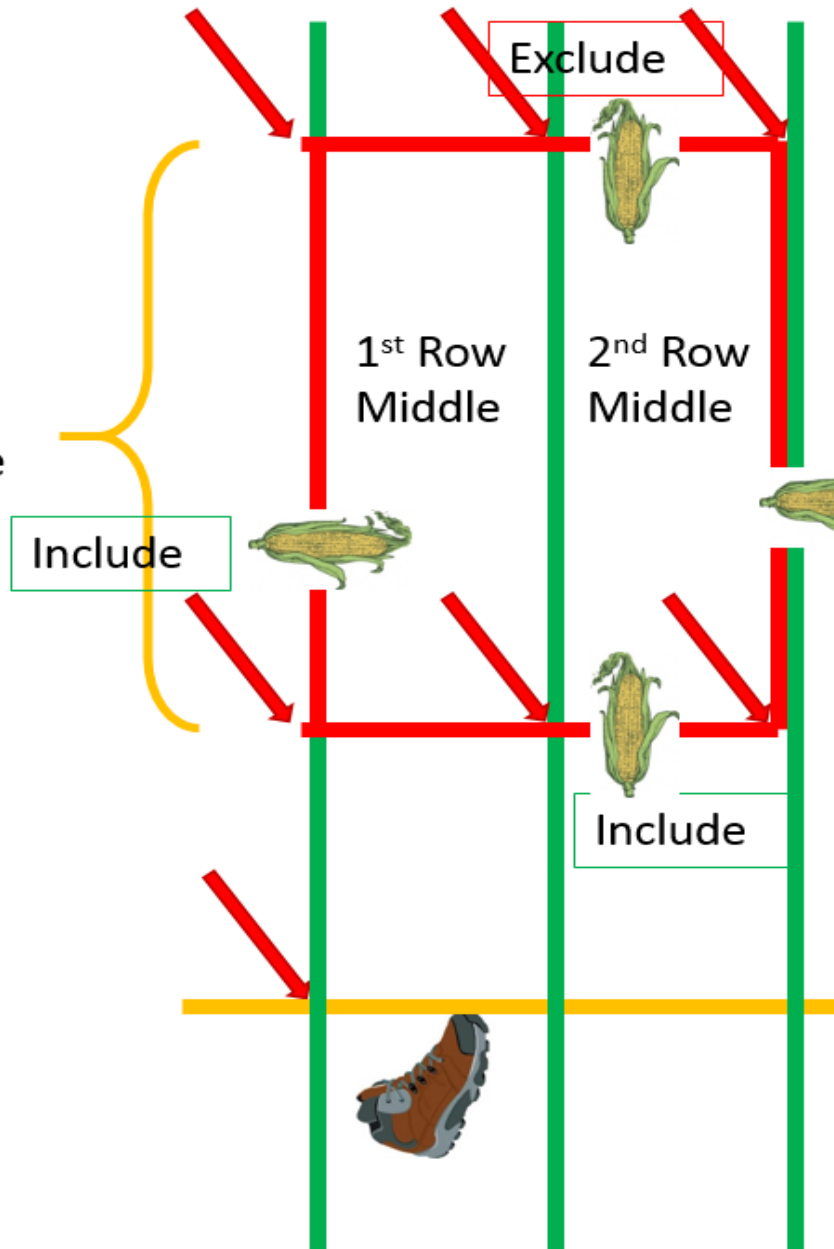
UNIT 2	
702	2 <u>5</u>
704	10 <u>1</u>







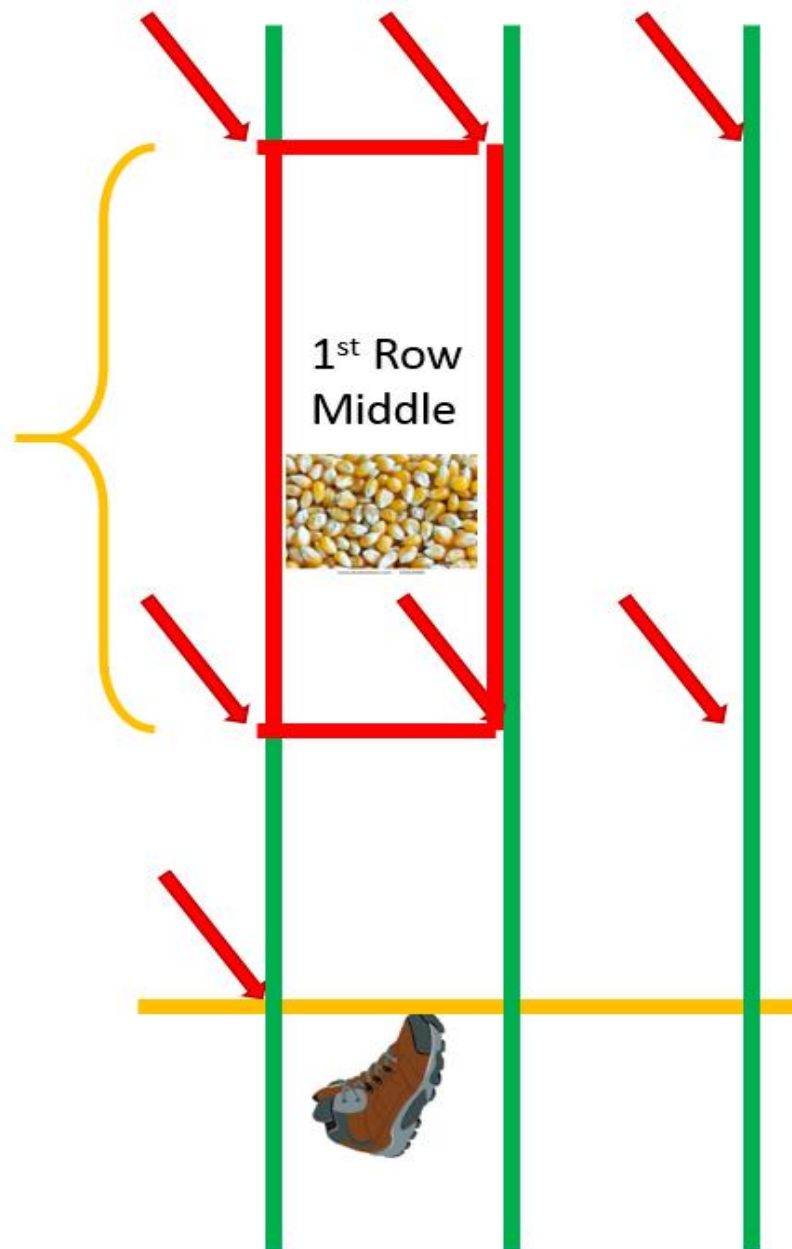
Gleanings From
This 15 Foot Zone



Pick up all ears and Pieces
Of ears in both Row Middles
"Shelled Grain"



Gleanings From
This 15 Foot Zone



Pick up only loose grain
In 1st Row Middle
"Loose Grain"



GLEANINGS IN 15-FOOT UNITS

CHECK EACH BOX AS COMPLETED

- 5. Pick up all ears attached to stalks, all ears, and pieces of ears with kernels in each row middle. Shell and deposit all grain in paper bag. Identify bag as “shelled grain”.....
- 6. Pick up loose grain in the middle of the first row of each unit. Deposit in separate paper bag. Identify bag as “loose grain”.....

Check

Check

ROW 1	ROW 2
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	

ROW 1	ROW 2
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	

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, give reasons

SHIPPING INSTRUCTIONS:

- a. Attach completed ID tag to the paper bag(s) containing gleanings.
- b. Place bag(s) and this Form E in a Tyvek envelope.
- c. Ship Tyvek envelope to National Lab.

Enumerator Number

Supervisor Number

790	31999
791	31888



Soybean Gleanings

- Find the rows and paces from the chart on the kit envelope. They will be based on the size of the sample field.
- All units are located 5 rows and paces past the original unit. This is accounted for in questions 1-2.

UNIT LOCATION

- 1. Number of rows along edge of field.....
- 2. Number of paces into field.....

UNIT 1	UNIT 2
+ 5	+ 5
+ 5	+ 5

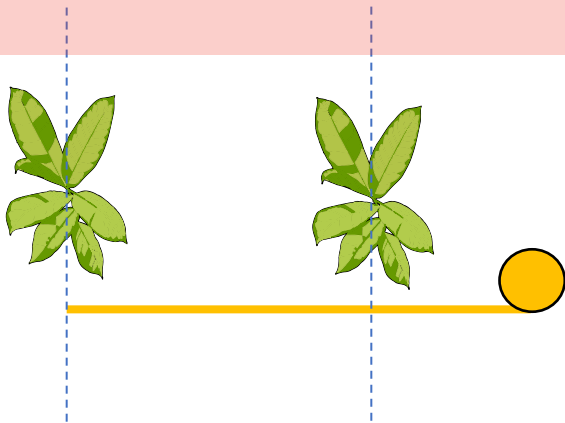
Row Space Measurements

FIELD OBSERVATIONS

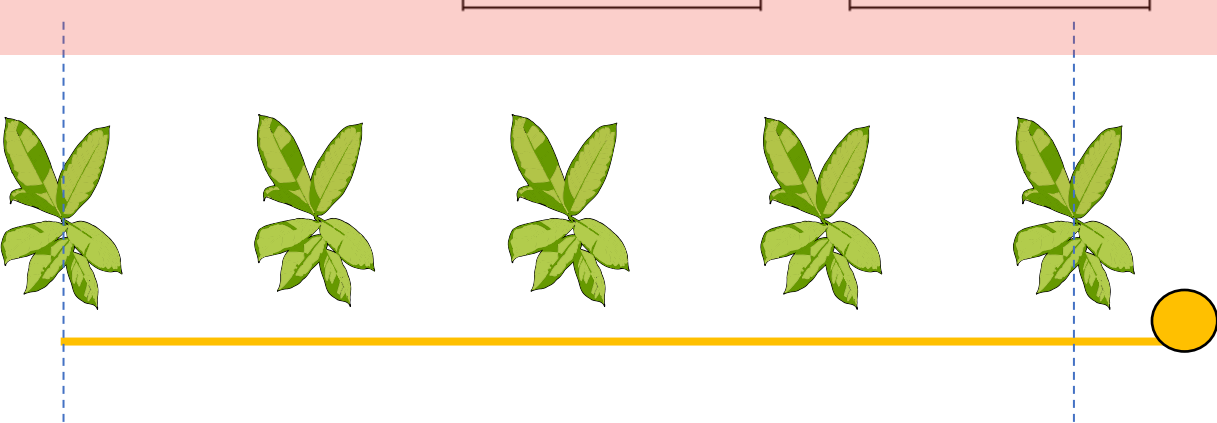
3. Measure distance from plants in Row 1 to plants in Row 2..... Feet and Tenths
4. Measure distance from plants in Row 1 to plants in Row 5..... Feet and Tenths

UNIT 1	
701	2 <u>5</u>
703	10 <u>0</u>

UNIT 2	
702	2 <u>6</u>
704	10 <u>2</u>



Measure the distance from the center of Row 1 to the center of Row 2



Measure the distance from the center of Row 1 to the center of Row 5

Gleanings From
This 3 Foot Zone

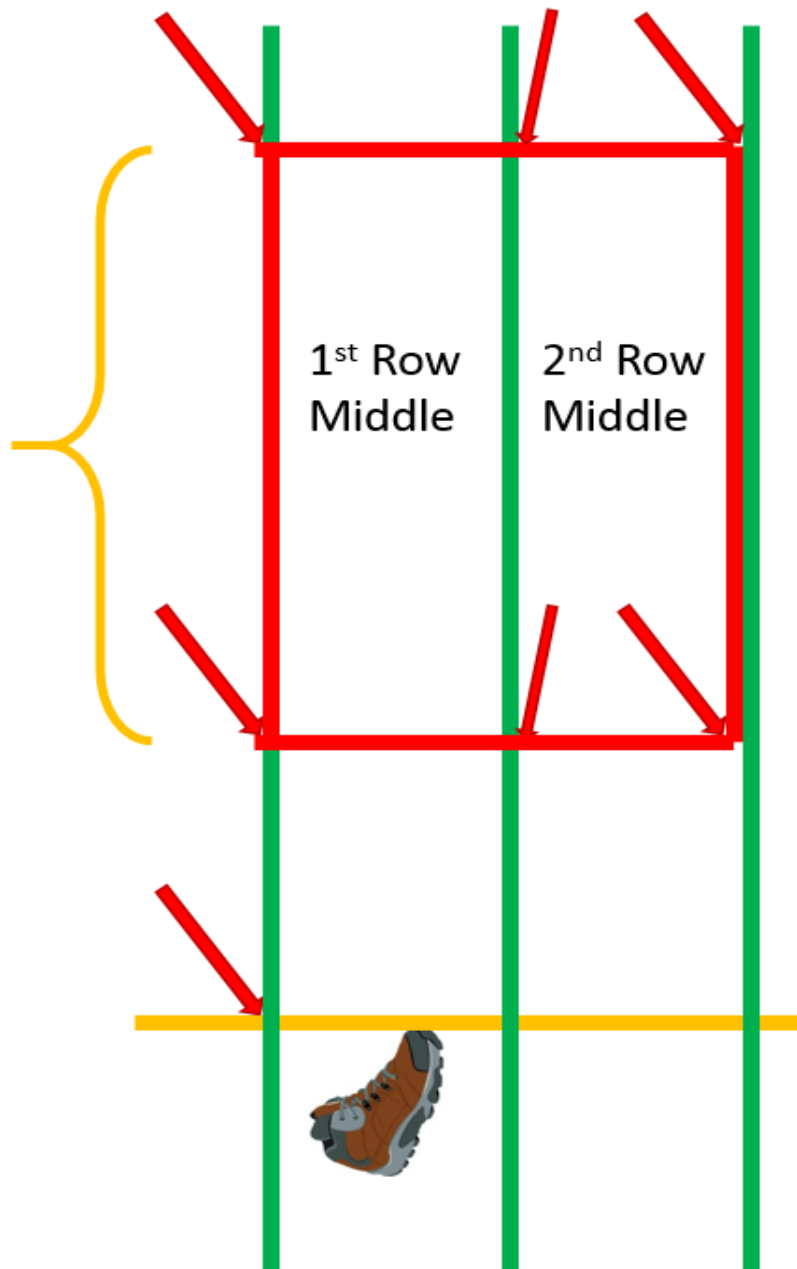
5 Foot Buffer Zone

1st Row
Middle

2nd Row
Middle



Gleanings From
This 3 Foot Zone



Pick up all Pods and Parts
Of pods and loose Beans
And parts of Beans
from Both Row Middles
Put in same paper bag.



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

5. Pick all pods with beans attached to plants, and loose pods with beans in each row middle and deposit in a paper bag
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 EACH BOX AS COMPLETED

		UNIT 1		UNIT 2	
		ROW 1	ROW 2	ROW 1	ROW 2
Check		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



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.

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

ENUMERATOR: _____

Enumerator Number

790

31999

Supervisor Number

791

31888

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.

Data Collection Procedures & Due Dates





Forms Management

- No forms will be shipped to Lincoln
- Enter all Form As and Form Bs in CAPI
 - Completes
 - Inaccessibles (Form B only)
 - Refusals
 - See Workshop Booklet or IM for complete listing Form B Status Codes
- Hold Form As and Bs until the end of the survey
- Forms may be destroyed after December 15



Forms Management

- Form A
 - Can start after workshop, set up units before data collection
- Form B
 - Remember to take row space measurements if units set up early
 - Enumerator harvest can occur outside field work dates
 - If enumerator harvest occurs outside field work dates, save forms to enter when CAPI opens
- Form E
 - Within three days after farmer harvest
 - Alternate field from same tract may be selected if disked, grazed, etc.



Shipping to STL

- Shipping to St. Louis
 - Grain samples
 - Gleaning samples and Form E
- UPS Shipping Packet
 - Number of Blue UPS labels – St. Louis (determined by samples)
- All labels are UPS Next Day Air
- Please contact Lincoln if more shipping supplies are needed



2023 Due Dates

SURVEY MONTH	BEGIN FIELDWORK	LAST DAY TO ENTER CAPI & SEND UPS	FORMS ENTERED IN CAPI
SEPTEMBER 1	August 25	September 2	Forms A & B
OCTOBER 1	September 23	October 2	Form B
NOVEMBER 1	October 25	November 2	Form B
AFTER NOVEMBER 1	Prior to final harvest	December 8	Form B
POST-HARVEST Gleaning	WITHIN 3 DAYS AFTER FARMER HARVEST		UPS Form E to National Lab

Questions

