



PESTICIDE ANALYTICAL AND RESPONSE CENTER

2013-2015 Biennial Legislative Report

Oregon Health Authority | Oregon Department of Fish and Wildlife | Oregon Department of Environmental Quality
Oregon Department of Forestry | Oregon Occupational Safety and Health Administration
Oregon Office of State Fire Marshal | Oregon Poison Center | Oregon Department of Agriculture

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Acronym definitions

DEQ Oregon Department of Environmental Quality

FIFRA Federal Insecticide, Fungicide and Rodenticide Act

FY Fiscal year; from 7/1/2009 – 6/30/2010, as an example

NIOSH National Institute of Occupational Safety and Health

OAR Oregon Administrative Rules

ODA Oregon Department of Agriculture

ODF Oregon Department of Forestry

ODFW Oregon Department of Fish and Wildlife

ODOT Oregon Department of Transportation

OHA Oregon Health Authority

OERS Oregon Emergency Response System

OHSU Oregon Health and Sciences University

OPC Oregon Poison Center, Oregon Health & Science University

OR-OSHA Oregon Occupational Safety and Health Division, Oregon Department of Consumer and Business Services

ORS Oregon Revised Statutes

OSFM Office of State Fire Marshal

OSU Oregon State University

PARC Pesticide Analytical and Response Center

PEST Pesticide Exposure, Safety and Tracking, Oregon Health Authority

US EPA United States Environmental Protection Agency

USFWS United States Fish and Wildlife Service

WPS Worker Protection Standard

Executive Summary

The Pesticide Analytical and Response Center (PARC) is mandated to coordinate the State of Oregon's response to pesticide-related incidents. It also has a responsibility to collect incident information, report investigation results, and evaluate mitigation measures or trends that may affect public health. This legislative report is a description of PARC activities from July 1, 2013 through June 30, 2015.

The eight PARC member state agencies are:

- Oregon Department of Agriculture (ODA)
- Oregon Department of Environmental Quality (DEQ)
- Oregon Department of Fish and Wildlife (ODFW)
- Oregon Department of Forestry (ODF)
- Oregon Health Authority, Public Health Division (OHA)
- Oregon Occupational Safety and Health Administration (OR-OSHA)
- Oregon Office of State Fire Marshal (OSFM)
- Oregon Poison Center (OPC)

Several other organizations provide expertise to the PARC Board as contracted consultants:

- Oregon Institute of Occupational Health Sciences
- The Department of Environmental and Molecular Toxicology at Oregon State University (OSU)
- Oregon Department of Transportation (ODOT)

Beginning January 2010, the PARC Board decided to change how incidents are classified. All incidents now receive a unique incident number, regardless of how many people or animals may have been affected. The PARC Board also decided to halt utilizing both the 'certainty' and 'severity' indices and concentrate on factors that contributed to the incident. This new approach allows trends to be more easily identified. PARC incidents that occurred between July 1, 2009 and Dec. 31, 2009 were re-classified according to the new scheme. Additionally, the PARC Board decided to change from producing a legislative report annually to biannually.

The data presented in this legislative report was produced using PARC's new database that came online beginning July, 2017.

PARC's history

Increasing use of pesticides in Oregon in 1978 led to rising concerns regarding possible detrimental effects of these chemicals on the environment and health concerns of the toxicity of pesticides to individuals within the State of Oregon. There was also a need to improve interagency coordination in investigating pesticide incidents.

In an effort to respond to these concerns, Executive Order No. 78-23 was issued in July 1978, directing that a task force be formed to report to the Governor recommendations for budgetary provisions and legislative changes needed to increase capabilities of the State to investigate environmental and human health concerns relating to pesticides.

In 1979, PARC was incorporated into statute (ORS 634.02) with responsibilities to centralize the receiving of information relating to actual or alleged health and environmental incidents involving pesticides and to mobilize the expertise necessary for timely and accurate investigations of pesticide incidents and analysis of associated samples. Finally, to report in a standardized format the results of investigations of pesticide reports.

Funding for PARC during the 2001-2003 and 2003-2005 biennium was withdrawn due to the financial situation of Oregon government. Funding was restored to PARC in 2005.

Reorganization of PARC began in July 2005 and has included the development of a standardized procedure for the collection, evaluation, and reporting of pesticide incident information.

Since July 1, 2005, the primary responsibility for the administrative functions of the Pesticide Analytical and Response Center (PARC) has resided with the Oregon Department of Agriculture (ODA). The PARC Coordinator collects and disseminates information to and from different agencies relating to pesticide-related incidents. Major funding is provided to the Oregon Health Authority (OHA) to collect

health-related information from medical records and to conduct interviews with the affected person or persons.

PARC mandates

PARC is mandated by statute to perform the following activities when pesticide-related incidents result in suspected health or environmental effects:

- Collect incident information
- Mobilize expertise for investigations
- Identify trends and patterns of problems
- Develop policy or other recommendations for action
- Report results of investigations
- Prepare activity reports for legislative sessions

Membership

Membership of the governing board consists of the representatives from eight state agencies and one citizen of the state at large appointed jointly by the Director of Agriculture and the Oregon Health Authority Director. Appendix 1 lists PARC member agencies, the representatives from each agency, and the referral criteria for each agency.

The eight state agencies are:

- Oregon Department of Agriculture (ODA)
- Oregon Department of Environmental Quality (DEQ)
- Oregon Department of Fish and Wildlife (ODFW)
- Oregon Department of Forestry (ODF)
- Oregon Health Authority, Public Health Division (OHA)
- Oregon Occupational Safety and Health Administration (OR-OSHA)

- Oregon Office of State Fire Marshal (OSFM)
- Oregon Poison Center (OPC)

Several other organizations provide expertise to the PARC Board as contracted consultants:

- Oregon Institute of Occupational Health Sciences (formerly The Center for Research on Occupational and Environmental Toxicology - CROET), Oregon Health & Science University
- The Department of Environmental and Molecular Toxicology at Oregon State University (OSU)
- Oregon Department of Transportation (ODOT)

Representatives from ODA and OHA alternate as PARC board chair each calendar year, with ODA conducting chairperson activities during odd numbered years and OHA during even numbered years. The Board meets every other month beginning each year with a January meeting, to discuss incidents and pesticide-related topics.

Investigation Coordination

The primary statutory function of PARC is to coordinate pesticide-related investigations. PARC collects and analyzes information about reported incidents of health or environmental effects from possible pesticide exposures. As

PARC does not have regulatory or investigative authority itself, it relies on these agencies to collect pertinent information. PARC member agencies conduct the investigations and take necessary enforcement actions.

Investigation coordination includes:

- Collecting information from callers and distributing the information to member agencies and other organizations as necessary.
- Assigning a tracking number for possible pesticide incidents when adverse health or environmental effects are alleged or suspected.
- Requesting investigation or collaboration by member or partner agencies.
- Coordinating information sharing, as appropriate, between member agencies.
- Collecting investigative reports and enforcement actions from other agencies.

Participants in incident investigations may include other government agencies that are not specifically mentioned in the PARC mandate. Some examples of those agencies are:

- Oregon State University Extension Service
- United States Environmental Protection Agency
- United States Fish and Wildlife Service

PARC and PARC member agency's accomplishments

1. PARC and PARC member agencies assembled agency's standard operating procedures (SOPs) into a document titled Coordinating Oregon's Response to Pesticide Incidents. This document details what PARC and its member agencies will do when either conducting pesticide-related investigations or performing activities in support of pesticide-related investigations. The SOPs, in place since January 1, 2015, are available online on PARC's webpage. PARC has committed to annually reviewing and updating, if necessary, its SOPs.
2. The Oregon Department of Forestry, the Oregon Health Authority, and the Oregon Department of Agriculture have developed processes and procedures to govern gathering pesticide use data for the Oregon Health Authority to conduct a public health investigation (PHI)/Exposure Investigation (EI). The document, titled Pesticide Use Data Requests, is housed internally at these three agencies.
3. The PARC Board recommends that each PARC member agency become more familiar with every other PARC member's agency's regulatory authorities. This information should be communicated to each PARC member agency. To this end, the PARC Coordinator developed a factsheet titled Pesticide Regulation in Oregon. This factsheet outlines the pesticide-related authorities provided under Oregon Administrative Rules (OARs).
4. In September 2014, the Oregon Department of Forestry (ODF) premiered the Forest Activity Electronic Reporting and Notification System (FERNS) online. This web-based system allows landowners to notify ODF prior to conducting an operation or forest practice (notifications to ODF must be filed at least 15 days before starting the operation). FERNS will also allow interested citizens to subscribe to receive notifications of operations, including pesticide applications on private forestland.
5. The Oregon Department of Agriculture hires the first 'full-time' PARC Coordinator in April 2013.

PARC notable events

Curry County, Oregon

PARC incident # 140026

On Oct. 13, 2013, residents of Curry County began to contact the Oregon Department of Agriculture (ODA), the Oregon Health Authority (OHA), and the Pesticide Analytical and Response Center (PARC) with claims of adverse health effects that they attributed to an aerial application performed on private forestlands. ODA was on site within days and performed environmental sampling, both from the site of application and from neighbors who reported that the helicopter flew directly over their homes. Results indicate that the active ingredients applied were found off-site. ODA found that the operator violated Oregon Revised Statute (ORS) 634.372(2), which states a person may not: ... "As a pesticide applicator or operator, intentionally or willfully apply or use a worthless pesticide or any pesticide inconsistent with its labeling, or as a pesticide consultant or dealer, recommend or distribute such pesticides." ODA found that the applicator violated ORS 634.372(2), which states a person may not: ... "As a pesticide applicator or operator, intentionally or willfully apply or use a worthless pesticide or any pesticide inconsistent with its labeling, or as a pesticide consultant

or dealer, recommend or distribute such pesticides." ODA issued civil penalties totaling \$740.

The Oregon Health Authority published a document titled Summary of Curry County Pesticide Exposure Incident, available at <https://oda.fyi/CurryCountySummary>

Lessons learned

As part of the agencies' efforts to continuously improve our response to pesticide incidents, the following changes were made, in part, due to the lessons learned from the Curry County incident:

- During the 2015 session, the Oregon Legislature authorized ODA the authorization to enlist the services of 211info, at a cost of \$200,000 per biennium, to receive pesticide-related information 24 hours per day.
- The Legislature also funded a Citizen Advocate position at ODA to enhance communication with concerned citizens.
- PARC member agencies reviewed and updated, if necessary, Standard Operating Procedures (SOPs).
- OHA developed standard operating procedures titled Reported Multi-Household Pesticide Exposure Events.

PARC incidents

PARC defines an incident as an event involving a pesticide(s) whereby adverse effects to people, animals, or the environment have been alleged or suspected.

Incidents are reported to PARC in a variety of ways. This includes receiving reports through PARC member agencies, as well as other federal, state, or local agencies. By state law (1987) in Oregon, all health care providers, including Oregon Poison Control (OPC), must report suspected pesticide poisonings to the Pesticide Exposure Safety and Tracking (PEST) program within 24 hours. Additionally, other sources for reporting incidents include the Oregon Emergency Response System (OERS) and the news media. PARC maintains a telephone line and email address for the public to report impacts to health and/or the environment. PARC follows up on any allegations to confirm which agency should take the lead in the investigation and which agencies should be involved or notified.

When an incident is reported to PARC, an incident number is assigned. This incident number is used to track the incident from start to finish. Each incident is entered into a spreadsheet and summarized for presentation to the PARC Board at each bimonthly meeting. Incident reports represent urban (indoor and outdoor) and rural situations, agricultural and forestry pesticide applications, pesticide spills, accidents, homeowner applications, and neighbor-to-neighbor complaints.

Member agencies submit final incident investigation reports to the PARC Coordinator. These reports include any violations and/or enforcement actions and are routinely shared among agencies and with the PARC Board, when incidents are assigned contributing factors (CFs).

The data developed from incident investigations

are analyzed and presented to the Oregon Legislature. Information collected by PARC is used to:

- Identify the appropriate agencies that can assist during a pesticide-related event.
- Conduct training of other agencies' personnel to ensure information collection.
- Develop educational materials aimed at reducing exposures.
- Make recommendations to state and federal agencies regarding products and application practices with the aim of reducing acute pesticide poisonings.

Information collected by the PARC program is available and provided to the public, other agencies, and business interests. Information is also provided to the U. S. Environmental Protection Agency (US EPA) and the U. S. Fish and Wildlife Service (US F&W) when appropriate. These federal agencies combine PARC data with information from other states to identify possible national trends regarding pesticide products or uses. Upon request, pesticide product manufacturers, industry organizations, and public-interest groups are also provided the information developed by PARC agencies and any conclusions that PARC has drawn from that information.

Information is disseminated to targeted groups through presentations at training seminars, meetings, and through pesticide safety literature. PARC anticipates expanding public and professional educational efforts as the program moves forward.

Education is identified as a key component to collecting and substantiating exposure scenarios. Delays in reporting pesticide exposures inhibits the ability of PARC and individual member agencies to gather adequate information, identify rule violations, and evaluate the relationships between reported exposures and adverse impacts to people, animals, or the environment.

Biennial report

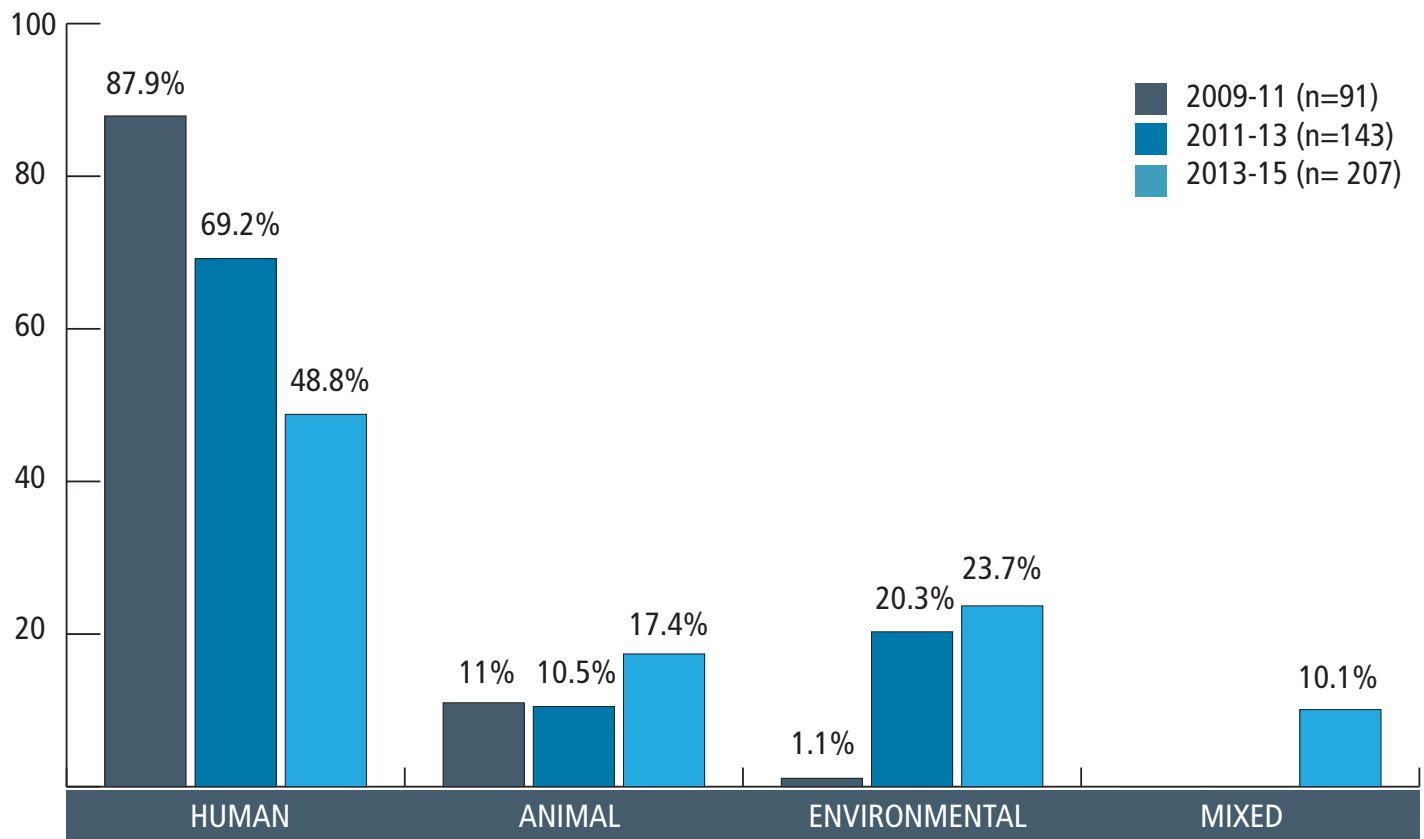
This biennial report covers the period from July 1, 2013 to June 30, 2015. A PARC Legislative Report has not been published since January 2016. This delay was caused by a number of factors.

- The schedule of PARC meetings limits the Board’s availability to discuss incidents. Normally, the PARC board meets every other month for three hours to address PARC-related issues and to classify PARC cases. This meeting schedule affects PARC’s ability to work through the backlog of PARC cases.
- PARC continues to operate without a

database in which data may be entered and associations between contributing factors may be closely examined. Further delays in database development inhibit PARC’s ability to fully carry out its mandated mission in the areas of trend analysis and policy recommendations.

PARC classifies incidents as human, animal, or environmental. A single PARC incident may also fall into multiple classifications (‘mixed’). During the reporting period from July 1, 2013 through June 31, 2015, there were a total of 207 PARC incidents. Of these incidents, 101 were coded human, 36 were coded animal, 49 were coded environmental, and 21 incidents were mixed.

Percent of PARC incidents, by class



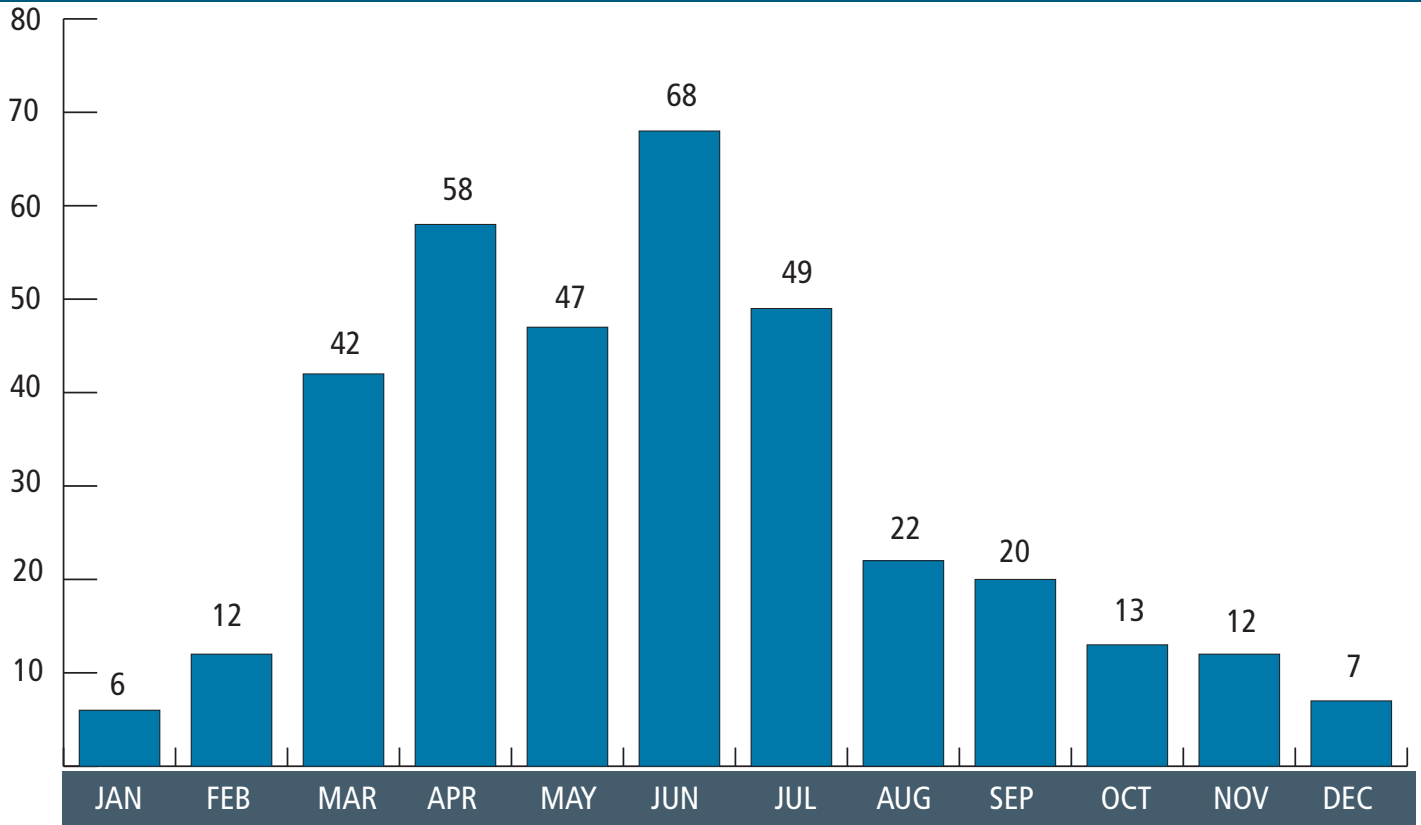
Data Sources for PARC Pesticide-Related Incidents

	June 2013-July 2014	July 2014-June 2015
DEQ	5 (3.4%)	4 (1.63%)
Medical record	8 (5.44%)	6 (2.45%)
ODA	55 (37.41%)	112 (45.71%)
ODFW	1 (0.68%)	1 (0.41%)
*OERS	11 (7.48%)	8 (3.27%)
OPC	0 (0%)	2 (0.82%)
OR-OSHA	9 (6.12%)	18 (7.35%)
***Reporter	40 (27.71%)	46 (18.78%)
SFM	0 (0%)	0 (0%)
News	5 (3.4%)	5 (2.04%)
ODFW	1 (0.68%)	4 (1.63%)
USFW	0 (0%)	1 (0.41%)
Environmental data sufficient for a regulatory decision	12 (8.16%)	30 (12.24%)
Insufficient environmental data	0 (0%)	8 (3.27%)
Total incidents	74	133

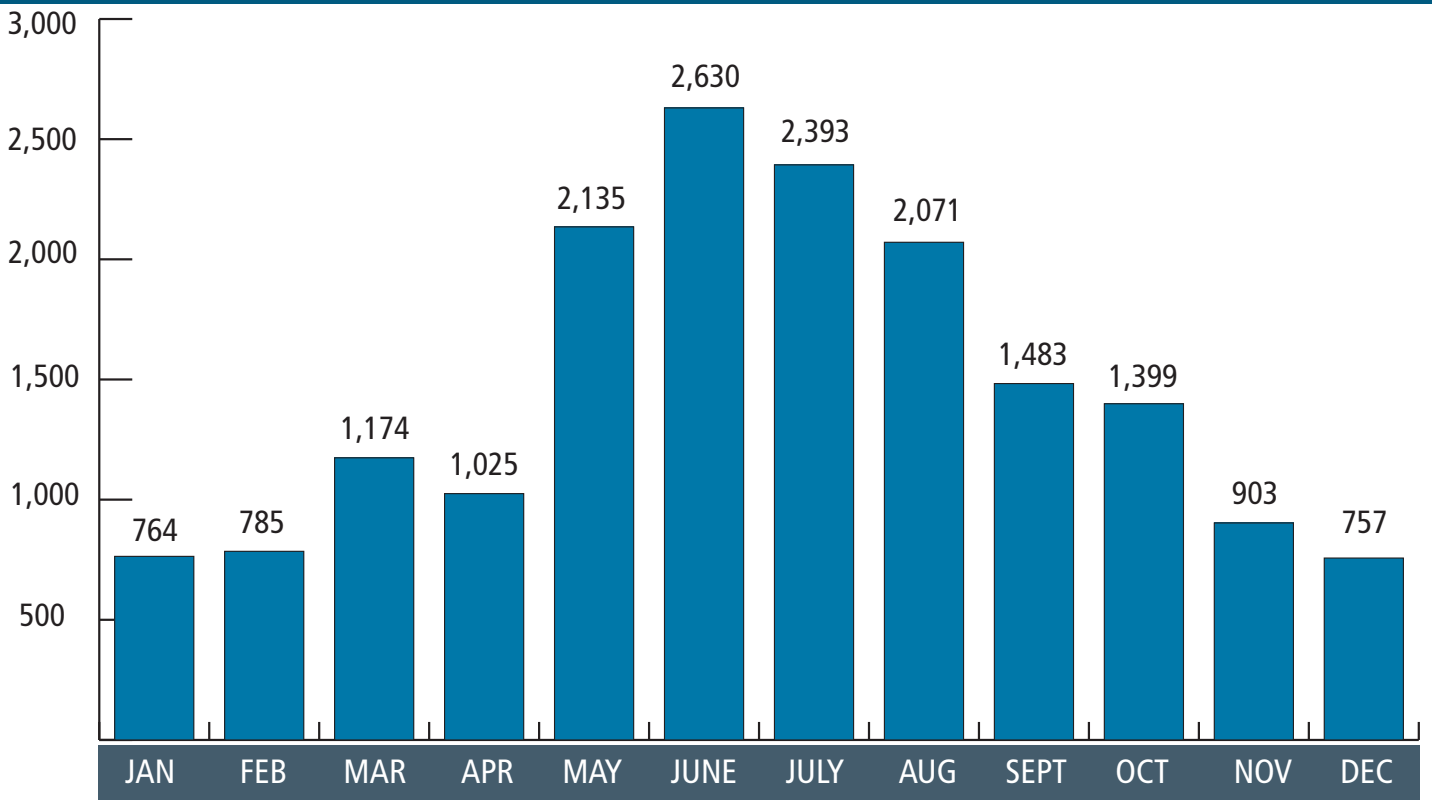
The percent by which a PARC member agency participates in all PARC pesticide-related incidents. More than one agency may be involved in a PARC incident thus, the percentages add up to greater than 100 percent.

- * PARC receives a pesticide-related report from the Oregon Emergency Response System (OERS).
- ** Medical records are requested by OHA's Pesticide Exposure Safety and Tracking (PEST) program when a health care provider has diagnosed a patient with having a pesticide-related illness/injury or when the complainant reported having sought medical treatment.
- *** Multiple individuals may be affected in a single PARC incident. OHA's Pesticide Exposure Safety and Tracking (PEST) program attempts to conduct exposure pathway interviews with individuals reporting symptoms they associate with a pesticide exposure.
- The Oregon Department of Agriculture is the main source of PARC's pesticide-related incident information.

PARC pesticide incidents by month, 2009-15



Pesticide incidents by month reported to National Pesticide Information Center, 2009-15



Incident location

PARC tracks the locations, by county, for all pesticide-related incidents. No PARC incidents occurred in Gilliam, Grant, Harney, Sherman, and Wallowa counties during this reporting period. PARC was unable to identify the county for one PARC incident. Oregon counties with the largest populations (in order) are: Multnomah, Washington, Clackamas, Lane, and Marion. It stands to reason that the highest populated counties would have the highest number of pesticide-related incidents.

COUNTY	FY '14	TOTAL %	FY '15	TOTAL %
Baker	3	4.05	3	2.27
Benton	4	5.41	6	4.55
Clackamas	10	13.51	11	8.33
Clatsop	0	0.00	1	0.76
Columbia	1	1.35	4	3.03
Coos	0	0.00	1	0.76
Crook	0	0.00	1	0.76
Curry	1	1.35	1	0.76
Deschutes	1	1.35	4	3.03
Douglas	3	4.05	12	9.09
Gilliam	0	0.00	0	0.00
Grant	0	0.00	0	0.00
Harney	1	1.35	0	0.00
Hood River	1	1.35	2	1.52
Jackson	1	1.35	4	3.03
Jefferson	0	0.00	3	2.27
Josephine	1	1.35	3	2.27
Klamath	0	0.00	2	1.52
Lake	0	0.00	1	0.76
Lane	4	5.41	8	6.06
Lincoln	1	1.35	3	2.27
Linn	3	4.05	4	3.03
Malheur	0	0.00	0	0.00
Marion	10	13.51	12	9.09
Morrow	1	1.35	0	0.00
Multnomah	11	14.86	18	13.64
Polk	2	2.70	3	2.27
Sherman	0	0.00	0	0.00
Tillamook	0	0.00	2	1.52
Umatilla	2	2.70	1	0.76
Union	3	4.05	0	0.00
Wallowa	0	0.00	0	0.00
Wasco	1	1.35	1	0.76
Washington	8	10.81	10	7.58
Wheeler	0	0.00	1	0.76
Yamhill	1	1.35	10	7.58
Totals	74		132	

Incident sites

Once PARC classifies pesticide-related incidents as human, animal, or environmental, the PARC Board assigns contributing factors. For a list of PARC’s contributing factors, see Appendix 2.

Currently, there are approximately 100 contributing factors that may be assigned to a PARC incident. These factors are divided into eight broad categories: application/incident sites (where did the incident happen); exposure sites (where did the exposure happen and only assigned when the incident and exposure sites differ); data sources for the incident; what was the intended target of the application; application factors; exposure factors; other factors; and remedial actions taken by a PARC member agency.

Eighty-four times, the Application and Exposure sites were different. For the third consecutive biennia, an agricultural site was the primary location for the application site with single family housing being the primary exposure site.

	Application sites	Exposure sites
Agriculture	72	31
Commercial	12	12
Forestry	14	6
Golf course	1	1
Hospital	1	1
Industrial	4	4
Mobile home	1	1
Multi unit	16	17
Nursing home	1	1
Other	11	8
Park	6	5
Right of way	21	20
School	1	2
Single family home	27	81
Unknown	1	1
Vehicle	4	8
Total	193	199

Application targets

PARC tracks the intended target of pesticide applications in pesticide-related incidents. Concomitant with an agriculture site being the primary location for PARC incidents, an agricultural pest was the main target in PARC’s pesticide-related incidents. A target is defined as what is the pesticide product’s intended use e.g. weeds, insects, fungi, etc.

	Application sites
Ag	61
Bedbugs	2
Community	1
Forestry	12
Irrigation ditch	2
Other	5
Indoor insect	8
Other indoor pest	10
Outdoor pest	20
Right of way	12
Vegetation/weed control	41
Total	174

Application factors

Application factors are those factors that may have led to a pesticide incident and are determined by PARC member agencies. Percent assigned during this reporting period.

	Number (n=207)	%
Application equipment failure	5	2.4
Drift	25 (22 by licensed applicators)	12.1
Excessive application of a pesticide	8	3.9
Illegal pesticide used or dumped	1	0.5
Improper storage leading to release	1	0.5
Industrial accident	5	2.4
Intentional harm	3 (1 suicide)	1.4
Label reportedly not read	2	1
Licensed applicator not properly trained/supervised	4	1.9
Misapplication	11 (10 times outdoors)	5.3
Spill/splash of liquid or dust (not involving application equipment failure)	11	5.3
Unlicensed applicator (when required)	6	2.9

Exposure factors

Exposure factors are those factors that may have led to people or animals being exposed to pesticides. These factors are not verified by PARC member agencies. In parenthesis is the percent that these application factors were assigned during this reporting period. Multiple exposure factors may be assigned in a single PARC incident.

	Number (n=207)	% assigned in PARC incidents
Chemical sensitivity is reported	5	2.4
Contact with treated article	1	0.5
Decontamination not adequate or timely	4	1.9
Early re-entry	2	1
Exposure/symptoms reported	107	51.7
Inadequate ventilation	1	0.5
Inadvertent animal exposure	23	11.1
Label insufficient to protect or non-target health	3	1.4
Mixing and loading antecedents	2	1
Occupational exposure	27	13
Off-site movement/odor reported	56	27.1
Pediatric exposure (children <6)	4	1.9
People were in the treated area during application	10	4.8
Performing unauthorized activity	3	1.4
PPE eye (required protection not worn/inadequate)	4	1.9
PPE gloves (required but not worn/inadequate)	7	3.4
PPE other (required protection not worn/inadequate)	1	0.5
PPE respirator (required protection not worn/inadequate)	1	0.5
Required notification/posting lacking or ineffective	3	1.4
Vegetation symptom consistent with formulation	3	1.4
Veterinary product exposure	0	0

Occupational incidents

A number of PARC's incidents happened in the workplace. An occupational incident is defined as an individual was performing an on-the-job activity when the exposure to pesticides was alleged. The Oregon Occupational Safety and

Health Administration (OR-OSHA), a subdivision of the Oregon Department of Consumer and Business Services, is the state agency responsible for investigating pesticide incidents that take place in the workplace. There were 28 occupational incidents from July 1, 2013, through June 30, 2015.

	Type	EPA Reg. No.	Active ingredient(s)	Number of people involved	Medical treatment sought	Agency / Number of violations	Reason(s)
1	Fungicide	264-777	Trifloxystrobin	3	Y	OR-OSHA/2 ODA/0	Required Notification/posting lacking or ineffective
	Fungicide	66330-35	Fenhexamid				
2	Insecticide	62719-72	Chlorpyrifos	1	Y	OR-OSHA/0 ODA/0	NA
3	Animal repellent	NA	Capsaicin	3	Y	OR-OSHA/0	NA
4	Fungicide	66591-1	Copper naphthenate	1	Y	OR-OSHA/1 ODA/LOA	Lack of medical evaluation/respirator
5	Herbicide	34704-864	Glyphosate	4	Y	OR-OSHA/10	No decontamination supplies, PPE not provided, no WPS training.
6	Insecticide	NA	Deltamethrin	2	Y	OR-OSHA/6	People were in the treated area, performing an unauthorized activity.
7	Insecticide	9688-254	Tetramethrin	1	Y	OR-OSHA/1	Required Notification/posting lacking or ineffective
8	Insecticide	66222-9	Diazinon	1	N	OR-OSHA/7 ODA/18	Lack of PPE (gloves, respirator, etc), and decontamination not adequate or timely
9	Insecticide	70506-187	Sulphur	1	Y	OR-OSHA/4	Lack of PPE (gloves, eye), and decontamination not adequate or timely
10	Herbicide	NA	2,4-D, triclopyr	1	Y	OR-OSHA/1	Decontamination not adequate or timely
11	Disinfectant	10321-141	ADBAC, DDAC	1	Y	OR-OSHA/3	Lack of PPE (gloves)
12	Herbicide	62719-424	Oxyfluorfen	1	N	ODA/0	NA
	Herbicide	264-766	Flufenacet	1	N		
13	Fungicide	68573-2	Mono- and di-potassium salts of phosphorous acid	1	Y	OR-OSHA/1	Required Notification/posting lacking or ineffective, inadequate ventilation of treated area
14	Disinfectant	10324-141	1-decanaminium, N-decyl-N,N-dimethyl-, chloride	1	Y	OR-OSHA/2	Lack of PPE (eye) not worn or inadequate

Chart continued on next page

Occupational incidents (continued from previous page)

	Type	EPA Reg. No.	Active ingredient(s)	Number of people involved	Medical treatment sought	Agency / Number of violations	Reason(s)
15	Herbicide	352-581	Hexazinone	4	Y	OR-OSHA/2	Failure to notify and pesticide application record not posted
16	Insecticide	71096-11	Calcium polysulfide	1	N	OR-OSHA/1 ODA/0	pesticide application record not posted
	Fungicide	7969-199	Pyraclostrobin	1	N	OR-OSHA/10 DEQ/3	Lack of PPE (respirator), no fit tests, lack of inspection of respirator ~~~~~ Discharge waste into waters of the state
17	Herbicide	1381-192	Glyphosate	3	N	ODA/Letter of Advisement	NA
18	Herbicide	5905-579	Hexazinone	1	Y	OR-OSHA/11 ODA/2	People were in the treated area ~~~~~ Licensed applicator not properly trained/supervised.
	Herbicide	228-491	Clopyralid				
	Herbicide	66222-36	Atrazine				

Application factors

PARC tracks pesticides that are involved in incidents to examine for use trends. The U.S. Environmental Protection Agency (EPA) registers pesticide products (with the exception of products that do not require registration, such as 25(b) products) and assigns EPA registration numbers. Registration numbers allow one to uniquely identify a specific pesticide product. Data for the types of pesticides, e.g., insecticide, fungicide, insecticide, etc., are listed below.

Pesticide type	Number
25b	1
Algaecide	1
Antifouling Agent	1
Antimicrobial	1
Disinfectant	10
Fumigant	1
Fungicide	32
Herbicide	140
Insect growth regulator	1
Insecticide	62
Miticide	1
Molluscicides	1
Plant growth regulator	3
Animal repellent	2
Insect repellent	10

Restricted Use Pesticides (RUPs)

Restricted use pesticide products (RUP) are those products that may only be used by a certified pesticide applicator or under the direct supervision of a certified applicator. From July 1, 2013, through June 30, 2015, PARC identified four restricted use products involved in PARC incidents.

Product name	EPA Reg. No.	Active ingredient(s)	Signal word	Type	Site used
Dursban 50W in water soluble packets	62719-72	chlorpyrifos	Danger	Insecticide	Ag
Diazinon AG500	66222-9	diazinon	Caution	Insecticide	Ag
Sectagon 42	61842-6	sodium methylthiocarbamate	Danger	Insecticide	Ag
Scimitar GC Insecticide	100-1088	lambda-cyhalothrin	Caution	Insecticide	Ag

Animal incidents

From July 1, 2013, through June 30, 2015, PARC received 48 allegations that animals had been negatively impacted by pesticide use. In 31 of these instances, no violations of the state’s Pesticide Control Act were found. In seven of these instances, ODA issued a Letter of Advisement, and in 10 of these instances, ODA issued a citation.

Appendix 1

PARC member agencies' case referral criteria

Background: The Pesticide Analytical and Response Center (PARC) was created by executive order in 1978. With the passage in 1991 of Senate Bill 740, the program was reauthorized under the Oregon Department of Agriculture (ODA) as ORS 634.550. By legislation, membership of the governing board consists of representatives of eight state agencies, and one member of the public appointed jointly by the Director of Agriculture and the Director of Human Services.

The Center collects and shares information about pesticide-related incidents involving alleged impacts to human health, animal health, and/or the environment. By statute, PARC is mandated to perform the following activities with regard to pesticide-related incidents in Oregon that have suspected health or environmental effects:

- Collect incident information
- Coordinate and mobilize expertise for investigations
- Identify trends and patterns of problems
- Make policy or other recommendations for action

- Report results of investigations
- Prepare activity reports for each legislative session

In order to facilitate the timely transfer of incident information between PARC member agencies, this document was developed to document the statutory authority, pesticide-related jurisdiction(s), and/or areas of expertise for each member agency. The intended purpose of this document is to serve as a reference for representatives of PARC member agencies, and the PARC Coordinator, in the early stages of any PARC case; the user should refer to these criteria and provide referrals as indicated.

Agencies current contact information (2019)

Pesticide Analytical and Response Center	
<p>Administrator: Stephanie Page</p> <p>Co-Chair: Theodore Bunch Jr.</p> <p>Co-Chair: Curtis Cude</p> <p>Contact: Coordinator Theodore Bunch Jr. (503) 986-4562</p> <p>635 Capitol St. NE Salem, OR 97301</p>	<p>Referral Criteria: PARC should be notified at (503) 986-6470 as soon as possible after any pesticide-related incident that is alleged to have had an impact on human and/or animal health, or the environment (air, soil, water).</p> <p>Resources/Programs: By referral and coordination, PARC has the capacity to tap into resources from each of its member agencies.</p>

Oregon Department of Agriculture: Pesticides Program

Contact: Dale Mitchell, Program Manager, (503) 986-4646

Oregon Department of Agriculture
635 Capitol St. NE
Salem, OR 97301

Referral Criteria: ODA Pesticide Division would like to be notified as soon as possible whenever a violation of Oregon’s Pesticide Control Law (ORS 634 & OAR 603) is suspected. This would include any suspected misuse, drift, or otherwise faulty, careless or negligent acts related to pesticide use, storage, distribution or disposal.

Resources/Programs: ODA has field staff positioned around the state with experience in pesticide application technology and regulation. As part of an investigation, ODA has access to laboratory services. ODA maintains a label for each pesticide registered in Oregon and a database of information about those products. ODA also maintains a database of information about pesticide-related licenses and licensees.

Oregon Department of Fish & Wildlife

Contacts: General Issues — Danette Faucera, Water Policy Coordinator, (503) 947-6092 or Spills — Art Martin, (503) 947-6082

Oregon Department of Fish & Wildlife
4034 Fairview Industrial Drive SE
Salem, OR 97302

Referral Criteria: ODFW would like to be notified as soon as practicable or within 24 hours of any suspected pesticide related poisoning of fish or wildlife. Pesticide spills should be reported to the Oregon Emergency Response System (OERS) who has a call down list and will contact the appropriate ODFW staff when necessary. OERS phone number is (800) 452-0311.

Resources/Programs: ODFW district biologists handle issues with pesticide poisoning or spills that affect fish and wildlife. ODFW biologists assist to identify potential fish and wildlife receptors and resources that are at risk; assess extent of damage to the resource(s); collect samples for analysis and to identify laboratories for analysis.

Oregon Health Authority Public Health Division Center for Prevention and Health Promotion

Contacts: Curtis Cude, (971) 673-0975; Crystal Watson, (971) 673-3285

Oregon Health Authority
800 NE Oregon St., No. 640
Portland, OR 97232

Referral Criteria: The PEST Program in the Environmental Public Health Section, which is part of Center for Prevention and Health Promotion at OHA-Public Health, would like to be notified by email, fax or phone of reports of human health symptoms thought to be pesticide-related within 24 hours.

Resources/Programs: The PEST Program is made up of a portion of a program analyst who can draw upon the expertise of toxicologists and an industrial hygienist in Environmental Public Health Section. Drinking water engineers, research analysts and epidemiologists at OHA-Public Health may be available, as needed.

Oregon Department of Forestry

Contact: Nate Agalzoff, Incentives Field Support Coordinator, (503) 536-3348

Oregon Department of Forestry
2600 State Street
Salem, OR 97310

Referral Criteria: ODF would like to be notified any time there is a report or allegation of damage to natural resources, human health, or human property as a result of a forest pesticide application, spill, or other related activity. If the application is ongoing, immediate notification is requested. If it is over, ODF requests notification as soon as is practical.

Resources/Programs: ODF has field offices across the state. ODF field foresters administer forest practice pesticide rules, which deal with natural resource protection. ODF investigates incidents that may involve violations of the forest practices rules. ODF maintains a database of information on planned forest pesticide applications.

Oregon Department of Environmental Quality

Contact: Kate Jackson,
Regional Liaison of the
Western Region,
(503) 975-0895

Department of Environmental
Quality
3150 NW 229th Ave.,
Suite 150
Hillsboro, OR 97124

Eastern office:
(541) 388-6146, Ext. 236
Northwest Office:
(503) 229-5474
Western Office:
(503) 378-8240, Ext. 227

Referral Criteria: If there is a pesticide spill, release, or other emergency response situation, DEQ would be notified through OERS. Chuck Donaldson is the manager of the Emergency Response Section. For pesticide complaints, forward to the regional contacts on the left.

Resources/Programs: DEQ has field staff available in district offices and a dedicated laboratory facility. Water quality, air quality and environmental quality are all regulated by DEQ.

Office of the State Fire Marshal

Contact: Michael Heffner,
Assistant Chief Deputy,
Emergency Response Services
Branch, (503) 934-8030

Office of the State Fire
Marshal
3565 Trelstad Ave. SE, Salem,
OR 97317

Referral Criteria: The OSFM prefers to stay in communication regarding pesticide-related incidents by participating in PARC meetings. Because their requirements are based on storage, they do not require notification of pesticide incidents. OSFM may respond to incidents on a case-by-case basis.

Resources/Programs: The OSFM can offer information about hazardous materials, including pesticides that are stored at facilities around the state including storage location, quantities and hazard type. Expertise is also available regarding application of the Oregon fire code to pesticide storage.

Oregon Occupational Safety & Health Administration

Contact: Garnet Cooke, (503)
378-3274

Salem Field Office
PO Box 14513
1340 Tandem Ave. NE,
Suite 160
Salem, OR 97309

Referral Criteria: OR-OSHA is notified any time a pesticide-related incident or unreasonable exposure risk is occupational in nature. OR-OSHA must be notified of work-related fatalities and/or catastrophes within 8 hours of occurrence or employer knowledge, of work-related overnight hospitalization within 24 hours of occurrence or employer knowledge. Complaints are classified and responses initiated as follows:
Imminent danger: Investigation initiated within 24 hours;
Serious: Investigation initiated within 5 days;
Other-than-serious: Investigation initiated within 30 days.
OR-OSHA requests notification by phone contact with email follow-up.

Resources/Programs: OR-OSHA has field staff available to investigate occupational incidents, and a library of educational materials relevant to pesticide handling, storage, and application in agriculture.

Oregon Poison Center

Contact: Charisse
Pizarro-Osilla, RN, Director,
Oregon Poison Control Center
(503) 494-2569

Oregon Poison Control Center
3181 SW Sam Jackson Park
Road
Mail Code – CSB 550
Portland, OR 97201

Referral Criteria: The OPC would like to be notified immediately at 1-800-222-1222 of any pesticide exposures for which assistance is needed in acute clinical management of the patient.

Resources/Programs: OPC staff is available for consultation and advice regarding clinical toxicology issues.

Oregon Department of Transportation

Contact: Will Lackey,
Vegetation Management
Coordinator, (503) 986-3010

Oregon Department
of Transportation
355 Capitol St. NE, MS 11
Salem, OR 97301-3871

Referral Criteria: ODOT is notified of any pesticide-related incident that involves with Oregon's state highway system.

National Pesticide Information Center (NPIC) at Oregon State University

A cooperative effort between OSU and the US EPA

Contact
(800) 858-7378
7:30 a.m. to 3:30 p.m. Pacific Time, Monday through Friday

Oregon State University
333 Weniger Hall
Corvallis, OR 97331
www.npic.orst.edu

Referral Criteria: NPIC is not notified about pesticide-related incidents unless incident managers/consultants need access to specific information or resources.

Resources/Programs: NPIC's "user-friendly" scientists can communicate technical pesticide-related information to the general public, health care providers, and local, state and federal agencies. They help callers find assistance with emergency treatment, pesticide cleanup, disposal, and laboratory analysis. If an incident or question requires more technical expertise than the specialist can provide. OSU faculty are available for consultation.

Oregon Institute of Occupational Health Sciences (formerly known as CROET)

Contact: Fred Berman,
Director, Toxicology
Information Center,
(503) 494-7366
or (800) 457-8627

3181 SW Sam Jackson Park
Road, L606
Portland, OR 97239

Referral Criteria: The Institute would like to be contacted by anyone who has a need for scientifically based information relevant to the environmental, human and animal toxicology of pesticides.

Resources/Programs: The Institute is not notified about pesticide-related incidents unless incident managers/consultants use the Toxicology Information Center, a special-use library with access to a variety of occupational safety and health and environmental information resources, including those related to the use of pesticides. The Institute also has on staff a toxicologist and an industrial hygienist who are prepared to answer questions related to the use of chemicals (including pesticides) in the home and workplace.

Appendix 2

PARC Contributing Factors (CFs) and Definitions

A) PARC Contributing Factors (CFs) and Definitions

Application /incident and exposure sites

This category is mutually exclusive; only one site may be coded.

1. Private residence

1a. Single family home: Private, detached residence usually with front/back yards; driveway and attached carport or garage.

1b. Multi-unit housing (apartment): Housing structure containing more than one living unit for families or persons.

1c. Mobile home/trailer: A large trailer, fitted with parts for connection to utilities that can be installed on a relatively permanent site and that is used as a residence.

1d. Housing authority building: A housing development that is publicly funded and administered for low-income persons or families.

2. School: The buildings, other structures, playgrounds, athletic fields, and parking lots of a school and any other areas on the school property that are accessed by students on a regular basis.

3. Institution

3a. Nursing home/care facility: A structure that serves as living quarters/care for the elderly or the chronically ill, and which is staffed and equipped to care for them.

3b. Hospital: A structure where medical, surgical, or psychiatric care and treatment for the sick or the injured takes place; this includes outpatient facilities.

3c. Homeless shelter: A structure that serves as a temporary residence for homeless people or emergency shelter for those in need.

4. Hotel/motel: A structure where the provision of paid lodging on a short-term basis takes place.

5. Vehicle

6. Forestry: A site where the harvesting of trees and/or growing and tending of trees (silviculture) occurs as a commercial activity.

7. Agricultural (e.g. farm, nursery): A site where the growing of plants (excluding forestry) or raising of livestock for foodstuffs or other products takes place. This includes, but is not limited to: Christmas trees, fruit, grains, vegetables, dairy, poultry and egg, horses, cattle, game, fur production, worm, pet breeding, apiaries and aquaculture facilities. Included are nurseries and greenhouses.

8. Commercial (e.g. office park, retail): A site where activity is focused on, but not limited to mercantile exchange, including: retail settings, office parks, and service stations.

9. Road, right-of-way, trail, Non-Ag: A strip of land that is public land, private land, or has been granted through an easement or other mechanism, use for transportation purposes, such as a trail, driveway, rail line or highway.

10. Public/municipal park

11. Industrial (e.g. manufacturing): A site where the main activity is the production or repair of tangible economic goods. This includes but not limited to: factories, chemical processing facilities, and machine shops.

12. Golf course: An outdoor series of linked grass fields, each consisting of a teeing ground, fairway, rough and other hazards, and a green with a flagstick (pin) and cup, all designed for the game of golf.

13. Construction: Site where structures are in the process of being made, including, but not limited to: houses, office parks, school, etc.

14. Other: Used when a site doesn't fit into any of the above categories

B) Data Sources for Incidents

This category is NOT mutually exclusive; there may be more than one source.

1. OPC Fax: A report from a Poison Control Center, usually Oregon Poison Center, which details the conversation

between clinical staff & callers seeking advice (as recorded by the PCC staffer) on the medical management of an incident reported as pesticide poisoning.

2. Reporter Interview with PEST: A standardized report on the exposure pathway of a reported pesticide exposure, as described, by the person (or guardian) reporting exposure, to OHA's PEST Program staff.

3. Official reports from PARC member agencies that pertain to the incident in question:

- 3a. ODA Report
- 3b. OR OSHA Report
- 3c. ODF Report
- 3d. ODFW Report
- 3e. SFM Report
- 3f. DEQ Report
- 3g. OHSU/Dr. Berman
- 3h. Other

4. Medical Record: An electronic or paper compendium of a single patient's medical history and care across time.

- 4a. human
- 4b. animal, from a veterinarian

5. Insufficient environmental data: an agency did not conduct environmental sampling of application/exposure site.

6. Environmental data sufficient for regulatory decision: The results of agency-conducted environmental sampling was sufficient for agency decision-making.

7. OERS Report: A standardized report issued by the Oregon Emergency Response System regarding a reported pesticide release and/or exposure.

8. News media: online, newspapers, magazines, etc.

9. No return call to PEST

10. ODOT: Oregon Department of Transportation

11. USFW: United States Fish and Wildlife

12. EPA Region 10

C) Intended Targets

This category is mutually exclusive; there may be only one

target.

1. Bed bugs: Used when the intended target of the pesticide application in question is the insect Cimex lectularius.

2. Other indoor household insect pest: household insect/arachnid pests - Used when the intended target of the pesticide application in question are insects (besides bedbugs) or spiders.

3. Other indoor pest: Used when the intended target of the pesticide application in question, is an indoor pest other than an insect or spider – e.g. mold, bacteria, mice, rats

4. Vegetation/weed control: Used when the intended target of the pesticide application in question is a weed or other undesired plant.

5. Human: Used when a pesticide product is applied to humans e.g. DEET mosquito repellent

6. Outdoor pest control: Used when the intended target of the pesticide application in questions is an outdoor pest e.g. moss/mold/insect/rodent/disease/etc

7. Forestry: Used when the intended target of the pesticide application in question is a tree(s) for silviculture/forestry purposes.

8. Agriculture: Used when the intended target of the pesticide application in question is a site where the growing of plants (excluding forestry) or raising of livestock for foodstuffs or other products takes place. This includes but is not limited to: Christmas trees, fruit, grains, vegetables, dairy, poultry and egg, horses, cattle, game, fur production, worm, pet breeding, apiaries and aquaculture facilities. Included are nurseries and greenhouses.

9. Roadside/Right-of-Way: Used when the intended target of the pesticide application in question is unwanted vegetation in and around a strip of land that is used for transportation purposes, such as a trail, driveway, rail line or highway.

10. Community Application (Japanese beetle, gypsy moth): Used when the intended target of the pesticide application in question is government-mandated eradication of invasive species or for public health purposes.

11. Irrigation ditch: Used when the intended target

of the a pesticide application is either the water in an irrigation ditch or the vegetation in an irrigation ditch

12. Non-native/invasive fish: Used when the intended target of the pesticide application is an invasive fish/ animal

13. Vector e.g. mosquito/rodent: Used when the intended target of the pesticide application in question may transmit a pathogen to a host

14. Other

D) Application Factors

This category is NOT mutually exclusive; there may be more than one application factor. Application factors are agency-verified.

1. Spill/splash of liquid or dust (not involving application equipment failure): The unintentional leak or spill of pesticide material from its container from any cause. The leak or spill could have occurred at the time of exposure or prior to the exposure.

2. Application equipment failure: Improper preparation, assembly, maintenance, or failure of application equipment. This code's appropriate for nozzles plugging, valves not tightened properly, spray lines splitting, o-ring failure, leaking backpack sprayers, or malfunctions such as fogger spraying to the side or aerosol can nozzle malfunctioning.

3. Mixing of incompatible products: e.g. bleach & ammonia

4. Improper storage leading to release: Pesticide stored contrary to label, leading either to spontaneous release or to environmental conditions causing release (e.g. storage of aerosols in heated vehicle).

5. Label reportedly not read

6. Excessive application of pesticide: Pesticide applied above the label rate and/or if an excessive number of products were used.

7. Drift: commercial-Agriculture-forestry-vector control - Movement of pesticides that were applied by an individual functioning in one of these occupational capacities, away from the treatment site. Pesticide spray, mist, or fumes are carried from the target site by air.

8. Drift: originating from application by resident - Movement of pesticides that were applied by a private resident, away from the treatment site. Pesticide spray, mist, or fumes are carried from the target site by air.

9. Misapplication by homeowner, indoors.

10. Repeated incident/violation by applicator: Factor attached to two or more incidents involving applications by the same individual.

11. Misapplication by homeowner, outdoors.

12. Misapplication: vector control operator

13. Misapplication: use of a cancelled product

14. Misapplication pest control operator, indoors.

15. Intentional harm

16. Misapplication: pest control operator, outdoors

17. Misapplication: Forestry operator

18. Misapplication: agricultural operator

19. Misapplication by /Right of Way/non-Agriculture: An application of a pesticide by an individual functioning in one of the specified capacities in a manner that contradicts either the label language for that pesticide or current agency regulations.

20. Application by minor

21. Improper storage within reach of child: Pesticide left in such a way that a reasonable adult concludes that a child was able to access it

22. Gaseous release (from fumigant use): Individual reporting exposure to gas because: A) of entry into treated area (no placarding; temperatures slowed; incorrectly gauged fumigation time; individual thought enough time had passed); B) the gas had moved through application structure (raceways, piping) or through tunnels and caused exposure; or C) failure to use prescribed PPE.

23. Unlicensed applicator (when required): Used when the applicator in question is neither licensed (as required) nor working under the supervision of a currently licensed applicator, as determined under current ODA regulations.

24. Licensed applicator not properly trained/supervised: In accordance with current agency regulations.

25. Industrial accident

26. Impaired applicator: Used when the incident in question reportedly took place because the applicator was under the chemical influence of the pesticide(s) in question

27. Gaseous release (from fumigant deactivation): Individuals reporting fumigant exposure from A) unused fumigant remaining at site (not activated by application), and/or B) improper disposal of materials/equipment, which resulted in explosion.

28. Illegal pesticide used/illegal dumping of pesticide: Used for incidents where the pesticide(s) in question was either used when not registered with ODA (and therefore, illegal for use in Oregon) or disposed of in a manner contrary to its label or ODA/ODF/DEQ regulation.

29. Total release fogger used: Sometimes called “bug bombs,” these are pesticide products designed to fill an area with insecticide and often are used in homes and workplaces to kill cockroaches, fleas, and flying insects.

E) Exposure Factors

This category is NOT mutually exclusive; there may be more than one exposure factor. Exposure factors may or may not be agency verified.

1. Required Notification/posting lacking or ineffective: Applications for which verbal or written (and posted in conspicuous area) notification is required by label language for that pesticide or current agency regulations.

2. People were in the treated area during application: Attached to incidents where people were present in an area under application likely led to the incident

3. Inadequate ventilation of treated area before re-entry: Attached to incidents where inadequate ventilation of treated area is likely to have led to the symptoms reported by people who entered that area.

4. Early re-entry: Attached to incidents where people entered a treated area (without required PPE) before the passage of the Restricted Entry Interval (REI) stated on the label for the pesticide used.

5. Contact with treated article: For incidents reportedly involving physical contact with a treated item

e.g. mosquito net treated with permethrin.

6. Mixing & loading antecedents: Attached to incidents where actions/activities done to prepare a pesticide for application or to load it into application equipment likely led to the incident

7. Occupational exposure: Used when the person reporting exposure in question was engaged in an on-the-job activity for which either she/he was earning a wage/ salary or for a job that she/he was voluntarily performing.

8. PPE Eye: Used when the PPE specified is either not used (or not used correctly) as directed by the formulation’s label or current PARC agency regulation.

9. PPE Gloves: required gloves not worn/inadequate.

10. PPE respirator: required respirator not worn/ inadequate.

11. Performing an unauthorized activity.

12. PPE Other: other PPE not worn/inadequate.

13. Decontamination not adequate or timely: Used when the exposure in question may have occurred because either the decontamination was as not as specified on the label or because too much time elapsed between exposure and when appropriate decontamination occurred.

14. Exposure/symptoms: When a person or the treating health care provider reports signs and/or symptoms that they attribute to the pesticide release in question.

15. Label insufficient to protect public health or non-target health.

16. Chemical sensitivity

17. Inadvertent animal exposure: Used when the animal exposure in question occurred to domestic pets (often dogs) or wildlife (often geese) that were NOT the intended target of the application.

18. Veterinary product exposure: Used when a person reports exposure to a pesticide formulation intended for use on animals.

19. Vegetation symptom consistent with the formulation: Used when ODA/ODF personnel report plant damage that is consistent with the effects of the pesticide in question.

20. Off-site movement/odor reported.

21. Pediatric exposure of children < 6.

F) Other Factors

This category is NOT mutually exclusive; there may be more than one 'other' factor.

1. Neighbor-to-neighbor conflict: Incident between two or more residential addresses involving (but not limited to) report of off-site movement of pesticide.

2. Residential - Agricultural Interface: Incident reportedly occurring where one party is an agricultural interest and the other a residential interest.

3. Group exposure ≥3 or more people: Used when three or more people report symptoms that they (or a health care provider) attribute to the same pesticide release or application.

4. Residential - Forestry Interface: Incident reportedly occurring where one party is an agricultural interest and the other a residential interest.

5. Site with repeated reports of exposure/ symptoms: Address or geographic location where two or more PARC incidents have been reported.

6. No public health department access to other ingredients, because of confidential business information: Attached to incidents where the manufacturer of the pesticide formulation in question, citing confidential business information, refuses to provide the chemical make-up of that formulation's 'other ingredients' to the Oregon Health Authority.

7. Medical treatment sought: Used when a person reporting exposure is treated by (or reports seeking treatment from) a health care provider who's licensed by the State of Oregon to perform medical care.

8. Pesticide poisoning diagnosed or suspected by HCP, but not reported, per OAR 333-018-0015 (mandatory reporting).

G) Remedial Actions

Remedial actions are those taken by individual state agencies at the conclusion of their investigation. There may be more than one remedial action; they are NOT mutually exclusive.

1. Referral to community-based mediation source

***2. ODF Citation**

***3. ODA Citation**

***4. Agency Letter Ordering**

***5. OR-OSHA Citation**

***6. OR-OSHA Hazard Letter**

7. ODA Letter of Advisement

8. No violations documented: used for incidents where no PARC agency has found violations of the either pesticide label or the agency's regulations

* Used when a PARC agency has issued this official regulatory action regarding the incident in question.

Incident notable because?

1. Bumble bee death

2. Honey bee death

3. Multi-unit housing and notification lacking/not required

4. Worker Protection Standard-related

5. Unaware of PARC member agency's regulations

6. Aerial application

7. Other