SECTION 1  This section requests information about your general management of alfalfa rotations.

1. You were selected to participate in this survey because you have reported that you grew alfalfa in the past. Have you produced alfalfa since 2008? (Mark one)……………………………………..
   Yes
   No   (If No, go to Section 4)

2. How many acres of total cropland (owned and rented) did you manage in 2009, 2010, and 2011?

3. How many acres of field corn did you have in these years?

4. How many acres of alfalfa did you have in these years?

5. After terminating alfalfa in spring or the previous autumn, how many alfalfa acres did you rotate to a different crop in these years?

6. Of the acres in Question 5, how many were planted to corn as the first crop after alfalfa in these years?

7. Of the corn acres in Question 6, how many acres were planted to corn again the following crop year?

8. In which county do you have the most alfalfa acres?

9. In which county do you have the second most alfalfa acres? (Enter NR if this is not relevant)

10. Do you produce alfalfa as a cash crop, feed, or both? (Mark one box only)
    Cash crop only.............................................. ☐
    Feed for this farm only.................................... ☐
    Both cash crop and feed.................................... ☐
11. Other than corn, what do you plant as the first crop after terminating alfalfa? (Please mark one box in each row)

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<tr>
<th></th>
<th>Never</th>
<th>Sometimes</th>
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<tbody>
<tr>
<td>a. Soybean</td>
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<tr>
<td>b. Wheat, barley, or oats</td>
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<td>c. Alfalfa</td>
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<td>d. Other ______________________</td>
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<td>e. Other ______________________</td>
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12. Other than corn, what do you plant as the second crop after terminating alfalfa? (Please mark one box in each row)

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<th>Sometimes</th>
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<td>b. Wheat, barley, or oats</td>
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<tr>
<td>c. Alfalfa</td>
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<td>d. Other 033 ______________________</td>
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<td>e. Other 035 ______________________</td>
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13. In the past 3 years, have you changed the N fertilizer rate you apply to corn when it is the first crop following alfalfa? (Mark one and write in the rate, if applicable)

- ☐ Yes The N fertilizer rate is now ________ lb N/ac ____higher than before
- ☐ Yes The N fertilizer rate is now ________ lb N/ac ____lower than before
- ☐ Yes The N fertilizer rate varies with conditions
- ☐ No The N fertilizer rate has not changed for first-year corn
- ☐ No I do not grow corn as the first crop following alfalfa

14. In the past 3 years, have you changed the N fertilizer rate applied to corn when it is the second, consecutive crop after alfalfa? (Mark one and write in the rate, if applicable)

- ☐ Yes The N fertilizer rate is now ________ lb N/ac ____higher than before
- ☐ Yes The N fertilizer rate is now ________ lb N/ac ____lower than before
- ☐ Yes The N fertilizer rate varies with conditions
- ☐ No The N fertilizer rate has not changed for second-year corn
- ☐ No I do not grow corn as the second crop following alfalfa

SECTION 2  Think of a specific field that was in alfalfa in 2008 and then in corn in 2009 – OR – a field that was in alfalfa in 2009, followed by corn in 2010. If you had multiple fields like this, please select a field that was planted to corn again for a second, consecutive year.

Crop details

15. Which year (2009 or 2010) was this field planted to corn as the first crop after alfalfa? (Enter year) ☐

(If you had no fields with corn as the first crop after alfalfa in 2009 or 2010, enter code NR and go to Section 4)

16. How many acres were rotated from alfalfa to corn in this field? (Enter acres) ☐ acres

17. Of the acres in Question 16, what percent was harvested as:  
   - grain ☐ %  
   - silage ☐ %
18. What was the corn yield in this field?  
   bushels/acre  tons silage/acre  
   (Please enter code DK if you do not know; or NR if not relevant)

19. If first-year corn was harvested as grain in this field, was stover removed? (Mark one)  
   □ Yes  □ No  □ Corn was harvested as silage

20. How old was this alfalfa field at termination? (Enter the total number of years, including the year of seeding)  
   □ years

21. How would you characterize this alfalfa stand at the time of termination? (Mark one)  
   □ Excellent  □ Good  □ Fair  □ Poor

22. Was a perennial grass, such as orchard, brome, or other species, planted with the alfalfa? (Mark one)  
   □ Yes  □ No

23. When was the alfalfa in this field terminated? (List month when sprayed or tilled, whichever was first)  

24. Why did you terminate this field of alfalfa? (Rank up to three reasons, with the top reason being 1)  
   a. Alfalfa stand was too thin.........................  
   b. Winterkill or winter damage.......................  
   c. Alfalfa stand was too weedy.......................  
   d. Needed those acres for manure spreading...............  
   g. Rotated out according to a planned schedule............  
   h. Other ________________________________________

Manure management

25. Did you apply manure or compost to this field between the last alfalfa harvest and corn planting? (Mark one)  
   Yes, in fall..........................  
   Yes, in spring......................  
   Yes, at both times.................  
   No.................................  (Go to Question 28)

26. Enter the rate of manure or compost that was applied in this field, the amount of available N from each, and how much of the field was covered with that manure. (Ignore manure types you did not use. If you do not know the amounts applied, enter DK)

<table>
<thead>
<tr>
<th></th>
<th>Solid (tons/acre)</th>
<th>Liquid (gallons/acre)</th>
<th>Available N applied (lb N/acre)</th>
<th>Percent of field covered (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Dairy</td>
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<td>b. Beef</td>
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<td>c. Hog</td>
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<td>d. Poultry</td>
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<tr>
<td>e. Compost</td>
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<td>f. Other</td>
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</table>

27. When was most of the manure incorporated? (Mark one)  
   Immediately (Injection)  
   Within 12 hours  
   Between 12 hours and 4 days  
   More than 4 days  
   Not at all
Fertilizer management

28. How much total fertilizer N was applied to this field for the first crop of corn after alfalfa? [ ] lb N/acre

[Include N from all fertilizer sources (such as DAP, MAP, ammonium sulfate, and so on) and all methods you used (fall, preplant, starter, tank mixed with herbicide, sidedressed, and fertigation)]

29. For this first corn crop grown after alfalfa, which factors were most important in estimating the rate of fertilizer N needed? (Mark up to 5 top factors)
   a. Density or weediness of the alfalfa stand
   b. Yield of alfalfa in its last year of production
   c. Amount of alfalfa regrowth at termination
   d. Whether alfalfa was terminated in Fall or Spring
   e. Amount of available N from manure
   f. Soil texture in the field
   g. Soil organic matter in the field
   h. Early spring (preplant) soil nitrate test
   i. Pre-sidedress soil nitrate test (PSNT)
   j. Whether a corn grain or silage hybrid was used
   k. Corn yield goal
   l. Early season corn tissue analysis or leaf color
   m. N fertilizer price
   n. Corn price
   o. I knew other producers who used this rate
   p. Rate applied to achieve regulatory compliance
   q. I do not know the factors used
   r. Other ______________________________

Field details

30. In which Township and Section (or Township, Range, and Section) is this field? (This will be used to connect weather and soil data to the survey file, but will not be published. Enter DK if you do not know)
   Township name ____________________________ Section ____________ OR ____________ ____________

31. What is the dominant type of soil in this field? (Mark one)
   Heavy: clayey, such as clay loams and clays
   Medium: loamy, such as silt loams
   Light: sandy

32. What was the soil organic matter percentage in this field? (Enter percent, or DK if you do not know) [ ] %

33. Was the corn no-till planted in this field? (Mark one) [ ] Yes [ ] No

34. Was the corn irrigated in this field? (Mark one) [ ] Yes [ ] No

35. Did this field have patterned subsurface tile drainage? (Mark one) [ ] Yes [ ] No

36. Did you plant a second, consecutive crop of corn after alfalfa in this field? (Mark one) [ ] Yes [ ] No (If No, go to Section 4)
SECTION 3  Please answer the following questions for the second, consecutive crop of corn after alfalfa in the field reported above.

**Crop details**

37. Of the acres of second-year corn in this field, what percent was harvested as:

<p>| | |</p>
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<tbody>
<tr>
<td>Grain</td>
<td>%</td>
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<tr>
<td>Silage</td>
<td>%</td>
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</table>

38. What was the yield of second-year corn in this field?  bushels/acre  tons silage/acre

(Please enter code DK if you do not know; or NR if not relevant)

39. Was the second corn crop no-till planted in this field? (Mark one)

- [ ] Yes
- [ ] No

40. Was this crop of corn irrigated in this field? (Mark one)

- [ ] Yes
- [ ] No

**Manure management**

41. Did you apply manure or compost to this field between harvest of the first corn crop and planting of the second? (Mark one)

- [ ] Yes, in fall..........................
- [ ] Yes, in spring........................
- [ ] Yes, at both times............
- [ ] No..........................................

(Go to Question 44)

42. Enter the rate of manure or compost that was applied in this field, the amount of available N from each, and how much of the field was covered with that manure.  (Ignore manure types you did not use.  *If you do not know the amounts applied, enter DK*)

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<thead>
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<td>d. Poultry</td>
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<td>e. Compost</td>
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<td>f. Other ________________________</td>
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</table>

43. When was most of the manure incorporated? (Mark one)

- [ ] Immediately (Injection)
- [ ] Within 12 hours
- [ ] Between 12 hours and 4 days
- [ ] More than 4 days
- [ ] Not at all
**Fertilizer management**

44. How much total fertilizer N was applied to this field for the second crop of corn after alfalfa? [ ] lb N/acre

   *(Include N from all fertilizer sources (such as DAP, MAP, ammonium sulfate, and so on) and all methods you used (fall, preplant, starter, tank mixed with herbicide, sidedressed, and fertigation))*

45. For this second corn crop grown after alfalfa, which factors were most important in estimating the rate of fertilizer N needed? *(Mark up to 5 top factors)*

   a. Density or weediness of the alfalfa stand
   b. Yield of alfalfa in its last year of production
   c. Amount of alfalfa regrowth at termination
   d. Whether alfalfa was terminated in Fall or Spring
   e. Amount of available N from manure
   f. Soil texture in the field
   g. Soil organic matter in the field
   h. Early spring (preplant) soil nitrate test
   i. Pre-sidedress soil nitrate test (PSNT)
   j. Whether a corn grain or silage hybrid was used
   k. Corn yield goal
   l. Early season corn tissue analysis or leaf color
   m. N fertilizer price
   n. Corn price
   o. I knew other producers who used this rate
   p. Rate applied to achieve regulatory compliance
   q. I do not know the factors used
   r. Other

**SECTION 4** *The following questions inquire about general management and your role and background. Your answers will provide information that will help us understand broader aspects of crop management. The information you provide will be kept confidential and will be reported only in combination with similar reports from other producers.*

46. Do you grow continuous corn (at least three consecutive crops of corn) for: *(Mark one)*

   - Grain (including high-moisture grain) only
   - Silage only
   - Both grain (including high-moisture grain) and silage
   - No, I do not grow continuous corn

   *(In Questions 47 & 48, answer for grain only)*

   *(In Question 47 & 48, answer for silage only)*

   *(In Question 47 & 48, answer for both grain and silage)*

   *(Go to Question 49)*

47. In continuous corn, how much total fertilizer N do you apply for:

   - Grain production [ ] lb N/acre
   - Silage production [ ] lb N/acre

   *(Include N from all fertilizer sources (such as DAP, MAP, ammonium sulfate, and so on) and all methods you used (fall, preplant, starter, tank mixed with herbicide, sidedressed, and fertigation))*

48. In continuous corn, how much available manure N do you apply for:

   - Grain production [ ] lb N/acre
   - Silage production [ ] lb N/acre

   *(Enter DK if you cannot estimate the amount of available manure N applied)*

49. Do you grow corn after soybeans for: *(Mark one)*

   - Grain (including high-moisture grain) only
   - Silage only
   - Both grain (including high-moisture grain) and silage
   - No, I do not grow corn after soybeans

   *(In Questions 50 & 51, answer for grain only)*

   *(In Question 50 & 51, answer for silage only)*

   *(In Question 50 & 51, answer for both grain and silage)*

   *(Go to Question 52)*
50. In corn after soybeans, how much total fertilizer N do you apply for corn:  
   - grain production:  lb N/acre  
   - silage production:  lb N/acre  

   (Include N from all fertilizer sources (such as DAP, MAP, ammonium sulfate, and so on) and all methods you used (fall, preplant, starter, tank mixed with herbicide, sidedressed, and fertigation))

51. In corn after soybeans, how much available manure N do you apply for corn:  
   - grain production:  lb N/acre  
   - silage production:  lb N/acre  

   (Enter DK if you cannot estimate the amount of available manure N applied)

52. When was the last time you had test plots or research of nitrogen management (fertilizer or manure) in corn 
conducted by a public organization or a private company on your farm? 

   (Enter the year, or N for Never) 

53. What best describes the ownership arrangement of the cropland you manage?  
   (Mark only one option) 

   - I own all of the land:  
   - I own part of the land:  
   - I rent all of the land:  
   - Other (Please specify):  

54. For first and second crop corn following alfalfa, how often are the following individuals involved in fertilizer and manure N 
management decisions on your operation?  
   (Mark one in each row) 

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Sometimes</th>
<th>Usually</th>
<th>Always</th>
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<tbody>
<tr>
<td>a. Myself</td>
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<tr>
<td>b. Independent crop consultant</td>
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<tr>
<td>c. Agronomist from the fertilizer dealer</td>
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<td>d. Employee or family member</td>
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<td>e. Regulatory agency employee</td>
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<td>f. Landlord</td>
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55. When it comes to fertilizer and manure N management for first and second crop corn following alfalfa, how reliable do you 
consider these sources of information to be?  
   (Mark one in each row) 

<table>
<thead>
<tr>
<th></th>
<th>Rarely reliable</th>
<th>Sometimes reliable</th>
<th>Reliable half the time</th>
<th>Usually reliable</th>
<th>Always reliable</th>
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</thead>
<tbody>
<tr>
<td>a. Independent crop consultant</td>
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<td>b. Agronomist from the fertilizer dealer</td>
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<td>c. Employee or family member</td>
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<td>d. Farm press articles</td>
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<td>e. Soil testing lab</td>
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<td>f. University Extension</td>
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<td>g. Research trials on our farm or a nearby farm</td>
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<td>h. Past experience</td>
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<td>i. Other producers</td>
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<td>j. Public agencies (SWCD, NRCS, MDA, etc.)</td>
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56. How many years have you been a farm manager/operator?  (Enter number of years)  

57. What percentage of the labor on your operation was done by employees other than you in 2011?  

58. What percentage of your household income in 2011 came from your farming enterprises? (Enter percent)  

59. What percentage of your agricultural commodity sales in 2011 came from the following enterprises? (Enter percent)

a. Crops       %
b. Dairy       

c. Beef       
d. Swine       
e. Poultry     
f. Other ________________  

60. What is your current age? (Please enter years)  

61. What is your gender? (Mark one)

□ Male

□ Female