

Introduction

Created in 1990, the PIRT Review Panel continues to protect citizens against pesticide exposure through the understanding of incident causes and by developing prevention strategies.

The Pesticide Incident Reporting and Tracking (PIRT) Review Panel was created by RCW 70.104.090 to monitor pesticide-related incidents that have suspected health or environmental effects. The Panel consists of representatives of Washington State Departments of Agriculture (WSDA), Ecology (Ecology), Health (DOH), Labor and Industries (L&I), Natural Resources (DNR), and Fish and Wildlife (DFW), representatives of the University of Washington, Washington State University, and Washington Poison Center (WPC), a practicing toxicologist, and a member of the public (Appendix A).

Member agencies and the WPC conduct pesticide incident investigations in accordance with their specific statutory responsibilities and report findings to the Panel for evaluation. The Panel is mandated to perform the following activities:

- Centralize the receipt of information regarding pesticide complaints and their investigations and monitor timeliness of agencies' response to complainants.
- Review and make recommendations for procedures for investigation of pesticide incidents.
- Identify inadequacies of pesticide regulations to protect public health.
- Submit an annual report summarizing pesticide incidents to the Governor, agency heads, the legislature and the public.

The Panel has no regulatory authority but serves a review function and makes recommendations to the agencies, to the Governor and the legislature, and to federal agencies such as Environmental Protection Agency (EPA) and National Institute of Occupational Safety and Health (NIOSH).

This 2007 report is the Panel's sixteenth annual report. It summarizes pesticide-related incident reports, complaints or calls to WSDA, DOH, Ecology, L&I, and WPC. The report:

- Provides analyses of each agency's incidents and follow-up activities for 2006.
- Describes Panel and member agency activities for 2007.
- Describes how pesticide-related calls, complaints, incidents, and investigations overlap between agencies.

2006 Summary Data

Table x summarizes 2006 pesticide-related data for each agency. Pesticide-related data from each agency are described in detail in the following Agency Summary Reports. Individual incident descriptions are provided in Appendix C.

Table x Individual Agencies' Summaries of Their Specific Pesticide Events, 2006

Department of Agriculture: 206 Complaints Resulting in 137 Violations			
Complaints	206	Violations	137
Location of Complaint		Violations by Type of Activity	
Eastern Washington	128	Agriculture	42
Western Washington	78	Commercial/industrial	25
		Structural Pest Inspection (SPI)	28
		Residential (homeowners)	12
Enforcement Actions*	137	Right-of-way	4
Notice of correction (NOC)	93	Other (license/records)	26
Notice of intent/Admin action (NOI)	22		
Advisory letter/Warning letter	12	License Involved with Violations	137
Referred	0	Commercial applicator	32
Verbal warning	5	Unlicensed	43
Notice of correction/Notice of Intent	5	Private applicator	24
		Structural Pest Inspection	17
* No action indicated	69	Public operator	8
		Dealer	5
		Other	5
		Several	3
Department of Health: 232 Incidents (Events) Involving 254 Individual Cases			
Type of Incident	232	Classification of Cases	254
Agriculture	83	Definite	21
Residential	99	Probable	39
Commercial/Industrial	25	Possible	89
Other	15	Suspicious	16
Unknown	10	Unlikely	34
		Insufficient information	55
Childhood Cases < 18 years old	32	Definite, Probable or Possible Cases	149
Definite, probably or possible cases	17	Agriculture	44
		Non-Agriculture	105
Department of Labor and Industries: 17 Industrial Safety and Health Inspections 110 Worker Compensation Claims			
Pesticide-related Inspections	17	Worker Compensation Claims	110
Serious and/or General Citations	14	Agriculture	59
No citations	3	Non-Agriculture	51
Type of Business	17	Benefits	110
Orchard	9	Accepted – Medical/time loss	72
Other agricultural	5	Rejected	36
		Pending	1
Non-agricultural	3	Kept on salary	1

Department of Ecology: 34 Pesticide Complaints (Complaints may involve more than one category)

Threats to ground or surface water	10
Spills or fires	5
Pesticide disposal or waste concerns	9
Unsafe pesticide storage or handling	10

Washington Poison Center: 2,144 Human Exposure Pesticide-Related Calls

DOH-identified calls for investigation (see DOH criteria for investigation, page xx)	124
---	-----

Combined 2006 Agency Data

The number of events (defined as complaints, inspections, claims or calls) reported to agencies and calls made to WPC for the years 2002 - 2006 are listed in Table 3.

Table 3. Pesticide Events Reported to Agencies and WPC, 2002 - 2006

	2002	2003	2004	2005	2006
WSDA Complaints	255	222	200	193	206
Ecology Complaints	46	33	29	39	34
DOH Events	216	242	245	220	232
DOH Individuals Involved	270	275	269	252	254
DOSH Inspections	64	22	43	31	17
L&I Claims	109	133	101	93	110
WPC Calls	2,043	1,937	2,342	2,430	2,144

PIRT agencies and the WPC investigated a combined total of 2,743 suspected pesticide exposure incidents. Of these, 149 individuals experienced adverse health effects determined to be related to pesticide exposure. The majority of these health effects were mild. One person died. This report details the incidents and actual human illness cases investigated in 2006. Detailed information is described in the following chapters and appendices.

Overlap of Pesticide-related Events by Agency

Each agency's responsibility for responding to reports of pesticide-related incidents is outlined as follows:

- WSDA investigates complaints about misuse or misapplication, licensing, and structural inspections. WSDA enforces the language on pesticide labels and coordinates with L&I DOSH to enforce the Worker Protection Standard (WPS) for agricultural workers.
- Ecology investigates and enforces remediation of incidents involving spills or environmental contamination by pesticides.
- DOH investigates reported cases of suspected pesticide-related illness.
- L&I DOSH manages the cholinesterase monitoring program, conducts safety and health workplace inspections in agriculture/industry and investigates employee complaints and referrals from agencies and

June 16, 2008

others. With WSDA, DOSH enforces the Worker Protection Standard (WPS) for agricultural workers. DOSH also enforces other workplace safety rules.

- L&I Claims Insurance Services Division adjudicates and administers worker compensation insurance claims related to pesticide exposures.
- WPC provides information and medical advice to the public and to health care providers who call about pesticides.

Pesticide-related cases are referred between PIRT agencies when appropriate. For instance, if a WSDA investigation into a pesticide label violation finds an ill worker, the case is referred to DOH. If a DOH investigation finds a label or safety violation, it is referred to WSDA or L&I DOSH. L&I claims related to pesticide exposure are reported to DOH. These referrals result in overlapping agency data for cases involving pesticide-related illness.

As the state agency responsible for investigating cases of pesticide-related illness, DOH has formal arrangements with L&I, WSDA, and WPC to receive reports of suspected pesticide-related illnesses and injuries. With these arrangements, DOH data are the most reflective of human pesticide-related illness in the state.

Aggregation of PIRT Data

The overlap in pesticide-related cases between agencies for 2006 is illustrated in Table X. The shaded cells in Table X show the total number of incidents reported to PIRT by each agency. The white cells indicate the numbers of incidents reported by multiple agencies. Where two numbers appear in the cells, the first number represents the number of events and the second number represents the number of people involved. For example, WSDA responded to 206 complaints about incidents involving a pesticide application. The Ecology Spill Response Program investigated one incident from WSDA. DOH co-investigated 23 incidents from WSDA incidents involving 35 human illnesses. L&I Claims received four claims from workers involved in WSDA incidents. L&I DOSH received one case from WSDA. Five cases involved in WSDA incidents were reported to WPC.

Table 1. Overlap of Pesticide-Related Events* by Agency, 2006

	WSDA	Ecology	DOH	L&I Claims	L&I DOSH	WPC
WSDA	206	1	23/35	4	1	5
Ecology	1	34	1	0	0	1
DOH	23/35	1	232/254	110	4	124
L&I Claims	4	0	110	110	3	13
L&I DOSH	1	0	4	3	17	2
WPC	5	1	124	13	2	2,144

* Events include WSDA complaints by event, Ecology complaints by event, DOH incidents by people involved, L&I claims by people involved, L&I DOSH inspections by employer, and WPC calls by people involved. Where two numbers appear, the first number represents events and the second number represents people involved.

It is difficult to aggregate PIRT data because each agency collects a different type of data. For example, Ecology Spills Program data include information on actual environmental contamination and on calls from concerned neighbors about pesticide use that turned out to be legal after investigation. Data from WPC includes calls about human exposures with and without associated illness. WSDA data include actual violations, cases of crop damage, complaints about inadequate pest control inspections, and problems with licensing of pesticide applicators.

Strengths and Limitations of PIRT Data

The strengths and limitations of PIRT data were discussed in depth in the *2004 Annual Report* (pages 21-26). The limitations of state comparisons of pesticide-related illnesses are also discussed in the *2004 Annual Report*. The *2004 Annual Report* is available on the PIRT Web site at <http://www.doh.wa.gov/ehp/ts/PIRT/pubs-pirt.htm>.

Agency Response Times

Revised Code of Washington 70.104.080 (Appendix A) specifically directs the PIRT Review Panel to monitor agency response time to pesticide-related incidents for the departments of Agriculture, Health, and Labor and Industries. Response time is defined as the interval between initial report of an incident and an agency’s first response to the report. The first response may be a phone call, a request for medical or spray records or other agency action. Response time may also be a function of the staffing available, including bilingual staffing. Available Agency response times for 2006 are listed in Table 5.

June 16, 2008

Table 5. Agency Response Times, 2006

Agency Mandates	Agency Response Times
Agriculture <ul style="list-style-type: none">• Immediate response when complaints involve humans or animals• All other complaint investigations must be initiated within 48 hours	<ul style="list-style-type: none">• 93% of human exposure cases within 24 hours*• 93% of all cases within 24 hours
Ecology <ul style="list-style-type: none">▪ No legislative mandate for response time.	<ul style="list-style-type: none">▪ Majority within 24 hours▪ All within 30 days
Health <ul style="list-style-type: none">• Hospital admission, death, or threat to public health within 24 hours• All others within 48 hours	<ul style="list-style-type: none">• The one death and two severe reports within 24 hours• 95% within 48 hours
Labor and Industries (DOSH) <ul style="list-style-type: none">• Serious complaints within 30 days• All others within 120 days	<ul style="list-style-type: none">• Majority within 30 days• All within 120 days

*For the two remaining WSDA cases, DOH had already responded to one complaint, and the other was mailed to WSDA.