Workshop Expectations and Layout

Prior to workshop

- Videos on all sections were watched independently
- Questionnaire and interviewer's manual was reviewed
- Home study quiz was completed

Section Review

- Discuss the purpose
- Reemphasize areas of the section
- Answer any questions submitted ahead of time (when applicable)
- Live Q & A on the section
- Go over an example (when applicable)
- Complete exercise in workshop booklet (when applicable)

Breakouts

- Work through questionnaire
- Discuss how to gain cooperation/plan of attack
- Discuss the Home Study Quiz
- Explore ARMS 2 CAPI instrument

Large Group Discussion

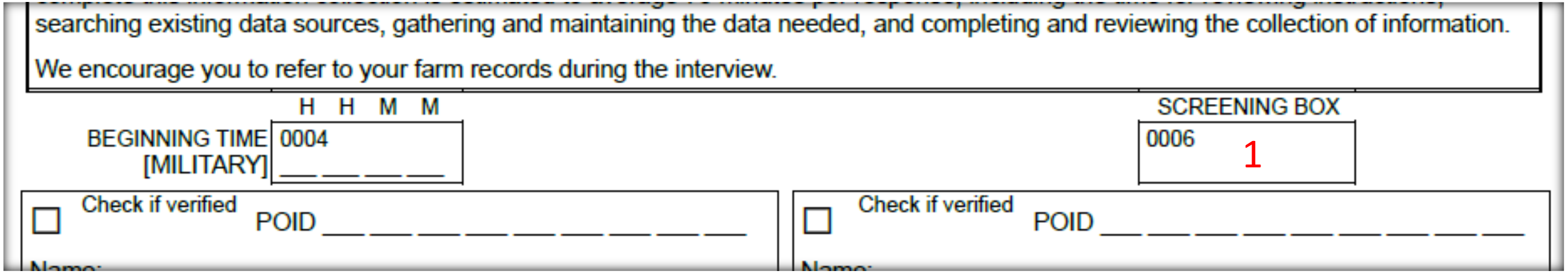
- Gaining Cooperation
- Tips & Tricks
- Other items

Back in Person Workshops!

Regional Management Talk
(Insert Slides here)

Face page, Insert, and Section A

Screening


searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

We encourage you to refer to your farm records during the interview.

H H M M

BEGINNING TIME [MILITARY] 0004 ___ ___ ___ ___

SCREENING BOX 0006 1

☐ Check if verified POID ___ ___ ___ ___ ___ ___ ___ ___ ___ ___

Name:

☐ Check if verified POID ___ ___ ___ ___ ___ ___ ___ ___ ___ ___

Name:

- A 1 indicates that a screening sheet will need to be completed

Screening

- Verify if operator is still in business
  - Including CRP
- Verify if target name grew the target crop this year
  - Including all operations
- Out of Business of Landlord only
  - Conclude interview
- Record all acres operated including
  - Cropland in other states
  - Abandoned target crop acres
- Collect data for addition individual ops or partnerships
- Take good notes

ARMS I Acreage Insert Sheet

AGRICULTURAL RESOURCE MANAGEMENT SURVEY FOR 2022
SCREENING INFORMATION FORM

STATE	VERSION	ID	TRACT	SUBTRACT
99	77	999999990	01	01

SAMPLE SEQUENCE NUMBER: 0105
OPDOM STATUS: 00

B. A. FARMER
1234 DIRT RD
ANYWHERE, ST 56789
(987) 654-3210

INFORMATION FROM SCREENING:

ARMS I Acreage Insert Sheet

```
INFORMATION FROM SCREENING:

         TYPE OF OPERATION REPORTED: PARTNERSHIP WITH 3 PARTNERS
         RESPONDENT: OPERATOR OR MANAGER

         THIS OPERATION IS SELECTED FOR THE  CROP :CROP – PPCR or PPR
         THE SCREENING PHASE DATA ARE FROM COMPLETE RESPONSE.
         DATA WERE COLLECTED BY ENUMERATOR: 99999


Total Acres Of Land Operated:                    1,820.0

Total Acres Of Crop Land:                        1,700.0

=============================================================================
```

Sources of Data:

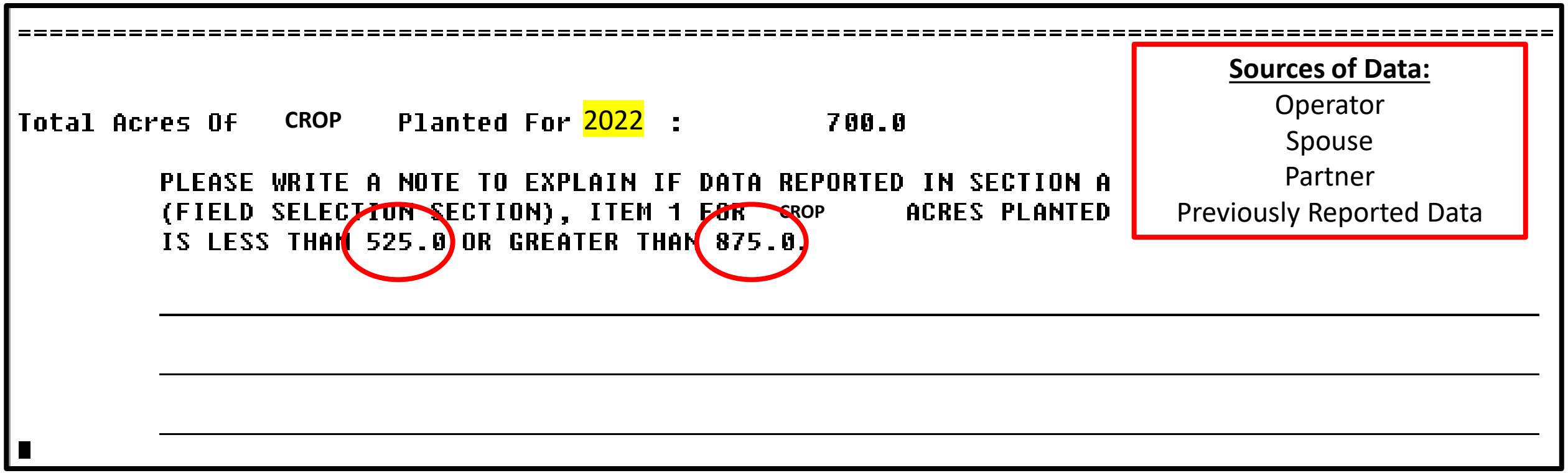
Operator

Spouse

Partner

Previously Reported Data

ARMS I Acreage Insert Sheet



ARMS I Acreage Insert Sheet

THIS OPERATION IS SELECTED FOR THE CROP :CROP – PPCR or PPR
THE SCREENING PHASE DATA ARE FROM 7 RESPONSE.
DATA WERE COLLECTED BY ENUMERATOR:.

Total Acres Of Land Operated: UNKNOWN

Total Acres Of Crop Land: UNKNOWN

==========

Total Acres Of **CROP** Planted For 2022 118.0

PLEASE WRITE A NOTE TO EXPLAIN IF DATA REPORTED IN SECTION A
(FIELD SELECTION SECTION), ITEM 1 FOR WHEAT ACRES PLANTED
IS LESS THAN 88.5 OR GREATER THAN 147.5.

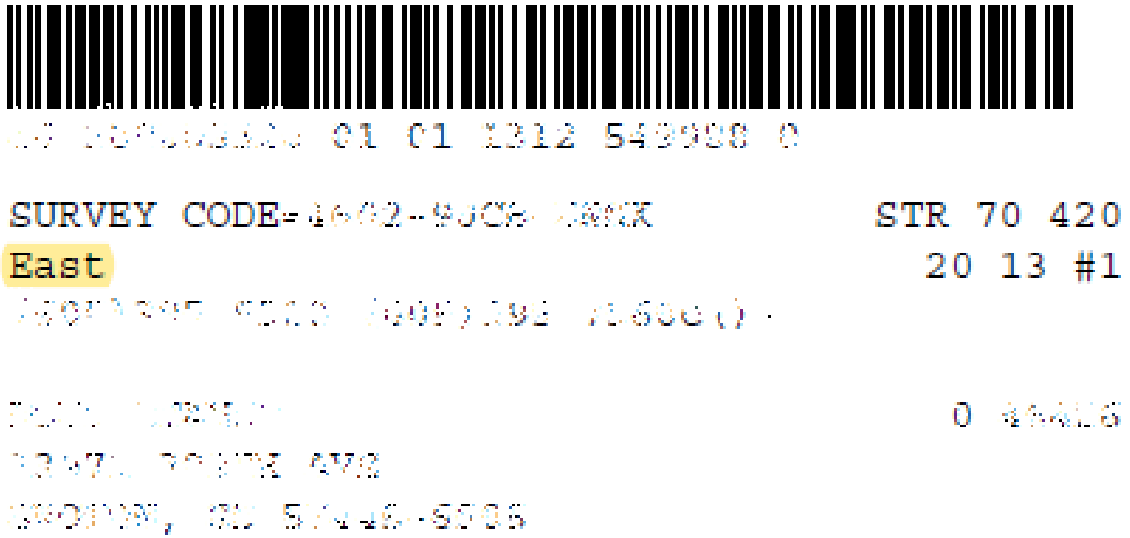
Section A
Field Selection

- Targeted crop (Wheat) acres planted
  - Compare to ARMS I Acreage Insert Sheet
  - If the acres differ by +/-25%, please leave a note.
- Total number of targeted crop fields planted
- Target crop is printed on the label, and each questionnaire will only refer to that particular type of wheat as the target crop, and not all wheat.

Section A
Field Selection

- **Cardinal & Inter-Cardinal Directions**
  - Direction will be on the questionnaire label and CAPI
  - For each operation, the field has already been randomly selected using the eight cardinal and inter-cardinal directions
  - Field selection is irrespective of the location of the homestead on the operation

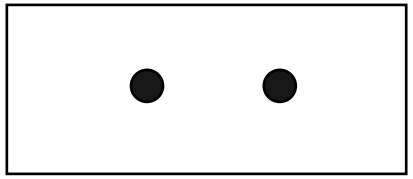
Section A: Field Selection



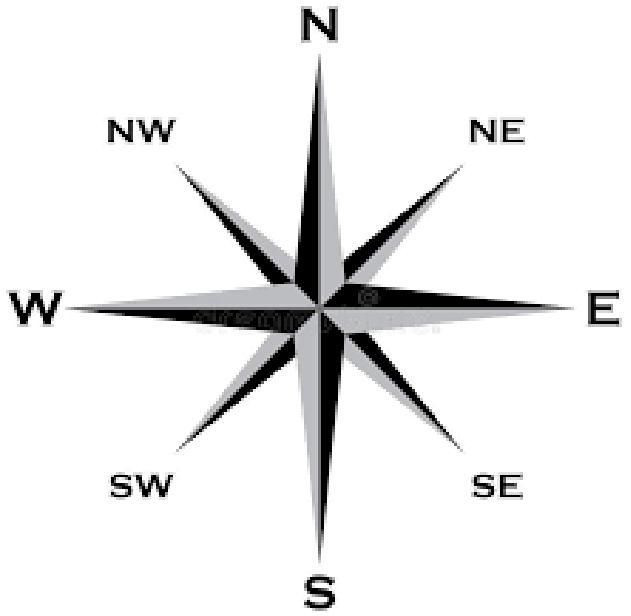
Furthest target crop field in the given direction

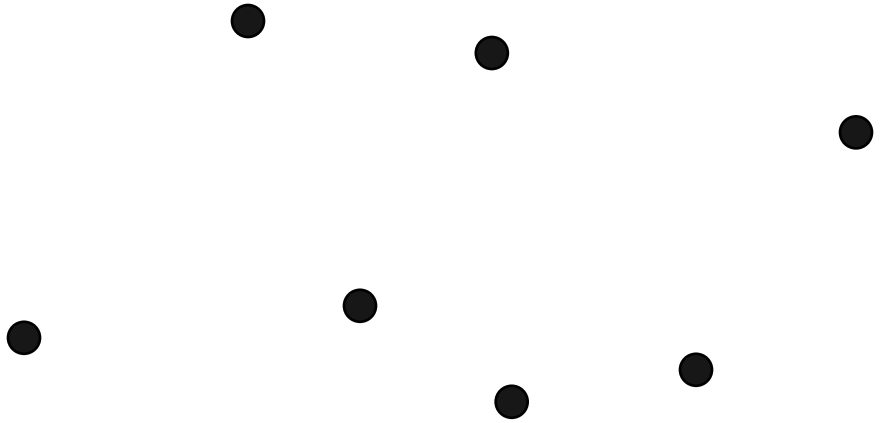
- Northern-most target crop field
- Southern-most target crop field
- Eastern-most target crop field
- Western-most target crop field
- Northeastern-most target crop field
- Southeastern-most target crop field
- Northwestern-most target crop field
- Southwestern-most target crop field

Section A
Field Selection



Both are Northern-most





Legend
- Targeted Crop Field

- To determine which of those two fields to select, rotate clockwise around the compass rose
  - Northeastern field is selected

Section B

Field Characteristics

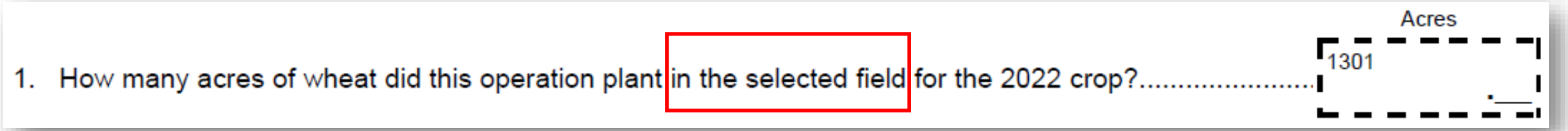
For the Wheat version ONLY

The Purpose of Section B

- To obtain information used to calculate the production cost per acre
- To study conservation practices, land tenure, and the adaptation of new technologies
- The estimation of residue levels and determination of tillage systems that are used to evaluate water quality and soil erosion

Talking about the selected field

- Section B and the rest of the questionnaire only refer to the selected field.



Seed Treatment

- Respondent booklet has seed treatment codes

13. For the 2022 wheat crop, was the wheat seed--..... | 1 Treated with a pesticide prior to purchase? 2 Treated with a pesticide after purchase? 3 Not treated with a pesticide? | ..... | Code 3062

[If item 13 = 1 or 2, continue, otherwise go to item 14.]

	Seed Treatment Name	
a. What was the name of the seed treatment? [Write seed treatment name in the box provided.].....	1289	
b. What was the seed treatment code? [Enter the appropriate seed treatment code from the Respondent Booklet. Enter "999" if a seed treatment was applied but is not listed. Enter "-1" if the seed treatment is not known.].....		Code 2325

Crop History

- Crop codes are above the table
- Record cover crops
- Record perennial crops all seasons it was in the ground

1 What crops were planted on the selected field in-- [For perennial crops, (1, 11, 292, 302, and 311) report the crop code in all seasons when the crop was growing.] Season and Year	Crop Name	Crop Code	2 Was this a cover crop? Yes=1 No=3	3 If a cover crop was planted, how did you terminate this cover crop? 1 Tilled-In 2 Herbicide 3 Rolled 4 Grazed 5 Harvested for forage 6 Harvested for grain 7 Winter killed Code	4 Was the selected field no-till or strip-tilled?[1/] Yes=1 No=3
a. Spring/Summer of 2022?		1344			1344
b. Fall of 2021?	Winter Wheat	1343 165	1470 3	1471	1345 3
c. Spring/Summer of 2021?	Soybeans	1369 26	1472 3	1473	1371 3
d. Fall of 2020?	No crop	1372 318	1474	1475	1374
e. Spring/Summer of 2020?	No crop	1375 318	1476	1477	1377
f. Fall of 2019?	Winter Wheat	1378 165	1478 3	1479	1380 3
g. Spring/Summer of 2019?	Alfalfa	1381 1	1480 3	1481	1383 3
h. Fall of 2018?	Alfalfa	1366 1	1482 3	1483	1368 3
i. Spring/Summer of 2018?	Alfalfa	1340 1	1484 3	1485	1342 3

Crop History Example 2- Began operating land in Spring 2021

1 What crops were planted on the selected field in-- [For perennial crops, (1, 11, 292, 302, and 311) report the crop code in all seasons when the crop was growing.]			2 Was this a cover crop?	3 If a cover crop was planted, how did you terminate this cover crop? 1 Tilled-in 2 Herbicide 3 Rolled 4 Grazed 5 Harvested for forage 6 Harvested for grain 7 Winter killed	4 Was the selected field no-till or strip-tilled?[1/]
Season and Year	Crop Name	Crop Code	Yes=1 No=3	Code	Yes=1 No=3
a. Spring/Summer of 2022?.....					1344
b. Fall of 2021?.....	Winter Wheat	1343 165	1470 3	1471	1345 3
c. Spring/Summer of 2021?.....	Soybeans	1369 26	1472 3	1473	1371 3
d. Fall of 2020?.....		1372	1474	1475	1374
e. Spring/Summer of 2020?.....		1375	1476	1477	1377
f. Fall of 2019?.....		1378	1478	1479	1380
g. Spring/Summer of 2019?.....		1381	1480	1481	1383
h. Fall of 2018?.....		1366	1482	1483	1368
i. Spring/Summer of 2018?.....		1340	1484	1485	1342

Workshop Booklet Exercise

Page 6

- The respondent planted winter wheat in the fall of 2021, following the harvest of the soybeans. Back in 2020, they planted and harvested corn. In the years prior to the 2020 corn crop, the field had been in alfalfa. The farmer uses no-till practices but hasn't utilized cover crops.

Season and Year	Crop Name	Crop Code	Yes=1 No=3	Code	Yes=1 No=3
a. Spring/Summer of 2022?.....					1344
b. Fall of 2021?.....	Winter Wheat	1343 165	1470 3	1471	1345 1
c. Spring/Summer of 2021?.....	Soybean	1369 26	1472 3	1473	1371 1
d. Fall of 2020?.....	No Crop	1372 318	1474 3	1475	1374
e. Spring/Summer of 2020?.....	Corn	1375 6	1476 3	1477	1377 1
f. Fall of 2019?.....	Alfalfa	1378 1	1478 3	1479	1380 1
g. Spring/Summer of 2019?.....	Alfalfa	1381 1	1480 3	1481	1383 1
h. Fall of 2018?.....	Alfalfa	1366 1	1482 3	1483	1368 1
i. Spring/Summer of 2018?.....	Alfalfa	1340 1	1484 3	1485	1342 1

[1/]No-till means leaving soil and previous crop residue undisturbed from harvest to planting. Strip-till means tilling a narrow strip over the row, leaving soil and previous crop residue between the rows undisturbed.

Section C
Nutrient or Fertilizer Applications

Section Purpose

- Identify nutrients or fertilizer used to produce the 2022 Wheat crop on the selected field
- Fertilizer application data is used to analyze water quality and agricultural productivity issues and policies
- Nutrient Management practices help farmers adjust fertilizer applications to crop needs and reduce costs and losses to the environment

Fertilizer is made up of 2 things:

- **Actual Nutrients**
  - N: Nitrogen
  - P: Phosphorus
  - K: Potassium
  - S: Sulfur
  - And many others
- **Carrier Material**
  - Filler - other stuff

2 Ways to Record Nutrient or Fertilizer Applications:

- **<u>Percent Analysis – most common & preferred</u>**
- **<u>Pounds of Actual Nutrients</u>**

LINE	2 Materials Used [Enter percentage analysis or actual pounds of plant nutrients applied per acre.] [Show Common Nutrients or Fertilizers in Respondent Booklet] [Refer to nitrogen list above for type of nitrogen used.]					3 What quantity was applied per acre? [Leave this column blank if actual nutrients were reported]	4 [Enter material code] 1 Pounds 12 Gallons 13 Quarts 19 Pounds of actual nutrients	5 When was this applied? 1 In the fall before seeding 2 In the spring before seeding 3 At seeding 4 After seeding	6 How was this applied? [Refer to code list above]	7 How many acres in the selected field were treated in this application? Acres
	N Nitrogen	P_2O_5 Phosphate	K_2O Potash	S Sulfur	Type of N Used					
01	31	32	33	34	35	36	37	38	39	40 .___
02	31	32	33	34	35	36	37	38	39	40 .___
03	31	32	33	34	35	36	37	38	39	40 .___

2 Ways to Record Nutrient or Fertilizer Applications:

- Percent Analysis – most common & preferred
  - **A Complete Product**

- Pounds of Actual Nutrients
  - **Individual Ingredients Of A Complete Product**

2 Ways to Record Nutrient or Fertilizer Applications:

- **<u>Percent Analysis - A Complete Product</u>**
  - Urea 46-0-0
  - 10-34-0
  - MAP 11-52-0
  - DAP 18-46-0

- **<u>Pounds of Actual Nutrients - Individual Ingredients</u>**
  - Nitrogen
  - Phosphorus
  - Potassium
  - Sulfur

It is written with numbers and dashes

- 26 - 5 - 10

  N - P - K
- First number listed is Nitrogen
- Second number listed is Phosphorus
- Third number listed is Potassium
- If a Fourth number is present: 26 - 5 - 10 - 7 that is Sulfur

Numbers represent the Percentage

- 26-5-10
- For any given quantity of this fertilizer,
  - 26% of it will be Nitrogen
  - 5% of it will be Phosphorus
  - 10% of it will be Potassium
  - The remaining 59% will be carrier material

Percent Analysis Method

- 150 Pounds of 26-5-10:
  - 150 lbs. x 26% = 39 pounds Nitrogen
  - 150 lbs. x 5% = 8 pounds of Phosphorus
  - 150 lbs. x 10% = 15 pounds of Potassium
  - The rest will be carrier material
  - 150 lbs. x 59% = 88 pounds of carrier material

Percent Analysis

LINE	2 Materials Used [Enter percentage analysis or actual pounds of plant nutrients applied per acre.] [Show Common Nutrients or Fertilizers in Respondent Booklet] [Refer to nitrogen list above for type of nitrogen used.]					3 What quantity was applied per acre? [Leave this column blank if actual nutrients were reported]	4 [Enter material code] 1 Pounds 12 Gallons
	N Nitrogen	P_2O_5 Phosphate	K_2O Potash	S Sulfur	Type of N Used		
01	31 **11**	32 **52**	33	34	35 **4**	36 **85**	37 **1**
02	31 **10**	32 **34**	33	34	35 **4**	36 **5**	37 **12**
03	31	32	33 **60**	34	35	36 **120**	37 **1**

Percent Analysis Method

- 10-34-0 11-52-0 18-46-0 28-0-0 46-0-0 82-0-0 0-0-60
- If you add the N-P-K together, it will not be greater than 85
  - If Sulfur is included in the mix, then this does not hold true.

Pounds of Actual Nutrients

LINE	2 Materials Used [Enter percentage analysis or actual pounds of plant nutrients applied per acre.] [Show Common Nutrients or Fertilizers in Respondent Booklet] [Refer to nitrogen list above for type of nitrogen used.]					3 What quantity was applied per acre? [Leave this column blank if actual nutrients were reported]	4 [Enter material code] 19 Pounds of actual nutrients
	N Nitrogen	P_2O_5 Phosphate	K_2O Potash	S Sulfur	Type of N Used		
01	31 10	32 44	33 72	34 4	35	36	37 19
02	31	32	33	34	35	36	37
03	31	32	33	34	35	36	37

Types of Nitrogen Used

Nitrogen Codes for Column 2

1 Anhydrous ammonia	6 Ammonia sulfate
2 Nitrogen solution (UAN)	7 Potassium nitrate, magnesium nitrate, and calcium nitrate
3 Urea	
4 Ammonium nitrate	
5 Sodium nitrate	8 Other nitrogen fertilizer material [specify:_____

LINE	2 Materials Used [Enter percentage analysis or actual pounds of plant nutrients applied per acre.] [Show Common Nutrients or Fertilizers in Respondent Booklet] [Refer to nitrogen list above for type of nitrogen used.]				
	N Nitrogen	P_2O_5 Phosphate	K_2O Potash	S Sulfur	Type of N Used
01	31	32	33	34	35

Thank You!

- Be sure to follow all skips
- Answer YES=1 NO=3

Practice Example

- Frank Farmer applied broadcast 150 pounds of MAP (11-52-0) with a pull type spreader in the fall. Later, he ran a high-speed disk over the field to chop up stalks and work the fertilizer into the ground. This was on the 80-acre field.
- At seeding to the 80-acre field, Frank applied 200 pounds of DAP (18-46-0) with the air cart in the seed furrow.
- After the wheat emerged, he sprayed 15 gallons of 28% UAN on the whole field.

Nitrogen Codes for Column 2

1 Anhydrous ammonia
2 Nitrogen solution (UAN)
3 Urea
4 Ammonium nitrate
5 Sodium nitrate
6 Ammonia sulfate
7 Potassium nitrate, magnesium nitrate, and calcium nitrate
8 Other nitrogen fertilizer material [specify:_____]

Application Codes for Column 6

1 Broadcast, ground without incorporation
2 Broadcast, ground with incorporation
3 Broadcast, by aircraft
4 In seed furrow
5 In irrigation water
6 Chisel/injected or knifed in
7 Banded in or over row
8 Foliar or directed spray

LINE	2 Materials Used [Enter percentage analysis or actual pounds of plant nutrients applied per acre.] [Show Common Nutrients or Fertilizers in Respondent Booklet] [Refer to nitrogen list above for type of nitrogen used.]					3 What quantity was applied per acre? [Leave this column blank if actual nutrients were reported]	4 [Enter material code] 1 Pounds 12 Gallons 13 Quarts 19 Pounds of actual nutrients	5 When was this applied? 1 In the fall before seeding 2 In the spring before seeding 3 At seeding 4 After seeding	6 How was this applied? [Refer to code list above]	7 How many acres in the selected field were treated in this application? Acres
	N Nitrogen	P_2O_5 Phosphate	K_2O Potash	S Sulfur	Type of N Used					
01	31 11	32 52	33	34	35 4	36 150	37 1	38 1	39 1	40 80.0
02	31 18	32 46	33	34	35 4	36 200	37 1	38 1	39 1	40 80.0
03	31 28	32	33	34	35 2	36 15	37 12	38 1	39 1	40 80.0

Workshop Booklet Exercise

Page 7

- Three applications were applied on the 2022 spring wheat crop field. In the fall, the operation broadcasted 110 lbs. of nitrogen and 60 lbs. of potash to the 155 acres field. At planting, 155 acres received 96 pounds of MAP in the seed furrow. After seeding, the operation sprayed all the acres with 19 gallons per acre of 50-0-8.

LINE	2 Materials Used [Enter percentage analysis or actual pounds of plant nutrients applied per acre.] [Show Common Nutrients or Fertilizers in Respondent Booklet] [Refer to nitrogen list above for type of nitrogen used.]					3 What quantity was applied per acre? [Leave this column blank if actual nutrients were reported]	4 [Enter material code] 1 Pounds 12 Gallons 13 Quarts 19 Pounds of actual nutrients	5 When was this applied? 1 In the fall before seeding 2 In the spring before seeding 3 At seeding 4 After seeding	6 How was this applied? [Refer to code list above]	7 How many acres in the selected field were treated in this application? Acres
	N Nitrogen	P_2O_5 Phosphate	K_2O Potash	S Sulfur	Type of N Used					
01	31 110	32	33 60	34	35 DK	36	37 19	38 1	39 2	40 155.0
02	31 11	32 52	33	34	35 4	36 96	37 1	38 3	39 4	40 155.0
03	31 50	32	33 8	34	35 DK	36 19	37 12	38 4	39 8	40 155.0
04	31	32	33	34	35	36	37	38	39	40 .

Section D
Biocontrol

Pesticide Applications

- Include:
  - Herbicides
  - Insecticides
  - Fungicides
  - Defoliants
  - Other Pesticides
- Exclude
  - Fertilizer Applications
  - Seed Treatments
  - Adjuvants/Surfactants
  - Applications to fence rows, ponds, canals, and ditches

Additional Pesticide Exercise

Chemical Product Name	LINE	2 What products were applied to the selected field? [Show product codes from Respondent Booklet.]	3 Was this product bought in liquid or dry form? [Enter L or D]	4 If this was part of a tank mix, enter line number of first product in mix.	5 When was this applied? 1 Before planting 3 At planting 4 After planting 5 Defoliation prior to harvest	6 How much was applied per acre per application? OR	7 What was the total amount applied per application in the selected field?	8 [Enter unit code] 1 Pounds 12 Gallons 13 Quarts 14 Pints 15 Liquid Ounces 28 Dry Ounces 30 Grams
Bison (EPA: 9779-347)	01	61	62 L	63 1	64 1	65 12.22	73 .__	74 15
Wolverine	02	61 40070	62 L	63 1	64 1	65 13.03	73 .__	74 15
Stinger	03	61 40425	62 L	63 1	64 1	65 14.00	73 .__	74 15
Spartan Herb.	04	61 41040	62 D	63	64 4	65 3.00	73 .__	74 28
Quilt Fungicide	05	61 70525	62 L	63 1	64 1	65 11.00	73 .__	74 15
	06	61	62	63	64	65 .__	73 .__	74

Additional Pesticide Example, contd.

Applications Codes for Column 9

1 Broadcast, ground without incorporation
2 Broadcast, ground with incorporation
3 Broadcast, by aircraft
4 In seed furrow
5 In irrigation water
6 Chiseled/injected or knifed in
7 Banded in or over row
8 Foliar or directed spray
9 Spot treatments

LINE	9 How was this product applied? [Enter code from above.]	10 How many acres in the selected field were treated with this product? Acres	11 How many times was it applied? Number	12 Were these applications made by-- 1 Operator, partner, or family member? 2 Custom applicator? 3 Employee/Other?	13 What was the cost per unit of the product? Dollars & Cents per Unit	14 Unit Code 1 Pounds, 12 Gallons, 13 Quarts, 14 Pints, 15 Liquid Ounces, 28 Dry Ounces, 30 Grams
01	76 1	77 100.0	79 1	80 2	81 50.00	82 **15**
02	76 1	77 100.0	79 1	80 2	81 .50	82 **15**
03	76 1	77 100.0	79 1	80 2	81 7.00	82 **15**
04	76 1	77 30.0	79 1	80 2	81 150.00	82 **28**
05	76 1	77 100.0	79 1	80 2	81 9.00	82 **15**
06	76	77 .	79	80	81 .__	82

Labeling Tank Mixes (Column 4)

Chemical Product Name	LINE	2 What products were applied to the selected field? [Show product codes from Respondent Booklet.]	3 Was this product bought in liquid or dry form? [Enter L or D]	4 If this was part of a tank mix, enter line number of first product in mix.	5 When was this applied? 1 Before planting 3 At planting 4 After planting 5 Defoliation prior to harvest	6 How much was applied per acre per application? OR	7 What was the total amount applied per application in the selected field?	8 [Enter unit code] 1 Pounds 12 Gallons 13 Quarts 14 Pints 15 Liquid Ounces 28 Dry Ounces 30 Grams
TANK MIX	01	61	62	63 1	64	65 .__ __	73 .__ __	74
TANK MIX	02	61	62	63 1	64	65 .__ __	73 .__ __	74
TANK MIX	03	61	62	63 1	64	65 .__ __	73 .__ __	74
TANK MIX	04	61	62	63 1	64	65 .__ __	73 .__ __	74
SINGLE APPLICATION	05	61	62	63	64	65 .__ __	73 .__ __	74
SINGLE APPLICATION	06	61	62	63	64	65 .__ __	73 .__ __	74

Labeling Tank Mixes (Column 4)

Chemical Product Name	LINE	2 What products were applied to the selected field? [Show product codes from Respondent Booklet.]	3 Was this product bought in liquid or dry form? [Enter L or D]	4 If this was part of a tank mix, enter line number of first product in mix.	5 When was this applied? 1 Before planting 3 At planting 4 After planting 5 Defoliation prior to harvest	6 OR 7 6 How much was applied per acre per application? 7 What was the total amount applied per application in the selected field?	8 [Enter unit code] 1 Pounds 12 Gallons 13 Quarts 14 Pints 15 Liquid Ounces 28 Dry Ounces 30 Grams
SINGLE APPLICATION	01	61	62	63	64	65 .__ __ 73 .__ __	74
TANK MIX	02	61	62	63 **2**	64	65 .__ __ 73 .__ __	74
TANK MIX	03	61	62	63 **2**	64	65 .__ __ 73 .__ __	74
TANK MIX	04	61	62	63 **2**	64	65 .__ __ 73 .__ __	74
SINGLE APPLICATION	05	61	62	63	64	65 .__ __ 73 .__ __	74
SINGLE APPLICATION	06	61	62	63	64	65 .__ __ 73 .__ __	74

Labeling Tank Mixes (Column 4)

Chemical Product Name	LINE	2 What products were applied to the selected field? [Show product codes from Respondent Booklet.]	3 Was this product bought in liquid or dry form? [Enter L or D]	4 If this was part of a tank mix, enter line number of first product in mix.	5 When was this applied? 1 Before planting 3 At planting 4 After planting 5 Defoliation prior to harvest	6 OR How much was applied per acre per application?	7 What was the total amount applied per application in the selected field?	8 [Enter unit code] 1 Pounds 12 Gallons 13 Quarts 14 Pints 15 Liquid Ounces 28 Dry Ounces 30 Grams
SINGLE APPLICATION	01	61	62	63	64	65 .__ __	73 .__ __	74
SINGLE APPLICATION	02	61	62	63	64	65 .__ __	73 .__ __	74
TANK MIX	03	61	62	63 **3**	64	65 .__ __	73 .__ __	74
TANK MIX	04	61	62	63 **3**	64	65 .__ __	73 .__ __	74
SINGLE APPLICATION	05	61	62	63	64	65 .__ __	73 .__ __	74
SINGLE APPLICATION	06	61	62	63	64	65 .__ __	73 .__ __	74

Labeling Tank Mixes (Column 4)

Chemical Product Name	LINE	2 What products were applied to the selected field? [Show product codes from Respondent Booklet.]	3 Was this product bought in liquid or dry form? [Enter L or D]	4 If this was part of a tank mix, enter line number of first product in mix.	5 When was this applied? 1 Before planting 3 At planting 4 After planting 5 Defoliation prior to harvest	6 How much was applied per acre per application? OR	7 What was the total amount applied per application in the selected field?	8 [Enter unit code] 1 Pounds 12 Gallons 13 Quarts 14 Pints 15 Liquid Ounces 28 Dry Ounces 30 Grams
SINGLE APPLICATION	01	61	62	63	64	65 .__ __	73 .__ __	74
TANK MIX	02	61	62	63 2	64	65 .__ __	73 .__ __	74
TANK MIX	03	61	62	63 2	64	65 .__ __	73 .__ __	74
TANK MIX	04	61	62	63 2	64	65 .__ __	73 .__ __	74
TANK MIX	05	61	62	63 5	64	65 .__ __	73 .__ __	74
TANK MIX	06	61	62	63 5	64	65 .__ __	73 .__ __	74

Workshop Booklet Exercise

Page 8 & 9

- Shortly after planting 95 acres of durum wheat, the operator broadcasted (without incorporation) 13.7 ounces per acre of Husky Complete. It cost around $9.00 per liquid ounce. There was some presence of fungus showing on the durum wheat, so the operator applied Prosaro 421 at the rate of 6.5 ounces an acre to all the acres to be safe. Operator knew they paid around $235/Gal.

Chemical Product Name	LINE	2 What products were applied to the selected field? [Show product codes from Respondent Booklet.]	3 Was this product bought in liquid or dry form? [Enter L or D]	4 If this was part of a tank mix, enter line number of first product in mix.	5 When was this applied? 1 Before planting 3 At planting 4 After planting 5 Defoliation prior to harvest	6 How much was applied per acre per application? OR	7 What was the total amount applied per application in the selected field?	8 [Enter unit code] 1 Pounds 12 Gallons 13 Quarts 14 Pints 15 Liquid Ounces 28 Dry Ounces 30 Grams
Husky Complete	01	61 41216	62 L	63	64 4	65 13.70	73 .__ __	74 15
PROSARO 421	02	61 70609	62 L	63	64 4	65 6.50	73 .__ __	74 15
	03	61	62	63	64	65 .__ __	73 .__ __	74
	04	61	62	63	64	65 .__ __	73 .__ __	74
	05	61	62	63	64	65 .__ __	73 .__ __	74
	06	61	62	63	64	65 .__ __	73 .__ __	74

2. For biocontrols or pesticides not listed in Respondent Booklet, specify--

Line	Pesticide Type (Herbicide, Insecticide, Fungicide, etc.)	EPA No. or Trade Name and Formulation	Form Purchased (Liquid or Dry)	Where Purchased (Ask only if EPA No. cannot be reported)

LINE	9 How was this product applied? [Enter code from above.]	10 How many acres in the selected field were treated with this product? Acres	11 How many times was it applied? Number	12 Were these applications made by-- 1 Operator, partner, or family member? 2 Custom applicator? 3 Employee/Other?	13 What was the cost per unit of the product? Dollars & Cents per Unit	14 Unit Code 1 Pounds 15 Liquid Ounces 12 Gallons 28 Dry Ounces 13 Quarts 30 Grams 14 Pints
01	76 1	77 95.0	79 1	80 1	81 9,00	82 15
02	76 1	77 95.0	79 1	80 1	81 235,00	82 12
03	76	77 .	79	80	81 .	82
04	76	77 .	79	80	81 .	82
05	76	77 .	79	80	81 .	82
06	76	77 .	79	80	81 .	82

Section E
Pest Management
Wheat

NASS *Highlights* May 2020 • No. 2020-5

2019 AGRICULTURAL CHEMICAL USE SURVEY

Wheat

Table 3. Top Practice in Pest Management Category, 2019

(% of wheat planted acres)

	Winter	Spring*	Durum
Prevention: Used no-till or minimum till	55	67	83
Avoidance: Rotated crops during past three years	63	91	95
Monitoring: Scouted for weeds (deliberately, or by general observations while performing tasks)	88	97	98
Suppression: Maintained ground covers, mulches, or other physical barriers	45	56	68
Suppression: Used pesticides with different mechanisms of action		56	

**Excluding durum.*

Section E
Purpose

- Provide data to help determine effectiveness of alternative pesticides
- Provide data to help determine what practices improve the effectiveness of pesticides of any kind

Section E Definition

- Pests include:
  - Weeds
  - Insects
  - Fungus
  - Diseases

Section E
Things to Remember

- Give us all the notes
- Skip codes: review them, learn them, use them

		Code
21. Was protection of beneficial organisms a factor in your pest control decisions for the selected field?.....	Yes=1 No=3	1765
[If item 21=1, continue. Otherwise go to item 22.]		
a. Did you change timing of, reduce application rate of, or eliminate a pesticide application?.....	Yes=1 No=3	1766
b. Did you change to an alternative pesticide, biocontrol, or non-pesticide practice?.....	Yes=1 No=3	1767

Section E
Economic Threshold

- Cost of damage to the crop becomes greater than the cost of treating for the pest

1	2	3
13. Do you believe that the selected field was infested with any of the following insects?	Yes=1 No=3	[If column 2 = 1, ask--] Do you believe that the infestation/population level was higher than the economic threshold for treatment? 1 Much higher (over 1.5 times the threshold) 2 Higher (between 1 and 1.5 times threshold) 3 Lower (between 1 and .5 times the threshold) 4 Much lower (between .5 and 0 times the threshold) 99 Don't Know Code
a. Aphids	2266	2267
b. Armyworm	2278	2279
c. Cereal Leaf Beetle	2280	2281

Section E
Specific Purpose

- Crop rotation including soybeans to improve soil N or to be able to double crop field would not be included in question 15 as the rotation is not done specifically for pest management

15. Did you do any of the following other types of pest management for the specific purpose of managing or reducing the spread of pests in the selected field?

Section E
Questions?

Section F
Field Operations

Purpose

- Identify tillage systems and residue levels
- Conservation program compliance
- Cropping practices
- Compute fuel, repair, and capital costs of production

Field Operations Table

- Time frame
- Types of field operations
- Order/sequence
- Column Headings

Time Frame

- All equipment operations
  - Start after harvest of previous crop
  - Stop after hauling to point of storage or sale
- Pre-plant operations
  - Fertilizer (Sec. C)
  - Pesticides (Sec. D)
  - Tillage
- Record in the order of operations, if possible

Types of Field Operations

F **FIELD OPERATIONS - SELECTED FIELD** **F**

1. Including custom operations, I need to list field work performed by machines on the selected field for the 2022 wheat crop. Please...
   - begin with the first field operation after harvest of the previous crop, including operations for a cover crop established since the previous crop was harvested. If fallow during 2021, list operations starting with fall 2020.
   - list the operations in order through harvest and hauling of this crop to storage or first point of sale; and
   - maintain the order of tandem hook-ups.

Codes for Column 5
1 You (the Operator)
2 Partner
3 Unpaid Worker
4 Paid Part-time or Seasonal Worker
5 Paid Full-time Worker
6 Custom Applicator

Office Use Lines in Table
0499

Check List

INCLUDE all field work using machines for--

- ☐ Land forming/Levee Building
- ☐ Tillage
- ☐ Preparing for Irrigation
- ☐ Planting
- ☐ Fertilizer & Pesticide applications
- ☐ Harvesting & Hauling to storage or first point of sale

EXCLUDE

- ☐ Lime & Gypsum/land plaster applications
- ☐ Compost & Non-commercial manure applications

Order/Sequence

- Line numbers are administrative identifiers
- Sequence numbers are for you to fill out
  - Indicate relative order of operations
  - Begin with 1
  - Do not skip any sequence numbers
- Try to keep in order, correct sequence numbers if necessary
- Make sure no missing sequence numbers
- Tandem operations use same sequence

1 LINE No.	2 SEQUENCE No.	3 What operation or equipment was used?	4 [Record machine code from Respondent Booklet.] Code	5 Who was the machine operator? [Enter code from above.] Code
01	87		88	89
02	87		88	89
03	87		88	89
04	87		88	89
05	87		88	89
06	87		88	89
07	87		88	89

Column Headings

1	2	3	4	5	[If Column 5 = code 6, skip columns 6 thru 11]					
					6	7	8 OR 9		10	11
LINE	SEQUENCE	What operation or equipment was used?	[Record machine code from Respondent Booklet.]	Who was the machine operator? [Enter code from above.]	What was the size or swath of the [machine] used?	[Record size unit code.] 1 Feet 2 Row 3 Moldboard bottoms Hauling 4 Pounds 5 Bushels 6 Tons	How many acres were covered? EXCLUDE land forming and hauling operations.	How many total hours were spent on land forming and hauling? [Example: backhoes, disk border maker, ditcher, rear mounted blade, trucks, wagons, forklift etc.]	What power source was used? Tractors 1 <40 HP 2 40-99 HP 3 100-149 HP 4 150-199 HP 5 >=200 HP OR 66 Animal Drawn 77 Pick up[1/] 99 Self-Propelled	What was the fuel type of the tractor? [Record fuel type only if Power code equals 1-5] 1 diesel 2 gasoline 3 LP gas 4 other
No.	No.		Code	Code		Code	Acres	Hours	Code	Code

- In column 5, use the codes above the table to indicate who performed each activity.

Column Headings

1	2	3	4	5	[If Column 5 = code 6, skip columns 6 thru 11]					
					6	7	8 OR 9		10	11
LINE	SEQUENCE	What operation or equipment was used?	[Record machine code from Respondent Booklet.]	Who was the machine operator? [Enter code from above.]	What was the size or swath of the [machine] used?	[Record size unit code.] 1 Feet 2 Row 3 Moldboard bottoms Hauling 4 Pounds 5 Bushels 6 Tons	How many acres were covered? EXCLUDE land forming and hauling operations.	How many total hours were spent on land forming and hauling? [Example: backhoes, disk border maker, ditcher, rear mounted blade, trucks, wagons, forklift etc.]	What power source was used? Tractors 1 <40 HP 2 40-99 HP 3 100-149 HP 4 150-199 HP 5 >=200 HP OR 66 Animal Drawn 77 Pick up[1/] 99 Self-Propelled	What was the fuel type of the tractor? [Record fuel type only if Power code equals 1-5] 1 diesel 2 gasoline 3 LP gas 4 other
No.	No.		Code	Code		Code	Acres	Hours	Code	Code

- Columns 6 and 7 represent the size or swath of equipment.
  - A semi truck can typically haul around 60,000 pounds of cargo, or 1000 bushels depending on bushel weight.
  - Grain cart capacity is normally expressed in bushels, and it can vary widely from 3 or 4 hundred bushels to 1000 bushels or more.

Column Headings

1	2	3	4	5	[If Column 5 = code 6, skip columns 6 thru 11]					
					6	7	8 OR 9		10	11
LINE	SEQUENCE	What operation or equipment was used?	[Record machine code from Respondent Booklet.]	Who was the machine operator? [Enter code from above.]	What was the size or swath of the [machine] used?	[Record size unit code.] 1 Feet 2 Row 3 Moldboard bottoms Hauling 4 Pounds 5 Bushels 6 Tons	How many acres were covered? EXCLUDE land forming and hauling operations.	How many total hours were spent on land forming and hauling? [Example: backhoes, disk border maker, ditcher, rear mounted blade, trucks, wagons, forklift etc.]	What power source was used? Tractors 1 <40 HP 2 40-99 HP 3 100-149 HP 4 150-199 HP 5 >=200 HP OR 66 Animal Drawn 77 Pick up[1/] 99 Self-Propelled	What was the fuel type of the tractor? [Record fuel type only if Power code equals 1-5] 1 diesel 2 gasoline 3 LP gas 4 other
No.	No.		Code	Code		Code	Acres	Hours	Code	Code

- If the line in the table is Land forming or Hauling, you'll record hours in column 9. For everything else, record acres in column 8.

Column Headings

1	2	3	4	5	[If Column 5 = code 6, skip columns 6 thru 11]					
					6	7	8 OR 9		10	11
LINE	SEQUENCE	What operation or equipment was used?	[Record machine code from Respondent Booklet.]	Who was the machine operator? [Enter code from above.]	What was the size or swath of the [machine] used?	[Record size unit code.] 1 Feet 2 Row 3 Moldboard bottoms Hauling 4 Pounds 5 Bushels 6 Tons	How many acres were covered? EXCLUDE land forming and hauling operations.	How many total hours were spent on land forming and hauling? [Example: backhoes, disk border maker, ditcher, rear mounted blade, trucks, wagons, forklift etc.]	What power source was used? Tractors 1 <40 HP 2 40-99 HP 3 100-149 HP 4 150-199 HP 5 >=200 HP OR 66 Animal Drawn 77 Pick up[1/] 99 Self-Propelled	What was the fuel type of the tractor? [Record fuel type only if Power code equals 1-5] 1 diesel 2 gasoline 3 LP gas 4 other
No.	No.		Code	Code		Code	Acres	Hours	Code	Code

- Columns 10 and 11 deal with the power source and fuel type.
  - If a field operation was pulled by or mounted to a tractor, then choose a tractor horsepower code in column 10, and the fuel type in column 11.
  - If it's not a tractor, then it's self-propelled equipment, which is code 99 in column 10, and then blank in column 11.

Labor & Services

- Hours spent on various activities (Question 2)
- Wages (Questions 3-6)
- Custom work expense (Question 7)
- Technical or consultant services (Questions 8-11)

Precision Agriculture

- Farm data storage (Question 12)
- Data collection tools (Question 13)
- Yield Monitor (Question 14)
- Crop Recommendations (Question 15)
- Drones (UAV) (Question 16)
- GPS-enabled equipment (Questions 17-18)
- Auto-steer (Question 19)
- Variable rate applicator (Question 20)

Field Operations Example

1 LINE No.	2 SEQUENCE No.	3 What operation or equipment was used?	4 [Record machine code from Respondent Booklet.] Code	5 Who was the machine operator? [Enter code from above.] Code	[If Column 5 = code 6, skip columns 6 thru 11] 6 What was the size or swath of the [machine] used?	7 [Record size unit code.] 1 Feet 2 Row 3 Moldboard bottoms Hauling 4 Pounds 5 Bushels 6 Tons Code	8 OR 9 How many acres were covered? EXCLUDE land forming and hauling operations. Acres	How many total hours were spent on land forming and hauling? [Example: backhoes, disk border maker, ditcher, rear mounted blade, trucks, wagons, forklift etc.] Hours	10 What power source was used? Tractors 1 <40 HP 2 40-99 HP 3 100-149 HP 4 150-199 HP 5 >=200 HP OR 66 Animal Drawn 77 Pick up[1/] 99 Self-Propelled Code	11 What was the fuel type of the tractor? [Record fuel type only if Column 10 equals 1-5] 1 diesel 2 gasoline 3 LP gas 4 other Code
01	87 1	Pesticide	88 92	89 1	90 120	91 1	92 160.0	93	94 5	95 1
02	87 2	Drill	88 105	89 1	90 30	91 1	92 160.0	93	94 5	95 1
03	87 3	Fertilizer	88 74	89 1	90 120	91 1	92 160.0	93	94 5	95 1
04	87 4	Pesticide	88 92	89 6	90	91	92 .	93	94	95
05	87 5	Harvest	88 123	89 1	90 30	91 1	92 160.0	93	94 99	95
06	87 6	Gr. Cart	88 209	89 4	90 800	91 5	92 .	93 8	94 5	95 1
07	87 7	Semi	88 304	89 4	90 1000	91 5	92 .	93 8	94 99	95

Practice Exercise

Page 10

- The farmer started the 2022 with a no-till drill after the soybeans were harvested. It covers a 20 ft swath and pulled by a 200 HP diesel tractor. Next, the farmer hired the co-op who used a self-propelled 350 HP floater to spread some fertilizer and herbicide for the farmer. The next spring the farmer applied fertilizer. Later in the season the farmer hired the co-op again to apply fungicide. The operator used a large 4wd combine to harvest the wheat. The farmer's daughter was home from college and volunteered to help drive the tractor pulling the 600-bushel grain cart to the edge of the field. The neighbor, who helps part-time seasonally, used his own 1000-bushel semi to haul the wheat to town. Overall, hauling took about 4 hours.

1 LINE No.	2 SEQUENCE No.	3 What operation or equipment was used?	4 [Record machine code from Respondent Booklet.] Code	5 Who was the machine operator? [Enter code from above.] Code	[If Column 5 = code 6, skip columns 6 thru 11] 6 What was the size or swath of the [machine] used?	7 [Record size unit code.] 1 Feet 2 Row 3 Moldboard bottoms Hauling 4 Pounds 5 Bushels 6 Tons Code	8 OR 9 How many acres were covered? EXCLUDE land forming and hauling operations. Acres	How many total hours were spent on land forming and hauling? [Example: backhoes, disk border maker, ditcher, rear mounted blade, trucks, wagons, forklift etc.] Hours	10 What power source was used? Tractors 1 <40 HP 2 40-99 HP 3 100-149 HP 4 150-199 HP 5 >=200 HP OR 66 Animal Drawn 77 Pick up[1/] 99 Self-Propelled Code	11 What was the fuel type of the tractor? [Record fuel type only if Power code equals 1-5] 1 diesel 2 gasoline 3 LP gas 4 other Code
01	87 1	Drill	88 105	89 1	90 20	91 1	92 80.0	93	94 5	95 1
02	87 2	Fert	88 74	89 6	90	91	92 .___	93	94	95
03	87 2	Pest	88 92	89 6	90	91	92 .___	93	94	95
04	87 3	Fert	88 74	89 6	90	91	92 .___	93	94	95
05	87 3	Chem	88 92	89 6	90	91	92 .___	93	94	95
06	87 4	Combine	88 123	89 1	90 12	91 2	92 9.0	93	94 99	95
07	87 5	Gr.Cart	88 209	89 3	90 600	91 5	92 .___	93 4	94 5	95 1
08	87 6	Semi 304	88 6	89	90	91	92 .___	93	94	95
09	87		88	89	90	91	92 .___	93	94	95
10	87		88	89	90	91	92 .___	93	94	95

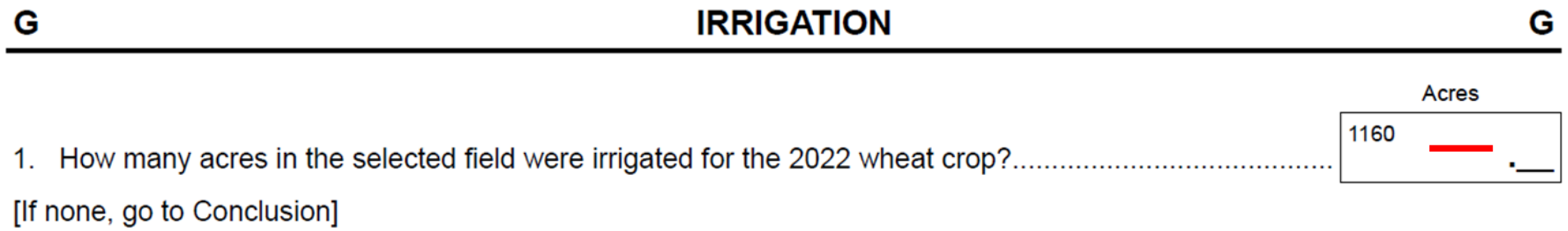
Section G
Irrigation

Section G
Purpose

- Identify the characteristics of the primary irrigation system used and the amount and source of water used on the selected field.
- The data collected in Section G will be used to calculate the irrigation expenses to produce the target crop on the selected field.

Section G
Things to Remember

- We are still referring to the selected field which we identified in Section A.
- If the selected field is dryland, please mark the acres irrigated in Question 1 with a dash.



G **IRRIGATION** **G**

Acres

1. How many acres in the selected field were irrigated for the 2022 wheat crop?..... 1160 —.__

[If none, go to Conclusion]

Section G
Things to Remember

- In Question 2a refer to the back of your respondent booklet to identify the code for the primary irrigation system on the field.

IRRIGATION TYPE CODES

Section G, Item 2

PRESSURE SYSTEMS	GRAVITY SYSTEMS
1 HAND-MOVE	10 SIPHON TUBE from unlined ditches
2 SOLID or PERMANENT SET	11 SIPHON TUBE from lined ditches
3 SIDE ROLL or WHEEL LINE	12 PORTAL SYSTEM from unlined ditches
4 CENTER PIVOT or LINEAR MOVE with sprinklers on main line	13 PORTAL SYSTEM from lined ditches
5 CENTER PIVOT or LINEAR MOVE with sprinklers below main line, but more than 2 feet above ground	14 ANY POLY PIPE SYSTEM
6 CENTER PIVOT or LINEAR MOVE with sprinklers less than 2 feet above ground	15 GATED PIPE (not poly pipe)
7 BIG GUN	16 IMPROVED GATED PIPE (surge flow or cablegation not poly pipe)
8 LOW FLOW IRRIGATION (drip, trickle or micro sprinkler)	17 SUBIRRIGATION
9 OTHER - SPECIFY	18 OPEN DISCHARGE FROM WELL or PUMP
	19 OTHER - SPECIFY

Section G
Things to Remember

- Get familiar with the skipping instructions to avoid asking unnecessary information.
- Many of the questions relate only to certain types of irrigation.
  - Be prepared to skip questions that don’t relate to the primary irrigation system used on the field.

Section G
Number of Irrigations

c. What percent of the water used to irrigate the selected field through this system came from surface water sources?.....	Percent	1166
d. What was the number of times the selected field was irrigated during the wheat growing season using this system? INCLUDE any pre-plant irrigation.....	Number of Irrigations	1167

- According to the interviewer's manual, one "irrigation time" refers to an uninterrupted period the system was actively irrigating the field.
  - Example: An irrigation system running continuously for 3 weeks is consider as one irrigation.

Section G
Questions?

Conclusion

Conclusion

- In the Conclusion Section supplement pages will not be reported in CAPI given lines can be added
- Do not forget to ask Question 3 in Conclusion Section
  - “Did the respondent use farm/ranch reports to complete: fertilizer, pesticide, majority of expense data?”
- When in doubt take notes for unique situations

Gaining Cooperation

Gaining Cooperation

- How do you prepare yourself before contacting respondent?

Gaining Cooperation

- How do you introduce yourself to respondent?
- What is your next step?

Gaining Cooperation

- If you talk to someone, other than the respondent, at the address, what is your strategy?

Gaining Cooperation

- You have an interview scheduled and respondent calls to cancel. What do you do? Have you been successful in rescheduling?

Gaining Cooperation

- What are some reasons you hear why respondents would like to decline?
- How do you respond? Or how has anyone else responded to the respondent?

Assignments

- Labeled Questionnaire
- Screening Insert
- Respondent Booklet
- Industry Support Letter (NE, ND and KS Wheat)
- Consent Form
- Chemical use highlights
- Why we are here

Extra Supplies

- 4 Respondent booklets
- 4 Blank Questionnaires
- 2 Fertilizer Supplements
- 2 Pesticide Supplements
- 2 Field Operation Supplements
- UPS label to ship supplies back to Lincoln for shredding
- 1 Inner UPS envelope
- 1 outer UPS envelope
- 2 Screening supplements

- **Supervisors**
  - Telephone quality control worksheets
- **North Dakota Also gets…**
  - 2 Potato questionnaires
  - 2 Potato Respondent booklets
  - 3 Fertilizer Supplements
  - 3 Pesticide Supplements
  - 3 Field operations Supplements

Latitude & Longitude Practice

Purpose

- Field location is used so that other geospatial data can be linked to the survey responses for statistically analysis of factors than impact farm production decisions and costs

Hands on Practice

- Reminder
  - Drop pin on center of field
  - No need to include the negative sign for the Longitude

	LATITUDE	LONGITUDE
a. Field location.....	9854 __ __ . __ __ __ __ __ *decimal*	9855 – __ __ __ . __ __ __ __ __ *decimal*

  - If unable to locate field, type detailed description or legal description of field in CAPI comments

Wheat Common Fertilizers & Pesticides

Fertilizer Use

Fertilizer refers to a soil-enriching input that contains one or more plant nutrients, primarily nitrogen (N), phosphate (P_2O_5), and potash (K_2O). For the 2019 crop year, farmers applied nitrogen to nearly all acres planted to spring and durum wheat. (Table 1)

Table 1. Fertilizer Applied to Wheat Planted Acres, 2019 Crop Year

	% of Acres with Nutrient [a]	Avg. Rate for Year (lbs/acre)	Total Applied (mil lbs)
Winter			
Nitrogen (N)	88	73	1,734.4
Phosphate (P_2O_5)	63	31	531.3
Potash (K_2O)	15	46	187.2
Spring (excl durum)			
Nitrogen (N)	97	102	1,246.6
Phosphate (P_2O_5)	89	39	437.3
Potash (K_2O)	31	25	96.6
Durum			
Nitrogen (N)	98	83	108.8
Phosphate (P_2O_5)	84	29	32.9
Potash (K_2O)	11	11	1.7

[a] *Acres with multiple nutrients are counted in each category.*

Fig. 2. Pesticides Applied to Wheat Planted Acres, 2019 Crop Year

(% of planted acres)

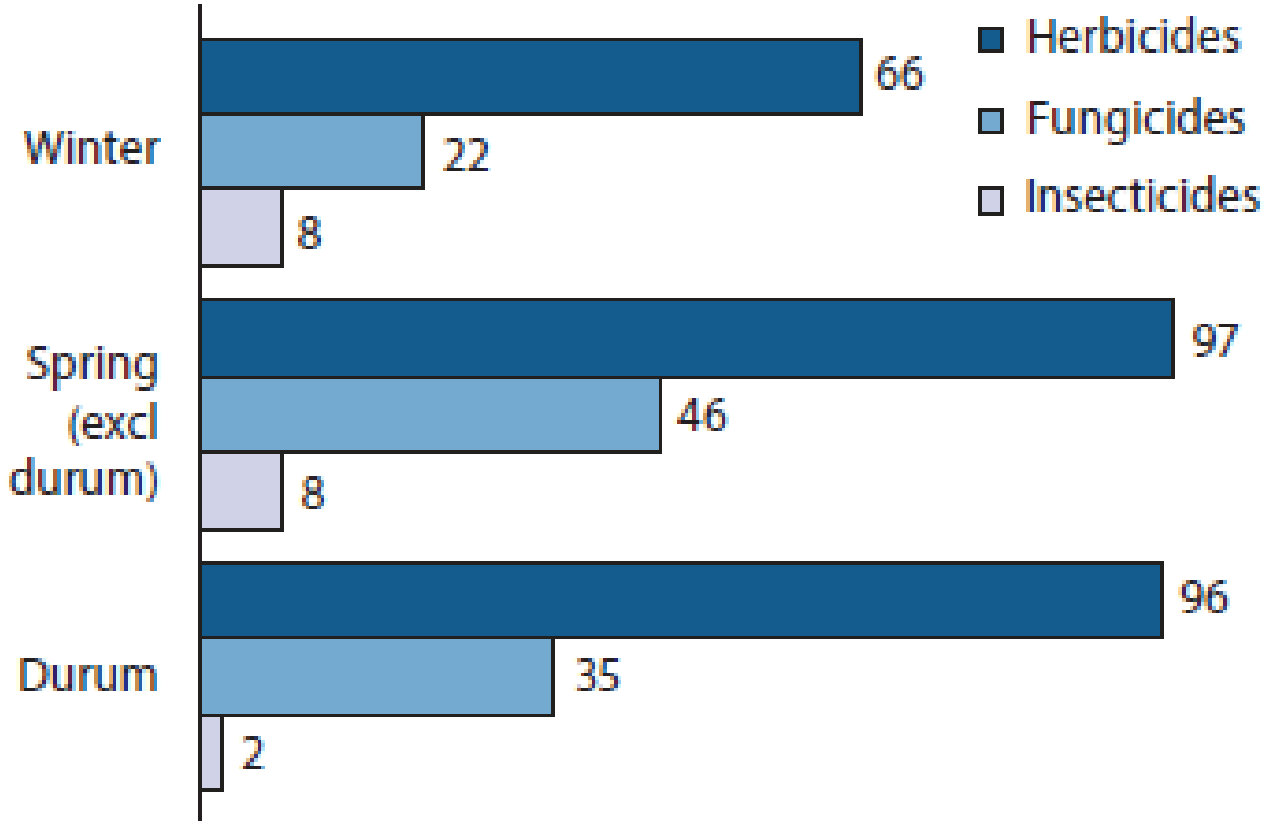


Table 2. Top Herbicides Applied to Wheat Planted Acres, 2019 Crop Year

Active Ingredient	% of Acres with Ingredient [a]	Avg. Rate for Year (lbs/acre)	Total Applied (lbs)	Common Trade Names with Active Ingredient (Not a complete list of all products)
Winter				
2,4-D; 2-EHE	20	0.540	2,924,000 [b]	2,4-D LV-6; 2,4-D L.V. 6 Ester; 2,4D LV 6
Metsulfuron-methyl	20	0.003	16,000	Ally XP, Finesse, Plotter, Patriot
Spring				
Fluroxypyr 1-MHE	46	0.089	526,000	Widematch, GoldSky
Bromoxynil octanoate	37	0.155	721,000	Huskie, Maestro, Moxy
Durum				
Glyphosate isopropylamine salt	46	0.555	339,000 [b]	Cornerstone, RoundUp
Bromoxynil octanoate	39	0.210	108,000	Huskie, Maestro, Moxy

[a] *Acres with multiple ingredients are counted in each category.*

[b] *Expressed in acid equivalent.*

Large Group Discussion Continued

CAPI DEMO

Data Collection Due Dates

• **October 1**	**Begin ARMS 2 Data Collection**
• **October 10 (KS & SD)**	**1 Report submitted in CAPI**
• **October 17 (NE)**	**1 Report submitted in CAPI**
• **October 25**	**Office Hours 9 am CT and 7 pm CT**
• **October 31 (KS, SD& NE)**	**25% submitted in CAPI**
• **November 7 (ND)**	**25% submitted in CAPI**
• **November 14**	**50% submitted in CAPI**
• **November 28**	**75% submitted in CAPI**
• **December 7**	**Last day to submit ARMS 2 in CAPI**

NASDA TALK