

## RESIDENTIAL FARM EXPOSURES MODULE

I am going to ask you about your experiences living on a farm. First we will focus on the time from your birth to age 18.

|                                                                                                                                                                               |                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| FE1. Did you live on a farm for 12 months or more at any time from your birth up until age 18? This could be 12 months in a row, or a few months per year over several years. | YES ..... 1              |
|                                                                                                                                                                               | NO ..... [FE30] ..... 2  |
|                                                                                                                                                                               | REF ..... [FE30] ..... 7 |
|                                                                                                                                                                               | DK ..... [FE30] ..... 8  |

|                                                                            |                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FE2. In total, on how many farms have you lived from your birth to age 18? | <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block; margin-right: 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block; margin-right: 5px;"></div><br># FARMS |
|----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FE3. About how many years and/or months in total did you live on [ <i>this farm/these farms</i> ] before age 18? | <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block; margin-right: 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block; margin-right: 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block; margin-right: 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div><br># YEARS   # MONTHS |
|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                         |   |   |
|-------------------------------------------------------------------------|---|---|
|                                                                         | Y | N |
| FE4. Which of the following were raised on the farm[s] where you lived? |   |   |
| a. grains, such as wheat, corn, or rice.....                            | 1 | 2 |
| b. soybeans or other oilseeds.....                                      | 1 | 2 |
| c. vegetables.....                                                      | 1 | 2 |
| d. orchard fruits, such as apples,<br>grapes, or oranges.....           | 1 | 2 |
| e. other fruits such as berries or melons.....                          | 1 | 2 |
| f. cotton.....                                                          | 1 | 2 |
| g. tobacco .....                                                        | 1 | 2 |
| h. other cash crops.....                                                | 1 | 2 |

<IF NO TO ALL IN FE4a-h, GO TO FE20>

<ASK FE5a-5b ONLY IF FE2 (#FARMS) > 1; IF FE2 = 1, GO TO FE5c>

|                                                                                                                   |                           |
|-------------------------------------------------------------------------------------------------------------------|---------------------------|
| FE5a. About how many acres of crops were planted on the <u>smallest</u> of the farms you have lived on? Was it... | less than 5 acres..... 1  |
|                                                                                                                   | 5 to 9 acres ..... 2      |
|                                                                                                                   | 10 to 49 acres ..... 3    |
|                                                                                                                   | 50 to 199 acres ..... 4   |
|                                                                                                                   | 200 acres or more ..... 5 |

|                                                                                                                  |                           |
|------------------------------------------------------------------------------------------------------------------|---------------------------|
| FE5b. About how many acres of crops were planted on the <u>largest</u> of the farms you have lived on? Was it... | less than 5 acres..... 1  |
|                                                                                                                  | 5 to 9 acres ..... 2      |
|                                                                                                                  | 10 to 49 acres ..... 3    |
|                                                                                                                  | 50 to 199 acres ..... 4   |
|                                                                                                                  | 200 acres or more ..... 5 |

|                                                                                                                 |                           |
|-----------------------------------------------------------------------------------------------------------------|---------------------------|
| FE5c. About how many acres of crops were planted, <u>on average</u> , on the farm[s] where you lived? Was it... | less than 5 acres..... 1  |
|                                                                                                                 | 5 to 9 acres ..... 2      |
|                                                                                                                 | 10 to 49 acres ..... 3    |
|                                                                                                                 | 50 to 199 acres ..... 4   |
|                                                                                                                 | 200 acres or more ..... 5 |

|                                                                                                                                                                      |                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| FE6. Were pesticides ever used on the crops grown on [ <i>this farm/any of these farms</i> ]? Pesticides include insecticides, herbicides, fungicides and fumigants. | YES ..... 1              |
|                                                                                                                                                                      | NO ..... [FE13] ..... 2  |
|                                                                                                                                                                      | REF ..... [FE13] ..... 7 |
|                                                                                                                                                                      | DK ..... [FE13] ..... 8  |

| FE7.<br>Did you ever...                                                                                                                                                                                   | FE8.<br>For how many years in total did you do this for any part of the year?                   | FE9.<br>On average, about how many days per year did you do this?<br>(year = 365 days)                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| a. personally mix any pesticides at [ <i>this farm /any of these farms</i> ], or help others do the mixing?<br>YES ..... 1<br>NO .....[FE7b] ..... 2<br>REF .....[FE7b] ..... 7<br>DK .....[FE7b] ..... 8 | <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> # YEARS | <div style="border: 1px solid black; width: 60px; height: 20px; margin: 0 auto;"></div> # DAYS PER YEAR |
| b. personally load pesticides at [ <i>this farm any of these farms</i> ]?<br>YES ..... 1<br>NO .....[FE7c] ..... 2<br>REF .....[FE7c] ..... 7<br>DK .....[FE7c] ..... 8                                   | <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> # YEARS | <div style="border: 1px solid black; width: 60px; height: 20px; margin: 0 auto;"></div> # DAYS PER YEAR |
| c. personally apply pesticides at [ <i>this farm any of these farms</i> ]?<br>YES ..... 1<br>NO .....[FE7d] ..... 2<br>REF .....[FE7d] ..... 7<br>DK .....[FE7d] ..... 8                                  | <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> # YEARS | <div style="border: 1px solid black; width: 60px; height: 20px; margin: 0 auto;"></div> # DAYS PER YEAR |
| d. clean or help clean the pesticide mixing or application equipment used on [ <i>this farm/these farms</i> ]?<br>YES ..... 1<br>NO ..... [*] ..... 2<br>REF ..... [*] ..... 7<br>DK ..... [*] ..... 8    | <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> # YEARS | <div style="border: 1px solid black; width: 60px; height: 20px; margin: 0 auto;"></div> # DAYS PER YEAR |

<\* IF NO TO ALL IN FE7 (a, b, c, d) — GO TO FE13>

|                                                                                                                                                                                                                                                                                             | Y                                                                                           | N                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| FE10. When you mixed, loaded, or applied pesticides, or cleaned pesticide equipment at [ <i>this farm/these farms</i> ], did you <u>usually</u> wear any of the following protective items: (By usually we mean most of the time.)<br>[IF 'R' SAYS "ONLY SOMETIMES" OR "RARELY" CODE AS NO] |                                                                                             |                                                                                                 |
| a. chemically resistant gloves.....                                                                                                                                                                                                                                                         | 1                                                                                           | 2                                                                                               |
| b. other gloves, such as cloth or leather .....                                                                                                                                                                                                                                             | 1                                                                                           | 2                                                                                               |
| c. respirator or gas mask .....                                                                                                                                                                                                                                                             | 1                                                                                           | 2                                                                                               |
| d. dust mask.....                                                                                                                                                                                                                                                                           | 1                                                                                           | 2                                                                                               |
| e. goggles or a face shield .....                                                                                                                                                                                                                                                           | 1                                                                                           | 2                                                                                               |
| f. a hat .....                                                                                                                                                                                                                                                                              | 1                                                                                           | 2                                                                                               |
| g. long sleeves <u>and</u> long pants.....                                                                                                                                                                                                                                                  | 1                                                                                           | 2                                                                                               |
| h. chemically resistant boots .....                                                                                                                                                                                                                                                         | 1                                                                                           | 2                                                                                               |
| i. an apron.....                                                                                                                                                                                                                                                                            | 1                                                                                           | 2                                                                                               |
| j. chemically resistant disposable outer clothing, such as a Tyvek suit .....                                                                                                                                                                                                               | 1                                                                                           | 2                                                                                               |
| FE11. Did you <u>ever</u> get an unusually high amount of pesticides on your skin or clothing while mixing, loading, or applying pesticides, or repairing pesticide equipment, for example, from a spill or a break in a hose?                                                              | YES ..... 1<br>NO..... [FE13] ..... 2<br>REF ..... [FE13] ..... 7<br>DK..... [FE13] ..... 8 |                                                                                                 |
| FE12. How many times did this happen in total?                                                                                                                                                                                                                                              |                                                                                             | <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> # TIMES |
| FE13. Did you ever work in the fields at [ <i>this farm/any of these farms</i> ]?                                                                                                                                                                                                           | YES ..... 1<br>NO..... [FE17] ..... 2<br>REF ..... [FE17] ..... 7<br>DK..... [FE17] ..... 8 |                                                                                                 |

FE14. For how many years did you work in the fields for any part of the year at [*this farm/these farms*]?

# YEARS

FE15. On average, about how many days per week, per month, or per year did you work in the fields?

# DAYS

PER WEEK..... 1

PER MONTH..... [15b] ..... 2

PER YEAR ..... [16] ..... 3

FE15a. How many weeks per year did you work in the fields?

# WEEKS

<GO TO FE16>

FE15b. How many months per year did you work in the fields?

# MONTHS

FE16. On average, about how many hours per day did you work in the fields?

# HOURS/DAY

<IF FE6 = NO (PESTICIDES NOT USED) — GO TO FE19x>

FE17. Were you ever present in the fields at the same time or on the same day as when pesticides were being applied to the crops?

YES ..... 1

NO..... [FE19x] ..... 2

REF ..... [FE19x] ..... 7

DK..... [FE19x] ..... 8

FE18. How many years in total did this happen, even just once?

# YEARS

FE19. About how many days per year did this happen?

# DAYS/YEAR

FE19x. Were chemical fertilizers ever used on the farm[s] where you lived?

YES ..... 1

NO..... [FE19x1] ..... 2

REF ..... [FE19x1] ..... 7

DK..... [FE19x1] ..... 8

FE19xa. Did you ever personally apply chemical fertilizers at the farm[s] where you lived?

YES ..... 1

NO..... [FE19x1] ..... 2

REF ..... [FE19x1] ..... 7

DK..... [FE19x1] ..... 8

FE19xb. For how many years in total did you do this for any part of the year?

# YEARS

FE19xc. On average, about how many days per year did you do this?

# DAYS PER YEAR

FE19x1. Were natural fertilizers, such as manure, ever used on the farm[s] where you lived?

YES ..... 1  
 NO ..... [FE20] ..... 2  
 REF ..... [FE20] ..... 7  
 DK ..... [FE20] ..... 8

FE19x1a. Did you ever personally apply natural fertilizers at the farm[s] where you lived?

YES ..... 1  
 NO ..... [FE20] ..... 2  
 REF ..... [FE20] ..... 7  
 DK ..... [FE20] ..... 8

FE19x1b. For how many years in total did you do this for any part of the year?

# YEARS

FE19x1c. On average, about how many days per year did you do this?

# DAYS PER YEAR

| FE20.<br>Were [ <i>animal</i> ] raised on the farm where you lived? |                                                                                                  | FE21.<br>On average, about how many [ <i>animal</i> ] were kept at [ <i>this farm/these farms</i> ]? Was it...                                               |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a. poultry birds, such as chickens, turkeys, and so forth           | YES ..... 1<br>NO ..... [FE20b] ..... 2<br>REF ..... [FE20b] ..... 7<br>DK ..... [FE20b] ..... 8 | 1 to 24 ..... 1<br>25 to 49 ..... 2<br>50 to 99 ..... 3<br>100 to 399 ..... 4<br>400 or more ..... 5<br>REF ..... 7<br>DK ..... 8                            |
| b. beef or dairy cows                                               | YES ..... 1<br>NO ..... [FE20c] ..... 2<br>REF ..... [FE20c] ..... 7<br>DK ..... [FE20c] ..... 8 | 1 to 9 ..... 01<br>10 to 19 ..... 02<br>20 to 49 ..... 03<br>50 to 99 ..... 04<br>100 to 199 ..... 05<br>200 or more ..... 06<br>REF ..... 97<br>DK ..... 98 |
| c. hogs or pigs                                                     | YES ..... 1<br>NO ..... [FE20d] ..... 2<br>REF ..... [FE20d] ..... 7<br>DK ..... [FE20d] ..... 8 | 1 to 24 ..... 1<br>25 to 49 ..... 2<br>50 to 99 ..... 3<br>100 to 199 ..... 4<br>200 or more ..... 5<br>REF ..... 7<br>DK ..... 8                            |
| d. other livestock                                                  | YES ..... 1<br>NO ..... [*] ..... 2<br>REF ..... [*] ..... 7<br>DK ..... [*] ..... 8             | 1 to 24 ..... 1<br>25 to 49 ..... 2<br>50 to 99 ..... 3<br>100 to 199 ..... 4<br>200 or more ..... 5<br>REF ..... 7<br>DK ..... 8                            |

<\* IF NO TO ALL IN FE20 (a-d) — GO TO FE30>

|                      |   |
|----------------------|---|
| YES .....            | 1 |
| NO..... [FE30] ..... | 2 |
| REF .....            | 7 |
| DK..... [FE30] ..... | 8 |

|                      |   |
|----------------------|---|
| YES .....            | 1 |
| NO..... [FE30] ..... | 2 |
| REF .....            | 7 |
| DK..... [FE30] ..... | 8 |

|                      |   |
|----------------------|---|
| YES .....            | 1 |
| NO..... [FE30] ..... | 2 |
| REF .....            | 7 |
| DK..... [FE30] ..... | 8 |

# YEARS

# DAYS/YEAR

|                                                                                  | Y | N |
|----------------------------------------------------------------------------------|---|---|
| a. chemically resistant gloves.....                                              | 1 | 2 |
| b. other gloves, such as cloth or leather .....                                  | 1 | 2 |
| c. respirator or gas mask .....                                                  | 1 | 2 |
| d. dust mask.....                                                                | 1 | 2 |
| e. goggles or a face shield.....                                                 | 1 | 2 |
| f. a hat .....                                                                   | 1 | 2 |
| g. long sleeves <u>and</u> long pants.....                                       | 1 | 2 |
| h. chemically resistant boots .....                                              | 1 | 2 |
| i. an apron.....                                                                 | 1 | 2 |
| j. chemically resistant disposable<br>outer clothing, such as a Tyvek suit ..... | 1 | 2 |

|                      |   |
|----------------------|---|
| YES .....            | 1 |
| NO..... [FE30] ..... | 2 |
| REF .....            | 7 |
| DK..... [FE30] ..... | 8 |

# TIMES

[Now we are going to focus on the time you were age 19 to the present.]

|                       |   |
|-----------------------|---|
| YES .....             | 1 |
| NO..... [RS243] ..... | 2 |
| REF .....             | 7 |
| DK..... [RS243] ..... | 8 |

FE31. In total, on how many farms have you lived since the age of 19?

# FARMS

FE32. About how many years and/or months in all did you live on [this farm/these farms] since the age of 19?

# YEARS      
# MONTHS

|                                                                                              |                                                               | Y | N |
|----------------------------------------------------------------------------------------------|---------------------------------------------------------------|---|---|
| FE33. Which of the following were raised on the farm[s] where you lived since the age of 19? | a. grains, such as wheat, corn, or rice.....                  | 1 | 2 |
|                                                                                              | b. soybeans or other oilseeds.....                            | 1 | 2 |
|                                                                                              | c. vegetables.....                                            | 1 | 2 |
|                                                                                              | d. orchard fruits, such as apples,<br>grapes, or oranges..... | 1 | 2 |
|                                                                                              | e. other fruits such as berries or melons.....                | 1 | 2 |
|                                                                                              | f. cotton.....                                                | 1 | 2 |
|                                                                                              | g. tobacco .....                                              | 1 | 2 |
|                                                                                              | h. other cash crops.....                                      | 1 | 2 |

<IF NO TO ALL IN FE33a-h, GO TO FE57>

<ASK FE34a-34b ONLY IF FE31 (#FARMS) > 1; IF FE31 = 1, GO TO FE34c>

|                                                                                                                    |                         |   |
|--------------------------------------------------------------------------------------------------------------------|-------------------------|---|
| FE34a. About how many acres of crops were planted on the <u>smallest</u> of the farms you have lived on? Was it... | less than 5 acres.....  | 1 |
|                                                                                                                    | 5 to 9 acres .....      | 2 |
|                                                                                                                    | 10 to 49 acres .....    | 3 |
|                                                                                                                    | 50 to 199 acres .....   | 4 |
|                                                                                                                    | 200 acres or more ..... | 5 |

|                                                                                                                   |                         |   |
|-------------------------------------------------------------------------------------------------------------------|-------------------------|---|
| FE34b. About how many acres of crops were planted on the <u>largest</u> of the farms you have lived on? Was it... | less than 5 acres.....  | 1 |
|                                                                                                                   | 5 to 9 acres .....      | 2 |
|                                                                                                                   | 10 to 49 acres .....    | 3 |
|                                                                                                                   | 50 to 199 acres .....   | 4 |
|                                                                                                                   | 200 acres or more ..... | 5 |

|                                                                                                                  |                         |   |
|------------------------------------------------------------------------------------------------------------------|-------------------------|---|
| FE34c. About how many acres of crops were planted, <u>on average</u> , on the farm[s] where you lived? Was it... | less than 5 acres.....  | 1 |
|                                                                                                                  | 5 to 9 acres .....      | 2 |
|                                                                                                                  | 10 to 49 acres .....    | 3 |
|                                                                                                                  | 50 to 199 acres .....   | 4 |
|                                                                                                                  | 200 acres or more ..... | 5 |

|                                                                                                                                                              |                        |   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---|
| FE35. Were pesticides ever used on the crops grown on [this farm/any of these farms]? Pesticides include insecticides, herbicides, fungicides and fumigants. | YES.....               | 1 |
|                                                                                                                                                              | NO..... [FE42] .....   | 2 |
|                                                                                                                                                              | REF ..... [FE42] ..... | 7 |
|                                                                                                                                                              | DK..... [FE42] .....   | 8 |

| FE36.<br>Did you ever...                                                                                                                                                                                       | FE37.<br>For how many years in total did you do this for any part of the year?                  | FE38.<br>On average, about how many days per year did you do this?<br>(year = 365 days)                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| a. personally mix any pesticides at [ <i>this farm /any of these farms</i> ], or help others do the mixing?<br>YES ..... 1<br>NO ..... [FE36b] ..... 2<br>REF .... [FE36b] ..... 7<br>DK ..... [FE36b] ..... 8 | <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> # YEARS | <div style="border: 1px solid black; width: 60px; height: 20px; margin: 0 auto;"></div> # DAYS PER YEAR |
| b. personally load pesticides at [ <i>this farm any of these farms</i> ]?<br>YES ..... 1<br>NO ..... [FE36c] ..... 2<br>REF .... [FE36c] ..... 7<br>DK ..... [FE36c] ..... 8                                   | <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> # YEARS | <div style="border: 1px solid black; width: 60px; height: 20px; margin: 0 auto;"></div> # DAYS PER YEAR |
| c. personally apply pesticides at [ <i>this farm any of these farms</i> ]?<br>YES ..... 1<br>NO ..... [FE36d] ..... 2<br>REF .... [FE36d] ..... 7<br>DK ..... [FE36d] ..... 8                                  | <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> # YEARS | <div style="border: 1px solid black; width: 60px; height: 20px; margin: 0 auto;"></div> # DAYS PER YEAR |
| d. clean or help clean the pesticide mixing or application equipment used on [ <i>this farm/these farms</i> ]?<br>YES ..... 1<br>NO ..... [*] ..... 2<br>REF ..... [*] ..... 7<br>DK ..... [*] ..... 8         | <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> # YEARS | <div style="border: 1px solid black; width: 60px; height: 20px; margin: 0 auto;"></div> # DAYS PER YEAR |

<\* IF NO TO ALL IN FE36 (a, b, c, d) — GO TO FE42>

| FE39. When you mixed, loaded, or applied pesticides, or cleaned pesticide equipment at [ <i>this farm/these farms</i> ], did you <u>usually</u> wear any of the following protective items:<br>(By usually we mean most of the time.)<br>[IF 'R' SAYS "ONLY SOMETIMES"<br>OR "RARELY" CODE AS NO] | <table border="0"> <thead> <tr> <th></th> <th>Y</th> <th>N</th> </tr> </thead> <tbody> <tr> <td>a. chemically resistant gloves.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>b. other gloves, such as cloth or leather .....</td> <td>1</td> <td>2</td> </tr> <tr> <td>c. respirator or gas mask .....</td> <td>1</td> <td>2</td> </tr> <tr> <td>d. dust mask.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>e. goggles or a face shield .....</td> <td>1</td> <td>2</td> </tr> <tr> <td>f. a hat .....</td> <td>1</td> <td>2</td> </tr> <tr> <td>g. long sleeves <u>and</u> long pants.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>h. chemically resistant boots .....</td> <td>1</td> <td>2</td> </tr> <tr> <td>i. an apron.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>j. chemically resistant disposable<br/>outer clothing, such as a Tyvek suit .....</td> <td>1</td> <td>2</td> </tr> </tbody> </table> |   | Y | N | a. chemically resistant gloves..... | 1 | 2 | b. other gloves, such as cloth or leather ..... | 1 | 2 | c. respirator or gas mask ..... | 1 | 2 | d. dust mask..... | 1 | 2 | e. goggles or a face shield ..... | 1 | 2 | f. a hat ..... | 1 | 2 | g. long sleeves <u>and</u> long pants..... | 1 | 2 | h. chemically resistant boots ..... | 1 | 2 | i. an apron..... | 1 | 2 | j. chemically resistant disposable<br>outer clothing, such as a Tyvek suit ..... | 1 | 2 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|-------------------------------------|---|---|-------------------------------------------------|---|---|---------------------------------|---|---|-------------------|---|---|-----------------------------------|---|---|----------------|---|---|--------------------------------------------|---|---|-------------------------------------|---|---|------------------|---|---|----------------------------------------------------------------------------------|---|---|
|                                                                                                                                                                                                                                                                                                   | Y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | N |   |   |                                     |   |   |                                                 |   |   |                                 |   |   |                   |   |   |                                   |   |   |                |   |   |                                            |   |   |                                     |   |   |                  |   |   |                                                                                  |   |   |
| a. chemically resistant gloves.....                                                                                                                                                                                                                                                               | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2 |   |   |                                     |   |   |                                                 |   |   |                                 |   |   |                   |   |   |                                   |   |   |                |   |   |                                            |   |   |                                     |   |   |                  |   |   |                                                                                  |   |   |
| b. other gloves, such as cloth or leather .....                                                                                                                                                                                                                                                   | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2 |   |   |                                     |   |   |                                                 |   |   |                                 |   |   |                   |   |   |                                   |   |   |                |   |   |                                            |   |   |                                     |   |   |                  |   |   |                                                                                  |   |   |
| c. respirator or gas mask .....                                                                                                                                                                                                                                                                   | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2 |   |   |                                     |   |   |                                                 |   |   |                                 |   |   |                   |   |   |                                   |   |   |                |   |   |                                            |   |   |                                     |   |   |                  |   |   |                                                                                  |   |   |
| d. dust mask.....                                                                                                                                                                                                                                                                                 | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2 |   |   |                                     |   |   |                                                 |   |   |                                 |   |   |                   |   |   |                                   |   |   |                |   |   |                                            |   |   |                                     |   |   |                  |   |   |                                                                                  |   |   |
| e. goggles or a face shield .....                                                                                                                                                                                                                                                                 | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2 |   |   |                                     |   |   |                                                 |   |   |                                 |   |   |                   |   |   |                                   |   |   |                |   |   |                                            |   |   |                                     |   |   |                  |   |   |                                                                                  |   |   |
| f. a hat .....                                                                                                                                                                                                                                                                                    | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2 |   |   |                                     |   |   |                                                 |   |   |                                 |   |   |                   |   |   |                                   |   |   |                |   |   |                                            |   |   |                                     |   |   |                  |   |   |                                                                                  |   |   |
| g. long sleeves <u>and</u> long pants.....                                                                                                                                                                                                                                                        | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2 |   |   |                                     |   |   |                                                 |   |   |                                 |   |   |                   |   |   |                                   |   |   |                |   |   |                                            |   |   |                                     |   |   |                  |   |   |                                                                                  |   |   |
| h. chemically resistant boots .....                                                                                                                                                                                                                                                               | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2 |   |   |                                     |   |   |                                                 |   |   |                                 |   |   |                   |   |   |                                   |   |   |                |   |   |                                            |   |   |                                     |   |   |                  |   |   |                                                                                  |   |   |
| i. an apron.....                                                                                                                                                                                                                                                                                  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2 |   |   |                                     |   |   |                                                 |   |   |                                 |   |   |                   |   |   |                                   |   |   |                |   |   |                                            |   |   |                                     |   |   |                  |   |   |                                                                                  |   |   |
| j. chemically resistant disposable<br>outer clothing, such as a Tyvek suit .....                                                                                                                                                                                                                  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2 |   |   |                                     |   |   |                                                 |   |   |                                 |   |   |                   |   |   |                                   |   |   |                |   |   |                                            |   |   |                                     |   |   |                  |   |   |                                                                                  |   |   |
| FE40. Did you <u>ever</u> get an unusually high amount of pesticides on your skin or clothing while mixing, loading, or applying pesticides, or repairing pesticide equipment, for example, from a spill or a break in a hose?                                                                    | YES ..... 1<br>NO..... [FE42] ..... 2<br>REF ..... [FE42] ..... 7<br>DK..... [FE42] ..... 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |   |   |   |                                     |   |   |                                                 |   |   |                                 |   |   |                   |   |   |                                   |   |   |                |   |   |                                            |   |   |                                     |   |   |                  |   |   |                                                                                  |   |   |
| FE41. How many times did this happen in total?                                                                                                                                                                                                                                                    | <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> # TIMES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |   |   |   |                                     |   |   |                                                 |   |   |                                 |   |   |                   |   |   |                                   |   |   |                |   |   |                                            |   |   |                                     |   |   |                  |   |   |                                                                                  |   |   |
| FE42. Did you ever work in the fields at [ <i>this farm/any of these farms</i> ]?                                                                                                                                                                                                                 | YES ..... 1<br>NO..... [FE46] ..... 2<br>REF ..... [FE46] ..... 7<br>DK..... [FE46] ..... 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |   |   |   |                                     |   |   |                                                 |   |   |                                 |   |   |                   |   |   |                                   |   |   |                |   |   |                                            |   |   |                                     |   |   |                  |   |   |                                                                                  |   |   |

FE43. For how many years did you work in the fields for any part of the year at [*this farm/these farms*]?

# YEARS

FE44. On average, about how many days per week, per month, or per year did you work in the fields?

# DAYS

PER WEEK..... 1

PER MONTH.....[FE44b] ..... 2

PER YEAR .....[FE45] ..... 3

FE44a. How many weeks per year did you work in the fields?

# WEEKS

<GO TO FE45>

FE44b. How many months per year did you work in the fields?

# MONTHS

FE45. On average, about how many hours per day did you work in the fields?

# HOURS/DAY

<IF FE35 = NO (PESTICIDES NOT USED) — GO TO FE49>

FE46. Were you ever present in the fields at the same time or on the same day as when pesticides were being applied to the crops?

YES ..... 1

NO..... [FE49] ..... 2

REF ..... [FE49] ..... 7

DK..... [FE49] ..... 8

FE47. How many years in total did this happen, even just once?

# YEARS

FE48. About how many days per year did this happen?

# DAYS/YEAR

FE49. Were chemical fertilizers ever used on the farm[s] where you lived?

YES ..... 1

NO..... [FE53] ..... 2

REF ..... [FE53] ..... 7

DK..... [FE53] ..... 8

FE50. Did you ever personally apply chemical fertilizers at the farm[s] where you lived?

YES ..... 1

NO..... [FE53] ..... 2

REF ..... [FE53] ..... 7

DK..... [FE53] ..... 8

FE51. For how many years in total did you do this for any part of the year?

# YEARS

FE52. On average, about how many days per year did you do this?

# DAYS PER YEAR



FE53. Were natural fertilizers, such as manure, ever used on the farm[s] where you lived?

YES ..... 1  
 NO..... [FE57] .....2  
 REF ..... [FE57] ..... 7  
 DK..... [FE57] ..... 8

FE54. Did you ever personally apply natural fertilizers at the farm[s] where you lived?

YES ..... 1  
 NO..... [FE57] .....2  
 REF ..... [FE57] ..... 7  
 DK..... [FE57] ..... 8

FE55. For how many years in total did you do this for any part of the year?

# YEARS

FE56. On average, about how many days per year did you do this?

# DAYS PER YEAR

| FE57.<br>Were [ <i>animal</i> ] raised on the farm where you lived? |                           | FE58.<br>On average, about how many [ <i>animal</i> ] were kept at [ <i>this farm/these farms</i> ]? Was it... |  |
|---------------------------------------------------------------------|---------------------------|----------------------------------------------------------------------------------------------------------------|--|
| a. poultry birds, such as chickens, turkeys, and so forth           | YES ..... 1               | 1 to 24..... 1                                                                                                 |  |
|                                                                     | NO ..... [FE57b] .....2   | 25 to 49..... 2                                                                                                |  |
|                                                                     | REF ..... [FE57b] ..... 7 | 50 to 99..... 3                                                                                                |  |
|                                                                     | DK ..... [FE57b] ..... 8  | 100 to 399..... 4                                                                                              |  |
|                                                                     |                           | 400 or more..... 5                                                                                             |  |
|                                                                     |                           | REF..... 7                                                                                                     |  |
|                                                                     |                           | DK ..... 8                                                                                                     |  |
| b. beef or dairy cows                                               | YES ..... 1               | 1 to 9..... 01                                                                                                 |  |
|                                                                     | NO ..... [FE57c]..... 2   | 10 to 19..... 02                                                                                               |  |
|                                                                     | REF ..... [FE57c]..... 7  | 20 to 49..... 03                                                                                               |  |
|                                                                     | DK ..... [FE57c]..... 8   | 50 to 99..... 04                                                                                               |  |
|                                                                     |                           | 100 to 199..... 05                                                                                             |  |
|                                                                     |                           | 200 or more..... 06                                                                                            |  |
|                                                                     |                           | REF..... 97                                                                                                    |  |
|                                                                     |                           | DK ..... 98                                                                                                    |  |
| c. hogs or pigs                                                     | YES ..... 1               | 1 to 24..... 1                                                                                                 |  |
|                                                                     | NO ..... [FE57d] ..... 2  | 25 to 49..... 2                                                                                                |  |
|                                                                     | REF ..... [FE57d] ..... 7 | 50 to 99..... 3                                                                                                |  |
|                                                                     | DK ..... [FE57d] ..... 8  | 100 to 199..... 4                                                                                              |  |
|                                                                     |                           | 200 or more..... 5                                                                                             |  |
|                                                                     |                           | REF..... 7                                                                                                     |  |
|                                                                     |                           | DK ..... 8                                                                                                     |  |
| d. other livestock                                                  | YES ..... 1               | 1 to 24..... 1                                                                                                 |  |
|                                                                     | NO ..... [*]..... 2       | 25 to 49..... 2                                                                                                |  |
|                                                                     | REF ..... [*]..... 7      | 50 to 99..... 3                                                                                                |  |
|                                                                     | DK ..... [*]..... 8       | 100 to 199..... 4                                                                                              |  |
|                                                                     |                           | 200 or more..... 5                                                                                             |  |
|                                                                     |                           | REF..... 7                                                                                                     |  |
|                                                                     |                           | DK ..... 8                                                                                                     |  |

<\* IF NO TO ALL IN FE57 (a-d) — GO TO RS243>

|                                                                                                                                                     |                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| FE59. Did you feed, clean, herd, milk, shear, slaughter,<br>or have any other contact with livestock on<br>[ <i>this farm/any of these farms</i> ]? | YES..... 1<br>NO..... [RS243] ..... 2<br>REF ..... [RS243] ..... 7<br>DK..... [RS243] ..... 8 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|

|                                                                                                           |                                                                                               |
|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| FE60. Were livestock animals, or the buildings where<br>livestock were kept ever treated with pesticides? | YES..... 1<br>NO..... [RS243] ..... 2<br>REF ..... [RS243] ..... 7<br>DK..... [RS243] ..... 8 |
|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|

|                                                                                                     |                                                                                               |
|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| FE61. Did you personally apply pesticides to the<br>animals or buildings where livestock were kept? | YES..... 1<br>NO..... [RS243] ..... 2<br>REF ..... [RS243] ..... 7<br>DK..... [RS243] ..... 8 |
|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|

|                                                                                                                                                              |                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FE62. For how many years in total did you personally<br>apply pesticides to the animals or buildings where<br>livestock were kept, for any part of the year? | <div style="border: 1px solid black; display: inline-block; width: 20px; height: 20px; vertical-align: middle;"></div> <div style="border: 1px solid black; display: inline-block; width: 20px; height: 20px; vertical-align: middle;"></div><br># YEARS |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FE63. On average, about how many days per year did<br>you apply the pesticides? | <div style="border: 1px solid black; display: inline-block; width: 20px; height: 20px; vertical-align: middle;"></div> <div style="border: 1px solid black; display: inline-block; width: 20px; height: 20px; vertical-align: middle;"></div> <div style="border: 1px solid black; display: inline-block; width: 20px; height: 20px; vertical-align: middle;"></div><br># DAYS/YEAR |
|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                                            |                                                                                  | Y | N |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|---|---|
| FE64. When you mixed, loaded, or applied<br>pesticides, or cleaned pesticide equipment<br>at [ <i>this farm/these farms</i> ], did you <u>usually</u><br>wear any of the following protective items:<br>(By usually we mean most of the time.)<br>[IF 'R' SAYS "ONLY SOMETIMES"<br>OR "RARELY" CODE AS NO] | a. chemically resistant gloves.....                                              | 1 | 2 |
|                                                                                                                                                                                                                                                                                                            | b. other gloves, such as cloth or leather .....                                  | 1 | 2 |
|                                                                                                                                                                                                                                                                                                            | c. respirator or gas mask .....                                                  | 1 | 2 |
|                                                                                                                                                                                                                                                                                                            | d. dust mask.....                                                                | 1 | 2 |
|                                                                                                                                                                                                                                                                                                            | e. goggles or a face shield .....                                                | 1 | 2 |
|                                                                                                                                                                                                                                                                                                            | f. a hat .....                                                                   | 1 | 2 |
|                                                                                                                                                                                                                                                                                                            | g. long sleeves <u>and</u> long pants.....                                       | 1 | 2 |
|                                                                                                                                                                                                                                                                                                            | h. chemically resistant boots .....                                              | 1 | 2 |
|                                                                                                                                                                                                                                                                                                            | i. an apron.....                                                                 | 1 | 2 |
|                                                                                                                                                                                                                                                                                                            | j. chemically resistant disposable<br>outer clothing, such as a Tyvek suit ..... | 1 | 2 |

|                                                                                                                                                                                                                             |                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| FE65. Did you <u>ever</u> get an unusually high amount of<br>pesticides on your skin or clothing while applying<br>pesticides to the animals or buildings where<br>livestock were kept at [ <i>this farm/these farms</i> ]? | YES..... 1<br>NO..... [RS243] ..... 2<br>REF ..... [RS243] ..... 7<br>DK..... [RS243] ..... 8 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|

|                                                |                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FE66. How many times did this happen in total? | <div style="border: 1px solid black; display: inline-block; width: 20px; height: 20px; vertical-align: middle;"></div> <div style="border: 1px solid black; display: inline-block; width: 20px; height: 20px; vertical-align: middle;"></div> <div style="border: 1px solid black; display: inline-block; width: 20px; height: 20px; vertical-align: middle;"></div><br># TIMES |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

<GO TO RS243>