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Agricultural Health Study

Commercial Applicator Questionnaire

[CODED MANUAL]



Public reporting burden for this collection of information is estimated to average 60 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: PHS Reports Clearance Officer, Rm 721-B, Humphrey Building, 200 Independence Ave., SW, Washington, D.C. 20201, ATTN: PRA; and to Office of Management and Budget, Paperwork Reduction Project (0925-0406), Washington, D.C. 20503.

**Please return this questionnaire in the
next two weeks in the envelope provided.**

Problems or questions? Call 1-800-4AG-STUDY.

Dear Applicator:

We are again asking for your help in carrying out an important scientific study that the University of Iowa Medical Center and Survey Research Associates (Durham, NC) are conducting in cooperation with the National Institutes of Health (NIH) and the Office of Research and Development of the US Environmental Protection Agency (USEPA). The study is being conducted in Iowa and North Carolina and investigates environmental factors, occupation and diet and their effects on an individual's health.

Thank you for filling out the Enrollment Questionnaire. Now we are asking you and your spouse to complete the main study questionnaires. Questions about your lifestyle, pesticide use, work practices, occupational history, medical history, cooking practices, and health will be asked in more detail than on the form you filled out earlier. Your spouse will be asked questions about family health. You are free to skip any question at any point in the form.

The study results will give you information you may find helpful in making decisions for your health and the health of your family. This information will be provided through the cooperative extension service, state and county health departments, articles in trade magazines, and public service announcements on radio and TV. You can request study reports by calling the Agricultural Health Study's toll-free number 1-800-4AG-STUDY.

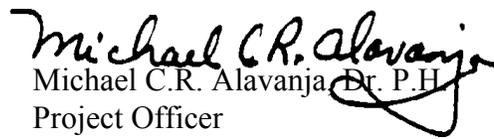
Your participation is very important to the success of the study. Information you give us will be treated with care and will not be disclosed to anyone but the researchers conducting the study or as required by law. Confidential information like your name and address will be stored in locked files accessible only to study staff. Your name will not be used in any reports or released in any way. The study results will be reported in statistical summary form only.

You may be contacted in the future to take part in related research studies. Your decision to be a part of future studies will also be voluntary.

We need to hear from you within the next two weeks. Please take the time to fill out this questionnaire. The booklet may look long but there may be many pages you can skip. Most people find it takes about an hour to complete. I think you'll find it interesting. Please return the completed form to the Agricultural Health Study Project in the enclosed pre-addressed, postage-paid envelope. Be sure to also include the Spouse and Female and Family Health questionnaires. If you have any questions about the survey, please contact Pat Miller at the Agricultural Health Study at 1-800-4AG-STUDY.

We appreciate your cooperation in this important research project.

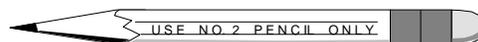
Sincerely,


Michael C.R. Alavanja, Dr. P.H.
Project Officer
National Institutes of Health

Privacy Act Notification: 42 U.S.C. 285a of the Public Health Service Act authorizes collection of this information. It will be used to evaluate the role of agricultural exposures and other factors in the development of cancer, neurological disease, birth defects and other chronic diseases. All information is voluntary and a decision not to provide all or any part of the requested information will not affect your certification or licensing. The Government may disclose this information to a Congressional Office upon your request, to the Department of Justice in the event of litigation; or to the Government contractors and collaborating researchers who are analyzing the study data.

DIRECTIONS

C Please use a pencil to complete this form.



C Many of the questions will ask you to estimate amounts or to specify a year. We know that you cannot be exact with many of these. We ask that you estimate as best you can when you are not sure.

C Be certain to write your answer in the area provided **and also** completely fill the matching ovals. Erase completely if you make any changes.

The following kinds of marks **will NOT** work:

The following kind of marks will work:

C Mark **only one** answer to each question except where you are directed to "Mark all that apply." Do not make any other marks on this form. If you wish to make comments, please write them under the heading "Additional Comments" at the end of the form.

EXAMPLE: To record the response "July 4, 1993:"

| Month | Day | Write the numbers in boxes. | Year | | |
|--------------------------------------|--|---|---|---|---|
| <input type="radio"/> Jan | <input type="radio"/> 10 <input type="radio"/> 20 <input type="radio"/> 30 | 19 | <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px; text-align: center;">9</td><td style="width: 20px; height: 20px; text-align: center;">3</td></tr></table> | 9 | 3 |
| 9 | 3 | | | | |
| <input type="radio"/> Feb | <input type="radio"/> 1 <input type="radio"/> 11 <input type="radio"/> 21 <input type="radio"/> 31 | Then fill in the matching ovals below each box. | <input type="radio"/> 0 <input type="radio"/> 0 | | |
| <input type="radio"/> Mar | <input type="radio"/> 2 <input type="radio"/> 12 <input type="radio"/> 22 | | <input type="radio"/> 1 <input type="radio"/> 1 | | |
| <input type="radio"/> Apr | <input type="radio"/> 3 <input type="radio"/> 13 <input type="radio"/> 23 | | <input type="radio"/> 2 <input type="radio"/> 2 | | |
| <input type="radio"/> May | <input type="radio"/> 4 <input type="radio"/> 14 <input type="radio"/> 24 | | <input type="radio"/> 3 <input checked="" type="radio"/> 3 | | |
| <input type="radio"/> Jun | <input checked="" type="radio"/> 5 <input type="radio"/> 15 <input type="radio"/> 25 | | <input type="radio"/> 4 <input type="radio"/> 4 | | |
| <input checked="" type="radio"/> Jul | <input type="radio"/> 6 <input type="radio"/> 16 <input type="radio"/> 26 | | <input type="radio"/> 5 <input type="radio"/> 5 | | |
| <input type="radio"/> Aug | <input type="radio"/> 7 <input type="radio"/> 17 <input type="radio"/> 27 | | <input type="radio"/> 6 <input type="radio"/> 6 | | |
| <input type="radio"/> Sep | <input type="radio"/> 8 <input type="radio"/> 18 <input type="radio"/> 28 | | <input type="radio"/> 7 <input type="radio"/> 7 | | |
| <input type="radio"/> Oct | <input type="radio"/> 9 <input type="radio"/> 19 <input type="radio"/> 29 | | <input type="radio"/> 8 <input type="radio"/> 8 | | |
| <input type="radio"/> Nov | | | <input checked="" type="radio"/> 9 <input type="radio"/> 9 | | |
| <input type="radio"/> Dec | | | | | |

BEGIN HERE

I. General Information

1. What is today's date?

| [qxmonth] | [qxday] | [qxyear] | [a_quexdate] |
|---------------------------|---|----------------------------|--------------|
| Month | Day | Year | SAS date |
| <input type="radio"/> Jan | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <input type="radio"/> 1993 | |
| <input type="radio"/> Feb | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <input type="radio"/> 1994 | |
| <input type="radio"/> Mar | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <input type="radio"/> 1995 | |
| <input type="radio"/> Apr | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <input type="radio"/> 1996 | |
| <input type="radio"/> May | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | | |
| <input type="radio"/> Jun | <input type="radio"/> 4 <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | | |
| <input type="radio"/> Jul | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | | |
| <input type="radio"/> Aug | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | | |
| <input type="radio"/> Sep | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | | |
| <input type="radio"/> Oct | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | | |
| <input type="radio"/> Nov | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | | |
| <input type="radio"/> Dec | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | | |

II. Pesticide Use Information

2. What application methods do you generally use when you apply herbicides? (Mark all that apply.)

- Don't usually apply crop insecticides [ahrbmth1]
- Airblast [ahrbmth2]
- Boom on tractor, truck, or trailer [ahrbmth3]
- Hand spray gun [ahrbmth4]
- Backpack sprayer [ahrbmth5]
- Aerial (aircraft application) [ahrbmth6]
- In furrow or banded [ahrbmth7]
- Mist blower/fogger [ahrbmth8]
- Other [ahrbmth9]

DO NOT WRITE OUTSIDE BOX

3. What application methods do you generally use when you apply crop, nursery, lawn and garden insecticides? (Mark all that apply.)

- Don't usually apply crop insecticides [ainsmth1]
- Airblast [ainsmth2]
- Boom on tractor, truck, or trailer [ainsmth3]
- Hand spray gun [ainsmth4]
- Backpack sprayer [ainsmth5]
- Aerial (aircraft application) [ainsmth6]
- In furrow or banded [ainsmth7]
- Mist blower/fogger [ainsmth8]
- Other [ainsmth9]

DO NOT WRITE OUTSIDE BOX

4. What application methods do you generally use when you apply poultry/livestock/animal confinement area insecticides? (Mark all that apply.)

- Don't usually apply poultry/livestock/animal confinement area insecticides [acaimt1]
- Ear tag [acaimt2]
- Hang pest strips in barn [acaimt3]
- Dust animals [acaimt4]
- Fog/mist animals [acaimt5]
- Dip animals in pesticide solution [acaimt6]
- Spray animals [acaimt7]
- Spray buildings [acaimt8]
- Rope wick [acaimt9]
- Pour on animals [acaimt10]
- Other [acaimt11]

DO NOT WRITE OUTSIDE BOX

5. What application methods do you generally use when you apply fungicides? (Mark all that apply.)

- Don't usually apply fungicides [afungmt1]
- Airblast [afungmt2]
- Boom on tractor, truck, or trailer [afungmt3]
- Hand spray gun [afungmt4]
- Backpack sprayer [afungmt5]
- Aerial (aircraft application) [afungmt6]
- Pre-applied to seed [afungmt7]
- Mist blower/fogger [afungmt8]
- Other [afungmt9]

DO NOT WRITE OUTSIDE BOX

6. What application methods do you generally use when you apply fumigants? (Mark all that apply.)

- Don't usually apply fumigants [afungmt1]
- Gas canister [afungmt2]
- Row fumigation [afungmt3]
- Other [afungmt4]

DO NOT WRITE OUTSIDE BOX

7. When you personally mix herbicides, what additives do you generally use? (Mark all that apply.)

- I don't mix herbicides [ahrbadd1]
- Don't usually use additives [ahrbadd2]
- Solvents (like diesel fuel) [ahrbadd3]
- Fertilizer [ahrbadd4]
- Other pesticides [ahrbadd5]
- Surfactants, crop oil concentrates [ahrbadd6]

8. When you personally mix crop, nursery, lawn and garden insecticides, what additives do you generally use? (Mark all that apply.)

- I don't mix crop insecticides [ainsadd1]
- Don't usually use additives [ainsadd2]
- Solvents (like diesel fuel) [ainsadd3]
- Fertilizer [ainsadd4]
- Other pesticides [ainsadd5]
- Surfactants, crop oil concentrates [ainsadd6]

9. When you personally mix animal/livestock/animal confinement area insecticides, what additives do you generally use? (Mark all that apply.)

- I don't mix animal/livestock/animal confinement area insecticides [acaiadd1]
- Don't usually use additives [acaiadd2]
- Solvents (like diesel fuel) [acaiadd3]
- Other pesticides [acaiadd4]

10. When you personally mix fungicides, what additives do you generally use? (Mark all that apply.)

- I don't mix fungicides [afungad1]
- Don't usually use additives [afungad2]
- Solvents (like diesel fuel) [afungad3]
- Fertilizer [afungad4]
- Other pesticides [afungad5]
- Surfactants, crop oil concentrate [afungad6]

For the following pesticides, first answer the question in Column A. If you answered “Yes” then answer the questions in Columns B, C and D for that pesticide. If you answered “No” then go on to the next pesticide. Be sure to answer Column A (“Yes” or “No”) **for each pesticide** listed. This list includes some pesticides that are no longer on the market. Please answer about your use of these pesticides in past operations.

| Name of Pesticide | A. Have you ever personally mixed or applied this pesticide? | B. How many years did you personally mix or apply this pesticide? | C. In an average year when you personally used this pesticide, how many days did you use it? | D. When did you <i>first</i> personally use this pesticide? |
|--|--|--|--|---|
| 11. Herbicides (<i>pesticides used to kill weeds</i>) | | | | |
| a. Classic or other <i>chlorimuron ethyl</i> products | [a_herbicide_cd4] <input type="radio"/> No <input type="radio"/> Yes | [a_herbicide_yr4] <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_herbicide_day4] <input type="radio"/> Less than 5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_herbicide_fu4] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s <input type="checkbox"/> Mark here if you used this pesticide last year [a_herbicide_ls4] |
| b. Lexone, Sencor or other <i>metribuzin</i> products | [a_herbicide_cd8] <input type="radio"/> No <input type="radio"/> Yes | [a_herbicide_yr8] <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_herbicide_day8] <input type="radio"/> Less than 5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_herbicide_fu8] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s <input type="checkbox"/> Mark here if you used this pesticide last year [a_herbicide_ls8] |
| c. Paraquat | [a_herbicide_cd9] <input type="radio"/> No <input type="radio"/> Yes | [a_herbicide_yr9] <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_herbicide_day9] <input type="radio"/> Less than 5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_herbicide_fu9] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s <input type="checkbox"/> Mark here if you used this pesticide last year [a_herbicide_ls9] |
| d. Petroleum oil/ petroleum distillate | [a_herbicide_cd10] <input type="radio"/> No <input type="radio"/> Yes | [a_herbicide_yr10] <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_herbicide_day10] <input type="radio"/> Less than 5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_herbicide_fu10] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s <input type="checkbox"/> Mark here if you used this pesticide last year [a_herbicide_ls10] |

| Name of Pesticide | A. Have you ever personally mixed or applied this pesticide? | B. How many years did you personally mix or apply this pesticide? | C. In an average year when you personally used this pesticide, how many days did you use it? | D. When did you <i>first</i> personally use this pesticide? |
|-------------------|---|--|---|--|
|-------------------|---|--|---|--|



| 12. Insecticides (includes insecticides used on structures, lawns, gardens, crops, livestock, and animal confinement areas) | | | | |
|---|--|---|---|---|
| a. Forlin, Gamaphex or other <i>lindane</i> products | [a_insecticide_cd6] <input type="radio"/> No <input type="radio"/> Yes <input type="radio"/> | [a_insecticide_yr6] <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_insecticide_day6] <input type="radio"/> Less than 5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_insecticide_fu6] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s <input type="radio"/> <input type="radio"/> Mark here if you used this pesticide last year [a_insecticide_ls6] |
| b. Malathion | [a_insecticide_cd9] <input type="radio"/> No <input type="radio"/> Yes <input type="radio"/> | [a_insecticide_yr9] <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_insecticide_day9] <input type="radio"/> Less than 5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_insecticide_fu9] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s <input type="radio"/> <input type="radio"/> Mark here if you used this pesticide last year [a_insecticide_ls9] |
| c. Parathion (ethyl or methyl) | [a_insecticide_cd10] <input type="radio"/> No <input type="radio"/> Yes <input type="radio"/> | [a_insecticide_yr10] <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_insecticide_day10] <input type="radio"/> Less than 5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_insecticide_fu10] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s <input type="radio"/> <input type="radio"/> Mark here if you used this pesticide last year [a_insecticide_ls10] |
| d. Sevin, Carbamate or other <i>carbaryl</i> products | [a_insecticide_cd11] <input type="radio"/> No <input type="radio"/> Yes <input type="radio"/> | [a_insecticide_yr11] <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_insecticide_day11] <input type="radio"/> Less than 5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_insecticide_fu11] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s <input type="radio"/> <input type="radio"/> Mark here if you used this pesticide last year [a_insecticide_ls11] |
| e. Spectricide, Dianon or other <i>diazinon</i> products | [a_insecticide_cd12] <input type="radio"/> No <input type="radio"/> Yes <input type="radio"/> | [a_insecticide_yr12] <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_insecticide_day12] <input type="radio"/> Less than 5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_insecticide_fu12] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s <input type="radio"/> <input type="radio"/> Mark here if you used this pesticide last year [a_insecticide_ls12] |

| Name of Pesticide | A. Have you ever personally mixed or applied this pesticide? | B. How many years did you personally mix or apply this pesticide? | C. In an average year when you personally used this pesticide, how many days did you use it? | D. When did you <i>first</i> personally use this pesticide? |
|---|--|--|--|--|
| f. Temik or other <i>aldicarb</i> products | [a_insecticide_cd13] <input type="radio"/> No <input type="radio"/> Yes ^o <input type="radio"/> | [a_insecticide_yr13] <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_insecticide_day13] <input type="radio"/> Less than 5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_insecticide_fu13] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s <input type="radio"/> Mark here if you used this pesticide last year [a_insecticide_ls13] |
| g. Thimet, Rampart or other <i>phorate</i> products | [a_insecticide_cd14] <input type="radio"/> No <input type="radio"/> Yes ^o <input type="radio"/> | [a_insecticide_yr14] <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_insecticide_day14] <input type="radio"/> Less than 5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_insecticide_fu14] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s <input type="radio"/> Mark here if you used this pesticide last year [a_insecticide_ls14] |
| h. Aldrin | [a_insecticide_cd15] <input type="radio"/> No <input type="radio"/> Yes ^o <input type="radio"/> | [a_insecticide_yr15] <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_insecticide_day15] <input type="radio"/> Less than 5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_insecticide_fu15] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s |
| i. Chlordane | [a_insecticide_cd16] <input type="radio"/> No <input type="radio"/> Yes ^o <input type="radio"/> | [a_insecticide_yr16] <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_insecticide_day16] <input type="radio"/> Less than 5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_insecticide_fu16] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s |
| j. Dieldrin | [a_insecticide_cd17] <input type="radio"/> No <input type="radio"/> Yes ^o <input type="radio"/> | [a_insecticide_yr17] <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_insecticide_day17] <input type="radio"/> Less than 5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_insecticide_fu17] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s |
| k. DDT | [a_insecticide_cd18] <input type="radio"/> No <input type="radio"/> Yes ^o <input type="radio"/> | [a_insecticide_yr18] <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_insecticide_day18] <input type="radio"/> Less than 5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_insecticide_fu18] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s |

| Name of Pesticide | A. Have you ever personally mixed or applied this pesticide? | B. How many years did you personally mix or apply this pesticide? | C. In an average year when you personally used this pesticide, how many days did you use it? | D. When did you <i>first</i> personally use this pesticide? |
|---|--|--|---|--|
| 13. Fungicides (chemicals for controlling disease on crops and seed; may be pre-applied to seed) | | | | |
| l. Heptachlor | [a_insecticide_cd19] <input type="radio"/> No <input type="radio"/> Yes ^o <input type="radio"/> | [a_insecticide_yr19] <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_insecticide_day19] <input type="radio"/> Less than 5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_insecticide_fu19] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s |
| m. Toxaphene | [a_insecticide_cd20] <input type="radio"/> No <input type="radio"/> Yes ^o <input type="radio"/> | [a_insecticide_yr20] <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_insecticide_day20] <input type="radio"/> Less than 5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_insecticide_fu20] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s |
| a. Benlate, Tersan or other <i>benomyl</i> products | [a_fungicide_cd1] <input type="radio"/> No <input type="radio"/> Yes ^o <input type="radio"/> | [a_fungicide_yr1] <input type="radio"/> Already applied to seed <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_fungicide_day1] <input type="radio"/> Pre-applied to seed <input type="radio"/> None <input type="radio"/> 1 day <input type="radio"/> 2–5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_fungicide_fu1] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s <input type="radio"/> Mark here if you used this pesticide last year [a_fungicide_ls1] |
| b. Manex, Manzate, Dithane Z-78 or other <i>maneb</i> or <i>mancozeb</i> products | [a_fungicide_cd4] <input type="radio"/> No <input type="radio"/> Yes ^o <input type="radio"/> | [a_fungicide_yr4] <input type="radio"/> Already applied to seed <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_fungicide_day4] <input type="radio"/> Pre-applied to seed <input type="radio"/> None <input type="radio"/> 1 day <input type="radio"/> 2–5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_fungicide_fu4] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s <input type="radio"/> Mark here if you used this pesticide last year [a_fungicide_ls4] |
| c. Ridomil, Subdue or other <i>metalaxyl</i> products | [a_fungicide_cd5] <input type="radio"/> No <input type="radio"/> Yes ^o <input type="radio"/> | [a_fungicide_yr5] <input type="radio"/> Already applied to seed <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_fungicide_day5] <input type="radio"/> Pre-applied to seed <input type="radio"/> None <input type="radio"/> 1 day <input type="radio"/> 2–5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_fungicide_fu5] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s <input type="radio"/> Mark here if you used this pesticide last year [a_fungicide_ls5] |

| Name of Pesticide | A. Have you ever personally mixed or applied this pesticide? | B. How many years did you personally mix or apply this pesticide? | C. In an average year when you personally used this pesticide, how many days did you use it? | D. When did you <i>first</i> personally use this pesticide? |
|-------------------|---|--|---|--|
|-------------------|---|--|---|--|



| | | | | |
|---|--|---|--|---|
| d. Zirex, Corozate or other <i>ziram</i> products | [a_fungicide_cd6] <input type="radio"/> No <input type="radio"/> Yes ^o <input type="radio"/> | [a_fungicide_yr6] <input type="radio"/> Already applied to seed <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_fungicide_day6] <input type="radio"/> Pre-applied to seed <input type="radio"/> None <input type="radio"/> 1 day <input type="radio"/> 2–5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_fungicide_fu6] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s <input type="radio"/> <input type="radio"/> Mark here if you used this pesticide last year [a_fungicide_ls6] |
|---|--|---|--|---|

14. Fumigants (*gases or liquids that turn to gas when released; used in enclosed areas or to treat soil*)

| | | | | |
|--|---|---|--|---|
| a. Phostoxin, Gastoxin or other <i>aluminum phosphide</i> products | [a_fumigant_cd2] <input type="radio"/> No <input type="radio"/> Yes ^o <input type="radio"/> | [a_fumigant_yr2] <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_fumigant_day2] <input type="radio"/> 1 day <input type="radio"/> 2–5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_fumigant_fu2] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s <input type="radio"/> <input type="radio"/> Mark here if you used this pesticide last year [a_fumigant_ls2] |
|--|---|---|--|---|

| | | | | |
|---|---|---|--|--|
| b. Carbon tetrachloride/ carbon disulfide (80/20 mix) | [a_fumigant_cd3] <input type="radio"/> No <input type="radio"/> Yes ^o <input type="radio"/> | [a_fumigant_yr3] <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_fumigant_day3] <input type="radio"/> 1 day <input type="radio"/> 2–5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_fumigant_fu3] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s |
|---|---|---|--|--|

| | | | | |
|--|---|---|--|--|
| c. EDB, E-D-Bee, Bromofume or other <i>ethylene dibromide</i> products | [a_fumigant_cd4] <input type="radio"/> No <input type="radio"/> Yes ^o <input type="radio"/> | [a_fumigant_yr4] <input type="radio"/> 1 year or less <input type="radio"/> 2–5 years <input type="radio"/> 6–10 years <input type="radio"/> 11–20 years <input type="radio"/> More than 20 years | [a_fumigant_day4] <input type="radio"/> 1 day <input type="radio"/> 2–5 days <input type="radio"/> 5–9 days <input type="radio"/> 10–19 days <input type="radio"/> 20–39 days <input type="radio"/> 40–59 days <input type="radio"/> 60–150 days <input type="radio"/> More than 150 days | [a_fumigant_fu4] <input type="radio"/> Before 1960 <input type="radio"/> In the 1960s <input type="radio"/> In the 1970s <input type="radio"/> In the 1980s <input type="radio"/> In the 1990s |
|--|---|---|--|--|

III. Other Pesticides Used

15. *In your lifetime, other than those listed above, have you personally used any other pesticides frequently (either now or in past years)?*

[aothrpcd]

- No [GO TO QUESTION 17] Yes [CONTINUE]

○

16. **What other pesticides have you used frequently (either now or in the past)?** *(Mark all that you have used.)*

A. Crop Insecticides

- | | | | |
|---|------------|---|------------|
| <input type="radio"/> Aastar (flucythrinate + phorate) | [aocins1] | <input type="radio"/> Marlate (methoxychlor) | [aocins14] |
| <input type="radio"/> Broot (trimethacarb) | [aocins2] | <input type="radio"/> Monitor, Swipe, Tahmabon, | [aocins15] |
| <input type="radio"/> Cygon 400 (dimethoate) | [aocins3] | Acephate-Met (methamidophos) | |
| <input type="radio"/> Delnav (dioxathion) | [aocins4] | <input type="radio"/> Mocap (ethoprop) | [aocins16] |
| <input type="radio"/> Dipel (bacillus thuringiensis) | [aocins5] | <input type="radio"/> Noxfish (rotenone) | [aocins17] |
| <input type="radio"/> Di-syston (disulfoton) | [aocins6] | <input type="radio"/> Orthene (acephate) | [aocins18] |
| <input type="radio"/> Etrolene, Korlan, Ronnel (fenchlorphos) | [aocins7] | <input type="radio"/> Phosdrin (mevinphos) | [aocins19] |
| <input type="radio"/> Force (tefluthrin) | [aocins8] | <input type="radio"/> Pydrin (fenvalerate) | [aocins20] |
| <input type="radio"/> Guthion (azinphos methyl) | [aocins9] | <input type="radio"/> Ruelene (crufomate) | [aocins21] |
| <input type="radio"/> Imidan (phosmet) | [aocins10] | <input type="radio"/> Thiodan (endosulfan) | [aocins22] |
| <input type="radio"/> Kelthane (dicofol) | [aocins11] | <input type="radio"/> Totalene, Tugon (trichlorfon) | [aocins23] |
| <input type="radio"/> Lannate (methomyl) | [aocins12] | <input type="radio"/> Vydate (oxanyl) | [aocins24] |
| <input type="radio"/> Lead Arsenate | [aocins13] | | |

B. Livestock/Poultry Insecticides

- | | | | |
|--|-----------|--|------------|
| <input type="radio"/> Baytex, Lysoff, Tiguvon (fenthion) | [aolins1] | <input type="radio"/> Stimukil (methomyl) | [aolins7] |
| <input type="radio"/> Black Leaf 40 (nicotine) | [aolins2] | <input type="radio"/> Nегuvon, Tugon (trichlorfon) | [aolins8] |
| <input type="radio"/> Bo-Ana, Warbex (famphur) | [aolins3] | <input type="radio"/> Prolate (phosmet) | [aolins9] |
| <input type="radio"/> Bux (bufencarb) | [aolins4] | <input type="radio"/> Rabon, Gradona (tetrachlorvinphos) | [aolins10] |
| <input type="radio"/> Ivomec | [aolins5] | <input type="radio"/> Rotenone (rotenoneapry) | [aolins11] |
| <input type="radio"/> Korlan, Trolene (ronnel) | [aolins6] | <input type="radio"/> Tackic | [aolins12] |

C. Herbicides

- | | | | |
|---|-----------|--|-----------|
| <input type="radio"/> Ally (metsulfuran methyl) | [aohrb1] | <input type="radio"/> Hoelon (diclofop-methyl) | [aohrb18] |
| <input type="radio"/> Amiben (chloramben) | [aohrb2] | <input type="radio"/> Inorganic Arsenic | [aohrb19] |
| <input type="radio"/> Basagran (bentazone) | [aohrb3] | <input type="radio"/> Lorox (linuron) | [aohrb20] |
| <input type="radio"/> Bicep (atrazine + metolachlor) | [aohrb4] | <input type="radio"/> Marksman (dicamba + atrazine) | [aohrb21] |
| <input type="radio"/> Blazer, Storm, Galaxy (acifluorfen sodium) | [aohrb5] | <input type="radio"/> Paarlán (isopropalin) | [aohrb22] |
| <input type="radio"/> Bronco (alachlor + isopropylamine salt of glyphosphate) | [aohrb6] | <input type="radio"/> Princep (simazine) | [aohrb23] |
| <input type="radio"/> Bullet (alachlor + atrazine) | [aohrb7] | <input type="radio"/> Organic Arsenic | [aohrb24] |
| <input type="radio"/> Buctril (bromoxynil) | [aohrb8] | <input type="radio"/> Poast (sethoxydim) | [aohrb25] |
| <input type="radio"/> Canopy (metribuzin + chlorimuron ethyl) | [aohrb9] | <input type="radio"/> Ramrod (propachlor) | [aohrb26] |
| <input type="radio"/> Command (clomazone) | [aohrb10] | <input type="radio"/> Scepter (imazaquin) | [aohrb27] |
| <input type="radio"/> Conquest (cyanazine + atrazine) | [aohrb11] | <input type="radio"/> Sonalan (ethalfluralin) | [aohrb28] |
| <input type="radio"/> Cotoran (fluometuron) | [aohrb12] | <input type="radio"/> Squadron (pendimethalin + imazaquin) | [aohrb29] |
| <input type="radio"/> Devrinol (napropamide) | [aohrb13] | <input type="radio"/> Surflan (oryzalin) | [aohrb30] |
| <input type="radio"/> Enide (diphenamid) | [aohrb14] | <input type="radio"/> Sutazine (atrazine + butylate) | [aohrb31] |
| <input type="radio"/> Eradicane, Eptam (EPTC) | [aohrb15] | <input type="radio"/> Tandem (tridiphene) | [aohrb32] |
| <input type="radio"/> Fusilade (fluazifop-butyl) | [aohrb16] | <input type="radio"/> Vernam (vernolate) | [aohrb33] |
| <input type="radio"/> Harmony, Pinnacle (thifensulfuron methyl) | [aohrb17] | <input type="radio"/> Zorial (norflurozon) | [aohrb34] |

D. Fumigants

- | | | | |
|---|-----------|--|-----------|
| <input type="radio"/> Basamid (dazomet) | [aofumg1] | <input type="radio"/> Telone, Telone II, D-D (dichloropropene) | [aofumg6] |
| <input type="radio"/> Bin Spray | [aofumg2] | <input type="radio"/> Tetrafume | [aofumg7] |
| <input type="radio"/> Chlor-O-Pic, Dolochlor (chloropicrin) | [aofumg3] | <input type="radio"/> Vapam (metam-sodium) | [aofumg8] |
| <input type="radio"/> Cyanamid, Cyanogas (calcium cyanide) | [aofumg4] | <input type="radio"/> Vorlex (methyl isothiocyanate) | [aofumg9] |
| <input type="radio"/> DBCP (dibromochloropropane) | [aofumg5] | | |

E. Fungicides

- | | | | |
|---|------------|--|------------|
| <input type="radio"/> Arbotect (triabendazole) | [aofung1] | <input type="radio"/> Nova, Rally, Systhane (myclobutanil) | [aofung16] |
| <input type="radio"/> Banner, Tilt, 3.6 EC (propiconazole) | [aofung2] | <input type="radio"/> Phaltan (folpet) | [aofung17] |
| <input type="radio"/> Bayleton (triadimefon) | [aofung3] | <input type="radio"/> Pipron (piperalin) | [aofung18] |
| <input type="radio"/> Baytan 30 (triadimenol) | [aofung4] | <input type="radio"/> Polyram, Carbatene (metiram) | [aofung19] |
| <input type="radio"/> Haipen, Sanspor (captafol) | [aofung5] | <input type="radio"/> Rovral (iprodione) | [aofung20] |
| <input type="radio"/> Carbamate (ferbam) | [aofung6] | <input type="radio"/> Rubigan (fenarimol) | [aofung21] |
| <input type="radio"/> Copper-Count N (copper ammonia carbonate) | [aofung7] | <input type="radio"/> Sulfur | [aofung22] |
| <input type="radio"/> Curalan, Vorlan (9inclozolin) | [aofung8] | <input type="radio"/> Terraclor (PCNB) | [aofung23] |
| <input type="radio"/> Cyprex (dodine) | [aofung9] | <input type="radio"/> Thiocarbamates | [aofung24] |
| <input type="radio"/> Dyrene (anilazine) | [aofung10] | <input type="radio"/> Topsin-M (triofanate-methyl) | [aofung25] |
| <input type="radio"/> Evershield, Aatack (thiram) | [aofung11] | <input type="radio"/> Tribasic (copper sulfate) | [aofung26] |
| <input type="radio"/> Funginex (triforine) | [aofung12] | <input type="radio"/> Triacetane (triphenyltin acetate) | [aofung27] |
| <input type="radio"/> Kocide 101, Kocide 404 (cupric hydroxide) | [aofung13] | <input type="radio"/> Truban (etridiazole) | [aofung28] |
| <input type="radio"/> Mertect (thiabendazole) | [aofung14] | <input type="radio"/> Vitavax (carboxin) | [aofung29] |
| <input type="radio"/> Milban (dodemorph acetate) | [aofung15] | | |

17. Have you ever had an incident or experience while using *any* type of *PESTICIDE* which caused you *unusually high personal exposure*? [chghexpo]
- No [GO TO QUESTION 22] Yes

18. What was the name of the product you were using during your highest exposure incident or experience?

DO NOT WRITE OUTSIDE BOX

(Pesticides listed in questions 11 to 16 may assist you in remembering or spelling, if needed.)

19. During which decade did this pesticide incident occur? [aoccuryr]
- the 1990s
 the 1980s
 the 1970s
 the 1960s
 the 1950s
 the 1940s

20. Which part(s) of your body were exposed to the pesticide? *(Mark all that apply.)*

- | | |
|--|------------|
| <input type="radio"/> Head and/or face | [abodypt1] |
| <input type="radio"/> Arms | [abodypt2] |
| <input type="radio"/> Hands | [abodypt3] |
| <input type="radio"/> Chest/back/abdomen | [abodypt4] |
| <input type="radio"/> Groin area | [abodypt5] |
| <input type="radio"/> Legs | [abodypt6] |
| <input type="radio"/> Feet | [abodypt7] |
| <input type="radio"/> Lungs and respiratory tract (from breathing fumes) | [abodypt8] |
| <input type="radio"/> Digestive tract (from ingesting/swallowing) | [abodypt9] |

21. How soon after this pesticide incident were you able to wash (with soap and water) your exposed body part(s)? [awhnrwash]
- Less than 30 minutes
 30–59 minutes
 1–3 hours
 4–6 hours
 7–9 hours
 More than 9 hours after the incident

III. Work Practices

22. Were you applying pesticides 10 years ago?

[aus10ago]

No [Complete Column A Only]

Yes [Be sure to answer for *both* current work practices (Column A), and for 10 years ago (Column B).]

| QUESTION | A. NOW (Past 12 Months) | B. 10 YEARS AGO |
|--|---|---|
| <p>23. What types of pesticides do you generally mix or apply <i>using protective equipment</i>? (Mark all that apply.)</p> | <input type="radio"/> Insecticides [anpeqps1] <input type="radio"/> Herbicides [anpeqps2] <input type="radio"/> Fungicides [anpeqps3] <input type="radio"/> Fumigants [anpeqps4] <input type="radio"/> None [anpeqps5] | <input type="radio"/> Insecticides [aapeqps1] <input type="radio"/> Herbicides [aapeqps2] <input type="radio"/> Fungicides [aapeqps3] <input type="radio"/> Fumigants [aapeqps4] <input type="radio"/> None [aapeqps5] |
| <p>24. What types of protective equipment do you usually use when you personally handle pesticides? (Mark all that apply.)</p> | <input type="radio"/> Never use protective equipment [anpreq1] <input type="radio"/> Cartridge respirator, gas mask [anpreq2] <input type="radio"/> Dust mask [anpreq3] <input type="radio"/> Full face shield [anpreq4] <input type="radio"/> Hat [anpreq5] <input type="radio"/> Goggles [anpreq6] <input type="radio"/> Chemically resistant gloves (like neoprene or nitrile gloves) [anpreq7] <input type="radio"/> Fabric/leather gloves [anpreq8] <input type="radio"/> Apron [anpreq9] <input type="radio"/> Chemically resistant boots [anpreq10] <input type="radio"/> Cloth coveralls (complete suit) [anpreq11] <input type="radio"/> Disposable outer clothing (like Tyvek®) [anpreq12] | <input type="radio"/> Never use protective equipment [aapreq1] <input type="radio"/> Cartridge respirator, gas mask [aapreq2] <input type="radio"/> Dust mask [aapreq3] <input type="radio"/> Full face shield [aapreq4] <input type="radio"/> Hat [aapreq5] <input type="radio"/> Goggles [aapreq6] <input type="radio"/> Chemically resistant gloves (like neoprene or nitrile gloves) [aapreq7] <input type="radio"/> Fabric/leather gloves [aapreq8] <input type="radio"/> Apron [aapreq9] <input type="radio"/> Chemically resistant boots [aapreq10] <input type="radio"/> Cloth coveralls (complete suit) [aapreq11] <input type="radio"/> Disposable outer clothing (like Tyvek®) [aapreq12] |
| <p>25. After mixing or applying pesticides, when do you usually change into clean work clothes?</p> | <input type="radio"/> Right away [anchclot] <input type="radio"/> At lunch <input type="radio"/> At the end of that work day <input type="radio"/> At the end of the next work day <input type="radio"/> Later in the week <input type="radio"/> Always use disposable outer clothing | <input type="radio"/> Right away [aachclot] <input type="radio"/> At lunch <input type="radio"/> At the end of that work day <input type="radio"/> At the end of the next work day <input type="radio"/> Later in the week <input type="radio"/> Always use disposable outer clothing |
| <p>26. Do you usually wear regular (prescription) eye glasses or sunglasses while mixing or applying pesticides? (Does not include goggles.)</p> | <input type="radio"/> No [anglass] <input type="radio"/> Yes | <input type="radio"/> No [aaglass] <input type="radio"/> Yes |
| <p>27. If you spill a small amount of pesticide on your clothes early in the day, when would you usually change clothes?</p> | <input type="radio"/> Right away [anspilch] <input type="radio"/> Change at lunch <input type="radio"/> At the end of that work day <input type="radio"/> At the end of the next work day <input type="radio"/> Later in the week <input type="radio"/> Always use disposable outer clothing | <input type="radio"/> Right away [aaspilch] <input type="radio"/> Change at lunch <input type="radio"/> At the end of that work day <input type="radio"/> At the end of the next work day <input type="radio"/> Later in the week <input type="radio"/> Always use disposable outer clothing |
| <p>28. When mixing or applying pesticides, how long do you usually work with the same pair of gloves before exchanging them for a new set?</p> | <input type="radio"/> Don't wear gloves [anchglov] <input type="radio"/> Change each time <input type="radio"/> Change at least once per month <input type="radio"/> Change 1 to 4 times per season <input type="radio"/> Generally don't change gloves until they are worn out | <input type="radio"/> Don't wear gloves [aachglov] <input type="radio"/> Change each time <input type="radio"/> Change at least once per month <input type="radio"/> Change 1 to 4 times per season <input type="radio"/> Generally don't change gloves until they are worn out |

| QUESTION | A. NOW (Past 12 Months) | B. 10 YEARS AGO |
|---|--|--|
| 29. In your household, how are clothes usually washed after they have been worn when mixing or applying pesticides? | <p style="text-align: right;">[anwshclo]</p> <input type="radio"/> Always wear disposable clothing (like Tyvek®) <input type="radio"/> Mixed with family wash <input type="radio"/> Soaked separately then mixed with family wash <input type="radio"/> Washed separately in family machine <input type="radio"/> Sent out or washed in machine used only for this purpose | <p style="text-align: right;">[aawshclo]</p> <input type="radio"/> Always wear disposable clothing (like Tyvek®) <input type="radio"/> Mixed with family wash <input type="radio"/> Soaked separately then mixed with family wash <input type="radio"/> Washed separately in family machine <input type="radio"/> Sent out or washed in machine used only for this purpose |
| 30. When mixing or applying pesticides, what parts of your body usually come in contact with the pesticide? <i>(Mark all that apply.)</i> | <p style="text-align: right;">[antchbd1]</p> <input type="radio"/> No parts of my body <input type="radio"/> Hands [antchbd2] <input type="radio"/> Arms [antchbd3] <input type="radio"/> Legs [antchbd4] <input type="radio"/> Face [antchbd5] <input type="radio"/> Body [antchbd6] | <p style="text-align: right;">[aatchbd1]</p> <input type="radio"/> No parts of my body <input type="radio"/> Hands [aatchbd2] <input type="radio"/> Arms [aatchbd3] <input type="radio"/> Legs [aatchbd4] <input type="radio"/> Face [aatchbd5] <input type="radio"/> Body [aatchbd6] |
| 31. After mixing or applying pesticides, where do you usually wash up or shower? | <p style="text-align: right;">[anwherwa]</p> <input type="radio"/> Bathroom in home <input type="radio"/> Outside shower <input type="radio"/> Other area outside home | <p style="text-align: right;">[aawherwa]</p> <input type="radio"/> Bathroom in home <input type="radio"/> Outside shower <input type="radio"/> Other area outside home |
| 32. Do you use an enclosed system, such as lock and load, for mixing and transferring pesticide concentrates? | <p style="text-align: right;">[anenclo]</p> <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Don't know | <p style="text-align: right;">[aaenclo]</p> <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Don't know |
| 33. How is the pesticide applying equipment generally washed at the end of the application? <i>(Mark all that apply.)</i> | <p style="text-align: right;">[anpeqwa1]</p> <input type="radio"/> Don't wash [anpeqwa1] <input type="radio"/> Clean nozzle [anpeqwa2] <input type="radio"/> Rinse tank [anpeqwa3] <input type="radio"/> Hose down sprayer [anpeqwa4] <input type="radio"/> Hose down tractor [anpeqwa5] <input type="radio"/> Don't know [anpeqwa6] | <p style="text-align: right;">[aapeqwa1]</p> <input type="radio"/> Don't wash [aapeqwa1] <input type="radio"/> Clean nozzle [aapeqwa2] <input type="radio"/> Rinse tank [aapeqwa3] <input type="radio"/> Hose down sprayer [aapeqwa4] <input type="radio"/> Hose down tractor [aapeqwa5] <input type="radio"/> Don't know [aapeqwa6] |
| 34. Does the tractor you usually use now for spraying pesticides have an enclosed cab? | <p style="text-align: right;">[antraenc]</p> <input type="radio"/> No <input type="radio"/> Yes <input type="radio"/> Don't use tractor | <p style="text-align: right;">[aatraenc]</p> <input type="radio"/> No <input type="radio"/> Yes <input type="radio"/> Don't use tractor |
| 35. Does the primary tractor you use during pesticide application have a cab with a charcoal filter? | <p style="text-align: right;">[antrafil]</p> <input type="radio"/> No <input type="radio"/> Yes <input type="radio"/> Primary tractor doesn't have cab <input type="radio"/> Don't use tractor | <p style="text-align: right;">[aatrafil]</p> <input type="radio"/> No <input type="radio"/> Yes <input type="radio"/> Primary tractor doesn't have cab <input type="radio"/> Don't use tractor |
| 36. Are agricultural or commercial pesticides ever stored (even temporarily) in your home? <i>(Mark all that apply.)</i> | <p style="text-align: right;">[anstohtm1]</p> <input type="radio"/> Yes, in home [anstohtm1] <input type="radio"/> Yes, in basement [anstohtm2] <input type="radio"/> Yes, in garage [anstohtm3] <input type="radio"/> Yes, in attached outbuilding or shed [anstohtm4] <input type="radio"/> No [anstohtm5] | <p style="text-align: right;">[aastohtm1]</p> <input type="radio"/> Yes, in home [aastohtm1] <input type="radio"/> Yes, in basement [aastohtm2] <input type="radio"/> Yes, in garage [aastohtm3] <input type="radio"/> Yes, in attached outbuilding or shed [aastohtm4] <input type="radio"/> No [aastohtm5] |
| 37. Do YOU usually repair the spraying or mixing equipment that you use? | <p style="text-align: right;">[anownrep]</p> <input type="radio"/> No <input type="radio"/> Yes | <p style="text-align: right;">[aaownrep]</p> <input type="radio"/> No <input type="radio"/> Yes |
| 38. During a typical day in the growing season, about how many hours per day do you spend lifting or carrying heavy objects (for example, hay bales, logs, fertilizer or feed bags)? | <p style="text-align: right;">[ancarry]</p> <input type="radio"/> None <input type="radio"/> Less than 1 hour <input type="radio"/> 1–2 hours <input type="radio"/> 3–5 hours <input type="radio"/> 6–10 hours <input type="radio"/> More than 10 hours | <p style="text-align: right;">[aacarry]</p> <input type="radio"/> None <input type="radio"/> Less than 1 hour <input type="radio"/> 1–2 hours <input type="radio"/> 3–5 hours <input type="radio"/> 6–10 hours <input type="radio"/> More than 10 hours |

Now go back and make sure you have completed both columns A and B if you were using pesticides 10 years ago.

V. Occupational Information

39. Did you *ever* have a job other than as a commercial pesticide applicator?

[ajoboff]

- No [GO TO QUESTION 46] Yes

40. For the job you held the longest (other than as a commercial pesticide applicator), what was your job?

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41. What industry was this job in? (For example: Building/home construction, trucking, grain milling, restaurant)

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42. For the job you held the longest (other than as a commercial pesticide applicator), which of the following were you exposed to? (Mark all that apply)

| | | | |
|---|---|--|---|
| <input type="checkbox"/> Pesticides [anfxp1] | <input type="checkbox"/> Grain dust [anfxp6] | <input type="checkbox"/> Engine exhaust [anfxp11] | <input type="checkbox"/> Mercury [anfxp16] |
| <input type="checkbox"/> Solvents (other than gasoline) [anfxp2] | <input type="checkbox"/> Wood dust [anfxp7] | <input type="checkbox"/> Lead solder [anfxp12] | <input type="checkbox"/> Cadmium [anfxp17] |
| <input type="checkbox"/> Gasoline [anfxp3] | <input type="checkbox"/> Cotton dust [anfxp8] | <input type="checkbox"/> Welding fumes [anfxp13] | <input type="checkbox"/> Other metals [anfxp18] |
| <input type="checkbox"/> Asbestos [anfxp4] | <input type="checkbox"/> Mineral or mining dust [anfxp9] | <input type="checkbox"/> Electroplating fumes [anfxp14] | <input type="checkbox"/> Pneumatic drills (vibrations) [anfxp19] |
| <input type="checkbox"/> X-ray radiation [anfxp5] | <input type="checkbox"/> Silica/sand dust [anfxp10] | <input type="checkbox"/> Lead [anfxp15] | <input type="checkbox"/> None of these [anfxp20] |

43. How many years did you have this job? [ajobysr]

- 1 year or less
- 2–5 years
- 6–10 years
- 11–20 years
- More than 20 years

44. When did you usually work at this job? [awhnwork]

- Year round
- Off season only

45. How much time did you work at this job? [awrktime]

- Half-time or less
- More than half-time

46. Did you mix or apply herbicides during military operations? (For example: Agent Orange, Agent White) [amxinmil]

- No
- Yes
- Never in the military

47. Are there other exposures not previously mentioned which you feel we should know about? [aothrexp]

- No
- Yes (Please describe these in the space below.)

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VI. Activity and Physical Information

48. On average, how many hours per week do you spend doing strenuous exercise (heart beats rapidly) during your leisure time?

a. In the Summer

Hours per week

[asumexer]

- None
- Up to 1 hour
- 1–2 hours
- 3–5 hours
- 6–10 hours
- More than 10 hours

b. In the Winter

Hours per week

[awinexer]

- None
- Up to 1 hour
- 1–2 hours
- 3–5 hours
- 6–10 hours
- More than 10 hours

49. What color are your eyes? [aeyecolr]

- Blue
- Brown
- Green
- Hazel
- Gray
- Other (Please specify.)

50. What is/was the natural color of your hair? [ahaircol]

- Brown
- Black
- Red
- Blonde

51. How tall are you?

[ahgtft]

[ahgtin]

Feet

Inches

| | | |
|--|--|--|
| | | |
|--|--|--|

- | | | |
|-------------------------|-------------------------|-------------------------|
| <input type="radio"/> 3 | <input type="radio"/> 0 | <input type="radio"/> 0 |
| <input type="radio"/> | <input type="radio"/> 1 | <input type="radio"/> 1 |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> 2 |
| <input type="radio"/> 6 | <input type="radio"/> | <input type="radio"/> 3 |
| <input type="radio"/> 7 | <input type="radio"/> | <input type="radio"/> 4 |
| | <input type="radio"/> | <input type="radio"/> 5 |
| | <input type="radio"/> | <input type="radio"/> 6 |
| | <input type="radio"/> | <input type="radio"/> 7 |
| | <input type="radio"/> | <input type="radio"/> 8 |
| | <input type="radio"/> | <input type="radio"/> 9 |

Write the numbers in
» the boxes

Then fill in the
» matching ovals below
each box

52. How much do you weigh now?

[aweight]

Pounds

| | | |
|--|--|--|
| | | |
|--|--|--|

- | | | |
|-------------------------|-------------------------|-------------------------|
| <input type="radio"/> 0 | <input type="radio"/> 0 | <input type="radio"/> 0 |
| <input type="radio"/> 1 | <input type="radio"/> 1 | <input type="radio"/> 1 |
| <input type="radio"/> 2 | <input type="radio"/> 2 | <input type="radio"/> 2 |
| <input type="radio"/> 3 | <input type="radio"/> 3 | <input type="radio"/> 3 |
| <input type="radio"/> 4 | <input type="radio"/> 4 | <input type="radio"/> 4 |
| <input type="radio"/> | <input type="radio"/> 5 | <input type="radio"/> 5 |
| <input type="radio"/> | <input type="radio"/> 6 | <input type="radio"/> 6 |
| <input type="radio"/> | <input type="radio"/> 7 | <input type="radio"/> 7 |
| <input type="radio"/> | <input type="radio"/> 8 | <input type="radio"/> 8 |
| <input type="radio"/> | <input type="radio"/> 9 | <input type="radio"/> 9 |

Write the numbers in
» the boxes

Then fill in the
» matching ovals below
each box

53. How would your skin react the first time each year if you were exposed to strong sunlight for more than an hour?

- Get a severe sunburn with blisters
- Get a painful sunburn, but not blisters
- Get a mild sunburn followed by some tanning
- Become tanned without any sunburn
- No visible reaction

[asknreac]

54. In the growing season when you work in the sun, what type(s) of sun protection do you usually use?

(Mark all that apply.)

- Sunscreen or sunblock
- Wear baseball-type cap
- Wear other kind of hat with brim
- Almost always wear long-sleeved shirt
- Don't use any of the above protections

[asunpro1]

[asunpro2]

[asunpro3]

[asunpro4]

[asunpro5]

55. In the growing season, how many hours a day do you generally spend in the sun?

a. Now

[anhrsun]

- Up to 1 hour
- 1–2 hours
- 3–5 hours
- 6–10 hours
- More than 10 hours

b. 10 years ago

[aahrsun]

- Up to 1 hour
- 1–2 hours
- 3–5 hours
- 6–10 hours
- More than 10 hours

VII. Dietary and Cooking Practices Information

56. During the past year have you taken any vitamins or mineral supplements?

[atakesup]

- No [GO TO QUESTION 60]
- Yes, but not regularly [GO TO QUESTION 60]
- Yes, fairly regularly (at least once a week)

○

57. If you've taken vitamins regularly, what vitamins? (Please mark each item.)

| Vitamin Type | A. Number of Tablets ° | | | | | | | | B. For How Many Years? | | | | |
|--|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | None | 1–3 Per Wk | 4–6 Per Wk | 1 Per Day | 2 Per Day | 3 Per Day | 4 Per Day | 5+ Per Day | Less Than 1 Yr | 1–2 Yrs | 3–5 Yrs | 6–9 Yrs | 10+ Yrs |
| Multiple Vitamins | | | | | | | | | | | | | |
| a. Stress-tabs type [anumvit1 / ayrsvit1] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b. Therapeutic or Theragran type [anumvit2 / ayrsvit2] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c. One-a-day type [anumvit3 / ayrsvit3] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Supplements | | | | | | | | | | | | | |
| d. Vitamin A [anumsup1 / ayrsupp1] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| e. Vitamin E [anumsup2 / ayrsupp2] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| f. B-carotene [anumsup3 / ayrsupp3] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| g. Vitamin C [anumsup4 / ayrsupp4] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| h. Calcium or Tums [anumsup5 / ayrsupp5] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| i. Iron [anumsup6 / ayrsupp6] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| j. Cod liver oil [anumsup7 / ayrsupp7] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

58. If you took Vitamin C, how many milligrams per tablet did you take?

[avitemgm]

- 100
- 250
- 500
- 1000 or more
- Don't know

59. If you took Vitamin E, how many units per tablet did you take?

[avitemgm]

- 100
- 200
- 400
- 1000 or more
- Don't know

The next set of questions refer to your cooking and eating practices over the *past year*.

60. How often have you eaten the following meats during the past 12 months? Mark the column to show how often, on average, you ate the following foods during the *past year*. Be sure to include foods that were eaten away from home such as in restaurants, cafeterias, at friends' homes, or at work. If you rarely or never eat a food, mark "Never, or less than once a month."

| How Often Have You Eaten These Foods During The Last 12 Months? | | | | | | | | | |
|---|----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Type of Food | Never, or Less than Once a Month | Once a Month | 2-3 Times a Month | Once a Week | Twice a Week | 3-4 Times a Week | 5-6 Times a Week | Once a Day | Twice a Day or More |
| a. Hamburger, cheeseburger [afoodty1] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b. Beef-steaks [afoodty2] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c. Chicken [afoodty3] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d. Pork-chops or ham steak [afoodty4] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| e. Bacon or breakfast sausage [afoodty5] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

61. When you eat steak, how is it usually cooked? (Mark only one or two.)

- Don't eat steak [astcook1] Oven broiled [astook4] Don't know [astcook6]
 Pan fried [astcook2] Other [astcook5]
 Grilled [astcook3]

62. When you eat steak, how do you usually eat it? (Mark only one.)

[asteaten]

- Don't eat steak Medium well
 Rare Well done
 Medium rare Very well done
 Medium Don't know

63. When you eat hamburgers (or cheeseburgers), how are they usually cooked? (Mark only one or two.)

- Don't eat hamburgers (or cheeseburgers) [aburgck1] Oven broiled [aburgck4] Don't know [aburgck6]
 Pan fried [aburgck2] Other [aburgck5]
 Grilled [aburgck3]

64. When you eat hamburgers (or cheeseburgers), how do you usually eat them? (Mark only one.)

[abureatn]

- Don't eat hamburgers (or cheeseburgers) Medium well
 Rare Well done
 Medium rare Very well done
 Medium Don't know

65. When you eat chicken, how do you usually eat it? (Mark only one.)

[achkneat]

- Don't eat chicken Grilled
 Pan fried Broiled
 Deep fried Stewed or boiled
 Roasted or baked Don't know

66. **When you eat pork chops or ham steaks, how do you usually eat them?** (Mark only one.) [aporkeat]
- Don't eat pork chops Fried
 Baked Broiled
 Grilled Don't know
67. **When you eat bacon or sausage, how do you usually eat it?** (Mark only one.) [abacneat]
- Don't eat bacon or sausage Charred/blackened
 Just until done Don't know
 Well-done, crisp
68. **How often do you eat meat which has been well-browned on the outside by pan-frying or oven broiling?** [afriedmt]
- Never Rarely Sometimes Often
69. **When do you eat foods that have been grilled (cooked over coals, open fire or ceramic briquets)?** [agrillmt]
- All year round Mostly in the summer Never [GO TO QUESTION 72]
70. **How often do you eat grilled or barbecued meat (including beef, pork, chicken, or fish)?** [agrillfrq]
- Less than once a month 1–3 times a week
 1–3 times a month 4–5 times a week
 Once a week Almost every day
71. **How often do you eat meat which has been charred/blackened by grilling or barbecuing?** [acharmt]
- Never Rarely Sometimes Often

VIII. General Health Information

72. **Before age 18, did you live at least half your life on a farm?** [alivfarm]
- Yes No
73. **About how much did you weigh when you were age 20?** (For female applicators, don't consider a time when you may have been pregnant.) [awgtat20]

Pounds

| | | |
|--|--|--|
| | | |
|--|--|--|

- | | | |
|-------------------------|-------------------------|-------------------------|
| <input type="radio"/> 0 | <input type="radio"/> 0 | <input type="radio"/> 0 |
| <input type="radio"/> 1 | <input type="radio"/> 1 | <input type="radio"/> 1 |
| <input type="radio"/> 2 | <input type="radio"/> 2 | <input type="radio"/> 2 |
| <input type="radio"/> 3 | <input type="radio"/> 3 | <input type="radio"/> 3 |
| <input type="radio"/> 4 | <input type="radio"/> 4 | <input type="radio"/> 4 |
| | <input type="radio"/> 5 | <input type="radio"/> 5 |
| | <input type="radio"/> 6 | <input type="radio"/> 6 |
| | <input type="radio"/> 7 | <input type="radio"/> 7 |
| | <input type="radio"/> 8 | <input type="radio"/> 8 |
| | <input type="radio"/> 9 | <input type="radio"/> 9 |

Write the numbers in
» the boxes

Then fill in the
» matching ovals below
each box

74. **During the past 12 months about how many times did you visit a medical doctor or medical assistant about a health concern?** [aseedoc]
- None Once More than once

IX. Medical History

Be sure to answer “No” or “Yes” for each item. If you answer “Yes,” be sure to complete Column B.

| 75. Has a <i>DOCTOR</i> ever told you that you had (been diagnosed with)... | | | | | | | |
|---|-----------------------|-----------------------|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Condition | A. | | B. IF YES How old were you when the doctor first told you? | | | | |
| | No | Yes |  | Younger than 20 | 20-39 | 40-59 | 60 or older |
| a. Rheumatoid arthritis [a_medcond49] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b. Stroke [a_medcond53] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c. Myocardial infarction (heart attack) [a_medcond39] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d. Arrhythmia (irregular heart beat) [a_medcond4] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| e. Angina (chest pain) [a_medcond3] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| f. High blood pressure requiring medication [a_medcond26] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| g. Diabetes (sugar) (other than while pregnant) [a_medcond16] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| h. Asthma or reactive lung disease [a_medcond6] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| i. Farmer's lung disease [a_medcond20] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| j. Chronic bronchitis [a_medcond9] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| k. Emphysema [a_medcond18] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| l. Hay fever [a_medcond23] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| m. Pneumonia (viral or bacterial) [a_medcond47] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| n. Cataracts [a_medcond8] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| o. Glaucoma [a_medcond21] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| p. Detached retina [a_medcond15] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| q. Retinal or macular degeneration [a_medcond48] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| r. Goiter [a_medcond22] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| s. Thyrotoxicosis/Grave's disease (excess thyroid hormone) [a_medcond54] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| t. Other thyroid disease [a_medcond55] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| u. Kidney failure requiring dialysis or transplant [a_medcond30] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| v. Chronic kidney infections or pyelonephritis [a_medcond11] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

75. Has a *DOCTOR* ever told you that you had (been diagnosed with)... (continued)

| Condition | A. | | B. IF YES How old were you when the doctor first told you? | | | | |
|---|-----------------------|-----------------------|--|-----------------------|-----------------------|-----------------------|-----------------------|
| | No | Yes |  | Younger than 20 | 20-39 | 40-59 | 60 or older |
| w. Kidney stones [a_medcond31] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| x. Bright's disease, nephritis, or nephrosis [a_medcond7] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| y. Other kidney disease [a_medcond32] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| z. Shingles [a_medcond51] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| aa. Eczema [a_medcond17] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| bb. Mononucleosis or "mono" [a_medcond37] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| cc. Scleroderma or sarcoidosis [a_medcond50] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| dd. Lupus [a_medcond35] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| ee. Ulcerative colitis or Crohn's disease [a_medcond57] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| ff. Parkinson's disease [a_medcond44] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| gg. Amyotrophic lateral sclerosis (ALS), motor neuron disease, or Lou Gehrig's disease [a_medcond2] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| hh. Epilepsy or seizures (not related to high fever) [a_medcond19] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| ii. Multiple sclerosis [a_medcond38] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| jj. Depression requiring medication or shock therapy [a_medcond14] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| kk. Pesticide poisoning [a_medcond45] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| ll. Solvent poisoning [a_medcond52] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| mm. Lead poisoning [a_medcond33] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| nn. Head injury requiring medical attention [a_medcond24] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| oo. Injury from farm machinery requiring medical treatment (excluding head injury) [a_medcond28] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Please be sure to answer Column A for each item. For any you answered “Yes” be sure to complete Columns B and C and D.

| 76. During the <i>past 12 months</i> , have you had ...? | A. | | B. How many episodes have you had in the last 12 months? | | | | | C. Were the symptoms worse after smelling chemical odors? | | D. Were the symptoms worse after working with grains and hay? | |
|--|-----------------------|-----------------------|--|-----------------------|-----------------------|-----------------------|-----------------------|---|-----------------------|---|-----------------------|
| | No | Yes | One | Two | 3-6 | 7-12 | More than 12 | No | Yes | No | Yes |
| a. Stuffy, itchy, or runny nose [aallerg1] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | | | [anumalg1] | | | | | [awafch1] | [awafhay1] | | |
| b. Watery, itchy eyes [aallerg2] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | | | [anumalg2] | | | | | [awafch2] | [awafhay2] | | |
| c. A cold [aallerg3] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | | | [anumalg3] | | | | | [awafch3] | [awafhay3] | | |
| d. Sinusitis or sinus problems [aallerg4] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | | | [anumalg4] | | | | | [awafch4] | [awafhay4] | | |
| e. Flu [aallerg5] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | | | | |
| | | | [anumalg5] | | | | | | | | |
| f. Pneumonia [aallerg6] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | | | | |
| | | | [anumalg6] | | | | | | | | |

| 77. Have you ever taken the following types of aspirin or other pain medication (over-the-counter or prescription) for any reason <u>nearly every day for as long as a month</u> ? | A. | | B. IF YES: For how many years altogether have you taken this pain medicine <i>nearly every day</i> (not counting months or years when you stopped taking the medicine)? | | | | C. Do you currently take this medication daily (or nearly every day)? | |
|--|-----------------------|-----------------------|---|-----------------------|-----------------------|-----------------------|---|-----------------------|
| | No | Yes | Less than 1 year | 1-4 years | 5-9 years | 10 or more years | No | Yes |
| a. Aspirin or Buffered Aspirin (generic or any brand name, e.g. Anacin, Bayer, Bufferin, Midol) [amedic1] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | | | [amedcyr1] | | | | [amednow1] | |
| b. Advil, Nuprin, Motrin IB (ibuprofen) [amedic2] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | | | [amedcyr2] | | | | [amednow2] | |
| c. Prescription anti-inflammatory drugs like Motrin, Feldene, Voltarin, Clinoril, or Indocin [amedic3] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | | | [amedcyr3] | | | | [amednow3] | |
| d. Tylenol or acetaminophen or other aspirin-free pain relievers (cold or sinus medicine, Anacin-3, Dristan AF, Comtrex, etc.) [amedic4] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | | | [amedcyr4] | | | | [amednow4] | |
| e. BC, Goodys, Empirin, or ADC powders or tablets - BEFORE 1980 [amedic5] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | | | [amedcyr5] | | | | [amednow5] | |
| f. BC, Goodys, Empirin, or ADC powders or tablets - AFTER 1980 [amedic6] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | | | [amedcyr6] | | | | [amednow6] | |
| g. Excedrin or Vanquish [amedic7] | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | | | [amedcyr7] | | | | [amednow7] | |

| 78. Approximately how often during the last 12 months have you experienced the following? | Never | One a year | Once a month | Once a week | More than once a week |
|---|-------|------------|--------------|-------------|-----------------------|
| a. Dizziness [aphyco1] | ○ | ○ | ○ | ○ | ○ |
| b. Feeling tense, anxious, or nervous [aphyco2] | ○ | ○ | ○ | ○ | ○ |
| c. Nausea/vomiting [aphyco3] | ○ | ○ | ○ | ○ | ○ |
| d. Feeling tired, sleepy, or low energy most of the day [aphyco4] | ○ | ○ | ○ | ○ | ○ |
| e. Sweating a lot more than usual [aphyco5] | ○ | ○ | ○ | ○ | ○ |
| f. Difficulty seeing at night [aphyco6] | ○ | ○ | ○ | ○ | ○ |
| g. Being absentminded, forgetful, or confused [aphyco7] | ○ | ○ | ○ | ○ | ○ |
| h. Headache [aphyco8] | ○ | ○ | ○ | ○ | ○ |
| i. Loss of appetite [aphyco9] | ○ | ○ | ○ | ○ | ○ |
| j. Fast heart rate [aphyco10] | ○ | ○ | ○ | ○ | ○ |
| k. Difficulty with balance [aphyco11] | ○ | ○ | ○ | ○ | ○ |
| l. Blurred vision or double vision [aphyco12] | ○ | ○ | ○ | ○ | ○ |
| m. Difficulty concentrating [aphyco13] | ○ | ○ | ○ | ○ | ○ |
| n. Numbness or pins-and-needles in your hands or feet [aphyco14] | ○ | ○ | ○ | ○ | ○ |
| o. Momentary loss of consciousness [aphyco15] | ○ | ○ | ○ | ○ | ○ |
| p. Feeling excessively irritable or angry [aphyco16] | ○ | ○ | ○ | ○ | ○ |
| q. Shaking or trembling of your hands [aphyco17] | ○ | ○ | ○ | ○ | ○ |
| r. Difficulty falling asleep or staying asleep [aphyco18] | ○ | ○ | ○ | ○ | ○ |
| s. Difficulty speaking [aphyco19] | ○ | ○ | ○ | ○ | ○ |
| t. Weakness in your arms or legs [aphyco20] | ○ | ○ | ○ | ○ | ○ |
| u. Changes in your sense of smell or taste [aphyco21] | ○ | ○ | ○ | ○ | ○ |
| v. Feeling depressed, indifferent, or withdrawn [aphyco22] | ○ | ○ | ○ | ○ | ○ |
| w. Twitches, jerks, or involuntary movements of your arms or legs [aphyco23] | ○ | ○ | ○ | ○ | ○ |

79. **Do any of these symptoms seem to get worse after smelling chemical odors like those from paint, perfume, exhaust or new cars?** [awafcodr]
 No Yes
80. **Do you have shortness of breath when hurrying on level ground or walking up a slight hill?** [ashrtbrt]
 No Yes
81. **How many episodes of wheezing or whistling in your chest have you had in the past 12 months?** [awheezin]
 No wheezing or whistling
 1–2 episodes
 3–6 episodes
 7–12 episodes
 More than 12 episodes
82. **During the past 12 months, how many times have you gone to the hospital emergency room or doctor's office for an episode of wheezing or whistling?** [anumwhez]
 None
 1–2 visits
 3–6 visits
 7–12 visits
 More than 12 visits
83. **During which months of the year are your breathing problems most severe? (Please mark all that apply)**
- | | | | |
|---|-----------|----------------------------|------------|
| <input type="radio"/> No breathing problems | [abrpro1] | | |
| <input type="radio"/> All months | [abrpro2] | | |
| <input type="radio"/> Jan | [abrpro3] | <input type="radio"/> Jul | [abrpro9] |
| <input type="radio"/> Feb | [abrpro4] | <input type="radio"/> Aug | [abrpro10] |
| <input type="radio"/> Mar | [abrpro5] | <input type="radio"/> Sept | [abrpro11] |
| <input type="radio"/> Apr | [abrpro6] | <input type="radio"/> Oct | [abrpro12] |
| <input type="radio"/> May | [abrpro7] | <input type="radio"/> Nov | [abrpro13] |
| <input type="radio"/> Jun | [abrpro8] | <input type="radio"/> Dec | [abrpro14] |
84. **Has a doctor ever told you that you are legally blind in either eye?** [ablind]
 No [GO TO QUESTION 86] Yes
85. **How old were you when a doctor first told you that you were legally blind in either eye?** [ablindag]
 Younger than 20 years old
 20 to 39 years old
 40 to 59 years old
 60 years old or older
86. **Do you use glasses or contact lenses to correct nearsightedness (to help you see far away)?** [ashrtsgh]
 No [GO TO QUESTION 88] Yes
87. **How old were you when you began wearing glasses or contact lenses for nearsightedness?** [assghtag]
 Younger than 20 years old
 20 to 39 years old
 40 to 59 years old
 60 years old or older

88. Do you use glasses or contact lenses to correct farsightedness (to help you see close up)? [afarsght]
 No [GO TO QUESTION 90] Yes

89. How old were you when you began wearing glasses or contact lenses for farsightedness? [afsghtag]
 Younger than 20 years old
 20 to 39 years old
 40 to 69 years old
 70 years old and older

90. Please answer the following question, *whether or not you wear glasses or contact lenses.*

| <i>Without wearing glasses or contact lenses, can you see well enough to...</i> | No | Yes |
|--|-----------------------|-----------------------|
| a. Recognize a friend from across the street? [aseewel1] | <input type="radio"/> | <input type="radio"/> |
| b. Recognize a friend from across a room? [aseewel2] | <input type="radio"/> | <input type="radio"/> |
| c. Recognize a friend who is at arm's length away? [aseewel3] | <input type="radio"/> | <input type="radio"/> |
| d. Read ordinary newspaper print? [aseewel4] | <input type="radio"/> | <input type="radio"/> |
| e. Read large print such as newspaper headlines? [aseewel5] | <input type="radio"/> | <input type="radio"/> |

91. What is your sex? [agender]
 Female Male [COMPLETE PAGE 27]

[PLEASE COMPLETE PAGE 27,
 THEN GO TO FEMALE AND FAMILY HEALTH SECTION]

