

APPENDIX C

SAMPLE FORMS, INVESTIGATION TOOLS, AND TEMPLATES FOR DATA TABLES



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SAMPLE FORMS, INVESTIGATION TOOLS, AND TEMPLATES FOR DATA TABLES

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C.1 CASE TRACKING FORM AND CONTACT LOG

These two forms are examples of mechanisms that PPSPs can use to track the case follow-up process to ensure that all needed information is collected and that appropriate referrals and agency contacts are made. As noted in Chapter 5, the program should determine if it wants to log and track informational calls and/or reports that are screened out as unrelated to pesticide exposure. The tracking checklist form included here does not include informational calls but could be adapted to do so. The procedures used for any tracking system should be documented in a procedure manual. The contact log is a tool for recording names of individuals and the dates they were contacted as part of the follow-up investigation process. The comments should be supplemented with additional records of conversation pertinent to the investigation. The forms can be useful tools to review timeliness and completeness of the investigation process.

PESTICIDE CASE TRACKING CHECKLIST					
CASE ID NO. _____		EVENT ID NO. _____			
		DATE		INITIALS	COMMENTS (specify names)
1. Reported to HD and Logged					
2. Data Collection Form Started					
3. Other Agency/ies Notified <i>(Indicate Permission to refer? Y/N)</i>		DATE	PERMISSION		
	Ag				
	OSHA				
	Forestry				
	EPA				
4. Medical Records Requested		DATE			
5. Medical Records Received					
6. Case Report Written/Filed					
7. Memo Distributed (stamped medical/confidential)					
8. Other Agency Reports Received		DATE	PERMISSION		
	Ag				
	OSHA				
	Forestry				
	EPA				
9. Case Classification		DATE			
10. Case Data Entered into SPIDER					

[illegible]

C.2 MAIN PESTICIDE EXPOSURE QUESTIONNAIRE

INSTRUCTIONS

This is a sample questionnaire for use by an acute pesticide-related illness and injury surveillance program. It includes questions that satisfy the data requirements for all of the core variables needed by the National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention (CDC). Additional questions for administrative report management at the State level, as well as optional suggested questions, are included. Optional questions are indicated on the form by framing with a dashed border. The order of the questions is designed to provide ease of data collection as well as data entry using the SENSOR Pesticide Incident Data Entry and Reporting (SPIDER) data management software. Shading on pages 1-17 indicates data to be completed by the interviewer and not asked during the actual interview. Pages 18-21 are to be completed following the initial interview as additional medical information is collected and case closure is completed. States will need to customize this questionnaire for their specific needs. Some States may choose to develop separate questionnaires for agricultural, occupational, nonoccupational, physician, or non-English speaker interviews. The design presented here is not appropriate for interviewing non-English speaking farmworkers. An example of a Spanish language questionnaire specific to agriculture situations can be obtained from the California DHS SENSOR Pesticide Poisoning California (SPPC) Program (510-620-5757 or <http://www.dhs.ca.gov/ohb/AgInjury/>).

Pesticide Illness and Injury Surveillance Questionnaire

Case ID _____

Event ID _____

Interviewer Name _____

Interviewer ID _____

Today's date ____/____/____
(mm/dd/yy)

MAIN PESTICIDE EXPOSURE QUESTIONNAIRE

Hello. May I speak to Mr./Ms. _____ This is _____ with the _____ Department of Health. We recently received notification by _____ who you may have experienced a pesticide exposure. We try to keep track of persons in our State that have been exposed to pesticides, and what has happened to them. If you have a few moments, I would like to ask you some questions. The information you provide may help us prevent similar pesticide exposures in the future. Your participation is voluntary, and you may skip any questions you do not want to answer. Shall we begin? *(If the subject agrees, begin the interview. If the subject says he/she does not have time right now, try to schedule a time when you may call back. If the subject is unwilling to answer any questions, thank him/her for his/her time, hang up, and complete as much information as possible based on the original report.)*

Case Information Screen

First, I would just like to ask you a few questions about yourself.
(It is not necessary to ask these questions if you already have this information, although it is helpful to make sure the information is correct by reading the spelling of names and checking the address and phone number.)

1. What is your last name? _____

2. What is your first name? _____

3. What is your middle name? _____

3a. What is your Social Security Number? ____-____-____

4. What is your home address? _____

City _____ State ____ Zip _____

5. What is your home telephone number? (____) ____-____

6. What county do you live in? _____

7. Were you living in a different residence at time of exposure? ☐ Yes ☐ No

If the person answers yes, go to Number 8; if the person answers no, skip Number 8.

8. What was your home address at the time you were exposed? *(Enter in exposure incident screen if this was location where exposure occurred.)*

Address line 1 _____

Address line 2 _____

City _____

State ____ ZIP _____ County Name _____

FIPS code _____

Pesticide Illness and Injury Surveillance Questionnaire

Case ID _____

Event ID _____

9. Gender ☐ 1 Male ☐ 2 Female ☐ 8 Other ☐ 9 Unknown

10. What is your race? ☐ 1 Am Indian ☐ 2 Asian/Pacific Is. ☐ 3 Black ☐ 5 White
☐ 6 Mixed ☐ 8 Other ☐ 9 Unknown

11. Are you of Hispanic origin? ☐ 1 Yes ☐ 2 No ☐ 9 Unknown

12. Are you comfortable speaking in English for this interview? ☐ 1 Yes ☐ 2 No

If the person answers no, go to 12a.

12.a What is your preferred language? _____
(Interviewer, stop and arrange to call back with an interviewer in the preferred language if necessary.)

13. What is your birth date? ____ / ____ / ____ Estimated? ☐ Y ☐ N Basis _____
(mm/dd/yy)

Now I would like to ask you some questions about when you were exposed to pesticides.

Event Information Screen, Application/Release Event Narrative

14. Can you briefly describe the events leading up to your pesticide exposure?

Event Information Screen, Event Summary—Application Information

15. Where did the application (*or event such as a spill, transport accident, or fire*) that was associated with your exposure take place? (Interviewer, enter the code from the list below. Do not read options.)

☐☐

01 Farm (excluding, nursery, livestock, forest)	32 Farm product warehousing and storage
02 Nursery	33 Food manufacturing
03 Forest	39 Other manufacturing facility/industrial facility/warehouse facility
04 Livestock and other animal specialty production facility	40 Office/business (nonretail, nonindustrial)
05 Greenhouse	41 Retail establishment
09 Other agricultural processing facility	42 Service establishment
10 Single family home	43 Pet care services and veterinary facilities
11 Mobile home	50 Road/rail
12 Multiunit housing (apartments, multiplexes)	51 Road, rail, or utility right-of-way
13 Labor housing	52 Park
20 Residential institution (dorms, shelters)	54 Private vehicle
21 School	55 Public transportation vehicle
22 Day care facility (including in private residence)	59 Other
23 Prison	60 Emergency response vehicle
24 Hospital	70 More than one site
29 Other institution	98 Not applicable
30 Pesticide manufacturing/formulation facility	99 Unknown

Pesticide Illness and Injury Surveillance Questionnaire

Case ID _____

Event ID _____

16a. What was the intended target for the pesticide?

(Interviewer, mark only one from the list. Do not read options.)

- | | |
|--|--|
| <input type="checkbox"/> (060) Aquatic (pond, stream, lake, irrigation canal) | <input type="checkbox"/> (010) Landscape/ornamental |
| <input type="checkbox"/> (800) Bait for rodent, bird, or predator | <input type="checkbox"/> (550) Miscellaneous field crops |
| <input type="checkbox"/> (200) Beverage crops | <input type="checkbox"/> (600) Oil crops |
| <input type="checkbox"/> (041) Building structure (including crack and crevice treatment.) | <input type="checkbox"/> (850) Other (e.g., mixed crop and noncrop, mammal feeding and nesting areas, boats and docks) |
| <input type="checkbox"/> (042) Building surface | <input type="checkbox"/> (601) Seed treatment (application to seeds) |
| <input type="checkbox"/> (043) Building space treatment | <input type="checkbox"/> (070) Soil |
| <input type="checkbox"/> (530) Cereal grain crops (e.g., barley, corn, wheat, rice) | <input type="checkbox"/> (540) Sugar crops (e.g., sugar cane, sorghum) |
| <input type="checkbox"/> (650) Crops that cross categories 90–600 (general farming) | <input type="checkbox"/> (050) Undesired plant (the plant is the target pest) |
| <input type="checkbox"/> (801) Community-wide application target (go to 16b below) | <input type="checkbox"/> (400) Vegetable crops |
| <input type="checkbox"/> (501) Fiber crops (e.g., cotton) | <input type="checkbox"/> (410) Cucurbit vegetables (e.g., cucumbers) |
| <input type="checkbox"/> (300) Flavoring and spice crops | <input type="checkbox"/> (420) Fruiting vegetables (e.g., cantaloupe, melon, squash) |
| <input type="checkbox"/> (510) Forage, fodder hay, silage grasses, silage legumes, and related crops | <input type="checkbox"/> (430) Leafy vegetables (e.g., cabbage, celery, endive, lettuce) |
| <input type="checkbox"/> (020) Forest trees and forest lands | <input type="checkbox"/> (460) Other vegetables (e.g., broccoli, cauliflower, eggplant) |
| <input type="checkbox"/> (100) Fruit crops | <input type="checkbox"/> (440) Root and tuber vegetables (e.g., beets, carrots, onions) |
| <input type="checkbox"/> (110) Tree fruits | <input type="checkbox"/> (450) Seed and pod vegetables (e.g., beans, chick-peas, lentils, peanuts, peas, soybeans, sweet corn) |
| <input type="checkbox"/> (111) Citrus fruits (e.g., grapefruit, kumquat, lemon, oranges) | <input type="checkbox"/> (032) Veterinary/domestic animal |
| <input type="checkbox"/> (113) Pome fruits (e.g., apples, pears, quince, Japanese plum) | <input type="checkbox"/> (031) Veterinary/livestock |
| <input type="checkbox"/> (101) Small fruits (e.g., berries, currants, grapes) | <input type="checkbox"/> (080) Wood product (e.g., utility poles, decking, fencing, boardwalk, railroad ties, bulwarks, pilings) |
| <input type="checkbox"/> (114) Stone fruits (e.g., apricots, cherries, dates, mangoes, olives) | <input type="checkbox"/> (998) Not applicable, application not involved |
| <input type="checkbox"/> (120) Subtropical/other fruits (e.g., avocado, banana, coconuts) | <input type="checkbox"/> (999) Unknown |
| <input type="checkbox"/> (112) Tree nuts (e.g., almonds, hazelnuts, pecans) | |
| <input type="checkbox"/> (500) Grains, grasses, and fiber crops | |
| <input type="checkbox"/> (700) Human | |
| <input type="checkbox"/> (701) Human—skin/hair | |
| <input type="checkbox"/> (702) Human—clothing | |
| <input type="checkbox"/> (703) Human—skin/hair and clothing | |

If 16a is coded as community-wide application target 801, complete items 16b and 16c.

16b. What was the purpose of the community-wide application?

- | | |
|--|--|
| <input type="checkbox"/> 1 Agricultural pest eradication | <input type="checkbox"/> 2 Public health pest control or eradication |
| <input type="checkbox"/> 8 Not Applicable | <input type="checkbox"/> 9 Unknown |

Pesticide Illness and Injury Surveillance Questionnaire

Case ID _____

Event ID _____

16c. What was the specific target of the community-wide application? ☐ ☐ ☐

001	Mosquito (no disease specified)	103	Japanese beetle
002	West Nile virus	104	Imported fire ant (red or black)
003	St. Louis encephalitis	105	Asian longhorn beetle
004	Eastern equine encephalitis	106	Emerald ash borer
005	Western equine encephalitis	107	Grain fungal diseases (e.g., black stem rust)
006	La Crosse encephalitis	108	Grasshopper/Mormon cricket
007	Dengue fever	888	Default if State chooses not to code this variable
100	Boll weevil	996	Multiple pests
101	Gypsy moth (Asian or European)	998	Not applicable (APPTARGET not = 801)
102	Fruit fly (Mediterranean, Mexican, Oriental, olive, etc.)	999	Unknown

17. What type of equipment was used in this application? (Interviewer, mark only one from the list below. Do not read options.) ☐ ☐

01	Aerial application equipment	10	Trigger pump/compressed air
02	Chemigation	11	Ground sprayer
03	Pressurized can	12	Manual placement
04	Aerosol generator/fogger	13	Dip tank or tray
05	Soil injector	14	More than one type of equipment
06	High-pressure fumigator	15	Other
07	Hand-held granular/dust application	98	Not applicable
08	Spray line, hand-held	99	Unknown
09	Sprayer, backpack		

Event Information Screen, Location

18. What is the address where the **event** occurred that is associated with this exposure? This address is the site of the pesticide application, spill, or release (that is, field, orchard, business, institution, residence, or roadway). (For locations without specific addresses, include closest crossroad and distances. This may differ from a person's location at the time of exposure. For example, the exposed person might be located at a school and the actual event is a fire at a nearby pesticide storage facility. The event location is the pesticide storage facility.)

Address line 1 _____		
Address line 2 _____		
City _____		
State _____	ZIP _____	Latitude _____
County name _____ FIPS _____		Longitude _____

Pesticide Illness and Injury Surveillance Questionnaire

Case ID _____
Event ID _____

Next, I am going to ask you some questions about the pesticide products you were exposed to and how you were exposed.

Event Information Screen, Pesticide Products

Interviewer, complete the information below (complete as much of the information as possible for each chemical) by asking the following questions:

19. What is the name of the chemical that you were exposed to? If you were exposed to more than one chemical, please tell me the name of each one. (*Interviewer, record all information available including manufacturer and any modifiers on label, e.g., spray, dust, 4E.*)

EPA registration number/distributor number	Name	Form*	Poisoning attribution†
a. _____-_____/_____	_____ _____ _____	_____	<input type="checkbox"/>
b. _____-_____/_____	_____ _____ _____	_____	<input type="checkbox"/>
c. _____-_____/_____	_____ _____ _____	_____	<input type="checkbox"/>
d. _____-_____/_____	_____ _____ _____	_____	<input type="checkbox"/>
e. _____-_____/_____	_____ _____ _____	_____	<input type="checkbox"/>

*See form codes on next page.

†Check box if product is thought to have contributed to illness. Complete this column at time of case closure.

*Interviewer, if the EPA Registration Number is unknown, but the identity of active ingredient(s) is known, enter the most detailed product name available above and the active ingredients below. Information about products where only form and functional class are known, and information about carriers and inerts can be section labeled **Other Pesticide Information** (Item 21, page 7). If the EPA Registration Number is entered in the known, complete the EPA Registration Number and Product name, then skip to Item 22 **Chemical Agent Comments**, page 7.*

Pesticide Illness and Injury Surveillance Questionnaire

Case ID _____

Event ID _____

Event Information Screen, Pesticide Product—Active Ingredients and Other Sources

20. **Active Ingredient.** If product name is unknown but active ingredient is known, enter active ingredient here. (Code is auto entered in SPIDER; record only if using lookup file for entry into a nonautomated system.)

Active ingredient code	Name	Per - centage	Form*	Chemical class*	Functional class*	Poisoning attribution [†]
a.						<input type="checkbox"/>
b.						<input type="checkbox"/>
c.						<input type="checkbox"/>
d.						<input type="checkbox"/>

*Indicate the product form, chemical, and functional class from the tables below.

† Check box if product is thought to have contributed to illness. Complete this column at time of case closure.

NIOSH form codes		
01	Dust/powder (not pressurized)	10 Flowable concentrate
02	Granular/ flake	11 Pressurized liquid/spray/fogger
03	Pellet/tablet/cake/briquette	12 Ready-to-use liquid/solution
04	Wettable powder/dust	13 Other liquid formulation
05	Impregnated material (ant/plant stakes, animal collars, water filters)	14 Pressurized gas/fumigant
06	Other dry formulation	15 Paint/liquid coating
07	Microencapsulated	16 Other
08	Emulsifiable concentrate	17 Soluble powder
09	Soluble concentrate	18 Liquid concentrate
		99 Unknown

Chemical class codes	Functional class codes
01 Organochlorine compound	01 Insecticide (excluding solely IGR and fumigants)
02 Organophosphorous compound	02 Insect growth regulator (IGR)
03 N-methyl carbamates	03 Herbicide/algicide
04 Pyrethrin	04 Fungicide
05 Pyrethroid	05 Fumigant
06 Dipyridyl compound	06 Rodenticide
07 Chlorophenoxy compound	07 Disinfectant/broad spectrum for water sanitation
08 Triazines	08 Insect repellent
09 Carbamates (non-AChE inhibitors)	09 Antifouling agent (marine paints)
10 Organo-metallic compound	10 Insecticide and herbicide (01 & 03)
11 Inorganic compounds	11 Insecticide and fungicide (01 & 04)
12 Coumarins	12 Insecticide and herbicide and fungicide (01, 03, & 04)
13 Indandiones	13 Insecticide and other (01 & 96)
14 Convulsants	14 Herbicide and fungicide (03 & 04)
15 Microbial	96 Other (includes biological controls, plant growth regulators, antibiotics, etc.)
16 Dithiocarbamates	97 Multiple (product is classified as multiple classes which do not fit in any of the codes specified in codes 10–14)
95 Unidentified cholinesterase inhibitor	99 Unknown
97 Multiple (PC Code indicates a code for a combination of active ingredients that cross chemical classes)	
99 Unknown	

Pesticide Illness and Injury Surveillance Questionnaire

Case ID _____

Event ID _____

21. Other Pesticide Information. If neither product nor active ingredient is known. Enter a description of the other pesticide, e.g., “Some kind of spray from a highway truck”; “unspecified Black Flag wasp spray”; “unlabeled spray can.” This area can also be used to record information about carriers and inerts at the State level.

Other ID	Description of other source	Chemical class*	Form*	Functional class*	Poisoning attribution†
a.					<input type="checkbox"/>
b.					<input type="checkbox"/>
c.					<input type="checkbox"/>

* Indicate the product form, chemical, and functional class from the tables above.

† Check box if product is thought to have contributed to illness. Complete this column at time of case closure.

22. Event Information, Comments—Chemical Agent Comments

(Note additional information about pesticide products and adjuvants.)

Interviewer, complete this section after completing interview. All ID numbers are assigned by SPIDER upon data entry. Data entry clerk should enter ID numbers onto form.

Event ID _____	Event descriptor _____ (Maximum 30 character name for event)
<p>23. Was the pesticide applied by a licensed applicator? (Indicate the level of applicator supervision. This may require interviewing affected person, employer, or contract applicator to determine response.)</p> <p><input type="checkbox"/> (1)Licensed applicator</p> <p><input type="checkbox"/> (2)Licensed trainee, direct supervision</p> <p><input type="checkbox"/> (3)Unlicensed, intermittent supervision</p> <p><input type="checkbox"/> (4)Unlicensed</p> <p><input type="checkbox"/> (8)Not applicable</p> <p><input type="checkbox"/> (9)Unknown</p>	<p>24. Is there evidence indicating that the label directions were <u>not</u> followed?</p> <p><input type="checkbox"/> (1)Yes, there is evidence that label directions were not followed.</p> <p><input type="checkbox"/> (2)No, no evidence of label directions not being followed.</p> <p><input type="checkbox"/> (8)Not applicable.</p> <p><input type="checkbox"/> (9)Unknown.</p>

Pesticide Illness and Injury Surveillance Questionnaire

Case ID _____

Event ID _____

Exposure Information Screen, Incident Information

Incident report information. Interviewer, complete Items 25–28 prior to interview. All ID numbers assigned by SPIDER on data entry. Data entry clerk, enter onto form here.

Exposure ID _____	25. Report date ____ / ____ / _____
Case ID _____	Event ID _____

26. Report source 1 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	27. Report source 2 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	28. Report source 3 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
--	--	--

Use codes for sources below. Note that an additional character can be added for State-specific codes under each category, (e.g., listing specific poison control centers in the State by using codes 020-029 or 02A – 02Z).

Source Code	Description
01	Physician report
02	Poison control center
03	Other health care provider report (including emergency room or hospital report)
04	Laboratory report
05	Death certificate or medical examiner's report
06	Report or referral from governmental agency
07	Obituary/news report
08	Ascertainment through Worker's Compensation
09	Self-report
10	Co-worker report
11	Friend or relative report
12	Identified during site visit
13	Worker representative (e.g., union, lawyer/legal services/other advocate)
14	Medical record review (clinic or hospital record review performed by surveillance staff)
97	State Department of Health
98	Other (not captured in any code category listed)
99	Unknown

29. Where were you when the exposure took place? (Interviewer, enter from the list below. Do not read options, but base entry upon verbal response.) ☐ ☐ ☐

01 Farm (excluding, nursery, livestock, forest)	32 Farm product warehousing and storage
02 Nursery	33 Food manufacturing
03 Forest	39 Other manufacturing facility/industrial facility/warehouse facility
04 Livestock and other animal specialty production facility	40 Office/business (nonretail, nonindustrial)
05 Greenhouse	41 Retail establishment
09 Other agricultural processing facility	42 Service establishment
10 Single family home	43 Pet care services and veterinary facilities
11 Mobile home	50 Road/rail
12 Multiunit housing (apartments, multiplexes)	51 Road, rail, or utility right-of-way
13 Labor housing	52 Park
20 Residential institution (dorms, shelters)	54 Private vehicle
21 School	55 Public transportation vehicle
22 Day care facility (including in private residence)	59 Other
23 Prison	60 Emergency response vehicle
24 Hospital	70 More than one site
29 Other institution	98 Not applicable
30 Pesticide manufacturing/formulation facility	99 Unknown

Pesticide Illness and Injury Surveillance Questionnaire

Case ID _____

Event ID _____

30. What is the address for the location where you were exposed? (*This may be the same as the case address or the event address.*)

Address 1 _____	
Address 2 _____	
City _____	
State ____	ZIP _____
Latitude _____	Longitude _____
County name _____	FIPS _____

31. What were you doing when you were exposed? (*Interviewer, determine appropriate code for the response; do not read from the list of coded options. Check one only.*)

- ☐ (01) Applying pesticide
- ☐ (02) Mixing/loading pesticide
- ☐ (03) Transport or disposal of pesticide
- ☐ (04) Repair or maintenance of pesticide application equipment
- ☐ (05) Any combination of activities 01–04
- ☐ (06) Involved in manufacture or formulation of pesticide
- ☐ (07) Emergency response
- ☐ (08) Routine work activities not involved with pesticide application (includes exposure to field residue)
- ☐ (09) Routine indoor living activities not involved with pesticide application
- ☐ (10) Routine outdoor living activities not involved with pesticide application
- ☐ (98) Not applicable
- ☐ (99) Unknown

32. Were other people possibly exposed? ☐ (1) Yes ☐ (2) No ☐ (9) Unknown

If yes, continue with 32a and 32b.

32a. How many _____

32b. Did any seek medical care? ☐ (1) Yes ☐ (2) No ☐ (9) Unknown

Use a separate sheet of paper to record names and contact information, if appropriate.

Pesticide Illness and Injury Surveillance Questionnaire

Case ID _____

Event ID _____

33. Please describe the exposure to me, especially anything we haven't yet discussed. I may ask you some more detailed questions about what you describe as we proceed with the interview.

34. When you were exposed to the pesticide, did you seek any type of medical care?

☐ (2) No
☐ (9) Unknown

☐ (1) Yes

Go to item 44a on page 11.

Complete items 35–43.

35. Where did you receive your initial medical care after the exposure?

- | | |
|--|---|
| <input type="checkbox"/> (1) Physician office/clinic visit | <input type="checkbox"/> (5) No medical care sought |
| <input type="checkbox"/> (2) Emergency room | <input type="checkbox"/> (6) Other |
| <input type="checkbox"/> (3) Hospital admission | <input type="checkbox"/> (9) Unknown |
| <input type="checkbox"/> (4) Advice from the poison control center | |

36. When did you first receive medical care? ____ / ____ / ____
(mm/dd/yy)

37. What is the name of the health care professional (HCP) you saw?

Last name _____
First name _____

38. What is their address?

	<u>Chart location</u>	<u>Work location</u>
Address 1	_____	_____
Address 2	_____	_____
City	_____	_____
State	_____	_____
Zip	_____	_____
Phone	(_____) _____ - _____	(_____) _____ - _____

Pesticide Illness and Injury Surveillance Questionnaire

Case ID _____

Event ID _____

39. Did you have a test for pesticides in your blood or urine?

☐ (2) No

☐ (9) Unknown

☐ (1) Yes

Interviewer, obtain medical record to complete tables on pages 18-19.

Go to item 41.

40. Did you have a cholinesterase test, which requires that blood be drawn?

☐ (2) No

☐ (1) Yes

☐ (9) Unknown

If yes, complete tables on pages 18-19 from the medical record.

41. Were you admitted to the hospital due to the pesticide exposure? ☐ (2) No ☐ (1) Yes ☐ (9) Unknown

If No or Unknown, go to item 44a.

42. Facility where hospitalized _____

Address _____

Treating physician _____

43. How many days did you stay in the hospital? _____

(Enter code number of days: 997 if ≥ 996 days, 998=NA, not hospitalized 999=Unknown or 999 if unknown.)

44a. Did you spend one or more days away from work due to the pesticide exposure?

☐ (1) Yes

☐ (2) No

☐ (9) Unknown

44b. How many days were you away from work? _____

Go to item 44c

Pesticide Illness and Injury Surveillance Questionnaire

Case ID _____

Event ID _____

44c. If not employed, did you spend one or more days away from school or regular activities?

☐ (1) Yes ☐ (2) No ☐ (9) Unknown

44d. How many days were you away from school or regular activities? _____

45. Do you have any of the following medical conditions that were not due to this exposure?

Condition (Check all that apply.)	Describe	(Interviewer, complete after interview.) Medical history (from HCP interview or medical records)	Final code*
___ a. Pregnancy			
___ b. Asthma			
___ c. Allergies			
___ d. Multiple chemical sensitivity (acquired chemical intolerance)			
___ e. Any other medical condition you are seeing a doctor for			

*Use the following codes for Final code after completion of interview and medical record review

1=Doctor reported

2=Exposed person reported

3=Both doctor and person reported

4=Condition was absent

5=Not reported

9=Unknown

Interviewer, was response to question 31 on page 9 in the range of 01-08?

YES—proceed to question 46.

NO—skip to question 63 on page 14.

Exposure Information Screen, Occupational Information, PPE Use

46. Did the pesticide exposure occur while you were working?

☐ (1) Yes

☐ (2) Possibly

☐ (3) No

☐ (4) Unknown

☐ (5) Not Applicable



Go to Item 54 on page 13.

Now I am going to ask you some questions about your employer **at the time you were exposed to pesticides**. (If necessary, reassure the subject that you are not associated with OSHA.)

Pesticide Illness and Injury Surveillance Questionnaire

Case ID _____

Event ID _____

47. What is your employer's name? _____

48. What is your employer's address (or your work address if self-employed)?

Street Address _____

City _____ State ____ Zip code ____

49. What was your occupation/job title when you were injured/exposed? _____

50. What type of work was being done at your place of employment at time of injury/exposure?

Is this individual an agricultural worker or pesticide handler?

YES—Complete item 51a.

NO—Proceed to item 54.

51a. Did this incident involve entering a treated area (including field or greenhouse)?

☐ (2) No

☐ (1) Yes

☐ (9) Unknown

If yes, ask 51b. Did your employer/crew leader tell you how soon you could go into the area after it was treated?

☐ (2) No

☐ (1) Yes

☐ (9) Unknown

To be completed by the interviewer after interview.

52. Bureau of Census code for occupation of exposed worker _____
Occ code

53. Bureau of Census code for industry or North American Industry Classification System (NAICS)
_____ or _____ (Note that Census codes are preferred.)
Indcic Indsic

54. Were you wearing any personal protective equipment?

☐ (2) No

☐ (1) Yes

☐ (9) Unknown

Go to item 63



Go to items 55-61

Pesticide Illness and Injury Surveillance Questionnaire

Case ID _____

Event ID _____

55. Were you wearing
- a. a supplied air respirator?
- ☐ (1) Yes ☐ (2) No ☐ (9) Unknown
- b. half/full face, PAPR?
- ☐ (1) Yes ☐ (2) No ☐ (9) Unknown
56. rubber/chemically resistant boots?
- ☐ (1) Yes ☐ (2) No ☐ (9) Unknown
57. cloth or leather gloves?
- ☐ (1) Yes ☐ (2) No ☐ (9) Unknown
58. rubber or synthetic gloves?
- ☐ (1) Yes ☐ (2) No ☐ (9) Unknown
59. chemical goggles/face shield?
- ☐ (1) Yes ☐ (2) No ☐ (9) Unknown
60. chemically resistant clothing? (rubber apron, tyvek, rain gear)
- ☐ (1) Yes ☐ (2) No ☐ (9) Unknown
61. Were you using engineering controls?
(e.g., closed mixing/loading system)
- ☐ (1) Yes ☐ (2) No ☐ (9) Unknown

62. Interviewer, complete after interview. Indicate the level of PPE used and required for this individual according to the product label.

- | | |
|---|--|
| <input type="checkbox"/> (1) Used (all or some of PPE required) | <input type="checkbox"/> (5) Not used (unknown requirements) |
| <input type="checkbox"/> (2) Used (not required) | <input type="checkbox"/> (6) Not used (not required) |
| <input type="checkbox"/> (3) Used (unknown requirements) | <input type="checkbox"/> (8) Not applicable |
| <input type="checkbox"/> (4) Not used (some PPE required) | <input type="checkbox"/> (9) Unknown |

63. What was the date and approximate time that your exposure to the pesticide(s) first started?

Date* ____/____/____ Time ____: ____ Use 24-hour clock
(mm/dd/yy)

* At least one of the following dates must be entered: first exposure, symptom onset, or laboratory test (see pages 18-19).

Pesticide Illness and Injury Surveillance Questionnaire

Case ID _____

Event ID _____

64. What was the date and approximate time that you first started to experience symptoms?

Date ____/____/____ Time ____: ____ Use 24-hour clock
(mm/dd/yy)

65. What was the date and approximate time that your exposure to the pesticide(s) ended?

Date ____/____/____ Time ____: ____ Use 24-hour clock
(mm/dd/yy)

Signs/Symptoms

66. Next I'd like you to describe your symptoms. (Interviewer, fill in "Doctor reported" column based on medical records or HCP interview. Final code column should be completed prior to data entry. Codes are listed following the table on page 17.)

Check all signs or symptoms described or stated as absent (items in italics should be taken from HCP interview or medical record only).

System	Sign/symptom	Patient reported	Doctor reported	Absent	Final code
General	<i>Acidosis</i>				
	<i>Alkalosis</i>				
	Fatigue/malaise				
	Fever				
	<i>Increased anion gap</i>				
	Other _____ _____				
Cardiovascular	<i>Bradycardia</i>				
	<i>Cardiac arrest</i>				
	Chest pain				
	<i>Conduction disturbance</i>				
	<i>Hypertension</i>				
	<i>Hypotension</i>				
	<i>Palpitations</i>				
	<i>Tachycardia</i>				
	Other _____ _____				
Renal	Frequent urination				
	Hematuria				
	<i>Oliguria/anuria</i>				
	<i>Proteinuria</i>				
	Other _____ _____				
Neurological	Altered taste				
	Anxiety/hyperactivity/irritability				
	Ataxia/trouble walking				
	Blurred vision				

Pesticide Illness and Injury Surveillance Questionnaire

Case ID _____

Event ID _____

System	Sign/symptom	Patient reported	Doctor reported	Absent	Final code
Neurological (continued)	Coma				
	Confusion				
	Diaphoresis (profuse sweating)				
	Dizziness				
	Fainting				
	Fasciculations				
	Headache				
	Memory loss				
	Muscle pain				
	<i>Muscle rigidity</i>				
	Muscle weakness				
	Paralysis				
	Paresthesias/tingling or numbness				
	Peripheral neuropathy				
	Salivation				
	Seizure				
	Slurred speech				
	Other _____				

Gastrointestinal	Anorexia (loss of appetite)				
	Constipation				
	Diarrhea				
	GI bleeding (blood in stool or vomit)				
	Nausea				
	Pain				
	Vomiting				
	Other _____				
Eye	<i>Burns</i>				
	<i>Conjunctivitis (diagnosis)</i>				
	<i>Corneal abrasion</i>				
	<i>Miosis</i>				
	<i>Mydriasis</i>				
	Pain/irritation/inflammation				
	Tearing/lacrimation				
	Other _____				

Pesticide Illness and Injury Surveillance Questionnaire

Case ID _____

Event ID _____

System	Sign/symptom	Patient reported	Doctor reported	Absent	Final code
Dermal	Blisters/ <i>bullae</i>				
	Burns				
	Edema/swelling				
	Hives				
	Pain				
	Pruritis (itching)				
	Pattern* of rash or lesions				
	Rash				
	Redness				
	Other _____				

Respiratory	<i>Asthma (diagnosis of)</i>				
	Cough				
	<i>Cyanosis</i>				
	Depression				
	Dyspnea				
	LR Irritation				
	Pleural pain				
	<i>Pulmonary edema</i>				
	Tachypnea				
	UR irritation				
	Wheezing				
	Other _____				

*Coding for pattern of dermal lesions

1=Corresponds well with physical pattern of exposure

2=Discrete patches of lesions do not correspond with the pattern of exposure

3=Generalized distribution of lesions on the body

4=Absent

9=Unknown

Complete final code column prior to data entry.

Final Code for All Fields 1=Doctor reported 2=Exposed person reported 3=Both Dr. and person reported
9=Unknown

Pesticide Illness and Injury Surveillance Questionnaire

Case ID _____

Event ID _____

Exposure Information Screen, Narrative

Health Comments _____

Ending Statement

This concludes the interview. The information you have given us is very important. We appreciate your willingness to take time to answer all of our questions. Do you have any questions at this time? (Interviewer, provide the caller with your name and phone number and information about any additional contacts or actions that will result from the interview.)

The following section should be completed after reviewing medical records or interviewing the attending HCP. Also, go to pages 15-17 to update signs and symptoms based on the medical records/HCP interview, if this section is not pertinent. Make sure diagnosis, outcome, and any notes are entered on page 19.

Exposure Information Screen, Medical Staff

Medical ID _____

Enter one Medical ID for each medical person involved in the case. In SPIDER, use F2 to select from pick list. If not on pick list, see Item 37 on Page 10 and enter on Medical Staff screen the full medical staff information.

Interviewer, complete this section and shaded columns on the table for Item 45 on page 12, based on interview with HCP or review of medical records.

Non-Cholinesterase Chemical-Specific Biological Test for Pesticides or Metabolites

Were any non-cholinesterase biological tests done for pesticides in blood, urine, or hair?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <i>If yes, complete table if part of State protocol</i>	
	Test 1	Test 2	
Test type			
Sample date	___/___/___	___/___/___	
Numeric result			
Analysis result	<input type="checkbox"/> Abnormal <input type="checkbox"/> Normal <input type="checkbox"/> Not applicable <input type="checkbox"/> Unknown	<input type="checkbox"/> Abnormal <input type="checkbox"/> Normal <input type="checkbox"/> Not applicable <input type="checkbox"/> Unknown	

Pesticide Illness and Injury Surveillance Questionnaire

Case ID _____

Event ID _____

Was a cholinesterase test(s) performed? (Ask only if exposure involved an organophosphate or N-methyl carbamate pesticide.) ☐ (1) Yes ☐ (2) No ☐ (9) Unknown

(If yes, complete table of results below.)

Coding Guidance for Completing Table of Results Below

Option 1: Detailed version—complete all.

Option 2: Required minimum—enter a single response for *Test Type* and *Result Type*, the only required fields.

PFI Lab code from lab pick list or enter lab name							
Test type codes	1=RBC		2=Plasma		3=Both RBC and Plasma		4=Not done
	5=Either RBC or Plasma		8=Not applicable		9=Unknown		
Result type codes	1=Abnormal compared to lab			2=Abnormal compared to baseline			
	3=Normal compared to lab			4=Normal compared to baseline			
	7=Bad specimen			8=Not applicable			
				9=Unknown			
PFI	Lab name	Test type	Test date	Numeric result	Result type	Lab low	Lab high
			___/___/___				
			___/___/___				
			___/___/___				
			___/___/___				
			___/___/___				

[] Diagnosis made by HCP	Outcome
<p>Diagnosis _____</p> <p>_____</p> <p>ICD-9 _____ . _____</p> <p>Summary _____</p> <p>_____</p>	<p><input type="checkbox"/> (1) Fatal, pesticide-related</p> <p><input type="checkbox"/> (2) Fatal, not pesticide-related</p> <p><input type="checkbox"/> (3) Fatal, relation unknown</p> <p><input type="checkbox"/> (8) Not applicable (not fatal)</p>

Notes _____

Pesticide Illness and Injury Surveillance Questionnaire

Case ID _____

Event ID _____

Interviewer, review the form for completeness and complete the following sections:

- Pages 4 – 7 Check to determine if other interviews are needed to complete questions 18–22.
- Pages 5 – 7 Any necessary chemical product coding.
- Page 7 Event descriptor, items 23 and 24.
- Page 12 Item 45 enter shaded columns: pre-existing conditions from medical professional interview or medical record review and complete final code for medical conditions.
- Page 13 Items 52 and 53.
- Page 14 Item 62.
- Pages 15 –17 Make sure all signs and symptoms are entered from medical professional interview or medical record review and complete final code column.

Indicate your assessment of how the individual came into contact with the pesticide. (*Check all that apply; bolding indicates variable label in SPIDER.*)

- ☐ **Drift**
- ☐ Direct **spray**
- ☐ **Indoor air** contamination
- ☐ Contact with treated **surface** (plant material, carpets, treated animal)
- ☐ Direct **contact** (spill, leaking container or equipment, floodwaters, emergency response)
- ☐ **Other**
- ☐ **Unknown**

Indicate the route(s) of exposure. (*Check all that apply.*)

- | | |
|-------------------------------------|------------------------------------|
| <input type="checkbox"/> Dermal | <input type="checkbox"/> Injection |
| <input type="checkbox"/> Inhalation | <input type="checkbox"/> Ocular |
| <input type="checkbox"/> Ingestion | <input type="checkbox"/> Unknown |

Indicate if the exposure was intentional.

- ☐ 1=Yes, suspected intentional ☐ 2=No, unintentional ☐ 9=Unknown

Pesticide Illness and Injury Surveillance Questionnaire

Case ID _____

Event ID _____

The remaining sections are to be completed by the interviewer following standard case classification procedures

Severity <input style="width: 30px; height: 20px;" type="checkbox"/> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> 1 = Fatal 2 = High 3 = Moderate 4 = Low 8 = Evaluated, Not applicable </div>		
A. Documentation of Exposure <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <i>(Put a number in the first box and letter in the second box if appropriate.)</i> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="width: 24%;"> 1 - Confirmed by 2 - Reported by 3 - Strong evidence of no exposure 4 - Insufficient data </div> <div style="width: 24%;"> a-envir/bio testing a-case d-nonprofessional observation </div> <div style="width: 24%;"> b-professional observation b-witness e. 2+ findings by medical staff </div> <div style="width: 24%;"> c-biological evidence c-application records e-other </div> </div>		
B. Documentation of Health Effect <input style="width: 30px; height: 20px;" type="checkbox"/> 1 - 2+ findings by medical staff 2 - 2+ abnormal symptoms 3 - No post exposure findings 4 - Insufficient Data		
C. Evaluation of Causal Relationship <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <i>(Put a number in first box and letter in second box if first box is 1.)</i> <div style="margin-top: 5px;"> 1 - Fits known toxicology a-characteristic (Appendix 2 of case classification) and temporal relationship is plausible b-consistent with literature and known toxicology 2 - Inconsistent with known toxicology 3 - Definitely ruled out (evidence of non-pesticide causal agent) 4 - Insufficient toxicologic information available </div>		
NIOSH Classification <input style="width: 30px; height: 20px;" type="checkbox"/> Classification categories	Alternate Classification <input style="width: 30px; height: 20px;" type="checkbox"/> <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> 1=Definite 2=Probable 3=Possible 4=Suspicious </div> <div style="width: 48%;"> 5=Unlikely 6=Insufficient Information 7=Exposed/Asymptomatic 8=Unrelated </div> </div>	

Exposure Information Screen–Poisoning Attribution

Return to pages 5 through 7 to determine if illness is attributable to products, active ingredients, or substances listed there.

C.3 PESTICIDE ILLNESS AND INJURY SURVEILLANCE DATA COLLECTION FORM

INSTRUCTIONS

This is a sample data collection form for use by an acute pesticide-related illness and injury surveillance program. This form is for States that choose not to use a standard questionnaire but collect data via an open-ended interview. The form includes fields that satisfy data requirements for all of the core variables needed by the National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention (CDC). Fields needed for administrative report management at the State level, as well as optional suggested variables are also included. Optional items are indicated on the form by framing with a dotted-line border. The order of the fields is designed to provide ease of data collection as well as data entry using the SENSOR Pesticide Incident Data Entry and Reporting (SPIDER) data management software. Shading indicates items that are to be completed by the interviewer and not asked during the actual exposed individual or attending health care professional (HCP) interview. The form contains fields for information that may be collected from the exposed individual, and additional medical and pesticide product information collected from record reviews or additional interviews. States will need to customize this data collection form for their specific needs.

PESTICIDE ILLNESS AND INJURY SURVEILLANCE DATA COLLECTION FORM

Case ID _____ Event ID _____

Case Information

Social Security Number _____	
Name	
Last _____	First _____ Initial _____
DOB ____/____/____ MM DD YYYY	Estimated? <input type="checkbox"/> Y <input type="checkbox"/> N Basis _____
DOD ____/____/____ MM DD YYYY	
Current residence information	
Address Line 1 _____	
Address Line 2 _____	
City _____	
State ____	Zip ____ County _____
Phone (____) _____	
Residence at time of exposure if different from above. <i>(Enter in exposure incident screen if this was location where exposure occurred.)</i>	
Address Line 1 _____	
Address Line 2 _____	
City _____	
State ____	Zip ____
County _____	FIPS _____

Sex	<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Other <input type="checkbox"/> Unknown
Race	<input type="checkbox"/> 1 Am Indian <input type="checkbox"/> 2 Asian/Pacific Is. <input type="checkbox"/> 3 Black <input type="checkbox"/> 5 White <input type="checkbox"/> 6 Mixed <input type="checkbox"/> 8 Other <input type="checkbox"/> 9 Unknown
Hispanic	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Speaks English? <input type="checkbox"/> Yes <input type="checkbox"/> No	

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Event Information Screen—Event Summary—Application Information

(Complete after interview.)

Event ID _____	Event date ____/____/____	County _____
Event descriptor _____ <small>(Maximum 30-character name for event.)</small>		
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Licensed applicator <input type="checkbox"/> <i>(Use code to indicate level of applicator supervision.)</i> 1=Licensed applicator 2=Licensed trainee, direct supervision 3=Unlicensed, intermittent supervision 4=Unlicensed 8=Not applicable 9=Unknown </div> <div style="width: 45%;"> Label/use <input type="checkbox"/> <i>(Use code to indicate if evidence indicates that the label directions were <u>not</u> followed.)</i> 1=Yes, there was evidence that label directions were not followed. 2=No, no evidence of label directions not being followed. 8=Not applicable 9=Unknown </div> </div>		

Application site <input type="checkbox"/> <input type="checkbox"/> (Enter code)			
01	Farm (excluding, nursery, livestock, forest)	32	Farm product warehousing and storage
02	Nursery	33	Food manufacturing
03	Forest	39	Other manufacturing facility/industrial facility/warehouse facility
04	Livestock and other animal specialty production facility	40	Office/business (non-retail, non-industrial)
05	Greenhouse	41	Retail establishment
09	Other nonproduction agricultural facility	42	Service establishment
10	Single family home	43	Pet care services and veterinary facilities
11	Mobile home	50	Road/rail
12	Multi-unit housing (apartments, multiplexes)	51	Road, rail, or utility right-of-way
13	Labor housing	52	Park
20	Residential institution (dorms, shelters)	54	Private vehicle
21	School	55	Public transportation vehicle
22	Day care facility (incl. in private residence)	59	Other
23	Prison	60	Emergency response vehicle
24	Hospital	70	More than one site
29	Other institution	98	Not applicable
30	Pesticide manufacturing/formulation facility	99	Unknown

Application equipment <input type="checkbox"/> <input type="checkbox"/> (Enter code)			
01	Aerial application equipment	10	Trigger pump/compressed air
02	Chemigation	11	Ground sprayer
03	Pressurized can	12	Manual placement
04	Aerosol generator/fogger	13	Dip tank or tray
05	Soil injector	14	More than one type of equipment
06	High-pressure fumigator	15	Other
07	Hand-held granular/dust application	98	Not applicable
08	Spray line, hand-held	99	Unknown
09	Sprayer, backpack		

Application Target (mark one)

- | | |
|--|--|
| <p><input type="checkbox"/> (060) Aquatic (pond, stream, lake, irrigation canal)</p> <p><input type="checkbox"/> (800) Bait for rodent, bird or predator</p> <p><input type="checkbox"/> (200) Beverage crops</p> <p><input type="checkbox"/> (041) Building structure (including crack and crevice treatment.)</p> <p><input type="checkbox"/> (042) Building surface</p> <p><input type="checkbox"/> (043) Building space treatment</p> <p><input type="checkbox"/> (530) Cereal grain crops (e.g., barley, corn, wheat, rice)</p> <p><input type="checkbox"/> (650) Crops that cross categories 90–600 (general farming)</p> <p><input type="checkbox"/> (801) Community-wide application target</p> <p><input type="checkbox"/> (501) Fiber crops (e.g., cotton)</p> <p><input type="checkbox"/> (300) Flavoring and spice crops</p> <p><input type="checkbox"/> (510) Forage, fodder hay, silage grasses, silage legumes, and related crops</p> <p><input type="checkbox"/> (020) Forest trees and forest lands</p> <p><input type="checkbox"/> (100) Fruit crops</p> <p style="padding-left: 20px;"><input type="checkbox"/> (110) Tree fruits</p> <p style="padding-left: 40px;"><input type="checkbox"/> (111) Citrus fruits (e.g., grapefruit, kumquat, lemon, oranges)</p> <p style="padding-left: 40px;"><input type="checkbox"/> (113) Pome fruits (e.g., apples, pears, quince, Japanese plum)</p> <p style="padding-left: 40px;"><input type="checkbox"/> (101) Small fruits (e.g., berries, currants, grapes)</p> <p style="padding-left: 40px;"><input type="checkbox"/> (114) Stone fruits (e.g., apricots, cherries, dates, mangoes, olives)</p> <p style="padding-left: 20px;"><input type="checkbox"/> (120) Subtropical/ other fruits (e.g., avocado, banana, coconut)</p> <p style="padding-left: 20px;"><input type="checkbox"/> (112) Tree nuts (e.g., almonds, hazelnuts, pecans)</p> <p><input type="checkbox"/> (500) Grains, grasses, and fiber crops</p> <p><input type="checkbox"/> (700) Human</p> <p><input type="checkbox"/> (701) Human—skin/hair</p> <p style="padding-left: 20px;"><input type="checkbox"/> (702) Human—clothing</p> <p style="padding-left: 20px;"><input type="checkbox"/> (703) Human—skin/hair and clothing</p> | <p><input type="checkbox"/> (010) Landscape/ornamental</p> <p><input type="checkbox"/> (550) Miscellaneous field crops</p> <p><input type="checkbox"/> (600) Oil crops</p> <p><input type="checkbox"/> (850) Other (e.g., mixed crop and noncrop, mammal feeding and nesting areas, boats and docks)</p> <p><input type="checkbox"/> (601) Seed treatment (application to seeds)</p> <p><input type="checkbox"/> (070) Soil</p> <p><input type="checkbox"/> (540) Sugar crops (e.g., sugar cane, sorghum)</p> <p><input type="checkbox"/> (050) Undesired plant (the plant is the target pest)</p> <p><input type="checkbox"/> (400) Vegetable crops</p> <p style="padding-left: 20px;"><input type="checkbox"/> (410) Curcubit vegetables (e.g., cucumbers)</p> <p style="padding-left: 20px;"><input type="checkbox"/> (420) Fruiting vegetables (e.g., cantaloupe, melon, squash)</p> <p style="padding-left: 20px;"><input type="checkbox"/> (430) Leafy vegetables (e.g., cabbage, celery, endive, lettuce)</p> <p style="padding-left: 20px;"><input type="checkbox"/> (460) Other vegetables (e.g., broccoli, cauliflower, eggplant)</p> <p style="padding-left: 20px;"><input type="checkbox"/> (440) Root and tuber vegetables (e.g., beets, carrots, onions)</p> <p style="padding-left: 20px;"><input type="checkbox"/> (450) Seed and pod vegetables (e.g., beans, chick-peas, lentils, peanuts, peas, soybeans, sweet corn)</p> <p><input type="checkbox"/> (032) Veterinary/domestic animal</p> <p><input type="checkbox"/> (031) Veterinary/livestock</p> <p><input type="checkbox"/> (080) Wood product (e.g., utility poles decking, fencing, boardwalk, railroad ties, bulwarks, pilings)</p> <p><input type="checkbox"/> (998) Not applicable, application not involved</p> <p><input type="checkbox"/> (999) Unknown</p> |
|--|--|

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Application purpose	<input type="checkbox"/> 1 Agricultural pest eradication	<input type="checkbox"/> 8 NA
	<input type="checkbox"/> 2 Public health pest control or eradication	<input type="checkbox"/> 9 Unknown

Specific pest target of community-wide application		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> (Enter code)
001	Mosquito (no disease specified)	103 Japanese beetle
002	West Nile virus	104 Imported fire ant (red or black)
003	St. Louis encephalitis	105 Asian longhorn beetle
004	Eastern equine encephalitis	106 Emerald ash borer
005	Western equine encephalitis	107 Grain fungal diseases (e.g. black stem rust)
006	La Crosse encephalitis	108 Grasshopper/Mormon cricket
007	Dengue fever	888 Default if State chooses not to code this variable.
100	Boll weevil	996 Multiple pests
101	Gypsy moth (Asian or European)	998 Not applicable (APPTARGET not=801)
102	Fruit fly (Mediterranean, Mexican, Oriental, olive, etc.)	999 Unknown

Event Information Screen—Location

Location where the exposure **event** occurred. This address is the site of the pesticide application, spill, or release (that is, field, orchard, business, institution, residence, or roadway). For locations without specific addresses, include closest crossroad and distances. (This may differ from a person's location at the time of exposure. For example, the exposed person might be located at a school, and the actual event is a fire at a nearby pesticide storage facility. The event location is the pesticide storage facility.)

Address _____	
Address _____	
City _____	
State ____	ZIP _____
Latitude	Longitude
County name _____	FIPS ____

Event Information Screen—Comments—Application/Release Event Narrative

Do not describe exposure. Describe the use/event that involved the release of pesticide. Include details of spill, application, accidental release, etc., that will help clarify how exposures came about.

Event Information Screen—Pesticide Products

If the EPA registration number is known, complete the EPA registration number and product name below then skip to **Chemical Agent Comments** on page 8. (Active ingredient code [PC Code, percentage, form, chemical class, and functional class are auto-entered in SPIDER; record only if using lookup file for entry into nonautomated system.) If the EPA registration number is unknown, but the identity of active ingredient(s) is known, enter the most detailed product name available below and all other available information regarding the ingredients on the table labeled **Active Ingredient** on page 7. Information about products where only form and functional class are known, or carriers and inerts can be entered in the section labeled **Other Source** on page 8.

Record all information available including manufacturer and any modifiers on label (e.g., spray, dust, 4E).

EPA registration number/distributor number	Name	Form*	Poisoning attribution [†]
a. _____-_____/_____	_____ _____ _____	_____	<input type="checkbox"/>
b. _____-_____/_____	_____ _____ _____	_____	<input type="checkbox"/>
c. _____-_____/_____	_____ _____ _____	_____	<input type="checkbox"/>
d. _____-_____/_____	_____ _____ _____	_____	<input type="checkbox"/>
e. _____-_____/_____	_____ _____ _____	_____	<input type="checkbox"/>

*See form codes on next page.

[†]Check box if product is thought to have contributed to illness. Complete this column at time of case closure.

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Event Information Screen, Pesticide Product—Active Ingredients and Other Sources
Active Ingredient

Active ingredient code	Name	Per - centage	Form*	Chemical Class*	Functional Class*	Poisoning Attribution†
a.						<input type="checkbox"/>
b.						<input type="checkbox"/>
c.						<input type="checkbox"/>
d.						<input type="checkbox"/>

*Indicate the product form, chemical, and functional class from the tables that follow.

†Check box if product is thought to have contributed to illness. Complete this column at time of case closure.

NIOSH form codes			
01	Dust/powder (not pressurized)	10	Flowable concentrate
02	Granular/flake	11	Pressurized liquid/spray/fogger
03	Pellet/tablet/cake/briquette	12	Ready-to-use liquid/solution
04	Wettable Powder/Dust	13	Other liquid formulation
05	Impregnated material (ant/plant stakes, animal collars, water filters)	14	Pressurized gas/fumigant
06	Other dry formulation	15	Paint/liquid coating
07	Microencapsulated	16	Other
08	Emulsifiable concentrate	17	Soluble powder
09	Soluble concentrate	18	Liquid concentrate
		99	Unknown

Chemical class codes	Functional class codes
01 Organochlorine compound	01 Insecticide (excluding solely IGR and fumigants)
02 Organophosphorous compound	02 Insect growth regulator (IGR)
03 N-methyl carbamates	03 Herbicide/algicide
04 Pyrethrin	04 Fungicide
05 Pyrethroid	05 Fumigant
06 Dipyrldyl compound	06 Rodenticide
07 Chlorophenoxy compound	07 Disinfectant/broad spectrum for water sanitation
08 Triazines	08 Insect repellent
09 Carbamates (non-AChE inhibitors)	09 Antifouling agent (marine paints)
10 Organo-metallic compound	10 Insecticide and herbicide (01 & 03)
11 Inorganic compounds	11 Insecticide and fungicide (01 & 04)
12 Coumarins	12 Insecticide and herbicide and fungicide (01, 03, & 04)
13 Indandiones	13 Insecticide and other (01 & 96)
14 Convulsants	14 Herbicide and fungicide (03 & 04)
15 Microbial	96 Other (includes biological controls, plant growth regulators, antibiotics, etc.)
16 Dithiocarbamates	97 Multiple (product is classified as multiple classes which do not fit in any of the codes specified in codes 10–14)
95 Unidentified cholinesterase inhibitor	99 Unknown
97 Multiple (PC Code indicates a code for a combination of active ingredients that cross chemical classes)	
99 Unknown	

Other Source If neither product nor chemical ingredient known.

Enter a description of the other pesticide, e.g., "Some kind of spray from a highway truck"; "unspecified Black Flag wasp spray"; "unlabeled spray can." This area can also be used to record information about carriers and inerts at the State level.

Other ID	Description of other source	Chemical class*	Form*	Functional class*	Poisoning attribution [†]
_____	_____	_____	_____	_____	<input type="checkbox"/>
_____	_____	_____	_____	_____	<input type="checkbox"/>
_____	_____	_____	_____	_____	<input type="checkbox"/>

* Indicate the product form, chemical, and functional class from the tables above.

[†]Check box if product is thought to have contributed to illness. Complete this column at time of case closure.

Event Information—Comments—Chemical Agent Comments

(Note additional information about pesticide products and adjuvants.)

[illegible]

Exposure Information Screen—Incident Information
Incident Report Information

Exposure ID		Report date ____ / ____ / ____	
Case ID _____		Event ID _____	
Report source 1 ____ (____)		Report source 2 ____ (____)	Report source 3 ____ (____)
Use codes for sources below. Note that an additional character can be added for State-specific codes under each category (e.g., listing specific poison control centers in the State by using codes 02A-02Z or 020-029).			
Source codes			
Code	Description		
01	Physician report		
02	Poison control center		
03	Other health care provider report (including ER or hospital report)		
04	Laboratory report		
05	Death certificate or medical examiner's report		
06	Report or referral from governmental agency		
07	Obituary/news report		
08	Ascertainment through Worker's Compensation		
09	Self-report		
10	Co-worker report		
11	Friend or relative report		
12	Identified during site visit		
13	Worker representative (e.g., union, lawyer/legal services/other advocate)		
14	Medical record review (clinic or hospital record review performed by surveillance staff)		
97	State Department of Health		
98	Other (not captured in any code category listed)		
99	Unknown		

Site of exposure <input type="checkbox"/> <input type="checkbox"/> (Enter code)			
01	Farm (excluding, nursery, livestock, forest)	32	Farm product warehousing and storage
02	Nursery	33	Food manufacturing
03	Forest	39	Other manufacturing facility/industrial facility/warehouse facility
04	Livestock and other animal specialty production facility	40	Office/business (nonretail, nonindustrial)
05	Greenhouse	41	Retail establishment
09	Other nonproduction agricultural facility	42	Service establishment
10	Single family home	43	Pet care services and veterinary facilities
11	Mobile home	50	Road/rail
12	Multiunit housing (apartments, multiplexes)	51	Road, rail, or utility right-of-way
13	Labor housing	52	Park
20	Residential institution (dorms, shelters)	54	Private vehicle
21	School	55	Public transportation vehicle
22	Day care facility (including in private residence)	59	Other
23	Prison	60	Emergency response vehicle
24	Hospital	70	More than one site
29	Other institution	98	Not applicable
30	Pesticide manufacturing/formulation facility	99	Unknown

Activity of case at time of exposure <input type="checkbox"/> <input type="checkbox"/> (Enter code)	
01	Applying pesticide
02	Mixing/loading pesticide
03	Transport or disposal of pesticide
04	Repair or maintenance of pesticide application equipment
05	Any combination of activities 01–04
06	Involved in manufacture or formulation of pesticide
07	Emergency response
08	Routine work activity not involved with pesticide application (includes exposure to field residue)
09	Routine indoor living activities not involved with pesticide application
10	Routine outdoor living activities not involved with pesticide application
98	Not applicable
99	Unknown

Others exposed

Were other persons possibly exposed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown
If Yes, How many? _____			
Did any seek medical care?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown
<i>Use a separate sheet of paper to record names and contact information if appropriate.</i>			

Exposure address (That is, subject's location at time of exposure. This may be the same as the case address or the event address.)

Address 1	_____
Address 2	_____
City	_____
State	____ ZIP _____
FIPS	County _____
County name	_____

Note: For cases reported multiple times, you can use the shortcut buttons in SPIDER to either copy the existing address from the case table, or if this is a new address, move this address to the case table.

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Initial treatment /HCP information

First care	Where was medical care first sought? <input type="checkbox"/> (Enter code)	
	1=Physician's office 2=Emergency room 3=Hospital admissions 4=Advice of poison control center	5=No medical care sought 6=Other 7=Employee health center 9=Unknown
HCP name	Last _____ First _____	
Type	Who provided care? <input type="checkbox"/> (Enter code)	
	1=Family physician 2=Employer's physician 3=Worker's Comp physician	4=Consulting specialist 5=Outpatient clinic 9=Unknown
	Chart location	Work location
Address 1	_____	_____
Address 2	_____	_____
City	_____	_____
State	____	____
ZIP	_____	_____
Phone	(____) _____	(____) _____

Exposure Information Screen—Medical Information

<input type="checkbox"/> Diagnosis made by HCP (Checked=Yes)		
Diagnosis	_____	
ICD9	_____ . _____	
Summary	_____	
<input type="checkbox"/> Hospitalized (Checked=Yes)		
Admit date	____ / ____ / ____	Discharge date ____ / ____ / ____
Length of stay	____ (days)	Coding 997 if > 996 days 998=NA, not hospitalized 999=Unknown

Facility where hospitalized							
Facility name _____							
Facility address _____							
Treating physician _____							
Condition present at time of exposure? (Circle one for each condition.)						Coding for conditions	
Pregnant	1	2	3	4	5	9	1=Doctor reported
Allergies	1	2	3	4	5	9	2=Exposed person reported
Asthma	1	2	3	4	5	9	3=Both doctor and person reported
Acquired chemical intolerance	1	2	3	4	5	9	4=Condition was absent
Other (Enter condition and code.) _____							5=Not reported
							9=Unknown
Outcome <input type="checkbox"/>	1=Fatal, pesticide-related 2=Fatal, not pesticide-related 3=Fatal, relation unknown						8=Not applicable (not fatal) 9=Unknown
Lost time <input type="checkbox"/>	1=Yes, one or more days lost from work 2=No, no time lost 3=Unemployed, lost 1 or more days from school or regular activities 9=Unknown						
Total time lost	_____. ____ days						
Followup needed? <input type="checkbox"/> Check if yes.	When? ____/____/____						

Non-Cholinesterase Chemical-Specific Biological Test for Pesticides or Metabolites

Other biological tests? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown				
	Test 1		Test 2	
Test type				
Draw date	____/____/____		____/____/____	
Numeric result				
Analysis result	<input type="checkbox"/> Abnormal	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal	<input type="checkbox"/> Normal
	<input type="checkbox"/> Not applicable	<input type="checkbox"/> Unknown	<input type="checkbox"/> Not applicable	<input type="checkbox"/> Unknown

Notes _____

Exposure Information Screen—Cholinesterase Results

Coding guidance for completing table of results

Option 1 Detailed version.

Option 2 Required minimum. Enter single test response for **Test type** and **Result type**, the only required fields.

PFI Lab code from lab pick list or enter lab name							
Test type codes		1=RBC 2=Plasma 5=Either RBC or Plasma		3=Both RBC and Plasma 8=Not applicable		4=Not done 9=Unknown	
Result type codes		1=Abnormal compared to lab 3=Normal compared to lab 7=Bad specimen		2=Abnormal compared to baseline 4=Normal compared to baseline 8=Not applicable		9=Unknown	
PFI	Lab Name	Test Type	Test Date	Numeric Result	Result Type	Lab Low	Lab High
			___/___/___				
			___/___/___				
			___/___/___				
			___/___/___				

Exposure Information Screen—Narrative

Brief exposure description (120 characters)

Exposure narrative Include details of person's activity or situation that resulted in the exposure. Include notes on medical, exposure, and follow-up activity information. Continue on a separate sheet if necessary.

Exposure Information Screen—Nature of Exposure

Type of exposure			Route of exposure		
<input type="checkbox"/> Drift	<input type="checkbox"/> Indoor Air	<input type="checkbox"/> Contact	<input type="checkbox"/> Dermal	<input type="checkbox"/> Ingestion	<input type="checkbox"/> Ocular
<input type="checkbox"/> Spray	<input type="checkbox"/> Surface	<input type="checkbox"/> Unknown	<input type="checkbox"/> Inhalation	<input type="checkbox"/> Injection	<input type="checkbox"/> Unknown
<input type="checkbox"/> Other					
Intentional? ____ Coding : 1=Yes, suspected intentional 2=No, unintentional 9=Unknown					

Date first exposed* ____/____/____	Time ____ ____ (24 Hour Clock)
Date symptom onset* ____/____/____	Time ____ ____ (24 Hour Clock)
Other date ____/____/____	Other Date Description _____

* At least one of the following dates must be entered: first exposure, symptom onset, or laboratory test (page 12).

Exposure Information Screen—Narrative

Date comments. Indicate any notes on date of exposure onset, report, or lab test pertinent to understanding case chronology.

Exposure Information Screen—Occupational Information

Work related? <input type="checkbox"/> 1=Yes 2=Possibly 3=No 4=Unknown 5=Not Applicable If answer is 3 or 5, skip to PPE Use below.	
Job title 60 characters _____ _____	COC title _____ _____
Occupation narrative 125 Characters _____ _____	CIC title _____ _____
Industry at time of exposure 100 Characters _____	

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Employer Information—Employer Screen

Employer ID _____	Name _____
Address Line 1 _____	
Address Line 2 _____	
City _____	
State ____	ZIP ____
Phone (____) _____	
Contact _____	
NAICS Code _____	

Exposure Information Screen—Occupational Information, PPE Use

PPE Use <i>(Complete this section after interview using codes below.)</i>	
1=Used (all or some of PPE required)	5=Not used (unknown requirements)
2=Used (not required)	6=Not used (not required)
3=Used (unknown requirements)	8=Not applicable
4=Not used (some PPE required)	9=Unknown

Specific PPE Used ☐ ☐

Codes: 1=Yes, used 2=No, not used 8=Not applicable 9=Unknown

Check one box for each form of PPE.

Supplied Air	1 <input type="checkbox"/> 2 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/>	Natural Gloves	1 <input type="checkbox"/> 2 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/>
Respirator	1 <input type="checkbox"/> 2 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/>	Synthetic Gloves	1 <input type="checkbox"/> 2 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/>
Dust Mask	1 <input type="checkbox"/> 2 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/>	Goggles	1 <input type="checkbox"/> 2 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/>
Boots	1 <input type="checkbox"/> 2 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/>	Engineering	1 <input type="checkbox"/> 2 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/>
Clothing	1 <input type="checkbox"/> 2 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/>		

Worker Protection Standard

<i>If agricultural worker or pesticide handler (farm, nursery, or forestry), for each question indicate if response is (Y)Yes (N) No (U) Unknown/Not asked by circling the letter for the response.</i>	
a. Did this incident involve entering a treated area (including field or greenhouse)?	Y N U
b. If yes, did your employer/crew leader tell you how soon you could go into the area after it was treated?	Y N U

Exposure Information Screen—Signs and Symptoms

Fill in **Doctor reported** column based on medical records or HCP interview. Final code column should be completed prior to data entry. Codes are listed following the table on page 18. Check all signs or symptoms described, or stated as absent (items in *italics* should be taken from HCP interview or medical record only).

System	Sign/symptom	Patient reported	Doctor reported	Absent	Final code
General	<i>Acidosis</i>				
	<i>Alkalosis</i>				
	Fatigue/malaise				
	Fever				
	<i>Increased anion gap</i>				
	Other _____ _____				
Cardiovascular	<i>Bradycardia</i>				
	<i>Cardiac arrest</i>				
	Chest pain				
	<i>Conduction disturbance</i>				
	<i>Hypertension</i>				
	<i>Hypotension</i>				
	<i>Palpitations</i>				
	<i>Tachycardia</i>				
	Other _____ _____				
Renal	Frequent urination				
	<i>Oliguria/anuria</i>				
	Blood in urine				
	<i>Proteinuria</i>				
	Other _____ _____				
Neurological	Altered taste				
	Anxiety/hyperactivity/irritability				
	Ataxia /trouble walking				
	Blurred vision				
	Coma				
	Confusion				
	Diaphoresis (profuse sweating)				
	Dizziness				
	Fainting				
	Headache				
	Memory loss				
	Muscle pain				
	<i>Muscle rigidity</i>				
	Muscle twitching/fasciculations				

System	Sign/symptom	Patient reported	Doctor reported	Absent	Final code
Neurological (continued)	Muscle weakness				
	Paralysis				
	Paresthesias/tingling or numbness				
	Peripheral neuropathy				
	Salivation				
	Seizure				
	Slurred speech				
	Other _____ _____				
Gastrointestinal	Anorexia (loss of appetite)				
	Constipation				
	Diarrhea				
	GI bleeding (blood in stool or vomit)				
	Nausea				
	Pain				
	Vomiting				
	Other _____ _____				
Eye	<i>Burns</i>				
	<i>Conjunctivitis (diagnosis)</i>				
	<i>Corneal abrasion</i>				
	<i>Miosis</i>				
	<i>Mydriasis</i>				
	Pain/irritation/inflammation				
	Tearing/lacrimation				
	Other _____ _____				
Dermal	Blisters/ <i>bullae</i>				
	Burns				
	Edema/swelling				
	Hives				
	Pain				

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System	Sign/symptom	Patient reported	Doctor reported	Absent	Final code
Dermal (continued)	Pattern* of rash or lesions				
	Pruritis (itching)				
	Rash				
	Redness				
	Other _____ _____				
Respiratory	<i>Asthma (diagnosis of)</i>				
	Cough				
	<i>Cyanosis</i>				
	<i>Depression</i>				
	Difficulty breathing/ shortness of breath				
	LR irritation				
	Pleural pain (pain on deep breathing)				
	<i>Pulmonary edema</i>				
	Tachypnea				
	UR irritation				
	Wheezing				
	Other _____ _____				

*Coding for pattern of dermal lesions

1=Corresponds well with physical pattern of exposure

2=Discrete patches of lesions do not correspond with the pattern of exposure

3=Generalized distribution of lesions on the body

4=Absent

9=Unknown

Final Codes for All Fields 1=Doctor reported 2=Exposed person reported 3=Both Dr. and person reported
9=Unknown

Exposure Information Screen—Narrative

Health comments _____

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Exposure Information Screen—Medical Staff

Medical ID _____

Enter one Medical ID for each medical person involved in the case. Use F2 in SPIDER to select from pick list. See HCP Information on Page 11 and enter on Medical Staff screen. If not on pick list, complete the full medical staff information.

Case Tracking and Closure

Event Information Screen—Event Summary

Violations FIFRA	1 2 3 4 8 9	Were citations for violations of regulations by these agencies issued? 1=Violation cited 2=No violation cited 3=Citation pending 4=Case refused referral to agency 8=Decision not to refer 9=Unknown	
Violations OSHA	1 2 3 4 8 9		
Violations Other	1 2 3 4 8 9		
Referrals	Check if referral made	Date of referral (MM/DD/YY)	Notes
IH Staff			
Ag and Mkt Program			
State Environment			
EPA			
Ag Program			
Other State Pgm.			
Local Health Unit			

Event Information Screen—Comments

Other violation descriptions _____

Violation comments _____

Exposure Information Screen—Exposure and Classification

Severity <input style="width: 30px;" type="text"/>			
1 = Fatal 2 = High 3 = Moderate 4 = Low 8 = Evaluated, not applicable			
A. Documentation of exposure <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/>			
(Put a number in the first box and letter in the second box if appropriate.)			
1 - Confirmed by	a-envir/bio testing d-eye/derm signs	b-professional observation e. 2+ findings by medical staff	c-biological evidence
2 - Reported by	a-case d-nonprofessional observation	b-witness	c-application records e-other
3 - Strong evidence of no exposure			
4 - Insufficient data			
B. Documentation of health effect <input style="width: 30px;" type="text"/>			
1 - 2+ Findings by medical staff			
2 - 2+abnormal symptoms			
3 - No post exposure findings			
4 - Insufficient Data			
C. Evaluation of causal relationship <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/>			
(Put a number in first box and letter in second box if first box is 1.)			
1 - Fits known toxicology			
a-characteristic (Appendix 2 of case classification) and temporal relationship is plausible			
b-consistent with literature and known toxicology			
2 - Inconsistent with known toxicology			
3 - Definitely ruled out (evidence of non-pesticide causal agent)			
4 - Insufficient toxicologic information available			
NIOSH Classification <input style="width: 30px;" type="text"/> Alternate Classification <input style="width: 30px;" type="text"/>			
Classification categories		1=Definite	5=Unlikely
		2=Probable	6=Insufficient Information
		3=Possible	7=Exposed/Asymptomatic
		4=Suspicious	8=Unrelated

Exposure Information Screen—Poisoning Attribution

Return to pages 6 - 8 to determine if illness is attributable to products, active ingredients, or substances listed there.

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C.4 FIELD INVESTIGATION CONTACT FORM AND HEALTH SAFETY CHECKLIST FOR FIELD PERSONNEL

The following checklist is designed to remind field staff about equipment and safety precautions they need to take when embarking on a field investigation or any form of on-site follow-up. It also ensures that supervisory staff have appropriate contact information for field staff. In addition, PPSPs may decide to use this form when staff are accompanying partner enforcement agency staff. The checklist is to be completed by PPSP personnel BEFORE going out into the field. For team visits, only the team leader is required to complete the form. Team leaders are responsible for ensuring that all team members meet the required checklist items stated below. As with all of the sample forms, this form should be modified to meet the specific needs of the PPSP.

Field Investigation Contact Form and Health Safety Checklist for Field Personnel

(Adapted from California Occupational Health Branch, DHS)

This checklist is to be completed by PPSP personnel BEFORE going out into the field. For team visits, *only* the team leader is required to complete the form. Team leaders are responsible for ensuring that all team members meet the required checklist items stated below.

Directions

1. Fill out **Part I**.
2. Have it reviewed and signed by your supervisor **before** the site visit.
3. After the visit, fill out **Part II** and turn in completed form to supervisor.
4. **Supervisors:** Forward a copy of this form to_____.

Part I: Pre-Site Visit Checklist

A. Names of PPSP field team members

Date(s) of proposed site visit_____

B. Emergency Contact Information

Employer name _____

Type of business _____

Address _____

City _____

Contact person: Name_____ Phone (_____)_____

How can you be reached?

Phone number where you are staying (e.g., hotel friend's house, etc.) (_____)_____

Hotel name *(if applicable)* _____

Cellular Phone number *(if applicable)* (_____) _____

If more than one location, write down team members' locations *(use back of page if necessary)*.

Phone (_____) _____

Hotel name *(if applicable)*: _____

Cellular phone no. *(if applicable)* (_____) _____

Training (hazards, guidelines, regulations)

(1) Will you be potentially exposed to the following hazards? (*Check all that apply.*)

☐ TB: ➔ PPD of staff performed in past year? ☐ yes ☐ no

☐ Other chemical(s) _____

☐ Noise _____

☐ Bloodborne pathogens _____

➔ HBV vaccination completed? ☐ yes ☐ no

☐ Safety (falling objects, electricity, etc.): _____

☐ Violence _____

☐ Other: _____

(2) If you checked any of the boxes above, have you had training on how to protect yourself from these hazards? ☐ yes ☐ no

➔ *If you answered NO, please talk to your supervisor about how you will obtain appropriate training prior to the site visit.*

(3) Have you reviewed applicable regulations and guidelines on likely exposures?

☐ yes ☐ no

➔ *If you answered NO, please review any applicable regulations and guidelines that are available. If none exist, you should discuss alternative information sources with your supervisor.*

Personal Protective Equipment (PPE)

(1) Are respirators required or recommended on this site visit?

☐ yes ☐ no ☐ not sure

➔ *If NOT SURE, please discuss this with your supervisor.*

If you are using a respirator for this site visit, answer a through c.

(a) Have team members had

■ Respirator medical clearance within the last year? ☐ yes ☐ no

■ Respirator training within the last year? ☐ yes ☐ no

■ Respirator fit-testing within the last year? ☐ yes ☐ no

➔ *If NO, please discuss this with your supervisor.*

(b) Do you have extra cartridges/filters? ☐ yes ☐ no

If you are going to wear a PAPR, have you charged the battery packs?

☐ yes ☐ no

(2) Are other PPE required? ☐ yes ☐ no, If YES, check all that apply:

- ☐ head protection (hard hat) ☐ foot protection (safety shoes or chemical resistant boots)
☐ hearing protection ☐ eye protection (goggles, faceshield) ☐ hand protection
☐ other

Communications Equipment

(1) If you are traveling to remote areas, do you need a cellular phone? ☐ yes ☐ no

(2) Do you have a list of emergency contact numbers (e.g., section chief, etc.) to bring with you? ☐ yes ☐ no

Employee signature: _____ Date: _____

Supervisor signature: _____ Date: _____

Part II: Post-Site Visit Review

Were there any items missing or not foreseen prior to visit that should be considered during future visits to similar sites? ☐ yes ☐ no

→ If YES, please explain below.

C.5 INSTRUCTIONS FOR NATIONAL TRANSPORTATION SAFETY BOARD (NTSB) SEARCH TO OBTAIN REPORTS OF AIRPLANE ACCIDENTS INVOLVING AERIAL PESTICIDE APPLICATORS

NTSB maintains data on aviation accidents. The Aviation Synopses can be searched for information about aviation accidents involving aerial agricultural applications. These applications are covered by 14 CFR Part 137. The synopses may be reviewed by searching monthly lists of accidents or performing a query. Make sure your browser is set to accept cookies.

Go to the NTSB website <http://www.nts.gov/NTSB/query.asp>.

The first item on the list is a *Database Query*. First, look at the general instructions for searching, then select the *Database Query* form. Complete the various fields. This includes entering the date range you are interested in, selecting your State, severity, and a specific category of aircraft (if you are searching for a particular accident or type of accident). You can leave the *Operation* category as *All*. In the area labeled *Enter your word string below*, type *137*. Choose *Sort by Date Ascending* unless you want to sort on an option other than date. Click on *Submit Query*. This search strategy should catch all of the agricultural accidents (since applications are regulated by 14 CFR Part 137).

C.6 SAMPLE TEMPLATES FOR TABLES PRESENTING SURVEILLANCE DATA

1. Work-Relatedness by Case Classification Status

	Definite	Probable	Possible	Suspicious	Total
WORKREL					
Yes					
Possibly					
No					
Unknown					
Total					

2. Cases by Pesticide Type and Case Classification.

Each case should be included only once in this table (excluding the rows and columns of totals). (Note that this tabular presentation can be done separately for occupational and nonoccupational cases or can include occupational status by splitting the case classification columns into occupational and nonoccupational.)

	Definite	Probable	Possible	Suspicious	Total
Pesticide type					
Insecticides-total					
Cholinesterase inhibitors					
Pyrethrin/pyrethroid					
Other insecticides					
Insect growth regulators					
Herbicide/algicide					
Fungicide					
Fumigant					
Rodenticide					
Disinfectant					
Insect repellent					
Other					
Multiple					
Unknown					

3. Occupational Pesticide Injury and Illness Cases by Occupation and Case Classification

	Definite	Probable	Possible	Suspicious	Total
Occupation					
Agriculture—provide total for COC codes 473–499					
List specific agriculture occupations					
Nonagriculture—provide total					
List specific nonagriculture occupations					
TOTAL					

4. Source of case report by gender and case classification

	Definite			Probable			Possible			Suspicious			Total		
Sex	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U
Source of Report															
Physician															
Poison control center															
Other health care professional															
Death certificate															
Government agency															
Media report															
Workers Compensation															
Self-report (incl. relative or co-worker)															
Employer															
Other															
Unknown															
Total															

5. Age of cases by gender and case classification (produce this table for occupational and nonoccupational exposure status)

	Definite			Probable			Possible			Suspicious			Total		
Sex	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U
Age															
<10															
11–14															
15–17															
18–29															
30–39															
40–59															
60–79															
80+															
Unknown															
Total															

C.7 SAMPLE LETTERS FOR PPSP CASE FOLLOW-UP

The following sample letters are provided as templates that PPSPs can modify to meet their specific needs and legal requirements.

- Thank-you letter to an HCP who reports a case
- A request for cooperation to an HCP who failed to report a case
- A request to an HCP for medical records
- A letter to an employer regarding an upcoming site inspection

THANK-YOU LETTER TO HCP WHO REPORTED CASE

[Agency Letterhead]

DATE

INSIDE ADDRESS

Re: **[case number]**

Dear **[insert HCP name]**:

Thank you for the information you recently provided regarding the illness and possible pesticide exposure of **[insert patient name]**. Your report helps us to identify pesticide products and practices that may affect public health, as well as provide exposure prevention information to affected individuals.

If you would like further information about this case, the **[insert agency name]** **[insert surveillance program name]**, or other State agency resources, please call me at **[insert phone number]**.
[Option—include a copy of the *EPA Recognition and Management of Pesticide Poisonings*]

Sincerely,

REQUEST FOR COOPERATION LETTER TO HCP WHO FAILED TO REPORT CASE**[Agency Letterhead]****DATE****INSIDE ADDRESS**Re: **[patient]**

Case number:

Dear **[insert HCP name]**:

The **[insert agency name]** is currently investigating a reported pesticide-related illness of your above-named patient. (We have been in touch with a member of your staff regarding the observable signs, diagnosis, and treatment of the individual.) The **[surveillance program name]** routinely identifies and investigates illnesses and injuries associated with pesticide exposure.

Suspected pesticide poisoning is a reportable condition in the **[insert State name]**. Health care providers are required by **[insert rule reference]** to report acute or subacute conditions that are caused by, or suspected of being caused by, pesticide exposure. All medical details and the person's identity are kept confidential. Resources and referrals are available to the reporting provider and the patient, including exposure prevention information.

Your report helps us identify pesticide products or practices that may affect public health. Your cooperation in reporting any future pesticide-related illnesses is appreciated. If you would like further information about the program, please contact us at **[insert phone number]**. **[Option—include a copy of the *EPA Recognition and Management of Pesticide Poisonings*.]**

Sincerely,

MEDICAL RECORDS REQUEST LETTER**[Agency Letterhead]****DATE****INSIDE ADDRESS**Re: **[case number]**Dear **[insert HCP name]**:

This letter is sent by **[agency name (agency abbreviation)]** to request medical records relevant to illness investigations conducted by the **[agency abbrev.]**. The **[agency]** collects medical records in accordance with State law. Copies of relevant sections of State code are attached for your convenience.

The **[agency]** has received a notice of pesticide-related illness involving the patient listed below and requests copies of any medical information (including chart notes and laboratory test results) that you might have.

[First name Last name, SSN, DOB; injured on: date; seen on: date]

Please also check your records for any information you have on other patients seen on the same date, or within several days before or after, who may have a pesticide-related illness or injury associated with the same exposure incident. Please provide copies of any such records to the **[agency]**.

Please mail or fax these records to the return address indicated above. If you have any questions, please call me at **[insert phone number]**. Thank you for your cooperation in providing the requested information.

Note that the **[agency name]** is an agency of **[parent authority, e.g., the State of _____]** and is conducting pesticide poisoning surveillance in its capacity as a public health authority as defined by the Health Insurance Portability and Accountability Act (HIPAA), Standards for Privacy of Individually Identifiable Health Information; Final Rule (Privacy Rule) [45 CFR 164.501]. Pursuant to 45 CFR 164.512(b) of the Privacy Rule, covered entities such as your organization may disclose, without individual authorization, protected health information to public health authorities “. . . authorized by law to collect or receive such information for the purpose of preventing or controlling disease, injury, or disability, including, but not limited to, the reporting of disease, injury, vital events such as birth or death, and the conduct of public health surveillance, public health investigations, and public health interventions . . .” The information being requested represents the minimum necessary to carry out the public health purposes of pesticide poisoning surveillance pursuant to 45 CFR 164.514(d) of the Privacy Rule.

Sincerely,

LETTER TO EMPLOYER REGARDING AN UPCOMING SITE INSPECTION

[Agency Letterhead]

DATE

INSIDE ADDRESS

Re: Site inspection scheduled for [date]

Dear [name]:

Thank you for your cooperation with the [agency name] investigation of illness reports among employees at [company name]. We are writing to confirm our meeting and to provide you with logistical and other information about our investigation. The meeting will take place at [insert location].

Based on phone conversations with [person's name (date)], it is our understanding that the following persons will be present at the meeting: [names and titles]. In addition to ourselves, [list any additional names and titles] working with [agency and program name] on pesticide illness tracking will also attend our meeting.

Background: [agency] is mandated to investigate the causes of morbidity and mortality from work-induced diseases and develop recommendations for improved control of work-induced diseases [code reference] [Modify sentence as needed to reflect agencies' authority]. In contrast to [State] - OSHA, [program name] is not an enforcement agency, and we do not issue citations. [agency] initiated this investigation in response to physician reports of illness among [worker types] potentially exposed to pesticides as a result of [work activity or task]. Between [dates], [agency] received [insert number] incident reports involving a total of [insert number] workers. [Give reason there is concern about the reports.]

Purpose: The purpose of our on-site field investigation on [date] is to gather information and make observations about [activity] practices at [company name].

Process: The process for the [date] site visit will be an opening conference for introductions, a review of the purpose, scope, and methodology of our investigation, and an opportunity for company and worker representatives to ask us questions. We will then conduct an on-site observation of [process, site, or activity]. We will walk through the [facility type], at which time we will ask [company name] representatives to provide a detailed explanation of the pesticide application process including local ventilation conditions at the time of the application. We will ask worker representatives for their knowledge of the process as well. We will take photographs. The site visit will end with a closing conference at which time we will summarize our progress in the investigation and answer any additional questions you may have. We anticipate that the site visit will take about four hours (assuming that we will have received much of the information/documentation about the application from [company name] prior to the site visit).

Scope: The scope of [agency] investigation is limited to [describe scope]. The limited nature of [agency name's] investigation does not imply there are, or are not, other safety and health issues at the workplace.

Methodology: [agency name] will evaluate and classify [worker or specific worker job type] illness reports according to criteria established by the National Institute for Occupational Safety and Health (NIOSH). Enclosed is a copy of these criteria. They are also available at <http://www.cdc.gov/niosh/pestsuv/pdfs/pest-casdef2000.pdf>. Worker exposure to pesticides will be assessed utilizing data from (1) interviews with employees, employee representatives, and employer representatives; (2) work-site observations and interviews with company and employee representatives regarding the work process, tasks, and exposure control measures; (3) review of medical records, policy and procedures, and other written materials; and (4) a review of the relevant scientific literature. [Agency] will attempt to conduct a voluntary interview with all workers with a reported illness at the worker's home by phone. Employer interviews will be conducted at the work-site and by phone as needed.

Exposure control measures will be evaluated according to the presence, use, and efficacy of standard industrial hygiene hierarchy of controls (i.e., engineering, administration, and personal protection). Recommendations to prevent illness will be based on a public health approach; i.e., primary, secondary, and tertiary measures. To the extent possible, it is normal practice for [agency] to direct each of our recommendations to the persons or groups that have the authority to implement change.

Our investigation will be conducted independently of regulatory agencies. However, if while at a workplace, we observe a condition that could reasonably be expected to cause death or serious physical harm immediately (that is, an imminent hazard), we are obliged to notify the employer and affected workers of the hazard and to notify [State name]-OSHA and/or other appropriate agencies. In practice, circumstances that would require a referral to an enforcement agency have almost never been encountered by [agency] investigators. The investigation may not identify all hazards or violations of good practice within the scope of the practices reviewed. Allowing [agency] to conduct the investigation and/or following recommendations made in the investigation report will not exempt [company name] or the worksite from an enforcement inspection or regulatory compliance.

At a minimum, all of [agency's] findings and recommendations to prevent illness will be reported in writing in a timely manner to the incident cases, reporting physicians, employee representatives, and [company name]. Publications may also be disseminated to other interested parties, such as health and safety professionals, industry-based organizations, government agencies, and labor unions. Our report will not contain any personal-identifying information about individual workers. Although not confidential information, our publications for general distribution do not usually specify the name of the employer.

Specific information we are seeking from [company name]: In order to make the best use of your time during our site visit, we are providing you with a list of the questions and information we will request from [company]. We will also have additional questions based on what we learn from you. All of the information requested below relates to the time period covered by the scope of this investigation ([date range]), except where otherwise indicated.

[list questions]

We have tried to compile a comprehensive list of questions and sources of information that are relevant to this investigation. However, it is likely that we have omitted something. Please do not hesitate to provide any other data that you are aware of that may be useful in understanding the work process of **[process, site, or activity being investigated]**. Also, please note if certain data are not available, as it is important for us to understand where there may be gaps in data.

We appreciate your time and participation in the **[agency]** investigation. It is our goal that the information collected will contribute to our ability to determine the severity and extent of the potential problem and identify possible causes and solutions. Please contact **[name]** by e-mail (**[e-mail address]**) or phone (**[phone number]**) if you have any questions. We look forward to meeting you on **[date]**.

Sincerely,

cc:

Enclosures

C.8 INSTRUCTIONS FOR OBTAINING ACUTE PESTICIDE-RELATED ILLNESS AND INJURY REPORTS FROM POISON CONTROL CENTERS (PCCs)

- A. Obtaining the annual number of incident cases
 1. Contact your local PCC. Contact information can be obtained from the American Association of Poison Control Centers at <http://www.aapcc.org/director2.htm>. Some States have more than one PCC.
 2. Include in-State residents and those of unknown residence.
 3. Determine if the PCC uses the Toxicall® data system.
 - a. If YES, go to step A.4.
 - b. If NO, go to step A.5.
 4. If the PCC uses Toxicall®, ask the PCC to run Report 57.
 - a. To obtain occupational cases only: Cases should either have reason for the call (ExpReason) = 3 (occupational) OR exposure site (ExpSite) = 3 (workplace).
 - b. To obtain all acute pesticide-related illnesses and injuries: Neither ExpReason nor ExpSite need to be specified.
 - c. To calculate incidence rates, go to *B. Estimating the Total Population at Risk (denominator)*.
 5. If the PCC does not use Toxicall® or if it cannot generate Report 57, determine if the PCC will provide a data set of all received calls.
 - a. If YES, go to Step A.6.
 - b. If NO, go to Step A.7.
 6. If the PCC can provide a data set of all received calls, query the data set to identify cases that meet the following criteria:
 - a. Exposure to an agent included in one of the pesticide generic categories (SubGenericCode) =
 Disinfectants
 - 0201008 disinfectant industrial cleaner
 - 0201055 bromine water/shock treatment
 - 0201056 chlorine water/shock treatment
 - 0042281 hypochlorite disinfectant: hypochlorite, non-bleach product
 - 0040280 phenol disinfectant: phenol (e.g., Lysol)
 - 0039282 pine oil disinfectant
 - 0077286 other/unknown disinfectant:

Fungicides (nonmedicinal)

0243566 carbamate fungicide
0201033 copper compound fungicide
0077564 mercurial fungicide
0077565 non-mercurial (inactive) fungicide
0253000 phthalimide fungicide
0254371 wood preservative
0077566 other/unknown (inactive) nonmedicinal fungicide
0201034 other nonmedicinal fungicide
0201035 unknown nonmedicinal fungicide

Fumigants

0201036 aluminum phosphide fumigant
0201037 metam sodium (fumigant, fungicide, or herbicide)
0201038 methyl bromide (fumigant, fungicide, or herbicide)
0201039 sulfuryl fluoride fumigant
0201040 other fumigant
0201041 unknown fumigant

Herbicides (includes algicides, defoliants, dessicants, plant growth regulators)

0201054 algicide
0254370 anti-algae paint
0243561 carbamate herbicide
0017000 2,4-d or 2,4,5-t (inactive)
0201042 chlorophenoxy herbicide
0049562 diquat
0201043 glyphosate
0049000 paraquat
0049561 paraquat/diquat combination
0077121 plant hormone
0213000 triazine herbicide
0215000 urea herbicide
0077561 other herbicide
0077567 unknown herbicide

Insecticides (includes insect growth regulators, molluscicides, nematocides)

0004562 arsenic pesticide
0062562 borate/boric acid pesticide
0070000 carbamate only (alone)
0070560 carbamate with other insecticide
0050000 chlorinated hydrocarbon only (alone)
0050560 chlorinated hydrocarbon with other insecticide
0201044 insect growth regulator

0172000 metaldehyde (molluscicide)
 0208562 nicotine (excluding tobacco products)
 0038000 organophosphate
 0038560 organophosphate/carbamate combined
 0038561 organophosphate/chlorinated hydrocarbon (inactive)
 0038562 organophosphate/other insecticide
 0038563 organophosphate/carbamate/chlorinated hydrocarbon (inactive)
 0176000 piperonyl butoxide only (inactive)
 0144000 piperonyl butoxide/pyrethrin (inactive) (without carbamate or o.p.)
 0144001 pyrethrins only (inactive)
 0201045 pyrethrin
 0201046 pyrethroid
 0145000 rotenone
 0077568 veterinary insecticide (inactive) (for pets—flea collars, etc.)
 0077562 other insecticide
 0077569 unknown insecticide

Repellents

0201047 bird, dog, deer, or other mammal repellent
 0201048 insect repellent with DEET
 0201049 insect repellent without DEET
 0218000 insect repellent: unknown (inactive)
 0033000 naphthalene moth repellent
 0050430 paradichlorobenzene moth repellent
 0077431 other mothball or moth repellent
 0077430 unknown mothball or moth repellent

Rodenticides

0174000 antu
 0048563 anticoagulant: warfarin-type anticoagulant rodenticide
 0048564 anticoagulant: long-acting, superwarfarin anticoagulant rodenticide
 0244577 barium carbonate barium carbonate containing rodenticides
 0201050 bromethalin
 0201051 cholecalciferol rodenticide
 0012563 cyanide rodenticide (excluding industrial or misc. chemical)
 0162000 monofluoroacetate 1080/monofluoroacetate/smfa
 0043000 strychnine rodenticide
 0197000 vacor/pnu
 0201052 zinc phosphide
 0217000 thallium
 0077563 other rodenticide
 0077577 unknown rodenticide

- b. Medical outcome (MedicalOutcome) is coded into one of the following values:
 - 201=minor effect
 - 202=moderate effect
 - 203=major effect
 - 204=death
 - 206=not followed, minimal clinical effects possible
 - 207=unable to follow, judged as a potentially toxic exposure
 - c. Request specific values for ExpReason and ExpSite, if needed.
 - (1) To obtain occupational cases only: Cases should either have reason for the call (ExpReason) = 3 (occupational) OR exposure site (ExpSite) = 3 (workplace).
 - (2) To obtain all acute pesticide-related illnesses and injuries: Neither ExpReason nor ExpSite need to be specified.
 7. Using the case number, delete any duplicate cases.
 8. Tally the total number of cases that meet the criteria.
 9. If interested in calculating an incidence rate, go to *B. Estimating the Total Population at Risk (denominator)*.
 10. If the PCC will not provide a data set:
 - a. Ask the PCC to tally the number of cases that meet the criteria in A.6.a through A.6.d.
 - b. If interested in calculating a rate, go to “B. Estimating the Total Population at Risk (denominator).”
- B. Estimating the Total Population at Risk (denominator for rate calculations)
 1. Determine whether the rate is for acute occupational pesticide-related illness and injury, or for all acute pesticide-related illness and injury.
 - a. If for acute occupational pesticide-related illness and injury, go to B.2.
 - b. If for all acute pesticide-related illnesses and injuries, go to B.3.
 2. To obtain the denominator for an occupational case rate:
 - a. Go to Current Population Statistics: <http://www.bls.gov/opub/gp/laugp.htm>.
 - b. Select *Section II: Estimate for States*.
 - c. Select *Table 12. Employment status of the civilian noninstitutional population by sex, age, race, and Hispanic origin*.
 - d. Find your State from the first column.
 - e. Read the *Total* row for your State and the 4th column—*Employment Number*. This is the *Number of Employer Persons 16 years of age or older* (in thousands). Multiply by 1000.
 - f. Go to *C. Calculating the annual incidence rate*.

3. To obtain the denominator for the total population case rate:
 - a. Use the US Census standard population. The most recent figures can be found at <http://quickfacts.census.gov/qfd/index.html>.
 - b. After selecting your State, total population estimates will be provided.
 - c. Go to *C. Calculating the annual incidence rate*.
- C. Calculating the annual incidence rate
 1. Divide the numerator (A) by the denominator (B).
 2. Multiply this result by 100,000 to get the annual rate per 100,000 persons.