# 2002 Annual Report

# Pesticide Incident Reporting and Tracking (PIRT) Review Panel

DOH 334-294 December 2002

(Includes Agency Data for 2000)



## 2002 Annual Report

# Pesticide Incident Reporting and Tracking Review Panel

A report to the legislature as required by Chapter 380, Laws of 1989, and RCW 70.104

December 2002



Environmental Health Programs Office of Environmental Health and Safety P.O. Box 47825 Olympia, Washington 98504-7825

Contact:

Lynden Baum, Manager Pesticide and Surveillance Section Toll Free: 1-877-485-7316

Email: www.doh.wa.gov/pesticidecontact

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#### **Executive Summary**

The 2002 report is the Pesticide Incident Reporting and Tracking (PIRT) Review Panel's twelfth annual report. The PIRT Review Panel consists of the Washington State Departments of Agriculture (WSDA), Ecology, Health (DOH), Labor and Industries (L&I), Natural Resources (DNR), Fish and Wildlife (WDFW), as well as the University of Washington (UW), Washington State University (WSU), Washington Poison Center (WPC), a practicing toxicologist, and a member of the public.

The PIRT Panel is directed by statute (RCW 70:104.090) and has among its responsibilities the identification of inadequacies in pesticide regulations that result in insufficient protection of public health and the approval of an annual report summarizing pesticide incidents. This PIRT report presents and evaluates pesticide incidents reported in 2000 from four state agencies: Agriculture, Ecology, Health, and Labor and Industries, and from the Washington Poison Center. It also describes PIRT 2001 panel activities. This is the complete report to the legislative summary published by DOH in July 2002.

The following agency summaries identify key points from the analysis of pesticide incident data.

## **Washington State Department of Agriculture (WSDA)**

For 2000, WSDA investigated 199 pesticide-related complaints. Complaint numbers were up slightly but not significantly from 1999 (192). Eleven counties reported 68 percent of the complaints with the top two counties, Yakima and Grant, reporting 24 percent of all complaints. Twenty-seven percent (54) of complaints resulted from pesticide drift. Forty of the complaints concerned human exposures. There were 121 violations in 2000. This is a 20 percent increase in violations from 1999 (101). About one third of violations involved commercial applicators.

## **Washington State Department of Ecology**

In 2000, Ecology investigated 63 pesticide-related complaints involving threats to air, water or soil. Twenty-two counties reported complaints with Yakima and King counties reporting the most complaints. Twenty-eight (44%) complaints occurred in the agricultural environment, 15 (24%) in the commercial/industrial environment and 20 (32%) stemmed from residential activities. Ecology is responsible for oversight of contaminated areas requiring cleanup or monitoring. During 2000, Ecology placed 11 pesticide-contaminated sites on the cleanup list.

## **Washington State Department of Health (DOH)**

Washington is one of ten states with an active pesticide illness surveillance program. For 2000, DOH investigated 302 pesticide incidents involving 388 individuals. Approximately half (203) of the illness/injuries were classified as being definitely, probably or possibly related to the pesticide exposure.

More than half (113) of the 2000 cases occurred in the agricultural environment. Agricultural cases were equally divided between the tree fruit and field crop production industries. Most occupational incidents resulted from applicator exposure or pesticide drift. General agricultural workers were three times more apt to be exposed to drift (33) than to residues (12). Occupational non-agricultural cases most often occurred in office or retail buildings. Non-occupational cases occurred most frequently in and around the home. Pesticide-related incidents reported to DOH increased by 11% from 271 in 1999 to 302 in 2000.

#### Washington State Department of Labor and Industries (L&I)

For 2000, L&I WISHA Services Division conducted 34 pesticide-related safety and health investigations. Thirty of the investigations resulted in citations being issued against the employer.

The Insurance Services Division, Claims Administration Program received 180 claims relating to pesticide illness. Seventy-three percent (132) of pesticide-related claims involved agricultural workers and 73 percent (96) of agricultural claims resulted from work in the tree fruit industry. In the non-agricultural environment the greatest number of pesticide-related claims came from the manufacturing (25%) environment. L&I pays the initial diagnostic and evaluation costs of worker compensation claims regardless of the final decision. For 2000, 99 percent of all initial medical visits were paid.

## **Washington Poison Center (WPC)**

In 2000, WPC provided immediate professional medical advice regarding poisoning questions and emergencies to 118,404 callers. Of these, 2,326 calls were pesticide-related. More than half (1,330) of the calls involved insecticides and insect repellents. Twenty percent involved herbicides. Most (93%) of pesticide-related calls involved unintentional exposure. WPC referred 204 human exposures with reported signs or symptoms of pesticide illness to DOH for investigation.

#### Introduction

The PIRT Review Panel was created by RCW 70.104.090 (Appendix A). Its membership consists of representatives of six state agencies, the University of Washington, Washington State University, the Washington Poison Center (WPC), a practicing toxicologist and a member of the public. See Appendix A for a list of the PIRT panel members in 2000.

By statute, the PIRT Review Panel is mandated to perform the following activities with regard to pesticide-related incidents that have suspected health or environmental effects:

- Centralize the receipt of information regarding pesticide complaints and their investigations and monitor timeliness of agencies' response to complainants.
- Identify inadequacies in pesticide regulations that result in insufficient protection of public health.
- Submit an annual report summarizing pesticide incidents to the legislature.

Each agency conducts pesticide incident investigations in accordance with its specific statutory responsibilities (Appendix A) and reports findings to the PIRT Review Panel for evaluation and inclusion in the annual report. The PIRT Review Panel has no regulatory authority but acts in an oversight capacity to the six agencies and makes recommendations to the agencies, to the legislature or to the federal Environmental Protection Agency.

This report describes activities of the PIRT Review Panel for 2001 and its recommendations for 2003. It also contains a review of the WSDA, DOH, Ecology, and L&I pesticide-related complaints and the WPC calls and provides analyses of each agencies incident.

#### **2001 PIRT Activities**

The PIRT Review Panel met eight times in 2001. The panel monitored each agency's response time to calls on complaints, monitored actions stemming from recommendations made in the prior PIRT Review Panel Annual Report, analyzed incident data to identify trends and patterns of problems related to pesticides, and responded to requests for special activities from the members.

#### **Response Times**

RCW 70.104.080 specifically directs the PIRT Review Panel to monitor agency response time to pesticide-related complaints. Response time is defined as the interval between initial receipt of a complaint and an agency's first response to the complainant. The first notification is usually by telephone, followed by a personal contact. In 2000, WSDA responded to 93 percent of all complaints within 24 hours; DOH responded to 99 percent of complaints within 48 hours; and, L&I responded to the majority of complaints within 30 days. The three agencies have different mandates for response times (Appendix A).

#### Actions on 2000 Recommendations of the PIRT Review Panel for 2001:

Prepare a five-year analysis of incident data.
Action: The five-year (1995-1999) data analysis of reported pesticide incidents was published in the 2000-2001 annual report. The number of reported pesticide incidents appears to be declining, however the number of incidents resulting in a WSDA "violation" and the number of incidents determined to be actually pesticide related by DOH remained relatively constant over the five years.

 Identify risk factors for the agencies to incorporate into their training and education programs.

**Action**: The PIRT Review Panel identified risk factors from the five-year incident data analysis. The factor "off target drift" continues to be a primary source of exposure. Eye irritation from occupational exposure is the most commonly reported health complaint.

- Review agency data for active ingredients involved in pesticide incidents.

  Action: The panel reviewed data for active ingredients involved in incidents. No clear pattern could be established from incidents resulting in the more severe human incidents. Over the 5 years, the pesticides most frequently involved in incidents investigated by WSDA were: 2,4-D, Dicamba, Glyphosate, Azinphos-methyl, and Diazinon.
- Review a sample of pesticide labels involved in incidents to determine if instructions were adequate to have prevented the accident had they been used according to the label.

  Action: The PIRT Review Panel reviewed WSDA and DOH cases occurring in commercial establishments. A review of seven WSDA cases found that adverse outcomes generally occurred for applications made when people were present. Label messages were ambiguous and did not clearly advise that persons other than the applicator were to 'vacate the premise'. DOH had reports of 88 incidents that occurred in commercial establishments. The DOH review of the product labels was inconclusive because the incidents involved many different products, exposure scenarios were diverse, and the data system could not provide the specificity needed to address if directions on the label were followed correctly. The panel continues to address the issue.
- Prepare revisions to RCW 70.104.070-090 to more accurately address pesticide issues of concern to the public, and to reflect activities of the PIRT Review Panel.
   Action: The panel reviewed the PIRT Panel statute, RCW 70.104.070-090 and noted where revisions were needed. The panel will draft proposed revisions for introduction to a future legislative session.
- Identify agency activities regarding urban pesticide use.
  Action: This was an agenda item at several PIRT meetings in 2000 and 2001. Information was shared and communication increased between the agencies. The panel will carry this recommendation into next year's work plan.

#### Other activities of the PIRT Review Panel for 2001

Gypsy Moth Eradication-Use of Btk

In May 2000, WSDA contracted for the aerial application of Foray 48B to 725 acres of residential Seattle to prevent infestation of the Asian gypsy moth (AGM). Foray 48B, which contains *Bacillus thuringiensis kurstaki* (Btk), a naturally occurring agent of disease in caterpillars, was applied in the neighborhoods of Ballard and Magnolia. Simultaneously, DOH surveillance yielded reports of 59 persons in 50 households with at least one health "symptom" occurring after aerial spraying. Fourteen individuals from eight households sought some type of health care. The most frequent health complaints were: cough, headache, trouble breathing, sore throat, nasal congestion, and irritated eyes. The estimated population in the spray area was 6,600. Foray 48B was also used in ground applications to control European gypsy moth in Covington and Marysville. In May 2001, ground applications were made to a 29-acre site in Vader, WA for

European Gypsy moth. No complaints were reported. It was recommended that future WSDA programs continue wide and early notification and provide public access to scientific documentation.

National Evaluation of the Worker Protection Standard (WPS) Worker Training
In January and again in December, Alice Larson briefed the Panel on the EPA evaluation of the effectiveness of the WPS as a means to reduce the risk of pesticide poisoning and injury among workers and pesticide handlers. The process involves representatives from farmworkers, growers, state agencies and federal representatives, etc. Preliminary findings cover whether training is happening, barriers to the training, how to make the training more effective, and effective training verification systems. Final recommendations will be presented in Washington D.C. in December 2002.

## Ninth Circuit Court decision regarding aquatic pesticide use

Ann Wick briefed the panel on the regulatory conflict between water quality and pesticide use under two federal EPA laws: the Clean Water Act (CWA) and the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). In Washington aquatic pesticides are regulated by WSDA under FIFRA and Ecology regulates 'pollutants' in water under CWA. A 9<sup>th</sup> Circuit Court decision in California regarding an Oregon case resulted in National Pollutant Discharge Elimination System (NPDES) permits being required for aquatic pesticide applications.

Evaluation for Pesticides in Washington State Surface Waters for Potential Impacts to Salmonids Ann Wick discussed the work of the Washington State Pesticide/ESA Task Force, a committee charged with looking at pesticides that could threaten salmon in habitat or food. The panel developed an evaluation process that incorporates the available scientific data on 1) the occurrence of pesticides in salmon habitat and 2) the toxicity of these chemicals to fish or the aquatic food chain. It will be used to identify individual pesticides that are a potential risk to the biological requirements of threatened salmons in Washington State.

#### Pacific Northwest Agricultural Safety and Health Center

Richard Fenske briefed the panel on the history, funding, aims and activities of the Pacific Northwest Agricultural Safety and Health Center for the first four years (1996-2000).

#### UW Center for Child Environmental Health Risks Research

Richard Fenske briefed the panel on the history of the UW Center for Child Environmental Health Risks Research. The project has laboratory-based studies to identify cellular, biochemical and molecular mechanisms for the developmental neuro-toxicity of pesticides, to identify the impact of genetic polymorphisms for paraoxonase and field-based studies to identify critical pathways of pesticide exposure for children. The field studies will be used to develop a culturally appropriate intervention to break the take-home exposure pathway.

#### Joint meeting with the Pesticide Advisory Board and PIRT Panel

A joint meeting with the Washington State Department of Agriculture Pesticide Advisory Board and the PIRT Panel was held in Yakima to discuss the 9<sup>th</sup> Circuit Court decision and other issues of common concern. Due to the 9<sup>th</sup> Circuit Court decision, National Pollutant Discharge Elimination System (NPDES) permits are now required when applying aquatic pesticides on fresh water. Since the decision Ecology has been expanding their permit process to include the NPDES permit. An Ecology team will meet with irrigation districts, mosquito districts and applicators to discuss the court decision and Ecology's course of action and to develop the NPDES permit process.

Dan Ford reported on California's cholinesterase monitoring program for farm workers. A blood test is taken to establish a baseline on an individual, a follow up test is given 30 days later and then follow up tests as determined by a doctor. California believes their program is an important health measure as it removes workers before they become ill and keeps employer practices safe.

## Department of Agriculture EPA Pilot Program

Ann Wick discussed WSDA involvement in the EPA Pilot Program to look at pesticide incidents nationally. Ten states are included in the program. EPA will analyze the state incident data for location, site, type of case, violation status, pesticide active ingredient and method of application. The purpose of the project is to determine the complexities of a national database and if trends can be identified for possible federal action.

DOH-NIOSH project "Improving Data Quality in Pesticide Illness Surveillance" Lynden Baum reviewed the DOH-NIOSH project that includes 1) Focus groups with farmworkers in the Yakima area, 2) Provider interviews, 3) Review of outpatient records, 4) Medical chart review and 5) Spatial data improvement.

#### Recommendations to the PIRT Review Panel and the involved Agencies' staff for 2002:

- Further assess the 5-year incident data and identify possible prevention measures.
- Each agency improve its process and timeline for submitting analyses of incident data for the PIRT Review Panel annual report.
- Each agency continue its appraisal of pesticide use outcomes in urban areas.
- The PIRT Review Panel and the agencies seek how to capture better information about why the incident actually occurred.
- Both PIRT Review Panel and the agencies direct additional attention to the adequacy of the product label wording.
- Prepare draft legislation to modify RCW 70.104

#### **2000 Agency Summary Reports**

Table 1 summarizes 2000 pesticide-related incidents for each agency submitting data, and data from the Washington Poison Center. The incident data from each agency are described and evaluated in the following sections. Individual incident descriptions are found in Appendix D. Because of specific statutory responsibilities, incidents may be reported and investigated by more than one agency.

## Table 1 Agency Summaries of Pesticide Incidents in 2000

Department of Agriculture: 199 complaints r	esultin	g in 121 violations	
Complaints	199	Violations	121
Location of complaint:		Violations by Type of Activity:	
■ Eastern Washington	133	<ul><li>Agriculture</li></ul>	48
<ul><li>Western Washington</li></ul>	66	<ul> <li>Commercial/industrial</li> </ul>	33
$\mathcal{E}$		<ul><li>PCO/WDO</li></ul>	14
		<ul><li>Residential (homeowner)</li></ul>	11
<b>Enforcement Actions</b> :	199	■ Right-of-Way	8
<ul> <li>Notice of correction</li> </ul>	96	<ul><li>Other (license/records)</li></ul>	7
<ul> <li>No Action Indicated</li> </ul>	78	,	
<ul> <li>Notice of Intent/Admin action</li> </ul>	17	License Involved with Violations:	121
<ul> <li>Advisory letter/Warning letter</li> </ul>	4	<ul><li>Commercial</li></ul>	38
<ul><li>Referred</li></ul>	2	<ul><li>Unlicensed</li></ul>	28
<ul> <li>Technical assistance/verbal warning</li> </ul>	1	<ul><li>Private Applicator</li></ul>	27
<ul><li>Stop sale</li></ul>	1	<ul><li>Public operator</li></ul>	13
-		<ul><li>Other</li></ul>	15
Department of Health: 302 incidents involving	ng 388 i	ndividual cases	
Type of Incident:	302	Relationship to Exposure for cases:	388
Agriculture	164	Definite 32 Unlikely	26
<ul><li>Residential</li></ul>	94	<ul> <li>Probable 85 Insufficient info</li> </ul>	73
<ul><li>Commercial/industrial</li></ul>	26	■ Possible 86 Asymptomatic	14
■ Other	18	■ Suspicious 44 Unrelated	28
Childhood Cases ≤ 18 years old	56	Definite, Probable, or Possible Cases:	203
■ Definite, probable, or possible	31	Agricultural	113
• Definite, producte, or possible	31	<ul><li>Non-Agriculture</li></ul>	90
Department of Labor & Industries: 34 Industries	ustrial S	Safety and Health Act complaints	
		mpensation claims	
Pesticide Related Inspections:	34	Worker Compensation Claims:	180
<ul><li>Citations</li></ul>	30	<ul><li>Agriculture</li></ul>	131
Type of Business:		<ul> <li>Non Agriculture</li> </ul>	49
<ul><li>Orchard</li></ul>	24	5	
<ul> <li>Vegetable crops/berries</li> </ul>	3	Benefits:	
<ul> <li>Mushroom farm, dairy, pest control</li> </ul>	3	<ul> <li>Accepted-Includes medical/time loss</li> </ul>	126
<ul><li>Greenhouse/nursery</li></ul>	1	■ Rejected	52
Crop preparation company	3	<ul><li>Claim pending</li></ul>	2
Department of Ecology: 63 pesticide compla	ints		
Washington Poison Center: 2,326 calls			

## **Washington State Department of Agriculture**

The Washington State Department of Agriculture (WSDA) investigated all reported complaints made to the department regarding pesticide use, sales, distribution, applicator licensing, storage and building structure inspections for Wood Destroying Organisms (WDO). During 2000, WSDA investigated 199 complaints (Table 2). After investigation, it was found that 156 (78%) involved pesticide applications and 43 (22%) were complaints unrelated to actual applications, such as licensing or structural inspections.

WSDA is required to respond to cases of human exposure within 24 hours of receipt. Investigation begins on other cases as soon as resources allow, generally within 2-3 days. In 2000, WSDA responded to 93 percent of all complaints within one day and all but three human exposure cases within 24 hours.

Table 2 WSDA Complaints and Violations 1992 - 2000

Year	Total Complaints	Violations
1992	558	264 (47%)
1993	400	166 (42%)
1994	383	138 (36%)
1995	259	87 (34%)
1996	251	104 (41%)
1997	204	110 (54%)
1998	204	116 (57%)
1999	192	101 (53%)
2000	199	121 (61%)

Whatcom Pend Okanogan Ferry Oreille Skagit Stevens Clallam Snohomish Jefferson Douglas Spokane Lincoln King Grays Grant Kittitas Adams Whitman Lewis Garfield Franklin Yakima Skamania Walla Walla Wahkiakum Klickitat Clark 0-5 11-20 21+ 6-10 n = 199

Figure 1 2000 WSDA Complaints by County

#### Location

One hundred thirty-three (67%) of the 2000 complaint investigations occurred in eastern Washington and 66 (33%) were in western Washington. The eleven counties reporting the most incidents were: Yakima (26), Grant (21), Pierce (16), Benton (14), Chelan (13), Clark (10), Douglas (9), King (8), Franklin (6), Lincoln (6) and Thurston (6). Table 3 lists the counties with the most complaints from 1996 through 2000.

 Table 3 WSDA Counties with the most Complaint Investigations 1996 - 2000

1996		1997		1998		1999		2000	
Spokane	26	Grant	24	Yakima	28	Grant	29	Yakima	26
King	25	Yakima	22	Grant	26	Yakima	26	Grant	21
Yakima	25	King	20	Spokane	20	Spokane	18	Pierce	16
Grant	16	Spokane	18	King	14	Benton	17	Benton	14
Whatcom	14	Pierce	13	Benton	13	King	14	Chelan	13
Pierce	13	Benton	10	Chelan	10	Chelan	9	Clark	10
Skagit	13	Skagit	9	Okanogan	10	Pierce	8	Douglas	9
Clark	11	Snohomish	9	Whitman	10	Walla Walla	8	King	8
Benton	10	Okanogan	8						

## **Type of Activity Involved in Complaints with Violations**

Complaints are classified by WSDA according to the following definitions:

- **Agricultural:** Incidents occur in an agricultural environment such as farming, forestry, greenhouses, or Christmas tree farming.
- **Commercial/industrial:** Incidents by licensed operators to offices, restaurants, homes, and landscapes.
- **Pest Control Operator (PCO):** Incidents involving a subset of commercial/industrial operators licensed to make applications to control structural pests.
- Wood Destroying Organism (WDO): Incidents involving inspections on structures for fungi, insects, and conditions that lead to pest conditions. No pesticide applications are made.
- **Residential:** Includes any application of a pesticide in a residential environment by the homeowner, resident, or neighbor.
- **Right-of-ways:** Applications made on public land such as roadways, electric lines and irrigation canal banks.
- Other: WSDA code for undefined use and includes licensing, storage, registration, records, and similar actions.

Table 4 shows the incidents with violations by type of activity from 1996 through 2000. The number of violations increased by 20 percent from 101 in 1999 to 121 in 2000 but the increase is not significant over the five-year period.

Table 4 WSDA Violations by Type of Activity 1996 - 2000

	<i>)</i> - <i>)</i>		<b>-</b> -		
Activity	1996	1997	1998	1999	2000
Agricultural	29	40	54	50	48
Commercial/Industrial	27	22	22	19	33
PCO/WDO	20	24	8	11	14
Residential (non commercial)	9	8	7	10	11
Right-of-Way	3	10	12	1	8
Other (Licenses, Records, etc.)	16	6	13	10	7
Total Violations	104	110	116	101	121

Other Agriculture
Right-of-Way
Residential
PCO/WDO Commercial/
Industrial

n = 121

Figure 2 Violations by Type of Activity 2000

#### **Nature of Pesticide Complaint**

Drift exposure continues to be an area of concern with complaints resulting from overspray or misapplication. In 2000, 54 complaints concerned drift, 40 complaints concerned human exposure (some resulting from drift), misuse (23), licensing (20), direct (16), PCO/WDO inspections (9), bee kills (5), water contamination (5), animal incidents (4), and miscellaneous (23) (Figure 3). Children were involved directly or indirectly in 11 incidents. See Appendix D for a listing of all WSDA pesticide-related complaints.

Glyphosate drift and/or intentional neighbor-to-neighbor misuse are a continual problem but this type of incident generally does not result in health problems. Most human exposure cases appear to be due to preventable causes such as failure to observe wind direction, spraying when people are in the area, not wearing PPE, and overspray particularly near roads, rather than unavoidable accidents.

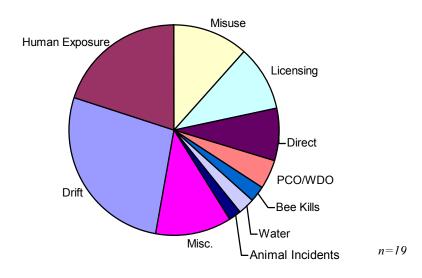


Figure 3 Nature of Complaint 2000

In agriculture, pesticides applied to orchards were the most frequently involved in complaint investigations. For 2000, pesticides applied to cherries generated the most investigations. Most of these complaints were about human exposure. The following example illustrates a drift exposure.

Case example: Sixty people working in an industrial facility reported feeling ill in the early morning hours. A strong odor was present in the building and employees said they felt nauseated, had burning, watering eyes, sore throats, burning lungs, headaches and dizziness. Several employees were seen at the nearby outpatient hospital health service. WSDA was called to investigate as a pesticide application had occurred one-quarter mile away.

It was determined that an application of metam-sodium (Vapam) had been applied through a center pivot irrigation system. Chemigation through center-pivot irrigation systems is a common method of application where the Vapam is injected into the irrigation line near the center point and is subsequently distributed in the irrigation water through the sprinklers onto the field. Metam-sodium is a Danger, Toxicity Class I soil fumigant. Effectiveness is enhanced with a water seal on the soil.

Four violations were cited against the applicator. The first and most serious citation was for applying Vapam under conditions that favored drift. The product was applied in the early morning hours when an inversion existed. Inversions trap small particles and fumes near ground level. Slightly later, a light wind blew the pesticide particles and fumes toward the facility where they were sucked into the ventilation system. Additionally, the nozzles used on the irrigation system produced small droplets. The label states that only sprinkler systems that give large water droplets may be used. Strong odors during or after the application are a warning to discontinue and seal the soil.

The remaining three violations concerned missing information on the Worker Protection Signs, no posting of fumigated fields as required, and missing information on the application records. The applicator was fined \$7,200 in lieu of a \$3600 fine and a license suspension of 88 days.

For non-agricultural cases, drift from lawn care companies and complaints about Wood Destroying Organism (WDO) inspections are the most frequent. Most of the WDO inspection complaints are about failure to report conditions conducive to rot or the presence of insects or rot. Record-keeping violations are also frequent.

The following case is an example of a typical complaint about a WDO inspection:

Case example: A home inspection was performed prior to purchase. The inspector, hired by the seller, noted a few minor items but generally pronounced the house sound. A diagram was furnished to the prospective purchaser with only a notation about not storing firewood next to the house. The house was purchased. Several months later the new homeowner went in to the crawl space, found a large infestation of carpenter ants and a plumbing leak that had damaged the insulation and the wooden subflooring. WSDA was contacted and determined that the inspector had:

- 1) failed to make a through inspection of accessible areas
- 2) failed to record the date, name of seller and street address of the house inspected
- *failed to record the inspector's name and license number*
- 4) failed to provide a statement describing the specific evidence of infestations, including common names
- 5) failed to provide a diagram of the areas infested
- *failed to provide records to WSDA on request.*

As the individual had three prior complaints, WSDA levied a fine of \$1100 and six days license suspension. WSDA is in the process of instituting more comprehensive rules concerning WDO inspections but, as in all major purchases, it can be important to get more than one opinion, especially if the first person does not represent your interests.

Table 5 summarizes the investigations WSDA cited for violations.

Table 5 WSDA Comparison of the Most Frequent Target and Complaint Sites with Violations in 2000

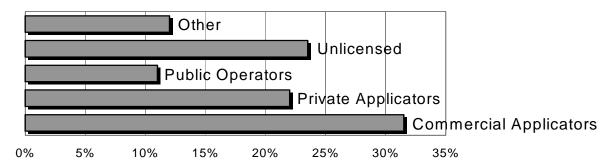
Complaint Sites with Violations in 2000							
Agricultural Violations							
Target Site*		Complaint Site**					
Cherries	9	Human Exposure	19				
Pears	6	Grapes	5				
Apples	4	Wheat	3				
Right of Way	5	Potatoes	3				
Barley/Wheat	4	Apples	3				
Potatoes	2	Bees	2				
Corn	2						
Non Agri	cultu	ral Violations					
Target Site*		Complaint Site**					
Wood Destroying Organisms	11	License	13				
Residence/Property	10	Water	4				
Right of Way	7	Human Exposure	4				
Ornamentals	4	Ornamentals/Trees	8				
Weeds	4	Property/Lawn	6				
Lawns	5	Personal Protect. Equip.	3				
		Notification	2				

<sup>\*</sup> Target Site is the intended target for the pesticide.

During 2000, WSDA investigated 11 cases that involved children. DOH was either notified about these cases or also investigated. When violations are evaluated by type of license involved, commercial applicators accounted for 31.5%, private applicators (22%), public operators (11%), unlicensed (23.5%) and other (12%) (Figure 4).

See Appendix E for WSDA pesticide license types. WSDA licenses more private applicators than any other type of license but commercial applicators tend to make more applications and have more contact with the public over larger areas.

Figure 4 Type of License Involved in Cases with Violations 2000



#### **Severity of Reported Complaints**

In 1996, WSDA began rating the severity of complaints. For the fifth year (2000), the majority (75%) had a low severity rating of two or less (Table 6).

<sup>\*\*</sup>Complaint Site is where the pesticide landed.

Table 6 Severity Rating of WSDA Complaint Cases 1996 - 2000

Rating	1996	1997	1998	1999	2000	Criteria
0	64 (26%)	28 (14%)	31 (15%)	13 (7%)	20 (10%)	Problem not due to pesticides and/or no cause determined; PCO/WDO inspection with no violations
1	71 (28%)	67 (33%)	62 (30%)	65 (34%)	40 (20%)	Pesticides involved, no residue, no symptoms occurred; possible pesticide problem, not substantiated; issues involving records, registration, posting, notification (multiple chemical sensitivity) or licensing; DOH classified "unlikely" or "unknown"
2	79 (31%)	64 (31%)	70 (34%)	72 (38%)	89 (45%)	Residue found, no health symptoms (human, animal); health symptoms not verified; multiple minor violations; off label use; worker protection violations; PPE violations with no health symptoms; plants with temporary or superficial damage only; PCO/WDO faulty inspections; DOH classified "possible."
3	22 (9%)	30 (15%)	31 (15%)	24 (13%)	31 (16%)	Minor short-term health symptoms (rash, eye irritation, shortness of breath, dizzy, nausea, vomiting); bee kills less than 25 hives; minor fish kills; economic plant damage under \$1000; evidence of deliberate economic fraud; DOH classified "probable."
4	11 (4%)	8 (4%)	9 (4%)	15 (8%)	17 (9%)	Short-term veterinary or hospital care; bee kills over 25 hives; significant fish kills; significant economic plant damage (over \$1000); environmental damage; illness involving children; DOH classified "probable."
5	4 (2%)	7 (3%)	1 (.4%)	3 (2%)	2 (1%)	Veterinary or hospital care overnight or longer; physician diagnosed children's illness as caused by pesticides; animal death due to pesticides; significant environmental damage; DOH classified "definite."
6	0	0	0	0	0	Human death due to pesticides.
Total	<b>251</b> (100%)	<b>204</b> (100%)	<b>204</b> (100%)	<b>192</b> (100%)	<b>199</b> (100%)	

## **Type of Pesticide Involved**

In 2000, herbicides were involved in 100 complaints (50%) and insecticides in 58 complaints (29%). This is a decrease in the number of complaints involving insecticides and an increase in herbicide incidents from 1999. Other products such as fungicides, disinfectants, rodenticides and surfactants made up the rest of the incidents. Many cases involved tank mixes of several products. The pesticides most frequently reported in complaints were glyphosate, 2,4-D, malathion and chlorpyrifos. Insecticide product use is changing with the cancellation of many previously registered uses and products.

#### **Other Agencies Involved**

In 2000, WSDA consulted with other state, federal and local agencies, WSU, and Food Safety on 89 investigations.

#### **Enforcement Actions**

At the time of publication, the following corrective actions had been taken by the department: Notice of Correction (96), Notice of Intent (Fines, License Suspension) (4), Advisory Letter (4), Administrative (Pending) (13), Verbal Warning (1), Referred (2), Stop Sale (1), and No Action Indicated (78).

## **Department of Ecology**

The Department of Ecology (Ecology) participated in negotiations of the Fish and Forest rules adopted in 2000. The rules included conditions for the application of herbicides and pesticides on forests to reduce impacts to fish and their environment. Ecology is also working with National Marine Fisheries Service and other federal and state agencies to reduce the impacts of pesticide applications to salmonids under the Federal Endangered Species Act. The agency participates in the Environmental Protection Agency's (EPA) urban pesticide committee and the Washington State Healthy Schools Initiative. Ecology's responsibility for oversight of contaminated areas requiring cleanup or monitoring includes areas contaminated with pesticides. Other agency activities also help reduce pesticide incidents. Ecology's pollution prevention and sustainability efforts emphasize reduction of the overuse and misuse of pesticides.

#### **Pesticide Related Incidents**

The Department of Ecology Spill Response Program maintains a database to track pesticide-related complaints. The agency uses the data to determine where additional education is necessary to reduce pesticide impacts on human health and the environment. A summary of the pesticide data provided by this database is provided below in Table 7.

 Table 7 Department of Ecology Pesticide Complaints in 2000

Type of complaint	Number	Percent
Pesticides threatening ground or surface water	20	32%
Pesticide disposal or waste concern	14	22%
Spills and fires	10	16%
Unsafe pesticide storage or handling	13	20%
Other or unknown	6	10%
Total	63	100%

In 2000, Ecology reported 63 pesticide-related complaints involving threats to air, water or/and soil. Twenty-two counties reported complaints with 37 from western Washington and 26 from eastern Washington. Sources of complaints show the majority, 38 (60 %) came from private citizens, seven came from state agencies, six came from local health or fire departments and 12 came from other sources. Pesticide-contaminated sites undergoing evaluation and/or remediation are not included in these data.

Ecology responded within 24 hours in 50 (79%) incidents. Fifty-two of the 63 complaints were resolved and closed in 2000. Twenty-eight (44%) complaints occurred in the agricultural environment, 15 (24%) in the commercial/industrial environment, and 20 (32%) stemmed from residential activities.

After Ecology responds and stabilizes the initial emergency, it often refers the complaint to another state or local agency that can more directly manage the situation. In 2000, Ecology referred 19 (30%) complaints to other agencies.

Four cases of human or animal illness resulted from smoke inhalation or an allergic reaction. Environmental impacts were documented in 11 cases, 22 complaints could not be substantiated, seven required some form of cleanup or removal of materials, and two are now a "remedial" site under Ecology's Toxics Cleanup Program. Five situations resulted in a Notice of Violation.

#### **Educational Activities**

Through a cooperative effort by the Department of Ecology, Department of Health, Department of Agriculture, Washington State University Cooperative Extension and EPA Region 10, a web site was created to help schools address pest problems in ways that protect children from pesticide exposure. The site promotes integrated pest management (IPM) and tries to make it easy for schools to adopt an IPM approach to pest control. The site can be viewed on Ecology's web site at: http://www.ecy.wa.gov/programs/wq/nonpoint/upest/why\_ipm.html

A sample of the information available at the site:

- Why IPM is a wise approach to pest control in schools
- Example IPM policies and manuals for Washington schools who want to adopt what has already been developed
- Suggestions for how to deal with specific pest problems using IPM
- Where to find information about toxicity of pesticides
- Current Washington legislation that pertains to pesticide use in schools

## **Contaminated Sites Containing Pesticides**

Ecology is responsible for oversight of contaminated areas requiring cleanup or monitoring. These sites may have become contaminated from sources such as leaking underground petroleum tanks, historic or current pesticide use, spills or industrial processes. During 2000, Ecology placed 11 pesticide-contaminated sites on the cleanup list (Appendix F. Map A). The sites were located throughout Washington and included one each in Benton, Chelan, Clark, Grant, Jefferson, King, Skagit and Snohomish Counties and three in Yakima County.

A preliminary investigation was conducted at each of these sites, three of which received a nofurther-action designation. The Toxics Cleanup Program map showing cleanup sites with pesticide contamination provides the specific site area and identification tracking number. The sites are distinguished as active sites still undergoing cleanup or non-active sites that were cleaned up or required no further action. Ecology's year 2000 contaminated sites list identified a cumulative total of 249 pesticide-contaminated sites (Appendix F. Map B). Of those, 166 sites remained active in the cleanup process at the year's end (Appendix F. Map C).

## **Department of Health**

The Department of Health Pesticide Program is responsible for investigating reports of illness related to pesticide exposure. Data collected from the investigations are used to identify public health problems and to develop strategies for prevention.

The DOH portion of the 2000 PIRT Report is divided into four sections. Section 1 gives an overview of the number and location of cases investigated by the DOH Pesticide Program. Section 2 presents occupational cases. Section 3 reviews agricultural cases and Section 4 reviews non-agricultural cases.

#### National Institute for Occupational Safety and Health (NIOSH) Grant

In 2000, NIOSH awarded the DOH Pesticide and Surveillance Section a three-year grant for "Improving Data Quality in Pesticide Illness Surveillance". The specific aim of the grant is to increase the value of the information generated by the Pesticide Section's "Pesticide Illness Monitoring System" (PIMS). See Appendix G for the working components of the grant and brief progress reports on work initiated in 2000 and 2001.

#### **Section 1: Number and Location of DOH Investigations**

For 2000, the Pesticide Program received 302 reports of incidents involving 388 individuals exposed to pesticides (Figure 5). The number of reported incidents increased slightly (11%) in 2000 from the dip in 1999. The majority (75%) of suspected pesticide incidents occurred in the six months between April and September. The time of year of reports is consistent with previous years.

Figure 5 Reported Incidents and Cases 1996 - 2000

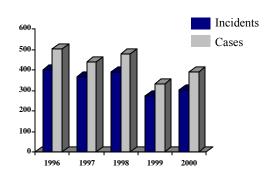
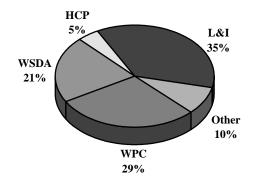


Figure 6 Source of 2000 Case Reports



Reports of suspected pesticide illness were received from L&I claims (35%), WPC (29%), WSDA (21%), Health Care Providers (5%), and others (10%) (Figure 6). Most health care providers find it more convenient to report through the WPC. In 2000, DOH responded within 48 hours to 99 percent of reported illness.

#### **Classification of Investigated Cases**

Investigators of the Pesticide Program interview individuals and witnesses, obtain pesticide application and relevant medical records, and conduct field visits. This information is used to classify a case as to how likely the symptoms relate to the exposure. Classification depends on how verifiable the exposure and illnesses are through documentation. In 2000, the classification matrix for determining the relationship between exposure and outcome was changed to be comparable to that of other states and to meet NIOSH reporting requirements. The classifications 'indirect' and 'unknown' were replaced with 'suspicious' and 'insufficient information'. Definitions of the eight classifications are found in Appendix C. Figure 7 shows the distribution of cases by classification.

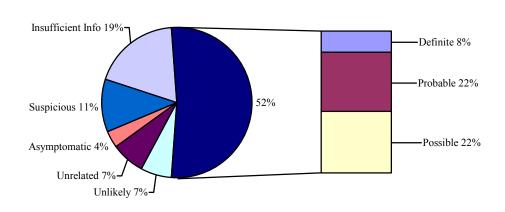


Figure 7 Classification of 2000 Cases

In 2000, 203 (52%) of the reported cases were determined to be definitely, probably, or possibly related to pesticide exposure (Table 8). Except for 1999, the number of definite, probable or possible cases each year has remained near 200. It is unknown why there was a drop in 1999.

Table 8 Definite, Probable and Possible Case Classification 1996 - 2000

Classification	1996	1997	1998	1999	2000	
Definite	34	35	44	26	32	
Probable	81	77	66	53	85	
Possible	118	100	103	61	86	
Total DPP	233	212	213	140	203	
Percent	47%	48%	45%	42%	52%	
All cases reported	500	439	475	332	388	

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A factor that appears to influence case classification is the time between when an incident occurs and when it is received by DOH. Case files for 2000 show that DOH received 77 percent of reports from health care providers or WPC in five days or less. Two percent of L&I referrals are received within five days. It takes 16 days or greater for 87 percent of pesticide illness reports to make their way from the health care provider to L&I and subsequently to DOH. The longer it takes to receive a report, the greater the proportion of cases that are classified as insufficient information (Table 9).

Table 9 Relationship between Incident Date and Receipt by DOH to Case Classification for Agricultural Worker Compensation Claims\* in 2000

Days from incident	DOH Case Classification						
to receipt by DOH	Definite, Probable and Possible	Unrelated and Unlikely	Insufficient information and Suspicious				
<=5	71.1%	15.3%	13.6%				
6-15	37.5%	18.8%	43.7%				
16-25	43.2%	18.9%	33.9%				
>25	41.2%	5.9%	52.9%				
Overall	51.2%	13.5%	34.3%				

N = 167 cases, 4 had missing time information

This information points to the need to continue efforts to educate health care providers about the recognition of pesticide-related illness and injuries and the importance of timely reporting of suspected illnesses and injuries to DOH.

Table 10 Top Ten Counties with Reported Incidents in 2000

Reported incluents in 2000						
County	Incidents	Individuals				
Yakima	65	74				
King	30	32				
Chelan	26	33				
Grant	23	60				
Benton	19	28				
Okanogan	19	20				
Pierce	17	22				
Franklin	16	18				
Spokane	13	16				
Snohomish	10	10				

#### Location

Twenty-seven of the 39 counties in Washington had reports of pesticide illness. Table 10 lists the ten counties with the most reported incidents. Seventy-nine percent of all reports come from these counties. The ten counties account for 69 percent of the state population.

Grant County is fourth on the list with 23 reported incidents but it had the second highest number of exposures (60) because of one incident where 31 people reported symptoms.

<sup>\*</sup> Information from NIOSH Grant Activity of Evaluating and Improving the Quality of Data Collected by DOH Pesticide Program.

Figure 8 shows the location of combined definite, probable, or possible cases for 1999 - 2000.

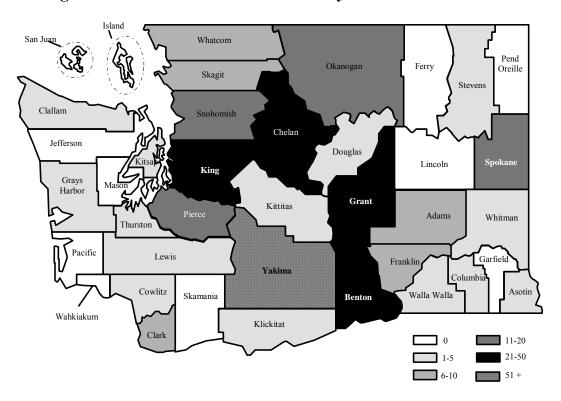


Figure 8 Combined 1999 - 2000 County Distribution of Cases

Table 11 Annual Number Agricultural and Non-Agricultural cases\*1996 – 2000

Year	Agricultural	Non-Agricultural	Total Cases
1996	97	136	233
1997	92	120	212
1998	102	111	213
1999	68	72	140
2000	113	90	203

<sup>\*</sup> Limited to cases with illness classified by DOH as definitely, probably, or possibly due to pesticide exposure.

Table 11 displays the number of definite, probable or possible cases investigated in agricultural and non-agricultural settings from 1996 through 2000.

#### **Severity of Medical Outcome**

DOH has been coding the severity of health outcome for cases since 1995. The DOH severity matrix was used to classify the 2000 data in the 2002 Legislative Summary. When DOH upgraded the Pesticide data system during 2002, severity data were re-classified using the NIOSH severity classification matrix. (See Appendix C for descriptions of the DOH and NIOSH severity classification codes.)

Using the NIOSH classification, 199 (98%) of the 203 definite, probably or possible cases had mild medical outcomes. Three cases were classified as moderate and one as severe. Using the DOH matrix, 55 cases would have been classified as moderate and 9 would have been classified as severe. Given the differences, severity for 2000 cases will not be compared to prior years.

#### **Number of Persons Involved**

More than half (69%) of the 2000 incidents involved one individual. Ten incidents involved two or three people. Three incidents accounted for 24, 10 and 5 cases classified as definite, probable or possible. These incidents are described below:

Case example: A family of five developed symptoms after a helicopter sprayed an adjacent orchard. They were in their back yard when they saw the application drift over their yard and pool. Samples from their trees and pool water were positive for malathion.

Case example: Ten employees of a firm located near fields with a center pivot irrigation system became ill after being exposed to soil fumigant following a chemigation application. The pesticide volatized during a temperature inversion.

Case example: Teachers, students and a school employee became ill after an aerial application to a potato field near school district buildings. The application occurred in the morning shortly before they arrived. Of the 31 reported exposures, 24 were found to be definitely, probably or possibly related to the drift. WSDA tests were positive for pesticide residues around the buildings.

## Age and Gender

Males (82) reported more occupational exposures than females (33) (Table 12). Females (48) reported more non-occupational exposures.

There were 31 cases involving children 18 years of age and younger that were determined to be definitely, probably or possibly related to pesticide exposure (Table 12). Fifteen children were at school at the time of their exposure, 14 were at home and two (age 18) were employed.

Table 12 Occupational and Non-occupational cases\* by Age and Gender in 2000

Age	Occup	ational	Non-occu	Total	
Age	Female	Male	Female	Male	Iotai
0 - 5	0	0	7	4	11
6 -11	0	0	2	4	6
12-18	1	1	3	9	14
19-29	8	28	6	3	45
30-49	20	43	19	9	91
50+	3	6	10	8	27
Unk	1	4	1	3	9
Total	33	82	48	40	203

<sup>\*</sup>Limited to cases with illness classified by DOH as definitely, probably, or possibly due to pesticide exposure.

#### **Section 2: Occupational Cases of Pesticide Related Illness**

In 2000, sixty percent (234) of all reported cases investigated by DOH involved a pesticide exposure on-the-job. Of these, 115 were classified as definite, probable or possible exposures. Sixty of the 115 involved agricultural workers and 55 were from other occupations. Figure 9 shows DOH agricultural and non-agricultural occupational case classifications 1996 to 2000.

In addition to the 60 agricultural workers who experienced agricultural exposures, there were 27 non-agricultural workers who were exposed to agricultural releases while on the job. These workers included public utility linemen, construction workers, laboratory workers, teachers, a fire fighter and a truck driver. In one event involving non-agricultural workers, 8 teachers and a school employee were exposed to a drift from an application to a potato field. In another situation, 10 laboratory workers were exposed to a drift from a cornfield application.

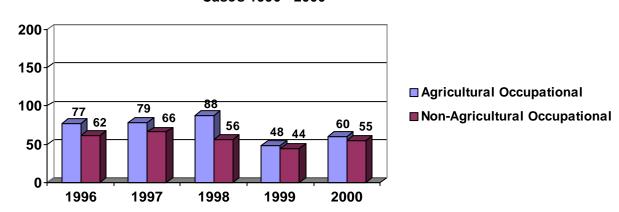


Figure 9 Agricultural and Non-Agricultural Occupational
Cases 1996 - 2000

**Section 3: Agricultural Pesticide Incidents 2000** 

In 2000, DOH received reports of 229 cases of suspected pesticide-related illness related to agricultural operations. These exposures occurred when the pesticide application was intended for agricultural commodities such as fruit, field crops, greenhouse, nursery, livestock, shellfish, and forest operations. Of the 229 cases, DOH classified 113 as definite (14), probable (61) and possible (38). Half of the agricultural cases were exposed to pesticide drift (Table 13).

Table 13 Agricultural Occupational and Non-occupational Cases by Source in 2000\*

Source	Occupational	Non-occupational	Total
Drift	34	25	59
Spray	17	0	17
Contact (spill, leaking equipment)	20	1	21
Residues (treated surface)	12	0	12
Unknown source	5	0	5
Total	88	26	114**

<sup>\*</sup>Limited to cases with illness classified by DOH as definitely, probably, or possibly due to pesticide exposure.

<sup>\*\*</sup>One case had more than one source of exposure.

#### Relationship of Illness/Injury to Work Activity for Agricultural Pesticide Cases

Table 14 compares the type of illness/injury, classified as definite, probable or possible, from agricultural applications among two groups of workers (handlers and general/routine workers) by work activity and route of exposure or type of application.

Table 14 Agricultural Related Occupational Pesticide—Related Illnesses and Injury Status\* Summarized by Equipment/Exposure Mechanism and Type of Illness/Injury\* in 2000

Activity	Equipment/ Exposure	Systemic/I	Respir	atory/To	pical	To	pical	Only		То	tal
7.0,	mechanism	Def/Prob	Pos	Susp	Insf	Def/Prob	Pos	Susp	Insf	DP/P	S/I
	Ground	2	5	1	3	11	4	2	4	13/9	3/7
Applicator	Hand	1	1		1	2				3/1	0/1
Ground	Other	1	1			1				2/1	0/0
	Fumigation	1								1/0	0/0
	Aerial					1				1/0	0/0
Mixer/Loader	Ground	2	1	1	1	4				6/1	1/1
	Other					1				1/0	0/0
Sub totals		7	8	2	5	20	4	2	4	27/12 (39)	4/9 (13)
Routine Work Activity	Drift, aerial	12	2	1	1	1				13/2	1/1
	Drift, ground	4	4	1	2	1		2	1	5/4	3/3
	Drift, Chemigation	8					1			8/1	0/0
	Surface	1	7	4	6	2		5	7	3/7	9/13
	Contact	1			2	1			1	2/0	0/3
	Other/Unk				4	1		2	2	1/0	2/6
Sub total		26	13	6	15	6	1	9	11	32/14 (46)	15/26 (41)
Total		33	21	8	20	26	5	11	15	59/26	19/35

\*Case Status Classifications: Definite, Probable, Possible, Suspicious and Insufficient Information. See Appendix C.

Respiratory: Health effects involving any part of the respiratory tree.

Topical: Health effects involving only the eyes and/or skin.

Of the 39 agricultural pesticide handlers (mixers, loaders, applicators and pesticide equipment maintenance workers) 62% (24) experienced topical illness/injury without systemic effects. Fifteen (38%) had a combination of systemic, respiratory and topical complaints. Of the 46 general/routine workers not involved with application (thinners, harvesters, general farm labor and other workers), only 15% complained of topical illness/injury. A greater number (39 (83%)) of general workers complained of a combination of systemic, respiratory and topical symptoms than did handlers.

Thirty-three (72%) of general/routine workers with illness/injury reported drift as the cause of the injury. Drift remains a significant source of pesticide exposure from agricultural operations.

More general worker illness (47%) was classified as suspicious or lacking sufficient information to classify than handler illness (26%). This is especially true for cases with dermatological diagnosis. A review of agricultural industrial insurance claims for year 2000 found that 55 per cent of cases with dermatological medical diagnoses were classified as suspicious or insufficient information and 33 percent of all claims classified as suspicious or insufficient information had dermatological diagnoses. A possible reason for this prevalence may be that, without significant and costly testing, the health care provider has difficulty knowing whether a dermatological

<sup>\*\*</sup>Type of illness/injury: Systemic: Any health effects not limited to the skin and/or eye.

condition is due to pesticide residues, exposure to foliage or an external factor not related to work. This often leads to a DOH classification of suspicious or insufficient information.

## Relationship of Injuries by Causal Pesticide

In 2000, there were 85 workers with illness/injury classified as definitely, probably or possibly (DPP) related to agricultural activities. There were 39 DPP cases where the individual's activity was mixing/loading (8), applying (30) and repair/transport (1). Thirteen of the 39 (33%) cases reported exposures where the pesticide products included AChE inhibitors. Twenty-six individuals (67%) reported illness from exposures to non-AChE inhibiting compounds. Table 15 shows the relationship between the illnesses for cases classified as DPP and the pesticides.

Table 15 Type of Illness and Injuries\* for Mixers/Loaders/Applicators\*\* by Pesticide Active Ingredient in 2000

	Systemic	/Respiratory	Тор	ical Only
Pesticide	Definite/ Probable	Possible	Definite/ Probable	Possible
Cholinesterase Inhibitors				
Azinphos-methyl		1	1	
Carbofuran				
Chlorpyrifos		2 4		
Combinations of insecticides	3	4	2	
with AchE inhibitors				
Sub Totals	3	7	3	0
Non-Cholinesterase				
Inhibitors				
Alachlor			1	
Algicide			1	
Ethephon			1	
Fatty Acids			1	
Glyphosate			5	
Gramoxone	1			1
Isomate-C			1	
Kaolin			1	
Mefenoxam			1	
NAA		1		
Oxyfluorfen				1
Sulfur	1		1	
Combinations of insecticides	2			1
without AchE inhibitors(s)				
Sub Totals	4	1	13	3
Fumigants				
Aluminum-phosphide		1		
1-3 Dichloropropene			1	
Metam-sodium			1	
Methyl-bromide	1		1	
Sub Totals	1	1	3	0
Totals	8	9	19	3

<sup>\*</sup>Type of illness/injury: Systemic: Any health effects not limited to the skin and/or eye.

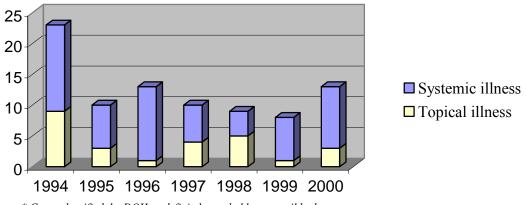
Respiratory: Health effects involving any part of the respiratory tree.

Topical: Health effects involving only the eyes and/or skin..

<sup>\*\*</sup>Limited to cases with illness classified by DOH as definitely, probably, or possibly due to pesticide exposure.

Because of the current interest in the medical monitoring of workers who mix, load, apply pesticides or maintain spray equipment and who have exposure to AChE inhibiting insecticides, exposure data for the past seven years were reviewed. Figure 10 shows the trend for topical and systemic illness for this group of agricultural workers.

Figure 10 Systemic and Topical Illness/Injury\* Trend for Agricultural Workers Who Handle AChE Inhibitors Via Mixing, Loading, Applying or Repairing Equipment 1994-2000



<sup>\*</sup> Cases classified by DOH as definitely, probably or possibly due to pesticide exposure.

Table 16 shows the number exposed to AChE inhibiting insecticides, singularly or in tank mixed combinations.

Table 16 Illness and Injury Type<sup>\*</sup> for Agricultural Mixer/Loaders/Applicators/Equipment Maintenance Workers\*\* by Cholinesterase Inhibiting Pesticides 1994 - 2000

IVIGI	IIICIIC	HICE I		51 J	oy oi	1011110	,51010	45C III		<u>9</u>	COLIG	acs i	<b>55</b> 7	2000		
	19	94	19	95	19	96	19	97	19	98	19	99	20	00	Tot	tals
Pesticide	Sys	Тор	Sys	Тор	Sys	Тор	Sys	Тор	Sys	Тор	Sys	Тор	Sys	Тор	Sys	Тор
Azinphos methyl	1				2			1	2				1	1	9	3
Chlorpyrifos		3	1						1				2		8	5
Diazinon							1								1	0
Dimethoate					1										1	0
Malathion		1			1										3	1
Phorate											1				1	0
Unknown OP		1													0	1
Carbaryl	1														2	0
Carbofuran	5														6	0
Oxamyl		1													0	1
Combinations of AChE Inhibitors with other Products	7	3	6	3	7	1	6	3	1	5	6	1	7	2	66	22
Totals	14	9	7	3	11	1	7	4	4	5	7	1	10	3	98	33

<sup>\*</sup>Type of illness/injury: Sys = Systemic: Any health effects not limited to the skin and/or eye Top = Topical: Health effects involving only the eyes and/or skin.

<sup>\*\*</sup>Limited to cases with illness classified by DOH as definitely, probably or possibly due to pesticide exposure.

The total numbers have not varied much over the past several years and the total number of individuals reporting symptoms appears to be low relative to the numbers involved in these activities. The low number of cases related to AChE inhibitors may be explained by:

- Removal or limiting use over the past several years of the more acutely toxic AChE inhibiting compounds (e.g., Parathion [1991], Phosphamidon [1991] and Mevinphos [1994]),
- Less use of AChE compounds because of increased worker re-entry times.
- Movement away from the use of AChE inhibiting compounds by growers because of alternatives such as biocontrol (mating disruption by pheromones),
- Greater use of closed systems (load and lock), and
- Greater implementation of Integrated Pest Management, and greater emphasis on education and safety through licensing certification and re-certification.

Using the NIOSH severity classification system, 112 of the 113 agricultural cases (99%) had mild medical outcomes. One orchardist experienced moderate symptoms after methyl bromide was sprayed up his leg. No agricultural cases were classified as having severe symptoms.

## **Agricultural Crops Involved**

Of the 113 agricultural definite, probable or possible cases, 109 were the result of pesticide applications and four involved spills or leaking equipment. The crops involved were fruit (57), field crops (45), landscape ornamentals (3) vegetables (2), livestock (1) and weeds in an orchard (1) (Table 17).

## Cases resulting from applications to fruit

Half (57) of pesticide illnesses in agriculture occurred in the production of fruit (Table 17). The majority (48) of the cases were on the job at the time of the exposure. Forty-six of the workers were employed in agriculture and two were construction workers who were drifted. Twenty-six of the agricultural workers were applying, mixing or loading pesticides or repairing pesticide equipment. Twenty-two of the workers were pruning trees or thinning/picking fruit at the time of exposure. Seven cases were non-occupational outdoor exposures. The majority (35) of cases occurred in the production of apples.

Of the 57 cases exposed to fruit production pesticide use, 20 exposures were attributed to drift, 17 to direct spray, 12 to field residues, four persons came in contact with a spill or leaking container and the source was unknown for four.

#### Cases resulting from applications to field crops

Forty-five cases were due to pesticide applications to field crops (Table 17). The field crops included potatoes, corn, wheat, grass seed and hops. Thirty of the 45 cases were occupational. Pesticide drift (40) was the type of exposure most frequently associated with pesticide illness.

In 2000, seven of the 45 (16%) field crop exposures were agricultural workers. Five of the seven workers were applying pesticides at the time. One was repairing an irrigation line and one was driving tractor when he received drift from an aerial application.

Table 17 Agricultural Exposures by Activity and Target in 2000\*

	Applying	Mix/load/ repair/ transport	Other work	Outdoor living	Indoor living	Total
Fruit (57)						
Apples	15	2	15	3		35
Pears	3		2			5
Cherries	1	1	3	5		10
Nectarines		1				1
Peaches				1		1
Grapes	1			1		2
Unknown kind	2		1			3
Field Crops (45)						
Hops	2		1			3
Potatoes			13	1	14	28
Grass seed	2					2
Corn		1	11			12
Vegetables (2)						
Peas				1		1
Onions	1					1
Ornamentals/Weeds	3	1				4
Veterinary			1			1
No application		3	1**			4
Totals	30	9	48	12	14	113

<sup>\*</sup> Limited to cases with illness classified by DOH as definitely, probably, or possibly due to pesticide exposure.

Four incidents accounted for 38 (84%) of the field crop cases. Ten laboratory workers received drift exposures from an application to field corn. Eight teachers, a school employee and 15 students were ill after three schools were drifted from an early morning application to a potato field. Three public utility workers were drifted from another potato application. In a separate incident a telephone lineman was exposed to residues from a soil fumigant.

#### Cases occurring in nurseries or greenhouses

Six occupational cases occurred in nurseries or greenhouses. Four workers were applying pesticides at the time of their exposure, one was mixing a container of disinfectant and algaecide and one was drifted by an aerial application while she was counting cherry trees.

#### **Section 4. Non-Agricultural Pesticide Incidents**

Of the 388 cases investigated in 2000, 159 were associated with non-agricultural pesticide use. DOH considered 90 (57%) of these to be definitely, probably or possibly related to pesticide exposure (Table 18). Examples of non-agricultural incidents are pesticide applications or spills at homes, commercial buildings, industrial sites, roadways or parks.

Seventy-one (79%) of all non-agricultural exposures occurred at residential or commercial sites. Of the 90 non-agricultural exposures, 28 (31%) were occupational and 62 (69%) were non-occupational (Table 18).

<sup>\*\*</sup>Emergency response

Table 18 Exposure Site for Non-Agricultural Pesticide Use in 2000\*

	Occupational	Non-occupational
Residential building or grounds (home, apt)	7	53
Residential institution (dorm, nursing home, homeless shelter, prison)	3	3
Office or retail businesses	5	
Industry or manufacturing facilities	5	
Roads or Park	2	5
Cargo ship	3	
Other and unknown	3	1
Total non-agricultural pesticide use	28	62

<sup>\*</sup> Limited to cases with illness classified by DOH as definitely, probably, or possibly due to pesticide exposure.

## **Non-agricultural Occupational**

Of the 28 non-agricultural cases that occurred on-the-job, 17 were males and 11 were females. Ten of the 28 workers were applying the pesticide at the time of exposure.

#### **Route of exposure**

Eight of the workers were exposed to insecticide applications to buildings, five were exposed to herbicide applications and seven were exposed to releases other than applications including pesticide products falling off of shelves or out of vehicles (Table 19).

Table 19 DOH Application Target for Non-agricultural, Occupational Exposures in 2000\*

Application Target	Exposures
Building structure, surface or space	8
Spill or other release - no application made	7
Undesired plant	5
Soybean meal (crewmen on cargo ship exposed to fumigant)	3
Landscape ornamental at residence	1
Fruit crop (teacher exposed to drift from residential application)	1
Clothing (employee treated patient bedding for lice)	1
Total	28

<sup>\*</sup>Limited to cases with illness classified by DOH as definitely, probably, or possibly due to pesticide exposure.

#### **Severity**

Of the 28 occupational, non-agricultural exposures, 27 were classified as mild outcomes and one was classified as moderate. The moderately ill person was a construction worker who was splashed in the face from an open can of fungicide.

#### Non-agricultural Non-occupational

Of the 62 non-agricultural, non-occupational cases over the age of 17, there were more women (30) than men (19). Thirteen cases were children less than 18 years of age and 10 were persons age 60 and older. The majority of non-occupational cases (53 (85%)) occurred in homes or apartments. See Table 18 above.

Twelve of the 13 children with non-agricultural exposures were exposed at home. Of these, four (all under the age of four) received medical treatment for eye exposures to lice shampoo. Four children became ill after their home or pet was treated with a pesticide. Three children became ill after putting a pesticide in their mouths and a container of livestock pesticide fell on one three year old.

#### **Route of exposure**

Twenty-eight (45%) of the non-agricultural and non-occupational pesticide cases involved the person making the application.

Fifty-two of the 62 non-occupational cases were from pesticide applications (Table 20). Of these, 19 cases were exposed to landscape or garden applications for insects or unwanted weeds, 18 cases involved insecticide applications in and around structures, and 11 involved applications directly to pets, skin or hair. Of the 8 applications to people, seven involved misapplications of the products and one involved a delusional patient.

Forty-four (66%) exposures resulted from applications made by non-professional applicators (i.e., unlicensed persons such as home-owners or co-workers) and nine cases (15%) were associated with professional pesticide applications. Ten cases did not involve applications. These included six exposures from broken pesticide containers and four cases of accidental ingestion.

Table 20 Target Pest for Non-agricultural Non-occupational Cases Associated with Pesticide Applications in 2000

Landage / warden was	
Landscape/garden use:	Exposures
Insects	10
Weeds and moss	9
Use in/around structures:	
Single family home	12
Apartment	3
Mobile home	1
Homeless shelter	1
Dormitory	1
Applications to people:	
Lice shampoo	5
Mosquito repellent	1
Scabies treatment	1
Wasp spray	1
Other:	
Bedding flea treatment	1
Pet flea treatment	2
Roadway soil	3
Treated firewood	1
Total	52

<sup>\*</sup>Limited to cases with illness classified by DOH as definitely, probably, or possibly due to pesticide exposure.

## Department of Labor and Industries (L&I)

L&I responds to concerns from workers exposed to pesticides through two divisions: the Washington Industrial Safety and Health Act (WISHA) Services Division, and the Insurance Services Division, Claims Administration Program. In 2000, L&I WISHA Services Division conducted 34 investigations involving pesticide handling and use complaints with 30 resulting in citations being issued against the employer (Section 1). The Insurance Services Division, Claims Administration Program received 180 claims relating to pesticide illness (Section 2).

#### **Section 1: WISHA Service Division**

WISHA Services Division staff address safety and health issues in the workplace. WISHA enforcement staff may issue citations that require employers to implement changes in the workplace, assign penalties to serious violations, and perform follow-up inspections to assure compliance.

Table 21 WISHA Workplace Safety and Health Inspections in 2000

Workplace Type	#	Percent
Orchards	24	70
Other farms (berries, potatoes)	3	9
Crop preparation companies	3	9
Pest control company	1	3
Nursery	1	3
Dairy	1	3
Mushroom farm	1	3
Total	34	100

For year 2000, WISHA staff performed 34 pesticide related safety and health investigations in the workplace (Table 21); 31 in Eastern Washington and 3 in Western Washington. These investigations occurred in both agricultural and nonagricultural environments. Twenty-four involved orchards. The remaining included three other farms (berries, potatoes), three crop preparation companies, one pest control company, one nursery, one dairy and one mushroom farm.

Five of the 34 were employee or employee representative initiated complaints. Eight investigations were the result of referrals from within the agency or from other state agencies. Nineteen were scheduled inspections randomly selected from the L&I scheduling list.

Violations were discovered in 30 of the 34 investigations (15 had monetary penalties). The following violations were most frequently cited:

- 1. inadequate decontamination supplies and emergency eyewash facilities
- 2. inadequate hazard communication program
- 3. inadequate Personal Protective Equipment (PPE) supplied, maintained and storage location
- 4. inadequate respirator program or fit testing
- 5. incomplete or no spray records and central posting to inform employees of pesticide applications
- 6. no accident prevention, safety meetings
- 7. lack of hazardous chemical labeling
- 8. no first aid training, kits, or cards

#### Section 2: L&I Claims Insurance Services Division, Claims Administration Program

The Insurances Services Division, Claims Administration Program, processes worker claims initiated by on-the-job injuries and illnesses including claims involving pesticides. In 2000, there were 180 L&I claims involving pesticides. This compares with 183 in 1999 and 269 in 1998 (Table 22).

Of the 180 claims in 2000, 126 (70%) were compensated by L&I as being work-related, if not pesticide-related, injuries. The initial medical visits were paid for 99 percent of the claims. The claims were determined in accordance with the following definitions:

**Medical Only/Non-Compensable Claim:** A worker experienced symptoms that he/she believes occurred from exposure on-the-job and seeks medical evaluation. The physician finds the symptoms related to the exposure and there is objective evidence of injury. Therefore, the claim is allowed and medical evaluation and any follow-up medical care/treatment costs are paid. The employee misses less than three days of work. These lost workdays are not reimbursed to the employee.

**Time Loss/Compensable Claim:** A worker has an allowable claim and misses more than three days of work immediately following an exposure on the job. The worker is paid a portion of salary while unable to work. All related medical costs are covered.

**Rejected Claims:** Initial diagnostic and evaluation medical costs are covered but the claim is rejected because objective evidence is lacking to relate the symptoms to the workplace exposure. Many claims are rejected because the symptoms have resolved by the time treatment is obtained; there is no objective evidence of injury; or, exposure cannot be confirmed or documented. A rejected status prevents the worker from reopening a claim based on original symptoms. Costs of initial medical visits are usually paid.

**Pending:** Additional information is being collected on the claim before a determination can be made.

**Kept on Salary:** The employer elects to pay the claimant's salary instead of L&I paying time loss payments while the employee is recovering from an injury or illness.

Claim Type	19	96	19	97	19	98	19	99	20	000
Medical Only/ noncompensable	97	44%	108	46%	155	58%	107	59%	115	64%
Time loss/ compensable	8	4%	14	6%	11	4%	11	6%	11	6%
Rejected	111	50%	101	43%	100	37%	63	34%	52	29%
Pending/Unknown	5	2%	12	5%	2	1%	1	1%	2	1%
Kept on salary	1				1		1	1%		
Total	2:	22	2	35	2	69	18	83	1	80

Table 22 Status of L&I Claims Related to Pesticides 1996 - 2000

L&I refers all claims involving pesticides to DOH. After investigation, DOH classified 80 of the 180 claims as having signs and/or symptoms definitely, probably or possibly related to pesticide exposure.

In 2000, 132 (73%) claimants were exposed while working in agriculture and 48 (27%) were in a non-agricultural setting. Four of the non-agriculture workers were exposed to agricultural pesticide drifts. Ninety-six claims involved workers in the fruit industry and 14 were in field and vegetable crops (Table 23).

Table 23 L&I Pesticide Related Claimants by Business Type in 2000

Agricultural	Number	Percent
Fruit	96	53%
Field crops	9	5%
Vegetables	5	3%
Landscape ornamentals	4	2%
Other/Unknown	18	10%
Total agricultural	132	73%
Non agricultural		
Manufacturing/warehouse	12	7%
Landscaping/Pest Control	7	4%
Retail	7	4%
Office	6	3%
Construction	5	3%
Truckers	2	1%
Nursing home	1	.5%
Fire fighter (spraying weeds)	1	.5%
Other	7	4%
Total non-agricultural	48	27%
Total pesticide-related claims	180	100%

The following L&I claims and DOH investigation summaries illustrate the type of incident that occurs in the agricultural occupational environment:

Case example: An applicator was applying an insecticide to pears. He was wearing appropriate personal protective equipment (PPE) but took off his raingear because the weather was hot. This left his head and neck unprotected. Shortly after removing his PPE, he developed topical symptoms. Classification: Definite.

Case example: A farm worker developed systemic symptoms after he placed aluminum phosphide tablets in the ground. He wore a respirator and rubber gloves. Canvas gloves are recommended for handling fumitoxin tablets. The ground was wet and his hands became wet from sweat. Classification: Possible.

The following L&I claims and DOH investigation summaries illustrate the type of incident that occurs in the non-agricultural occupational environment:

Case example: A construction worker developed symptoms after he splashed fungicide from an open can in his face. He was using the fungicide to treat logs for log homes. He immediately sought treatment at the ER. Classification: Definite.

Case example: A roofer was spraying a bee's nest over his head with an insecticide. He was wearing goggles but it was windy and the spray blew on his face and arms. He showered at home. Over night his eye became swollen and painful. He sought treatment the next day. Classification: Probable.

Case example: A caregiver at a retirement home sprayed a client's bedding with lice spray. She immediately developed a cough and tightness of chest that developed into an asthmatic attack. She was taken to the hospital for treatment. Classification: Probable.

## **Washington Poison Center**

In 2000, the Washington Poison Center (WPC) received 118,404 statewide calls. This was an 11 percent decrease in calls from 1999. As has been the case since 1994, two percent of the WPC calls were related to pesticides (Table 24). Total calls to WPC include intentional and unintentional human exposures, animal exposures, confirmed non-exposures and calls for information. Only human exposure calls are tallied in the pesticide-related calls.

Table 24 WPC Human Exposure Pesticide Calls 1996 - 2000

Pesticide	1996	1997	1998	1999	2000
Fungicide	120	88	72	61	99
Herbicide	441	482	485	425	453
Insecticide/insect repellent	1,992	2,103	1,886	1,562	1,330
Moth repellent	66	77	65	76	50
Rodenticide	473	477	478	399	394
Total	3,092	3,227	3,002	2,523	2,326
% of Total Calls to WPC	2%	2%	2%	2%	2%
Total WPC Calls*	132,649	134,213	134,605	133,240	118,404

<sup>\*</sup>Includes human and animal exposures, confirmed non-exposures and information calls.

Pesticide poisonings are a reportable condition in Washington State (WAC 246-100-217). WPC provides DOH information on all calls regarding patients exposed to pesticides and seen by a health care provider. When WPC refers a caller to any health care provider, this information is also provided to DOH.

In 2000, DOH received 204 referrals from WPC where there were reported signs and/or symptoms of pesticide illness or when a pesticide exposure needed to be followed for development of symptoms. Of the 204 referrals, 105 (51%) did not meet the DOH criteria for investigation in that the exposure had occurred more than 3 months before the report, no exposure-health effect relationship seemed to be present, or there was insufficient information to substantiate actual pesticide exposure.

There were 113 individuals involved in the remaining 99 incidents. DOH classified the 113 pesticide exposures as definite (17), probable (16), possible (37), suspicious (11), unlikely (6), insufficient information (15), asymptomatic (3) and unrelated (8). Using the NIOSH severity classification, the majority of these cases had mild or no symptoms (107), 2 had moderate symptoms, and 4 had severe symptoms.

Forty percent of the WPC pesticide calls involved children less than six years of age. Table 25 illustrates WPC calls by pesticide type for the different age groups. More than half (1330 (57%)) of the pesticide cases involved insecticides and insect repellents. Twenty percent involved herbicides.

Table 25 WPC Human Exposure Pesticide Calls by Age in 2000

Pesticide Type	<6 years old	6-19 years old	>19 years old	Total Human Exposure Calls
Fungicides	13	12	71	99
Herbicides	123	59	269	453
Insecticides	382	154	657	1229
Insect repellents	71	20	10	101
Moth repellents	32	2	16	50
Rodenticides	304	22	64	394
Total*	925	269	1,087	2,326

<sup>\*</sup>Age was unknown for 45 exposures

Table 26 lists the types of insecticides involved in calls to WPC in 2000. Note that an incident frequently involves more than one type of pesticide in the product.

Table 26 WPC Type of Insecticide involved in Poisoning Call 1996 - 2000

Insecticides and insect repellents generic	Number of calls				
code/description	1996	1997	1998	1999	2000
Arsenic	7	5	5	10	10
Borates/Boric Acid	27	32	32	20	28
Carbamate Only	61	91	64	65	29
Carbamate with other pesticides	24	15	8	18	11
Chlorinated Hydrocarbon only	125	130	104	72	61
Chlorinated Hydrocarbon with other	8	3	6	3	3
Metaldehyde	76	80	48	36	43
Organophosphate only	360	395	372	267	301
Organophosphate with carbamate	15	17	14	11	3
Organophosphate with chlorinated hydrocarbons	9	4	12	3	6
Organophosphate with other pesticide	44	32	35	33	36
Organophosphate/carbamate/chlorinated hydrocarbons		1	2	0	1
Piperonyl butoxide only	5	3	1	2	3
Piperonyl butoxide/pyrethrins	323	306	266	239	131
Pyrethrins only	253	267	262	235	173
Repellents (insect)	144	154	130	107	101
Rotenone	3	5	2	3	1
Veterinary insecticide	179	277	215	194	135
Other	128	89	92	69	112
Unknown	200	197	216	174	142
Total	1,992	2,103	1,886	1,562	1,330

Most (93%) of pesticide-related calls to WPC involved unintentional exposure. Approximately three percent of pesticide calls involve intentional exposures. Eighteen percent of all pesticide calls were managed in health care facilities, and three percent of these exposure calls reported a moderate or more severe illness (WPC definitions) from the event.

## Appendix A

Pesticide Incident Reporting and Tracking (PIRT) Review Panel:

- RCW 70.104.070-090
- List of PIRT Panel Members
- Pesticide Incident Definition
- Agency Roles and ResponsibilitiesAgency Response Time Mandates

RCW 70.104.070 Pesticide incident reporting and tracking review panel -- Intent. The legislature finds that heightened concern regarding health and environmental impacts from pesticide use and misuse has resulted in an increased demand for full-scale health investigations, assessment of resource damages, and health effects information. Increased reporting, comprehensive unbiased investigation capability, and enhanced community education efforts are required to maintain this state's responsibilities to provide for public health and safety.

It is the intent of the legislature that the various state agencies responsible for pesticide regulation coordinate their activities in a timely manner to ensure adequate monitoring of pesticide use and protection of workers and the public from the effects of pesticide misuse.

[1989 c 380 § 67.]

Severability -- 1989 c 380: See RCW 15.58.942.

#### RCW 70.104.080 Pesticide panel -- Generally.

- (1) There is hereby created a pesticide incident reporting and tracking review panel consisting of the following members:
- (a) The directors, secretaries, or designees of the departments of labor and industries, agriculture, natural resources, fish and wildlife, and ecology;
- (b) The secretary of the department of health or his or her designee, who shall serve as the coordinating agency for the review panel;
- (c) The chair of the department of environmental health of the University of Washington, or his or her designee;
- (d) The pesticide coordinator and specialist of the cooperative extension at Washington State University or his or her designee;
- (e) A representative of the Washington poison control center network:
- (f) A practicing toxicologist and a member of the general public, who shall each be appointed by the governor for terms of two years and may be appointed for a maximum of four terms at the discretion of the governor. The governor may remove either member prior to the expiration of his or her term of appointment for cause. Upon the death, resignation, or removal for cause of a member of the review panel, the governor shall fill such vacancy, within thirty days of its creation, for the remainder of the term in the manner herein prescribed for appointment to the review panel.
  - (2) The review panel shall be chaired by the secretary of the department of health, or the secretary's designee. The members of the review panel shall meet at least monthly at a time and place specified by the chair, or at the call of a majority of the review panel.

[1994 c 264 § 41; 1991 c 3 § 363; 1989 c 380 § 68.] **Severability -- 1989 c 380:** See <u>RCW 15.58.942</u>.

#### RCW 70.104.090 Pesticide panel -- Responsibilities.

The responsibilities of the review panel shall include, but not be limited to:

(1) Establishing guidelines for centralizing the receipt of information relating to actual or alleged health and environmental incidents involving pesticides;

- (2) Reviewing and making recommendations for procedures for investigation of pesticide incidents, which shall be implemented by the appropriate agency unless a written statement providing the reasons for not adopting the recommendations is provided to the review panel;
- (3) Monitoring the time periods required for response to reports of pesticide incidents by the departments of agriculture, health, and labor and industries;
- (4) At the request of the chair or any panel member, reviewing pesticide incidents of unusual complexity or those that cannot be resolved;
- (5) Identifying inadequacies in state and/or federal law that result in insufficient protection of public health and safety, with specific attention to advising the appropriate agencies on the adequacy of pesticide reentry intervals established by the federal environmental protection agency and registered pesticide labels to protect the health and safety of farmworkers. The panel shall establish a priority list for reviewing reentry intervals, which considers the following criteria:
- (a) Whether the pesticide is being widely used in labor-intensive agriculture in Washington;
- (b) Whether another state has established a reentry interval for the pesticide that is longer than the existing federal reentry interval:
  - (c) The toxicity category of the pesticide under federal law;
- (d) Whether the pesticide has been identified by a federal or state agency or through a scientific review as presenting a risk of cancer, birth defects, genetic damage, neurological effects, blood disorders, sterility, menstrual dysfunction, organ damage, or other chronic or subchronic effects; and
- (e) Whether reports or complaints of ill effects from the pesticide have been filed following worker entry into fields to which the pesticide has been applied; and
- (6) Reviewing and approving an annual report prepared by the department of health to the governor, agency heads, and members of the legislature, with the same available to the public. The report shall include, at a minimum:
  - (a) A summary of the year's activities;
  - (b) A synopsis of the cases reviewed;
- (c) A separate descriptive listing of each case in which adverse health or environmental effects due to pesticides were found to occur:
  - (d) A tabulation of the data from each case;
- (e) An assessment of the effects of pesticide exposure in the workplace;
  - (f) The identification of trends, issues, and needs; and
- (g) Any recommendations for improved pesticide use practices.

[1991 c 3 § 364; 1989 c 380 § 69.]

**Effective date -- 1989 c 380 §§ 69, 71-73:** "Sections 69 and 71 through 73 of this act shall take effect on January 1, 1990." [1989 c 380 § 90.]

Severability -- 1989 c 380: See RCW 15.58.942.

(2000) (Title 70 RCW)

**Table 27 PIRT Panel Representatives 2000** 

Department of Health (DOH):	Maryanne Guichard, Chairman
Department of Health (DOH):	Jane C. Lee, Coordinator
Department of Agriculture (WSDA):	Ann Wick
Department of Ecology (Ecology):	Maria Victoria Peeler
Department of Fish and Wildlife (WSFW):	John Carleton
Department of Health (DOH):	Lynden Baum
Department of Labor and Industries (L&I)	Janet Kurina
Department of Natural Resources (DNR):	Vacant
General Public:	Alice Larson, Ph.D.
Practicing Toxicologist:	Lucio G. Costa, Ph.D., DABT
University of Washington (UW):	Matthew Keifer, MD
Washington Poison Center (WPC):	William O. Robertson, MD
Washington State University (WSU):	Allan Felsot, Ph.D.

### PESTICIDE INCIDENT REPORTING AND TRACKING (PIRT) REVIEW PANEL

#### PESTICIDE INCIDENT DEFINITION

#### A pesticide incident includes:

- Documented or suspected human cases of pesticide poisoning reported by health care providers as stated in WAC 246-100.
- Suspected pesticide poisoning of animals that may relate to human illness.
- Cases of human exposure where there is concern, but no medical evidence to substantiate a pesticide poisoning.
- Emergencies relating to pesticides that represent an imminent and/or future hazard to the public and/or labor force due to the toxicity of the material, the quantities involved, or the environment in which the incident occurs.
- Documented impacts to the environment including ground, surface water or soil contamination, crop or other resource damage due to the use or misuse of pesticides.
- Violations of worker protection-related to pesticide use.
- Property loss or damage from the use or application of any pesticide.

A pesticide incident appropriate for <u>review</u> by the PIRT Panel includes a case or situation where information received by Departments such as Agriculture, Health, or Labor and Industries indicates that the use of a pesticide may be related to a current or future threat to the public health and welfare

A pesticide incident appropriate for <u>resolution</u> by the PIRT Panel is any case described above for which unresolved issues remain after agencies have conducted investigations. Incidents concerning human health are given top priority.

Adopted April 19, 1990

Contact: Lynden Baum, Manager Pesticide and Surveillance Section (360) 236-3361

### **Primary Agency Responsibilities Related to Pesticide Exposure**

### **Washington State Department of Agriculture**

The Washington State Department of Agriculture (WSDA) is responsible for protection of health, welfare, and the environment under authority of the Pesticide Control Act and the Pesticide Application Act. These laws give the department the authority to regulate the handling, transportation, storage, distribution, use, and disposal of pesticides and their containers. WSDA administers the Federal Insecticide, Fungicide, and Rodenticide Act and the state pesticide laws. In administering these programs, WSDA:

- adopts and administers pesticide regulations including state pesticide registration;
- tests and certifies pesticide applicators;
- administers continuing education requirements for pesticide applicators; and,
- investigates complaints of pesticide misuse or misapplication.

#### **Department of Health**

The Department of Health (DOH) is responsible for carrying out rules and regulations adopted by the State Board of Health for the purposes of protecting and enhancing public health and welfare. This includes the determination and documentation of health effects resulting from pesticide poisonings and exposures, and delineation of public health risks. The major elements of DOH's Pesticide and Surveillance Section set forth in RCW 70.104.030 include:

- Conduct medical investigations of suspected human pesticide poisonings and those animal poisonings that may relate to human illness.
- Provide technical assistance regarding health effects and risks of pesticides to health care providers, other agencies, and individuals.
- Provide community information regarding health effects of pesticide exposure.
- Secure and provide for analysis of environmental samples or human and animal tissues to determine the nature and cause of any suspect case of pesticide poisoning.
- Establish, chair, and staff the multi-agency Pesticide Incident Reporting and Tracking review Panel (PIRT).
- Establish pesticide illness/exposure reporting mechanisms to be used by health care providers.
- Develop a program of medical education for physicians and other health care providers regarding pesticide poisonings.

#### **Department of Ecology**

The Department of Ecology (Ecology) is responsible for protection of public health and the environment, particularly under these jurisdictions: Chapter 90.48 RCW, Water Pollution Control; Chapter 70.105D RCW, Hazardous Management Act; Chapter 70.105D RCW, Model Toxics Control; and, Chapter 70.94 RCW, Washington Clean Air Act. The following elements apply to pesticide incidents.

- Protect wetlands, shorelands, and water including control and prevention of pollution from pesticide activities.
- Implement an aquatic pesticide application permit system.
- Administer a regulatory and education program directed at proper management and disposal of pesticide wastes.
- Investigate and enforce remediation of incidents involving spills or environmental contamination by pesticides.
- Provide educational and technical assistance to make voluntary compliance with environmental laws easier.

#### **Department of Labor and Industries**

The Department of Labor and Industries (L&I), the Division of Industrial Safety and Health, administers the Washington Industrial Safety and Health Act of 1973, Chapter 49.17 RCW. L&I has primary responsibility for ensuring that employers provide safe and healthful working conditions for every worker in Washington State at a level which is at least as effective as the Federal Occupational Safety and Health Act of 1970. In administering Chapter 49.17 RCW, L&I:

- conducts safety and health workplace inspections in agriculture and industry;
- promulgates workplace safety and health standards;
- investigates employee complaints;
- provides employers information and consultation; and,
- conducts training and education programs.

L&I also focuses on hazardous chemicals through administration of the Worker Right to Know Law, Chapter 49.70 RCW, and administers the Workers Compensation Program, Title 51 RCW, through the Division of Industrial Insurance.

#### **Department of Natural Resources**

The Department of Natural Resources administers the Forest Practices Rules and Regulations, WAC 222. Section 38 of WAC 222 pertains to forest chemicals including pesticides and fertilizers. These regulations are written to protect timber resources, fish, and wildlife from the misuse or misapplication of forest chemicals. The elements of the program that apply to pesticides involve issuing permits for pesticide applications in forests and monitoring permit restrictions.

### **Agency Response Time Mandates**

#### **Washington State Department of Agriculture**

WAC 16-228-233 directs the Washington State Department of Agriculture to respond to complaints involving humans or animals immediately. All other complaint investigations must be initiated within 48 hours.

#### **Department of Health**

WAC 246-100-217 directs the Department of Health (DOH) to respond to incidents within time periods based on severity. In the event of a pesticide-related hospital admission, death, or a threat to public health, DOH must respond within 24 hours. For all other cases, DOH must respond within 48 hours after notification.

#### **Labor and Industries**

The Department of Labor and Industries (L&I) response times are mandated in the Federal Occupational Safety and Health Act operations manual. Serious complaints require response within 30 days; all others within 120 days. The goal of the L&I Consultation and Compliance Services Division is to respond to serious complaints within 15 days; all others within 30 days. Response is defined as a site visit, not a telephone call.

April 6, 1998

# Appendix B

PIRT Agendas

## ${f P}$ esticide ${f I}$ ncident ${f R}$ eporting and ${f T}$ racking Review Panel

STATE PUBLIC HEALTH LAB 1610 NE 150<sup>th</sup> Street SEATTLE, WASHINGTON

Thursday January 18, 2001 Room S-4

## 1:30 pm to 3:30 pm

1:30	Welcome Agenda Overview Review November Meeting Summary	Maryanne Guichard
1:45	<ul><li>PIRT Panel Activities</li><li>Report on action items</li><li>2000 PIRT Legislative Summary</li></ul>	Lynden Baum
2:00	Update on Worker Protection Standards (WPS) Assessment	Alice Larson
2:15	2001 Annual PIRT Report and Five Year Data Analysis	Jane Lee
2:45	National Evaluation of WPS Training	Alice Larson
3:10	Other Business • Next meeting agenda items	
3:20	Public Comment:	
3:30	Adjourn	

## ${f P}$ esticide ${f I}$ ncident ${f R}$ eporting and ${f T}$ racking Review Panel

STATE PUBLIC HEALTH LAB 1610 NE 150<sup>th</sup> Street SEATTLE, WASHINGTON

Thursday, April 19, 2001 Room S 4

## 9:30 am to 11:30 pm

9:30	Welcome Agenda Overview Review February Meeting Summary	Maryanne Guichard
9:40	<ul><li>PIRT Panel Activities</li><li>Report on action items</li><li>Legislative Update</li></ul>	
9:50	Update from the "Pacific Northwest Agricultural Safety and Health Center", UW Update from the "Center for Child Environmental Health Risks Research", UW	Matt Keifer Rich Fenske
10:50	Other Business • Recent Oregon Court Decision	
11:10	Public Comment:	
11:30	Adjourn	

## ${f P}$ esticide ${f I}$ ncident ${f R}$ eporting and ${f T}$ racking Review Panel

STATE PUBLIC HEALTH LAB 1610 NE 150<sup>th</sup> Street SEATTLE, WASHINGTON

Thursday May 17, 2001 Room S-4

## 1:30 pm to 3:00 pm

1:30	Welcome Agenda Overview Review February Meeting Summary	Jane Lee
1:40	<ul> <li>PIRT Panel Activities</li> <li>Report on action items</li> <li>Legislative Update         <ul> <li>Substitute Senate Bill 5533 "Schools Posting Bill"</li> </ul> </li> </ul>	Ann Wick
2:00	Recent 9 <sup>th</sup> Circuit Court decision regarding aquatic pesticide use	Ann Wick
2:15	WSDA Program Proposal "Aquatic pesticides and salmon"	Ann Wick
2:30	Other Business	
2:45	Public Comment	
3:00	Adjourn	

## ${f P}$ esticide ${f I}$ ncident ${f R}$ eporting and ${f T}$ racking Review Panel

STATE PUBLIC HEALTH LAB 1610 NE 150<sup>TH</sup> STREET SEATTLE, WASHINGTON

Thursday June 21, 2001 Room Q-20

## 10:00 am to 12:00 pm (Please note new time)

10:00	Welcome Agenda Overview Review May Meeting Summary	Maryanne Guichard
10:15	PIRT Panel Activities Report on action items	
10:30	Update from the "Pacific Northwest Agricultural Safety and Health Center", UW Update from the "Center for Child Environmental Health Risks Research", UW	Matt Keifer Rich Fenske
11:30	Other Business  ◆ Next meeting Wednesday July 18, 2001 in Yakima with the Pesticide Advisory Board	
11:45	Public Comment:	
12:00	Adjourn	

### WASHINGTON STATE DEPARTMENT OF AGRICULTURE

### Pesticide Advisory Board Meeting July 18, 2001, 10:00 a.m. Yakima, WA

#### **AGENDA**

 Opening Comments Chairman Goodwin PIRT Panel Update Maryanne Guichard NPDES Permits Kathleen Emmett Chairman Goodwin Pesticide Advisory Board Charter Two-Year Pesticide Registration Ad Hoc Committee Ted Maxwell Direct Supervision Proposal/Status Cliff Weed Monitoring Cholinesterase Baseline for Farm Workers Dan Ford Program Updates o Compliance Cliff Weed o Program Development Ann Wick o Registration Ted Maxwell

Chairman Goodwin

• Other Business/Adjourn

## ${f P}$ esticide ${f I}$ ncident ${f R}$ eporting and ${f T}$ racking Review Panel

STATE PUBLIC HEALTH LAB 1610 NE 150<sup>TH</sup> STREET SEATTLE, WASHINGTON

Thursday September 20, 2001 Room S-4

## 10:00 am to 12:00 pm

10:00	Welcome Agenda Overview Review June Meeting Summary	Maryanne Guichard
10:15	PIRT Panel Activities Report on action items Renew membership 5 Year Data Review WSU Articles 2000 Annual Report 1999 Report Recommendations	Jane Lee
10:30	<ul> <li>Pesticide Advisory Board Meetings Update</li> <li>Migrant Farmworker Forum August 8, 2001 Yakima</li> <li>WSDA Participation in an EPA Pilot Program to Track Cases</li> <li>DOH-NIOSH Project</li> <li>DOH - New Data System</li> <li>West Nile Virus-Update</li> <li>Citrus Longhorn Beetle - Update</li> <li>Gypsy Moth - Update</li> <li>Assessment of WPS</li> </ul>	Ann Wick  Lynden Baum  Alice Larson
11:15	Agency Updates	
11:30	Other Business	
11:45	Public Comment	
12:00	Adjourn	

## ${f P}$ esticide ${f I}$ ncident ${f R}$ eporting and ${f T}$ racking Review Panel

STATE PUBLIC HEALTH LAB 1610 NE 150<sup>TH</sup> STREET SEATTLE, WASHINGTON

Thursday October 18, 2001 Room S-4

## 10:00 am to 12:00 pm

	AGENDA	
10:00	Welcome Agenda Overview Review September Meeting Summary	Maryanne Guichard
10:15	Agenda items held over from the September 20, 2001 PIRT meeting  • WSDA Participation in an EPA Pilot Program to Track Cases  • DOH-NIOSH Project/DOH - New Data System  • Assessment of WPS	Ann Wick Lynden Baum Alice Larson
11:15	PIRT Panel Activities Report on action items Draft 2000 Annual Report	
11:30	Agency updates	
11:40	Other Business	
11:45	Public Comment:	
12:00	Adjourn	

### ${f P}$ esticide ${f I}$ ncident ${f R}$ eporting and ${f T}$ racking Review Panel

STATE PUBLIC HEALTH LAB 1610 NE 150<sup>th</sup> STREET SEATTLE, WASHINGTON

Thursday December 20, 2001 Room S-4

### 10:00 am to 12:00 pm

### **AGENDA** 10:00 Welcome Maryanne Agenda Overview Guichard Review October and November Meeting Summaries 10:15 **PIRT Panel Activities** Draft 2000-2001 Annual Report 11:00 Update on the EPA Assessment of the Worker Protection Standards Alice Larson Agency updates 11:35 11:45 Other Business 11:50 **Public Comment:** 12:00 Adjourn

# **Appendix C**

- DOH Relationship Classifications (Prior to 2000)
   National Public Health Surveillance System **Relationship Classifications**
- DOH Severity Index
- NIOSH Severity Classifications



#### STATE OF WASHINGTON

#### DEPARTMENT OF HEALTH

OFFICE OF ENVIRONMENTAL HEALTH AND SAFETY
7171 Cleanwater Lane, Building 4 • PO Box 47825 • Olympia, Washington 98504-7825
TDD Relay Service: 1-800-833-6388

#### DOH RELATIONSHIP CLASSIFICATIONS (PRIOR TO 2000)

**DEFINITE:** High degree of correlation between pattern of exposure and resulting symptomology. Requires in most cases both medical evidence (Cholinesterase, serum or urinary metabolites, allergy tests, etc.) and physical evidence (foliar samples, work history, spill noticeable on clothing, etc.) to support the conclusions.

**PROBABLE:** Relatively high degree of correlation exists between the pattern of exposure and the illness/injury experienced. Medical and/or physical evidence unavailable or inconclusive.

**POSSIBLE:** Some degree of correlation evident. Work history and/or application history ambiguous.

**UNLIKELY:** A correlation cannot be ruled out absolutely. Work history and/or application history ambiguous.

**UNRELATED:** Definite evidence of cause other than pesticide exposure.

**ASYMPTOMATIC:** Exposure occurred, but did not result in illness/injury.

**INDIRECT:** Pesticide exposure is not responsible, but pesticide regulation contributed in some way, (e.g., heat stress while wearing chemical resistant clothing).

**UNKNOWN:** There is insufficient information available to be able to classify in one of the above categories.



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# NATIONAL PUBLIC HEALTH SURVEILLANCE SYSTEM RELATIONSHIP CLASSIFICATIONS

**DEFINITE CASE:** 1. Laboratory clinical or environmental evidence corroborates exposure, 2. Two or more new post-exposure abnormal signs and/or test/laboratory findings are reported by a licensed health care provider, and 3. The finding documented under health effects are characteristic for the pesticide and the temporal relationship between the exposure and health effects is plausible and/or the findings are consistent with an exposure-health effect relationship based upon the known toxicology of the putative agent.

**PROBABLE CASE**: 1. Laboratory clinical or environmental evidence corroborates exposure, 2. Two or more post-exposure abnormal symptoms reported but do not meet the threshold of a definite, <u>and</u> 3. The finding documented under health effects are characteristic for the pesticide <u>and</u> the temporal relationship between the exposure and health effects is plausible <u>and/or</u> the findings are consistent with an exposure-health effect relationship based upon the known toxicology of the putative agent.

1. Evidence of exposure based solely upon written or verbal report by case, witness, application, observation of residue and/or contamination by other than a trained profession or other evidence suggesting that an exposure occurred, 2. Two or more new post-exposure abnormal signs and/or test/laboratory findings are reported by a licensed health care provider, <u>and</u> 3. The finding documented under health effects are characteristic for the pesticide <u>and</u> the temporal relationship between the exposure and health effects is plausible <u>and/or</u> the findings are consistent with an exposure-health effect relationship based upon the known toxicology of the putative agent.

**POSSIBLE CASE:** 1. Evidence of exposure based solely upon written or verbal report by case, witness, application, observation of residue and/or contamination by other than a trained profession or other evidence suggesting that an exposure occurred, 2. Two or more post-exposure abnormal symptoms reported but do not meet the threshold of a definite, and 3. The finding documented under health effects are characteristic for the pesticide <u>and</u> the temporal relationship between the exposure and health effects is plausible <u>and/or</u> the findings are consistent with an exposure-health effect.

**SUSPICIOUS CASE:** 1. Laboratory clinical or environmental evidence corroborates exposure, <u>or</u> evidence of exposure based solely upon written or verbal report by case, witness, application, observation of residue and/or contamination by other than a trained profession or other evidence suggesting that an exposure occurred, 2. Two or more new post-exposure abnormal signs and/or test/laboratory findings are reported by a licensed health care provider <u>or</u> two or more post-exposure abnormal symptoms reported but do not meet the threshold of a DEFINITE, <u>and</u> 3. Insufficient toxicological information is available to determine causal the relationship between the exposure and health effects.

**UNLIKELY CASE:** 1. Laboratory clinical or environmental evidence corroborates exposure, <u>or</u> evidence of exposure based solely upon written or verbal report by case, witness, application, observation of residue and/or contamination by other than a trained profession or other evidence suggesting that an exposure occurred, 2. Two or more new post-exposure abnormal signs and/or test/laboratory findings are reported by a licensed health care provider <u>or</u> two or more post-exposure abnormal symptoms reported but do not meet the threshold of a DEFINITE, <u>and</u> 3. Evidence of exposure-health effect relationship is not present due to no observed health or effect, a temporal relationship does not exist, or the constellation of health effects are not consistent based upon the known toxicology of the putative agent.

**INSUFFICIENT INFORMATION:** Insufficient data in the documentation of the pesticide exposure <u>or</u> insufficient data in the documentation of adverse health effects.

**NOT A CASE:** Strong evidence that no pesticide exposure occurred <u>or</u> insufficient toxicological information is available to determine causal relationship between exposure and health effects.



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#### DOH SEVERITY INDEX FOR PESTICIDE-RELATED CASES

- **01** No symptoms developed or if they did, a cause other than pesticides was identified.
- **02** (mild) Patient experienced mild, temporary symptoms. If medical care was sought, treatment was limited to decontamination and minor pain relief.

Patient experienced temporary or mild topical irritation.

**03** (moderate) Patient suffered moderate systemic symptoms. Patient may have been seen in an Emergency Room, admitted for observation, or not admitted.

Patient suffered moderately painful, itchy, or otherwise irritating topical symptoms.

- **04** (severe) Patient suffered systemic symptoms and received aggressive treatment procedures or hospitalization. All symptoms resolved.
  - Patient suffered severe topical (eye and/or skin) burn, ulceration, or irritation that resulted in medical treatment.
- **05** (severe) Patient suffered systemic symptoms and received aggressive treatment procedures or hospitalization for 24 hours or more. At the time case was closed, symptoms had not resolved completely.

Patient suffered severe topical (eye and/or skin) burn, ulceration, or irritation that resulted in medical treatment. Permanent damage resulted.

**06** Death occurred.

Revised April 6, 1998

Contact: Lynden Baum (360) 236-3360

TABLE: Signs and symptoms by severity category (Modeled after Persson et. al., 1998 and includes SPIDER database elements)

ORGAN SYSTEM	SEVERITY CATEGORY AND CODE				
	FATAL HIGH MODERATE		LOW		
	1	2	3	4	
	Death	Severe or Life-threatening Signs	Pronounced or Prolonged Signs or Symptoms	Mild, transient, and spontaneously resolving symptoms	
Gastrointestinal System		Massive hemorrhage/perforation of gut	<ul> <li>Diarrhea (G14, sign only)</li> <li>Melena (G17)</li> <li>Vomiting (G16, sign only)</li> </ul>	<ul> <li>Abdominal pain, cramping (GI1)</li> <li>Anorexia (GI2)</li> <li>Constipation (GI3)</li> <li>Diarrhea (GI4, symptom)</li> <li>Nausea (GI5)</li> <li>Vomiting (GI6, symptom)</li> </ul>	
Respiratory System		<ul> <li>Cyanosis (RESP 2) + Respiratory depression (RESP 7)</li> <li>Pulmonary edema (RESP6)</li> <li>Respiratory arrest</li> </ul>	<ul> <li>Abnormal pulmonary x-ray</li> <li>Pleuritic chest pain/pain on deep breathing (RESP8)</li> <li>Respiratory depression (RESP7)</li> <li>Wheezing (RESP9)</li> <li>Dyspnea, shortness of breath (RESP4, sign only)</li> </ul>	<ul> <li>Cough (RESP1)</li> <li>Upper respiratory pain, irritation (RESP3)</li> <li>Dyspnea, shortness of breath (RESP4, symptom)</li> </ul>	
Nervous System		<ul> <li>Coma (NS3)</li> <li>Paralysis, generalized (NS10)</li> <li>Seizure (NS5, sign only)</li> </ul>	<ul> <li>Confusion (NS4)</li> <li>Hallucinations (NS99 Other)</li> <li>Miosis with blurred vision (NS14)</li> <li>Seizure (NS5, symptom)</li> <li>Ataxia (NS1, sign only)</li> <li>Slurred speech (NS12)</li> <li>Syncope (fainting) (NS17)</li> <li>Peripheral neuropathy (NS11, sign only)</li> </ul>	<ul> <li>Hyperactivity (NS2)</li> <li>Headache (NS7)</li> <li>Profuse sweating (NS13)</li> <li>Dizziness (NS15)</li> <li>Ataxia (NS1, symptom)</li> <li>Peripheral neuropathy (NS11, symptom)</li> </ul>	

ORGAN SYSTEM	SEVERITY CATEGORY AND CODE				
	FATAL	HIGH	MODERATE	LOW	
	1	2	3	4	
	Death	Severe or Life-threatening Signs	Pronounced or Prolonged Signs or Symptoms	Mild, transient, and spontaneously resolving symptoms	
Cardiovascular System		<ul> <li>Bradycardia/ heart rate &lt;40 for adults, &lt; 60 infants and children, &lt;80 neonates (CV1)</li> <li>Tachycardia/ heart rate&gt;180 for adults, &gt;190 infants/children, &gt;200 in neonates (CV4)</li> <li>Cardiac arrest (CV2)</li> </ul>	<ul> <li>Bradycardia / heart rate 40-50 in adults, 60-80 in infants/children, 80-90 in neonates (CV1)</li> <li>Tachycardia / heart rate=140-180 in adults, 160-190 infants/children, 160-200 in neonates (CV4)</li> <li>Chest Pain (CV7) + Hyperventilation, Tachypnea (RESP5)</li> <li>Conduction disturbance (CV3)</li> <li>Hypertension (CV6)</li> <li>Hypotension (CV5)</li> </ul>		
Metabolism		• Acid Base disturbance (pH< 7.15 or >7.7)	<ul> <li>Acid Base disturbance (pH = 7.15-7.24 or 7.60-7.69)</li> <li>Elevated anion gap (MISC4)</li> </ul>	Fever (MISC1)	
Renal System		<ul><li>Anuria (GU2)</li><li>Renal failure</li></ul>	Hematuria (GU3)     Oliguria (GU2)     Proteinuria (GU4)	Polyuria (GU1)	
Muscular system		• Muscle rigidity (NS9) + elevated urinary myoglobin + elevated creatinine	<ul> <li>Fasciculations (NS6)</li> <li>Muscle rigidity (NS9)</li> <li>Muscle weakness (NS8, sign only)</li> </ul>	Muscle weakness (NS8, symptom)     Muscle pain (NS16)	
Local effects on skin		<ul> <li>Burns, second degree (involving &gt;50% of body surface area)</li> <li>Burns, third degree (involving &gt;2% of body surface area)</li> </ul>	Bullae (DERM1) Burns, second degree (involving <50% of body surface area) Burns, third degree (involving <2% of body surface area)	Skin Edema/Swelling, Erythema, Rash, Irritation/Pain, Pruritis (DERM3 - 7)     Hives/Urticaria	
Local effects on eye		Corneal ulcer/perforation	Corneal abrasion (EYE3)     Ocular burn (EYE2)	<ul> <li>Lacrimation (EYE4)</li> <li>Mydriasis (EYE6)</li> <li>Miosis (EYE1)</li> <li>Ocular pain/irritation/inflammation (diagnosis of conjunctivitis) (EYE5)</li> </ul>	
Other effects				<ul><li>Fatigue (MISC5)</li><li>Malaise (MISC6)</li></ul>	

## **Appendix D**

### **Agency Data Summaries:**

- Washington State Department of Agriculture
- Department of Health
   Department of Labor and Industries

# **Washington State Department of Agriculture**

<u>Case#</u> 001C 2000	<u>Designation</u> Non Pesticide <u>License</u> Unlicensed	Date of Incident Dec-99	Severity 0	Application Method None
<b>County</b> Grant	Nature of Case WDO	Response time Same Day	Children Involved? No	Application Type WDO
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
None none		None	NAI	Wood Rot (House)

Summary Complainant had company do a mold/fungus/wood rot treatment in his home. Has had moisture problems for the last several years. He feels that he did not get the type of service he paid for & the company was not licensed to perform the service. No WDO inspection was done.

Finding Complainant claims alleged infractor said he would make an application to treat wood rot in his house. The alleged infractor claims he did not say that he would treat wood rot. Complainant is unable to provide documentation to substantiate his claims. Invoice did not state that wood rot treatment was performed

<u>Case#</u> 002C 2000	<u>Designation</u> Pesticide Involved <u>License</u> Dealer	Date of Incident 1998	Severity 1	Application Method None
<b>County</b> Grant	Nature of Case Unregistered surfactant	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Surfactant surfactant		None	Stop Sale	Sale

Summary Complainant alleges a county noxious weed board has been purchasing (and using) an unregistered surfactant from a chemical company.

Finding The alleged infractors were selling an unregistered surfactant. A stop sale was issued to the alleged infractor (dealer) who will stop selling the product and try to get it registered for use in Washington.

<u>Case#</u> 003C 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident Mar-00	Severity 1	Application Method Ground
<b>County</b> Grant	Nature of Case License/Theft	Response time one day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Miscellaneous miscellaneous		None	NOC	Ornamentals

Summary Complainant is a commercial applicator and neighbor of the alleged infractor. He alleges that the alleged infractor is doing commercial applications of ornamental pesticides without a license. He also alleges that the alleged infractor is using stolen agricultural pesticides that are not labeled for ornamental use.

Finding Alleged infractor is not licensed as a commercial applicator and failed to submit records. Not all dealer records had a complete address for the purchaser (alleged infractor).

<u>Case#</u> 004C 2000	<u>Designation</u> Pesticide Involved <u>License</u> PO	Date of Incident 1999	Severity 3	Application Method Ground
County Chelan	Nature of Case Drift	Response time Same Day	Children Involved? No	Application Type ROW
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicides herbicides		None	NAI	ROW/Pear & apple trees

Summary In July of 1999, complainant noticed corkscrewing of new growth and spindly shoots with no terminal bud in the first row of his De Anjou pear tees. He also noticed some damage to his apple trees in the first row and decided it was herbicide damage and contacted County Public Works. Claims damages of \$264,000

Finding Complainant claims \$264,000 of damage to his fruit trees because of alleged infractor's herbicide applications. Twelve samples were taken, and the WSDA Lab analyzed for phenoxies, glyphosate, pendimethalin, and diuron. The complainant withdrew his complaint before the final results from the lab were in. The case was closed on 5/05/00.

<u>Case#</u> 005C 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 3/13/2000	Severity 2	Application Method Ground
<b>County</b> Wenatchee	Nature of Case Direct	Response time Same Day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide kaolin		DOH	NOC	Pears/Apple trees/Person?

Summary The complainant's neighbor was spraying pears & sprayed a white residue (not drifted) onto the apple orchard. One side of trees bordering in the first 2-3 rows was white from residue.

An orchard worker was working between 3rd & 4th rows appx 35 ft south. According to the 2nd complainant, the worker had told him he felt spray hit his arms, but he declined to make a statement confirming this when asked by the investigator.

Finding Lab unable to sample for kaolin because it was very similar to naturally occurring materials. The spray from the application made by the alleged infractor was observed by an orchard worker at the site of the alleged infraction. Investigator observed a grayish-white powder specked on the limbs of many trees in the first three rows of the complainant's orchard.

<u>Case#</u> 006C 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 3/15/2000	Severity 2	Application Method Ground
County Chelan	Nature of Case Human Exposure	Response time Same Day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide esfenvalerate	Fungicide? lime-sulfur	DOH	NOC	Pears/person

Summary Complainant's husband was exposed to some dark green substance that was coming from an air blast sprayer application in an orchard next to her husband's construction work site.

Substance made her husband nauseous right after exposure and his lungs felt heavy that night. She visited the site @ 2:00 pm, her eyes were burning even though the applicator had stopped spraying.

Finding PAWS weather data recorded average wind speeds from 9:00 a.m. to 1:30 p.m. out of the southwest ranging between 1.84 - 3.77 mph. WSDA lab found detectable quantities of sulfur and esfenvalerate in the samples taken from complainant's radio in Jeep. Lab also found sulfur on the skill saw and another person's shirt. DOH tentatively classified symptoms as "possible."

<u>Case#</u> 007C 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 3/24/2000	Severity 2	Application Method Ground
<b>County</b> Chelan	Nature of Case Drift	Response time Same Day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide kaolin		None	NOC	Pears/Car

Summary The complainant was driving north on a road when an orchard air blast applicator sprayed some type of white substance over his black car. He had his windows rolled up and he did not complain of any symptoms. The sprayer operator had on white coveralls, and he was wearing a respirator.

Finding Investigator observed a grayish-white residue that covered the hood, fenders, side mirrors on both sides of the car, and the windshield. Investigator saw a white powder extending from the block orchard and onto the surface of the road at the spot the complainant said he was sprayed. The alleged infractor said that he accidentally sprayed the car.

<u>Case#</u> 008C 2000	Designation Pesticide Inv	olved <u>License</u> PA	Date of Incident 3/30/2000	Severity 3	Application Method Ground
<b>County</b> Chelan	Nature of Case Human Expo	sure	Response time Same Day	Children Involved? No	Application Type Ag
	Chemicals or other material in	nvolved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide azinphosmethyl	Insecticide endosulfan	Insecticide esfenvalerate	DOH	AA	Pears/Persons

Summary Alleged infractor was spraying pears in his orchard. The complainant said he drifted spray onto him while he was standing in front of his shop & possibly onto the another damaged party who was working on the complainant's home. Neither damaged party said they had any symptoms. The complainant said the alleged infractor had also sprayed his backyard this time as well as last week when spraying kaolin.

Finding The complainant and damaged parties said that the alleged infractor drifted on them and the property. One person fell ill. The WSDA laboratory found detectable quantities of chlorpyrifos, esfenvalerate and endolsulfan on all nine of the samples submitted. DOH evaluated health symptoms of damaged party as "possible." Some record problems found.

<u>Case#</u> 009C 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 3/31/2000	Severity 2	Application Method Ground
<b>County</b> Okanogan	Nature of Case Human Exposure	Response time Same Day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide chlorpyrifos	Insecticide endosulfan	DOH	NOC	Pears/Person

Summary Complainant alleges being drifted upon by unknown applicator applying pesticides in an orchard. She said the spray came into the car through her drivers side window, and that she later felt a mist hit her skin while she was standing in the yard. The dog that she purchased from the site developed diarrhea and vomiting later.

Finding PAWS weather data had winds ranging between 1.84 to 3.7 mph out of the southwest. The WSDA lab found detectable quantities of chlorpyrifos and endosulfans in the samples taken from grass and a ladder. The lab also found chlorpyrifos on the window and sunroof of complainant's vehicle. DOH tentatively classified the symptoms as "possible."

<u>Case#</u> 010C 2000	<u>Designation</u> Non Pesticide <u>License</u> Unlicensed	Date of Incident 1999	Severity 0	Application Method Ground
<b>County</b> Grant	Nature of Case Drift	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Unknown unknown		None	NAI	Ornamentals/Ornamentals

Summary Complainant alleges that the alleged infractor applied a chemical to his property boundary in 1999 that leached over to his property and killed two of his arborvitae.

Finding The information gathered, including the WSDA lab analysis, does not indicate that a pesticide was used. The alleged infractor stated that he did not use a pesticide and the lab was unable to detect any pesticide residues in the soil and vegetation collected from the complainant's property.

<u>Case#</u> 011C 2000	<u>Designation</u> Non Pesticide	<u>License</u> Unlicensed	Date of Incident 1999	Severity 3	Application Method Air
<b>County</b> Douglas	Nature of Case License/Theft		Response time Same Day	Children Involved? No	Application Type Ag
	Chemicals or other material inve	rolved:	Other Agencies Involved:	Final Action	Target / Complaint Area
NA			Revenue	NOC	Wheat
NA					

Summary Suspected use of pesticides by an unlicensed aerial applicator. WSDA received information from a farm chemical outlet that in the fall of 1999, an unlicensed aerial applicator may have made aerial pesticide applications for a Douglas County farmer.

Finding Alleged infractor commercially applied the herbicide, MCPE, on May 24-27, 1999. Alleged infractor does not have a Commercial Applicator's license. Application records were requested but not received from three other potential customers of the alleged infractor.

<u>Case#</u> 012C 2000	<u>Designation</u> Pesticide Inv	olved <u>License</u> PA	Date of Incident 3/20/2000	Severity 3	Application Method Ground
<b>County</b> Chelan	Nature of Case Human Expo	sure	Response time Same Day	Children Involved? Yes	Application Type Ag
	Chemicals or other material in	nvolved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide azinphosmethyl	Insecticide endosulfan	Insecticide sulfur	DOH	NOC	Pears/Person

Summary Child was playing at Sunnyslope school on the afternoon of 3/20/00 and felt light moisture drops on his arms. The play equipment is about 50 feet west of an orchard. Orchard owner's ecords show that he was spraying that afternoon. Head custodian said there was a spray application going on about 10 rows away from playground equipment at the time. Child developed diarrhea on 4-5-00.

Finding Referring party's son felt "drops" on his skin during the application, and he developed diarrhea about two weeks later. PAWS weather data recorded winds out of the southeast from 1:30 p.m. to 2:45 p.m. at average speeds that between 1.24 and 2.93 mph. The WSDA lab found detectable quantities of chlorpyrifos, sulfur, and endolsulfan on vegetation next to play area, and swab sample of the playground slide. ND on the shirt.

<u>Case#</u> 013C 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 4/23/2000	Severity 5	Application Method Ground
<b>County</b> Douglas	Nature of Case Human Exposure	Response time Same Day	Children Involved? Yes	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide lime - Sulfur		DOH	NOC	Apples/Person

Summary Alleged lime-sulfur application drifted onto complainant's property where child (age 2) came in contact with it, resulting in injury to feet.

Finding The WSDA lab detected formetanate, sulfur, calcium, and chlorothalonil on the property of the complainant and in the orchard of the alleged infractor. The complainant applied sulfur and calcium to his fruit trees. The complainant and the orchard owner supplied incomplete records. The applicator for the orchard had an expired private applicator's license at the time of the alleged incident.

<u>Case#</u> 014C 2000	<u>Designation</u> Pesticide Involved <u>License</u> PO	Date of Incident Spring 2000	Severity 3	Application Method Ground
<b>County</b> Grant	Nature of Case Drift	Response time Same Day	Children Involved? No	Application Type ROW
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide diuron		None	NOC	Road/wheat

Summary Alleged runoff from roadside right of way herbicide applications injured wheat.

Finding Runoff and possibly drift from state and county ROW applications, plus runoff and possibly drift from herbicide applications by the grower, may have damaged a wheat field. Bromacil, diuron, and imazapyr detected in the wheat. Bromacil was applied to the freeway and a pump near wheat. Diuron was applied to the freeway and county road. Imazapyr was applied to the county road. Records furnished were incomplete.

<u>Case#</u> 015C 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident ongoing	Severity 4	Application Method Ground
County Chelan	Nature of Case Drift	Response time Same Day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide picloram		None	AA	Ornamentals/Orchard

Summary Ornamental trees planted near the property line of an orchard are being killed by a pesticide used on the orchard.

Finding The applicator said he made applications of Tordon 22 K to the 3-5 foot target strip next to the complainant's Arborvitae. The label for Tordon said not to apply the product near desirable trees or other plants, or on areas where the roots extend. The WSDA laboratory found detectable quantities of picloram in the target strip samples. The WSDA weed specialist said the border Arborvitae exhibited chlorotic and epinastic symptomology.

<u>Case#</u> 016C 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 5/6/2000	Severity 1	Application Method Ground
County Chelan	Nature of Case Human Exposure	Response time Same Day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Fungicide mycobutanil		DOH	NAI	Cherries/Person

Summary Complainant and his son felt a spray mist when they were outside their apartment. The spray came from an application in an orchard near their apartment. Both felt a tightening of their sinuses and a bad taste in their mouths.

Finding The WSDA laboratory did not find detectable quantities of myclobutanil in the samples taken of the episode area. It was found in the target site sample. DOH tentatively classified the relationship of the symptoms to the pesticide exposure expressed by the complainants as "unlikely,". Official DOH report still pending.

<u>Case#</u> 017C 2000	<u>Designation</u> Pesticide Inve	olved <u>License</u> Comm	Date of Incident Spring 2000	Severity 3	Application Method Ground
<b>County</b> Grant	Nature of Case Misuse		Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material in	nvolved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate	Herbicide 2,4-D	Herbicide oryzalin	None	NOC	Lawn

Summary Suspected misapplication of pesticides causing lawn to die. Applications made by commercial pest control company.

Finding The WSDA lab detected 2,4-D, Glyphosate, benefin, and oryzalin in landscape vegetation. A lawn care company misapplied 2,4-D, Malathion-Methoxychlor, and Aliette to the landscape vegetation. The lawn care company's records were incomplete and inaccurate. An agricultural commercial applicator may have drifted 2,4-D and Harmony Extra onto the landscape vegetation.

<u>Case#</u> 018C 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 5/17/2000	Severity 1	Application Method Ground
<b>County</b> Douglas	Nature of Case Drift	Response time Same Day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide chlorpyrifos		None	NAI	Cherries/Cherries

Summary Alleged drift of application to orchard during high winds onto complainant's property.

Finding Residence was drifted on as a result of an application made during high winds. No pesticide residues were detected on grass from the residence located 30 feet from the orchard. Chlorpyrifos was detected in cherry leaves from the orchard. The application stop time was not listed on the application record.

<u>Case#</u> 019C 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 5/18/2000	Severity 3	Application Method Ground
<b>County</b> Douglas	Nature of Case Human Exposure	Response time Same Day	Children Involved? Yes	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide azinphos-methyl		DOH, EPA	NOC	Apples/People

Summary Human exposure. Alleged spraying of school bus by air blast sprayer. 19 children and 1 adult were on the bus at the time of the alleged incident.

Finding Alleged that an air blast sprayer sprayed a school bus with one child and one adult in the bus and two children boarding. Bus driver reported having a sore throat afterwards. Azinphos methyl was applied to an orchard near the bus stop and found on the bus and shirt of one child boarding the bus at the time of the incident. 18 other children later boarded the bus. Record issues with phone number/product name/wind.

<u>Case#</u> 020C 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 5/1/2000	Severity 3	Application Method Ground
<b>County</b> Grant	Nature of Case Drift	Response time Same Day	Children Involved? No	Application Type ROW
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide imazapyr		None	NOC	ROW/Potatoes

**Summary** Injury to potatoes allegedly caused by drift from roadside right-of-way herbicide application.

Finding The WSDA lab found residues of imazapyr, diuron, and 2,4-D in samples collected from a potato field and road side right-of-way. The owner of the potatoes applied Sahara the previous fall where it may have runoff into the potato field. A roadside right-of-way application with 2,4-D also may have drifted into the potato field. Records from the roadside application were incomplete and not submitted on an approved form.

<u>Case#</u> 021C 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 6/1/2000	Severity 2	Application Method Ground
<b>County</b> Douglas	Nature of Case Human Exposure	Response time Same Day	Children Involved? Yes	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Fungicide Aluminum tris		DOH	NOC	Apples/Person

Summary Bus allegedly sprayed by air blast sprayer while picking up two children.

Finding Fosetyl-aluminum residues on windshield of bus and in area where two children were standing. Two sprayers in the area, one W, one to the NE. Sprayer to W stopped, sprayer to NE did not see school bus until it was picking up the two children. Discrepancy of statements on distance and whether the sprayer stopped. Residues found off target. A neighboring orchard did not submit records per an official request.

<u>Case#</u> 022C 2000	<u>Designation</u> Non Pesticide <u>License</u> Unlicensed	Date of Incident 5/31/2000	Severity 0	Application Method Ground
<b>County</b> Grant	Nature of Case Drift	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
None None		None	NAI	Lawn/Lawn

Summary Alleged drift/runoff/spill from a commercial pesticide application causing injury to a lawn.

**Finding** Alleged pesticide damage to lawn was probably caused by cultural practices, insects, or diseases.

<u>Case#</u> 023C 2000	Designation Pesticide Inv	olved <u>License</u> PA	Date of Incident 6/14/2000	Severity 2	Application Method Ground
<b>County</b> Douglas	Nature of Case Human Expo	sure	Response time Same Day	Children Involved? No	Application Type Ag
	Chemicals or other material in	nvolved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide endosulfan	Insecticide carbaryl	Insecticide azinphosmethyl	DOH	NOC	Cherries/Person

Summary Alleged that drift from an air blast application made to cherries contaminated property and sickened two of the residents at the house which is adjacent to the orchard. The residents complained of a strong odor of pesticides and two residents reported physical ailments after the orchard was sprayed.

Finding Residues of pesticides applied on June 14, 2000 were not detected on the complainant's property. Residues of Endosulfan were detected on the complainant's property. Endosulfan was applied to the orchard on April 23, 2000. The applicator submitted incomplete application records.

<u>Case#</u> 024C 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 3/1/2000	Severity 3	Application Method Ground
<b>County</b> Grant	Nature of Case Misuse	Response time Same Day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide chlorsulfuron		EPA	NAI	Peas

Summary Alleged herbicide carryover damage to peas. The herbicide recommendations were made for corn grown in 1999. The peas were planted in 2000 and looked sick from emergence on.

Finding Peas allegedly damaged had no dicamba residues according to the WSDA lab report. The lab detected chlorsulfuron in soil from the pea field. The source of the chlorsulfuron could not be determined. May have been applied to an area of shallow groundwater but WSDA did not have an official interpretation of what constitutes shallow groundwater . Application records were missing information.

<u>Case#</u> 025C 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident Jun-00	Severity 3	Application Method Unknown
County Chelan	Nature of Case Drift	Response time Same Day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		None	NOC	Grapes

Summary During visit to a test vineyard on 6/8/00, complainant noticed the start of herbicide damage. The damage was confirmed on his 6/20/00 visit when he noticed the new growth on the vines in lower vineyard were showing strapping, cupping, and yellowing symptoms. All new growth has stopped in many of the plants.

Finding WSDA observed Phenoxy like symptoms on the grape leaves sampled on 6/21/00 but was not able to pinpoint the source. The applicator applied Glyphosate in an area adjacent to the episode site. WSDA lab found Glyphosate residues in the samples taken from the complainant's properties. The commercial applicator submitted incomplete records and had an expired commercial applicator license during 2000.

Case# 026C 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident Spring 2000	Severity 2	Application Method Ground
<b>County</b> Douglas	Nature of Case Misuse	Response time one day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide methiocarb		Food Safety	NOC	Cherries

Summary Methiocarb was detected by the US FDA in cherries sold at a Peshastin fruit stand. There is no EPA tolerance for Methiocarb on bearing cherries (cherries sold as an agricultural commodity). It is alleged that cherry grower used Methiocarb on his cherries and knew the cherries were being sold at the Peshastin fruit market.

Finding WSDA lab detected Methiocarb in cherries from an orchard that supplied the cherries sold at a fruit stand. WSDA lab detected Methiocarb in the air blast sprayer used to spray the orchard. Methiocarb was not detected in adjacent orchards. The owner of the cherries said he did not apply Methiocarb. Records were incomplete and inaccurate for the alleged infractor and two neighbors.

<u>Case#</u> 027C 2000	<u>Designation</u> Pesticide Inve	olved <u>License</u> PO	Date of Incident 6/8/2000	Severity 2	Application Method Ground
<b>County</b> Grant	Nature of Case Misuse		Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material in	nvolved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide dibrom	Insecticide naled		None	NOC	Mosquitoes/Property

Summary Alleged spraying of property by mosquito control district without permission. Did not maintain buffer around property as required in earlier notice.

Finding The Mosquito Control District applicator sprayed the complainant's property against the property owner's written instructions and in violation of the Washington State Department of Ecology's Notice of Correction. Mosquito Control District submitted incomplete and inaccurate records on record forms not approved by WSDA.

<u>Case#</u> 028C 2000	Designation Pesticide Inv	olved <u>License</u> PA	Date of Incident 6/20/2000	Severity 2	Application Method Ground
<b>County</b> Douglas	Nature of Case Drift		Response time Two days	Children Involved? No	Application Type Ag
	Chemicals or other material in	nvolved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide azinphosmethyl	Insecticide malathion	Insecticide carbaryl	None	NOC	Cherries/Home garden

Summary Alleged drift from orchard air blast application damaged garden plants.

Finding WSDA lab analysis and observation indicated that pesticides applied by the applicator were not responsible for the injury to the complainant's garden plants. Several pesticides were found that did not match records. Orchard applicator made repeated off-label application. Rate used was higher than label allowed, and applied sooner than label allowed. Applicator's records were incomplete and inaccurate.

<u>Case#</u> 029C 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident 6/22/2000	Severity 2	Application Method Ground
<b>County</b> Douglas	Nature of Case REI violation	Response time Same Day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide malathion		None	NOC	Cherries/People

Summary Anonymous caller alleged that a grower had cherry pickers harvesting the same day that an aerial application of malathion was made to the cherries and that this violated the 24 hour REI on the label.

Finding The orchard owner allowed workers into his orchard to harvest the cherries before the REI had expired. The PHI had not expired before the cherries were harvested. Central notification was not provided and workers were not trained before entry into treated areas, violating WPS. The commercial operator provided incomplete and inaccurate records. The commercial consultant did not provide the EPA Reg. No. to the customer.

<u>Case#</u> 030C 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 6/2/2000	Severity 3	Application Method Air
<b>County</b> Grant	Nature of Case Human Exposure	Response time 4 days	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide clethodim		DOH	NOC	Onions/Person

Summary A small plane was spraying next to nursery block when she saw the plane go up at the end of a pass and she saw some spray come towards her. Her eyes began to itch, tear up, and then burn after about 30 minutes later.

Finding The alleged infractor denied he sprayed the onion field that adjoined the episode site on 6/02/00, but did say he sprayed it on 6/06/00 with clethodim. A fieldworker witness said he saw the airplane spray the field on 6/02/00. A health clinic assessed the condition of the complainant's eye as "chemical conjunctivitis." The WSDA laboratory found detectable quantities of clethodim in the leaf samples taken from the episode site.

<u>Case#</u> 031C 2000	<u>Designation</u> Non Pesticide <u>License</u> PA	Date of Incident 7/7/2000	Severity 0	Application Method Ground
County Okanogan	Nature of Case Human Exposure	Response time Same Day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Surfactant soap		DOH	NAI	Organic Pears/Person

Summary Complainant was standing at the end of his orchard in the morning and he was exposed to a cloud of spray coming from sprayer. He said he felt the mist but did not have any symptoms of pesticide poisoning.

Finding The complainant said he was drifted on by his neighbor on 7/07/00 at around 6:45 a.m.. A witness said he saw the applicator drift into the complainant's orchard. The alleged infractor, an organic orchardist, said he had taken all necessary precautions to avoid drift. The applicator was spraying soap, and it was not a registered pesticide. The applicator did not have an applicator license -not required for soap.

<u>Case#</u> 032C 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident 7/28/2000	Severity 2	Application Method Ground
<b>County</b> Grant	Nature of Case Misuse	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Miscellaneous miscellaneous		None	NOC	Personal property

Summary Complainant alleges that city maintenance supervisor takes city purchased Restricted Use Pesticides home for personal use. Alleged infractor is not licensed.

Finding An unlicensed public employee was making unsupervised pesticide applications. Incomplete records were submitted to WSDA. The pesticide storage facility was not fully placarded. Public employees were applying a pesticide to sites not on the label. A dealer was distributing Restricted Use Pesticides without authorization from a licensed applicator.

<u>Case#</u> 033C 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 7/26/2000	Severity 3	Application Method Ground
<b>County</b> Grant	Nature of Case Misuse	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Miscellaneous miscellaneous		None	NOC	Lawn

Summary Alleged misapplication resulted in damaged trees and lawn.

Finding Complainant alleged that plants were damaged by a commercial applicator. A plum tree had symptoms consistent with injury caused by growth regulator herbicides. Herbicide was used too close to the plum tree, the application was repeated too soon, and the rate was too high. 2,4-D was used on an unlabeled site. Dursban was used at over the label rate. The commercial applicator's records were incomplete.

<u>Case#</u> 034C 2000	<u>Designation</u> <b>Pesticide Involved</b> <u>License</u> Private Commercial	Date of Incident Fall 1999	Severity 4	Application Method Ground
<b>County</b> Grant	Nature of Case Drift	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide miscellaneous		None	NOC	Road/Ornamentals

Summary Alleged that application of herbicides to driveway injured ornamental vegetation at the residence. Also possibility of drift damage due to roadside or adjacent field spraying.

Finding Three trees were damaged after off-label applications of herbicides to a driveway. The applications were made by a commercial pest control company to a non-farm residence. The WSDA lab detected bromacil and diuron in leaves from the trees. Glyphosate, also applied by the company, was found in one of the trees damaged by herbicide. Records were incomplete. Commercial operator was not licensed by WSDA.

<u>Case#</u> 035C 2000	<u>Designation</u> Pesticide Involved <u>License</u> Private Commer	cial <u>Date of Incident</u> Fall 1999	Severity 4	Application Method Ground
<b>County</b> Grant	Nature of Case Drift	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide bromacil	diuron	None	NOC	Road/Ornamentals

Summary Alleged that application of herbicides to driveway injured three trees at the residence.

Finding Applications of bromacil and diuron to a driveway of a non-farm residence injured three trees. The WSDA lab detected bromacil and diuron in vegetation from the trees. A commercial pest control company applied the herbicides. The bromacil and diuron were not labeled for use in driveways. The commercial applicator's records were incomplete. The commercial applicator failed to register one of his operators with WSDA.

<u>Case#</u> 036C 2000	<u>Designation</u> Pesticide Involved <u>License</u> PO	Date of Incident May-July 00	Severity 2	Application Method Air
<b>County</b> Grant	Nature of Case Drift	Response time Same Day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		None	NOC	Noncrop/Grapes

Summary Alleged drift from applications made by Washington State Department of Fish and Wildlife to state lands at Quincy Lakes area, damaged grapes. It is alleged that the damage occurred 4-6 weeks earlier. It is also alleged that applications to peas south of the vineyard drifted onto the grapes resulting in injury to young grape plants.

Finding WSDA lab analysis found no growth regulator herbicide residues in samples from a vineyard suspected of being injured by 2,4-D drift. Glyphosate residues were found in the vineyard. RUP's were applied by an unlicensed applicator. Incomplete records were submitted. Applicators violated labels and county rules for phenoxy herbicide applications. A federal RUP was sold to an unlicensed person.

<u>Case#</u> 037C 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unknown	Date of Incident 8/10/2000	Severity 4	Application Method Ground
County Chelan	Nature of Case Dog poisoned	Response time one day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Rodenticide bromadioione		EPA	Referred	Mice/Dog

Summary Complainants were hiking in the Pasayton wilderness when dog developed bloody diarrhea. Dog appeared to go into a coma, but recovered later. An opened plastic wrapper from a rodent bait product was discovered, with the contents gone. The wrapper was not in a tamperproof container, and it was in the open and accessible to wildlife.

Finding EPA Region X, Toxic and Pesticides Enforcement Division in Washington DC determined from photo of product that the use of product in any place other than homes and agricultural buildings was a label violation. The EPA will write a letter to the USFS Pesticide Use Coordinator of the forest where the episode occurred. WSDA referred case to the EPA for appropriate action.

<u>Case#</u> 038C 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident 8/29/2000	Severity 2	Application Method Ground
<b>County</b> Chelan	Nature of Case Human Exposure	Response time one day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide carbaryl		DOH	NAI	Apples/Person

Summary Complainant was approaching his home on his bicycle when he was hit by spray drift from a sprayer applying pesticides in the orchard across the road. He said his face burned about 20 minutes later.

Finding WSDA laboratory found detectable quantities of carbaryl in the samples taken from the target orchard and the complainant's shirt. The alleged infractor died on 10/09/00. The WSDA investigation ended on 10/10/00. DOH report pending.

<u>Case#</u> 039C 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 8/30/2000	Severity 2	Application Method Air
<b>County</b> Grant	Nature of Case Human Exposure	Response time Same Day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Fungicide chlorothalonil		DOH	AA	Potatoes/People

Summary Six PUD county linemen were working on a line pole one mile SE of a potato field when an aerial applicator began spraying the potato field. The linemen left shortly after he began spraying, due to a strong odor of pesticides and concern for their safety. Several of the linemen complained of eye and nasal passage irritation.

Finding Chlorothalonil, methamidophos, and sulfur were detected on equipment and clothing of a work crew or their work site after an application by an aerial applicator to a circle of potatoes located about 700 feet from the crew. Several of the crew reported symptoms after the exposure. The aerial applicator delayed sending records and submitted incomplete records.

<u>Case#</u> 040C 2000	<u>Designation</u> Pesticide Involved <u>License</u> PO	Date of Incident 1999	Severity 4	Application Method Ground
County Okanogan	Nature of Case Drift	Response time Same Day	Children Involved? No	Application Type ROW
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide misc.		None	AA	ROW/Pears, Apples

Summary Complainant noticed in July, 1999 what he thought was herbicide damage to his orchards. When County Public Works Department failed to take responsibility for the damage (\$264,000), he contacted WSDA on 3/01/00 a case was started, then closed at the request of the complainant on 5/05/00 after hre received initial results from the lab. New case opened on 9/06/00 at request of complainant's attorney.

Finding The alleged infractor admitted to applying diuron and Glyphosate but not picloram near the episode area. WSDA found detectable quantities of Glyphosate, AMPA, and diuron in the leaf samples. A commercial lab found picloram in the leaf samples extracted and submitted by the complaint.

<u>Case#</u> 041C 2000	<u>Designation</u> Pesticide Inv	rolved <u>License</u> Unlicensed	Date of Incident 5/26/2000	Severity 4	Application Method Ground
<b>County</b> Grant	Nature of Case Human Expo	sure	Response time Same Day	Children Involved? Yes	Application Type Non Ag
	Chemicals or other material i	nvolved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide diazinon	Fungicide calcium polysulfide		DOH, L&I	NOC	Ornamentals/person

Summary Application of Dormant Spray or diazinon allegedly drifted onto elementary school premises. Fire department was called and the school was evacuated until the source of the odor was determined. One teacher got sick and went to the emergency room for treatment. She stated that she had an allergic reaction to the pesticide. She was also concerned because she was pregnant.

Finding An application of diazinon to backyard fruit trees drifted onto school property and was pulled into the buildings through the air conditioning units. The wind was blowing 6-18 mph towards the school from the applicator's residence. The applicator used a home and garden product, he was unlicensed, and his records were incomplete.

<u>Case#</u> 042C 2000	<u>Designation</u> Pesticide Inve	<b>Dived</b> <u>License</u> Commercial	Date of Incident 9/7/2000	Severity 3	Application Method Air
<b>County</b> Grant	Nature of Case Human Expos	sure	Response time Same Day	Children Involved? Yes	Application Type Ag
	Chemicals or other material in	nvolved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide proparagite	methamidophos	chlorothalonil	DOH, EPA	AA	Potatoes/Person

Summary Aerial application by around 7:15 AM to potato field may have drifted onto school grounds. Slight breeze toward school at the time. Field is to the east of the school. Famer told school that pilot was leaving a 200 foot buffer. They could smell an odor. Several people who entered the school grounds after the application became ill.

Finding Residues of methamidophos, chlorothalonil, and propargite were detected on school grounds Twenty-three children and nine adults reported symptoms ranging from vomiting to difficulty breathing. Applicator records were incomplete.

<u>Case#</u> 043C 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unknown	Date of Incident 9/12/2000	Severity 1	Application Method Ground
<b>County</b> Grant	Nature of Case Drift	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide unknown		None	NAI	Driveway/Ornamentals

Summary Allegation that a herbicide application made to his neighbor's property boundary is killing his landscape plants. He has lost a juniper already and a maple tree, roses, arborvitae and several other shrubs are now affected.

Finding The WSDA lab did not detect imazapyr, bromacil, or diuron in soil or vegetation along the property border. Records were not submitted by the alleged infractor who is not a licensed applicator. The alleged infractor would not divulge the name of the person who applied pesticides to the property several years earlier.

<u>Case#</u> 044C 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 9/22/2000	Severity 3	Application Method Ground
County Chelan	Nature of Case Human Exposure	Response time Same Day	Children Involved? Yes	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide trifluralin		DOH	AA	Parking lot/Persons

Summary Alleged drift of trifluralin applied to parking lot of a home during high winds. The occupants of the home where the drift occurred complained of nausea and headaches. WSDA was not told during the initial contact on 9/22/00 that a human exposure had occurred; WSDA learned this on 9/25/00. Two-and-a-half year old of one of the persons also was reported to have been ill for two days after the exposure.

Finding The WSDA lab did not detect trifluralin residues at the residence. Wind conditions were conducive to vapor drift. A Commercial Applicator applied the trifluralin.

<u>Case#</u> 045C 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident unknown	Severity 2	Application Method Ground
<b>County</b> Grant	Nature of Case Drift	Response time Same Day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide dicamba		None	VW	Ditch/Apples

Summary Complainant observed that some of the trees in his 3-acre apple orchard seemed to have quit growing and also had curled leaves. These symptoms were observed in mid-July. The consultants he worked with could not determine what the problem was. He consulted with county extension who thought that it might be a leak from a spray plane which flys over his house and orchard.

Finding The WSDA lab detected dicamba in samples obtained from the orchard. Dicamba was applied to a ditch bank immediately west of the orchard by the orchard owner. An application record submitted by a commercial operator was incomplete.

<u>Case#</u> 046C 2000	<u>Designation</u> Non Pesticide <u>License</u> Unlicensed	Date of Incident 10/15/2000	Severity 0	Application Method NA
<b>County</b> Chelan	Nature of Case Human/Animal Exposure	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
None		DOH	NAI	Recycle/Person, Cat
none				

Summary The complainant was unloading recycle materials when the complainant's leashed cat came in contact with a liquid substance that had a sickly sweet smell and was golden in color. After leaving the site, the complainant who is sensitive to chemicals, became nauseous and developed a headache. She took the cat to Eastmont Animal Clinic to see if the cat needed treatment.

Finding The veterinarian said the substance looked and smelled like a pesticide, but that the cat did not show adverse effects. WSDA did not observe any visible pesticide residues at the episode site. WSDA could not determine the cause of the episode.

<u>Case#</u> 001G 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident Oct-00	Severity 1	Application Method Ground
County Adams	Nature of Case License	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide dithiocarbamate		None	Warning Letter	Chemigation without license

Summary Anonymous caller of alleged company had unlicensed persons supervising chemigation applications, mainly at night in four locations. Alleges chemigation applications without appropriately licensed employees. Sites were inexact. An application site was found by discovery.

Finding Application being conducted without appropriate tank posting, field posting, and incomplete information recorded on posting pursuant to product label requirements. Warning letter sent to alleged infractor and commercial applicator.

<u>Case#</u> 001S 2000	<u>Designation</u> Non Pesticide <u>License</u> Unlicensed	Date of Incident 1999	Severity 0	Application Method NA
County Spokane	Nature of Case License	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
None None		None	NAI	License

Summary Complainant alleged that a company has employed an individual for almost a year who has been making sales calls for the company without obtaining a license. Caller left no spelling of name, no phone number and no address to contact.

Finding Unable to substantiate claim of unidentifiable telephone complaint. Unable to prove that alleged infractor made any applications or recommendations. No evidence that person had made any applications or gave advice while employed by company.

<u>Case#</u> 002S 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 3/14/2000	Severity 1	Application Method Ground
<b>County</b> Spokane	Nature of Case Drift	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		None	NAI	ornamentals/lawn

Summary Alleged infractor applying herbicides to ornamental bed of property across street under very windy conditions and drifting off target.

Finding No damage symptoms observed. No pesticide residues detected. No violations found.

<u>Case#</u> 003S 2000	<u>Designation</u> Pesticide Involved <u>License</u> NA	Date of Incident Spring 2000	Severity 3	Application Method NA
<b>County</b> Spokane	Nature of Case Direct	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Miscellaneous miscellaneous		WSU	Ad letter	nursery plants

Summary Alleged pesticide damage to nursery plants.

Finding WSDA four growth regulator symptoms on greenhouse plants and analysis detected Clopyralid residues on most soil and plant samples. Letter of recommendation sent to compost facility, suggesting that compost not be sold to greenhouses for potting mix. Compost facility manager is to forward letter to all compost distributors.

<u>Case#</u> 004S 2000	<u>Designation</u> Pesticide Involved <u>License</u> PO	Date of Incident 4/19/2000	Severity 2	Application Method Ground
<b>County</b> Whitman	Nature of Case Notification	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide MCPA		None		Park/notification

Summary Complainant alleges the City applied pesticides in during the morning of 4/19/2000 and did not notify them of the application.

Finding Alleged infractor did not notify the complainant prior to making a 4/19/00 application to a site not clearly defined as differing from property. Alleged infractor added pesticide product on 4/19/2000 to an unknown amount of pesticide residues), several gallons, that had been stored, unsecured, in a tractor mounted sprayer.

<u>Case#</u> 005S 2000	<u>Designation</u> Pesticide Involved <u>License</u> PO	Date of Incident 4/20/2000	Severity 2	Application Method Ground
County Stevens	Nature of Case Drift	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide diuron		DOH	NOC	ROW/Property, Person

Summary Alleged drift from ROW onto property and person.

Finding Evidence was found that the alleged infractor drifted off of the right of way application onto the open area between the two roads uphill from the complainant's home, but not on the complainant's property.

<u>Case#</u> 006S 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident unknown	Severity 2	Application Method Ground
County Asotin	Nature of Case License	Response time Same day	Children Involved? No	Application Type NA (Non A
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Miscellaneous Miscellaneous		None	AA	Sales

Summary Allegation that a pest control company, was using unlicensed operators for pesticide applications, and unlicensed & untrained individuals were making pesticide recommendations.

Finding Numerous pesticide application records were falsified by office staff at the verbal instruction of the manager. Numerous pesticide applications were performed by unlicensed operators, and application records were missing information. Federal RUP was sold without licensed dealer manager. Equipment apparatus license plates had been removed from equipment.

<u>Case#</u> 007S 2000	<u>Designation</u> Pesticide Involved <u>License</u> P0	Date of Incident unknown	Severity 2	Application Method Ground
County Lincoln	Nature of Case Drift	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicides glyphosate	phenoxys	None	NOC	ROW/Grapes

Summary Alleged herbicide drift on grapes.

Finding Glyphosate detected only within the vineyards enclosed trellis area. No pesticides applied by alleged infractor were detected outside of the target area. Alleged infractor applied Tordon at a rate exceeding maximum label rates. Records from complainant did not include proper map descriptions.

<u>Case#</u> 008S 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 3/30/2000	Severity 1	Application Method Air
<b>County</b> Whitman	Nature of Case Human Exposure	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide fluvalinate	bromoxynil	DOH, WSU	NAI	Wheat/person

Summary Alleged aerial over spray onto the damaged party. Damaged party spent 24 hrs in the hospital.

Finding WSDA observations could not be made for the investigation due to time elapsed and evidence being washed. Application performed by the alleged infractor was properly completed and recorded. County was missing from record.

<u>Case#</u> 009S 2000	<u>Designation</u> Non Pesticide <u>License</u> NA	Date of Incident unknown	Severity 1	Application Method NA
County Lincoln	Nature of Case Fish Kill	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
None		Fish & Wildlife	NAI	Fish
None				

Summary Alleged fish kill in creek. Hundreds of dead fish. Started 5-12-00.

Finding No pesticides detected in fish, water, soil. No pesticide symptoms observed in affected area.

<u>Case#</u> 010S 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident Spring 2000	Severity 1	Application Method Air
County Spokane	Nature of Case Drift	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		None	NAI	Wheat/Poplars

Summary Alleged pesticide drift onto poplar trees along windbreak, resulting from aerial application to nearby winter wheat field.

Finding Unable to prove allegations. Poplar trees appeared to have sustained damage last fall. Wood has been dead for several months. Lab did not find more than a trace of Glyphosate in one of the samples taken.

<u>Case#</u> 011S 2000	<u>Designation</u> Non Pesticide <u>License</u> NA	Date of Incident 5/18/2000	Severity 1	Application Method NA
County Lincoln	Nature of Case Disposal	Response time One Day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
None None		None	NAI	Dumping of pesticides

Summary Alleged aerial applicator dumping pesticides before landing at airport. Described as a yellow mono-wing airplane.

Finding No possible pesticide damage symptoms observed. Disease & insect symptoms observed. No pesticides used. Complainant observed smoke used by aerial applicators at nearby airport to alert other pilots of their whereabouts. Smoke was mistakenly assumed to be a pesticide.

<u>Case#</u> 012S 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 3/20/2000	Severity 2	Application Method Air
<b>County</b> Lincoln	Nature of Case Drift	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		None	NAI	Wheat/Flower Seed

Summary Allegation that 3/4 acre of wildflowers grown for seed have been affected by herbicide drift from adjacent wheat field that had received an aerial application.

Finding Numerous applications in late '99 and early 2000 could have caused symptoms. Unable to identify source.

<u>Case#</u> 013S 2000	<u>Designation</u> Non Pesticide <u>License</u> NA	Date of Incident 5/27/2000	Severity 1	Application Method NA
<b>County</b> Lincoln	Nature of Case Drift	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
None		WSU	NAI	NA/Grapes
none				·

Summary Alleged herbicide drift onto grape vineyard from unknown source.

Finding No detectable pesticide residue found in foliage collected from affected vineyard. Observations indicate a "non-pesticide exposure situation" at the vineyard.

<u>Case#</u> 014S 2000 <u>County</u> Spokane	<u>Designation</u> Pesticide Involved <u>License</u> Commercial  Nature of Case Direct	Date of Incident 8/23/1999  Response time Same day	Severity 4 Children Involved? No	Application Method Ground Application Type Non Ag
Herbicide glyphosate	Chemicals or other material involved:	Other Agencies Involved: None	Final Action  AA	Target / Complaint Area Ornamentals/Ornamentals

Summary Injury to ornamental trees and shrubs allegedly resulting from commercial applicator insect treatment July, 1999.

Finding Commercial application of a spray mix used for insect control apparently contaminated plants. Plant injury occurred on sixteen customers' lawns and ornamentals, including complainant's residence. Reseeding and ornamental replacement costs to date for commercial company \$10,923.48.

<u>Case#</u> 015S 2000	<u>Designation</u> Pesticide Inv	olved <u>License</u> Commercial	Date of Incident 6/5/2000	Severity 2	Application Method Ground
<b>County</b> Spokane	<u>Nature of Case</u> Human Exposure		Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material in	nvolved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide 2,4-D	Herbicide dicamba		DOH	NOC	Weeds/Person

Summary Complainant was driving past vacant lot being sprayed, when chemical mist wafted through open window of vehicle. Could taste chemical in mouth, brief lung burning sensation lasting about 1 minute.

Finding WSDA could not prove direct human exposure to complainant. 2,4-D was detected across the avenue 50 feet from the edge of the target area. No other herbicide applications had occurred in the immediate area. Application record did not originally include product name. Wind direction missing from record.

<u>Case#</u> 016S 2000	Designation Pesticide Inv	olved <u>License</u> PO	Date of Incident Spring 2000	Severity 2	Application Method Ground
<b>County</b> Whitman	Nature of Case Drift		Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material in	nvolved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide thiensulfuron	Herbicide bromoxynil	Herbicide MCPA	None	NOC	Barley/Peas

Summary Alleged drift of herbicides from spring barley (ground application) onto adjacent dry pea crop.

Finding No detectable pesticides were found on the complainant's dry pea sample. Foliar symptoms observed on the complainant's peas were consistent with a sulfonylurea herbicide, such as that applied by alleged infractor. The location and pattern of the affected portions of the peas indicate the source of damage was the target field.

<u>Case#</u> 017\$ 2000	<u>Designation</u> Pesticide Inv	rolved <u>License</u> PO	Date of Incident Spring 2000	Severity 3	Application Method Ground
County Adams	Nature of Case Runoff		Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material is	nvolved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide	Herbicide		None	NOC	ROW/Wheat
SU	imazapyr	diuron			

Summary Alleged herbicide runoff into several wheat fields from a right of way application made by WSDOT.

Finding WSDOT applied herbicide in such a manner as to enable it to be washed into areas outside of the WSDOT right-of-way where it could contact the roots of desirable plants (wheat & barley).

<u>Case#</u> 018S 2000	<u>Designation</u> Pesticide Inve	<b>Dived</b> <u>License</u> Commercial	Date of Incident 6/16/2000	Severity 2	Application Method Air
<b>County</b> Whitman	Nature of Case Human Exposure		Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material in	ivolved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide phosmet	Insecticide dimethoate		DOH	NOC	Peas/Person

Summary Alleged aerial application (silver plane) over sprayed vehicle driving on Parvin Road. Driver became ill later that same day (vomiting). Symptoms appeared 12 hours after alleged exposure. Did not see a doctor.

Finding Residues of phosmet/dimethoate were found in the target pea field and within the roadside right of way. Complainant's car could not definitely be placed in the investigation area and it had been washed. Symptoms exhibited by complainant ensued approx. 12 hours after the alleged exposure. Did not see a doctor. The applicator applied 3 gpa when the imidan 70-w label stated 5 gpa as a minimum for peas.

Case# 019S 2000	<u>Designation</u> Pesticide Invo	lved <u>License</u> NA	Date of Incident Spring 2000	Severity 1	Application Method NA
<b>County</b> Lincoln	Nature of Case Misuse		Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material inv	volved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide diuron	bromacil		None	NAI	Golf course

Summary Alleged misuse of pesticides by golf & country club staff and others.

Finding Allegations withdrawn by complainant on 9-15-00. Visit to golf course on 7-24-00 revealed no past or present violations of pesticide law or rule. Golf course personnel deny complainant's allegations.

<u>Case#</u> 020S 2000	<u>Designation</u> Non Pesticide <u>License</u> PA	Date of Incident Jun-00	Severity 1	Application Method Ground
<b>County</b> Ferry	Nature of Case Vandalism	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
NA		Noxious Weed Bd	NAI	Containers
NA				

Summary Alleged vandalism of herbicide storage resulting in intentional mixing and combining of different herbicides.

Finding WSDA inspected containers, products looked & smelled unmixed and not to have been tampered with. WSDA inspected treated weeds and difference in control appears weather related. Cool & wet during second application. Explained findings to complainant. No pesticide violations found.

<u>Case#</u> 021S 2000	<u>Designation</u> Pesticide Involved <u>License</u> PO	Date of Incident Spring 2000	Severity 3	Application Method Ground
<b>County</b> Whitman	Nature of Case Direct	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
nialovam		DOH, EPA	NOC	Compost
picloram				

Summary Alleged herbicide residues carrying over in compost sold to the complainant. The complainant then sells the compost to home owners and/or mixes it with topsoil to make a planting mix for the nursery to use.

Finding Farm Manager allowed Tordon 101 Mixture treated grass hay to enter into the compost stream of Washington State University. Compost Manager told Farm Manager that no pesticide residues had been found in lab analysis of the WSU compost and that he should deliver the compost material containing Tordon 101 Mixture treated hay to the compost facility.

<u>Case#</u> 022S 2000	<u>Designation</u> <b>Pesticide Involved</b> <u>License</u> Unlicensed	Date of Incident 5/8/2000	Severity 1	Application Method Ground
<b>County</b> Spokane	Nature of Case Direct	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		WSU	NAI	Unknown/Tree, Dog

Summary Alleged pesticide damage to weeping willow tree and several smaller trees by neighbor. Four year old Chocolate lab dog also become ill at the same time.

Finding Weeping willow tree defoliated and dying back from top 1/2 down. Neighbor suspected of using pesticide on tree. Alleged infractor denied any pesticide activity related to the willow tree. WSDA lab analysis found detection of Glyphosate (0.04 ppm) in leaves and AMPA (0.14 ppm) in soil samples. WSDA could not determine the source of the Glyphosate affecting tree. Dog illness not related to Glyphosate.

<u>Case#</u> 023S 2000	Designation Pesticide Investigation	olved <u>License</u> PA	Date of Incident Jun-00	Severity 4	Application Method Ground
<b>County</b> Spokane	Nature of Case Direct		Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material in	nvolved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide SU	Herbicide dicamba	Herbicide 2,4-D	WSU	Ad letter	Wheat/potatoes

Summary Stunted growth of seed potatoes observed by WSDA certified seed inspector. Possible pesticide carryover suspected.

Finding WSDA observed approximately 50 acres of severely stunted potatoes out of a 140 acre irrigated circle. An herbicide, a sulfonylurea urea with soil residual, was applied to spring wheat on this circle June 9, 1999. Stunting symptoms observed indicate both high pH of soil (7.9) and sulfonylurea urea carryover in soil. Label's, 15-month min planting interval, pH restriction, and application date, were not followed.

<u>Case#</u> 024S 2000	<u>Designation</u> Pesticide Involved <u>License</u> NA	Date of Incident Aug-99	Severity 1	Application Method NA
County Spokane	Nature of Case Direct	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		None	NAI	Trees

Summary Complainant has ROW / windbreak of ornamental fir trees that died summer of 1999. Alleges that neighbor used pesticides to intentionally kill the trees.

Finding Nine fir trees transplanted by complainant in May of 1999 were browning up and dying by August, Sept 1999. Neighbor was suspected because of past disputes and complaints that trees block their view. Residues found. No sign of pesticide application could be observed. WSDA lab analysis shows detection of AMPA in soil. WSDA could not determine the source of the AMPA detected in soil.

<u>Case#</u> 025S 2000	<u>Designation</u> Pesticide Involved <u>License</u> PO	Date of Incident 8/08/00	Severity 2	Application Method Ground
<b>County</b> Whitman	Nature of Case Drift	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		None	NOC	ROW/ornamentals

Summary Alleged that right-of-way application of herbicides performed by WSDOT may have damaged residential ornamental and garden plants.

Finding Both parties applied Glyphosate in the vicinity of the affected plants observed on the complainant's property. Disease and insect damage was observed on the complainant's plants. Glyphosate-only residue detected in ROW near complainant's property. RUP's applied with PSI over 25.

<u>Case#</u> 026S 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unknown	Date of Incident 8/11/2000	Severity 5	Application Method Ground
<b>County</b> Spokane	Nature of Case Animal deaths	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Rodenticide strychnine		County	NAI	Dogs

Summary Alleged poisoning of 5 dogs, two that died, from hamburger treated with strychnine.

Finding Veterinary necropsy found meat laced with green material in dead dog. Lab analysis confirms rodenticide poisoning. Symptoms of two other dogs treated by veterinarian diagnosed as strychnine poisoning. There were no witnesses to the placement of meat, and no one interviewed confessed to the poisoning of the dogs. Responsible person(s) for poisoning could not be determined and proven.

<u>Case#</u> 027S 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 6/8/1999	Severity 2	Application Method Ground
<b>County</b> Pend Oreille	Nature of Case Misuse	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide triclopyr		DOE	NOC	Aquatic weeds

Summary 1999 Aquatic application by Resource Management may have exceeded acreage that was permitted. WSDA Registration Services Program, Olympia, requested that WSDA Spokane Office investigate the discrepancy.

Finding WSDA granted a WSEUP for a commercial applicator to treat a maximum of 4.5 surface acres at a lake. Operator for the commercial applicator made application at lake on June 8, 1999. Application treated 6 surface acres. Treatment area exceeded permit by 1.5 surface acres. Application record missing commercial applicator name and license number.

<u>Case#</u> 028\$ 2000	<u>Designation</u> Non Pesticide <u>License</u> NA	Date of Incident Jul-00	Severity 0	Application Method NA
County Spokane	Nature of Case Drift	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
None None		Master Gardeners	NAI	Maple tree

Summary Complainant has an ornamental Maple tree, and suspects drift or possible malicious pesticide use has caused wilting and chlorosis of leaves on several branches.

Finding Symptoms observed by WSDA not consistent with herbicide injury. WSU. and Spokane Comm. College Hort. specialists determined symptoms do not appear to be Pesticide related. WSDA determined tree injury is not pesticide related, disease analysis results pending from W.S.U. Prosser. Complainant notified, and information regarding disease and drought stress sent by WSDA.

<u>Case#</u> 001T 2000	<u>Designation</u> Non Pesticide <u>License</u> Commercial	Date of Incident 5/28/1998	Severity 2	Application Method NA
County Pierce	Nature of Case WDO	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
NA		None	NOC	False WDO
NA				

Summary False WDO report. Failure to report earth to wood contact.

Finding Alleged infractor failed to conduct a thorough and accurate inspection for the complainant. He did not report the existence of earth to wood contact adjacent to the residence or presence of cellulose debris within the crawl space of this structure. He failed to report required information on the final WDO inspection report as well.

<u>Case#</u> 002T 2000	<u>Designation</u> <b>Pesticide Involved</b> <u>License</u> Commercial	Date of Incident 2/3/2000	Severity 2	Application Method Ground
<b>County</b> Cowlitz	Nature of Case Misuse	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide bifenthrin		None	NOC	Residence

Summary Misapplication of pesticide to wall void, causing it to enter the house.

Finding The alleged infractor misapplied the insecticide bifenthrin through exterior walls into the living space of complainant's house.

Case# 003T 2000	<u>Designation</u> Non Pesticide <u>License</u> ComCons	Date of Incident 11/5/1999	Severity 2	Application Method NA
<b>County</b> Pierce	Nature of Case WDO	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
NA		None	NOC	Residence
NA				

Summary False WDO inspection report.

Finding Alleged infractor failed to conduct a thorough and accurate inspection. He did not report cellulose debris or inadequate ventilation within the crawl space of this structure. He also failed to provide his WDO inspection records to the department upon request, violating RCW 15.58.150 (2)(e).

<u>Case#</u> 004T 2000	<u>Designation</u> <b>Pesticide Involved</b> <u>License</u> Unlicensed	Date of Incident 9/1/1999	Severity 3	Application Method Ground
<b>County</b> Thurston	Nature of Case Direct	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide 2,4-D	Herbicide triclopyr	None	NOC	Ivy, Blackberry/Ivy, Tree

Summary The complainant reported a backyard neighbor had killed ornamental ivy plants and a Pacific Yew tree on her property near their common fence using herbicides. The complainant also alleges using sewage effluent to kill ornamental plants.

Finding Insufficient evidence to support the allegation the Pacific Yew was injured by pesticides. There was sufficient evidence to support the allegation that there was pesticide trespass killing ivy plants. There was sufficient evidence to indicate the alleged infractor failed to follow label directions, resulting in damage to the complainant's property.

<u>Case#</u> 005T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 2/3/2000	Severity 2	Application Method Ground
<b>County</b> Clallum	Nature of Case Misuse	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Fungicide sodium fluoride	Insecticide dithiocarbamate	None	NOC	Utility poles

Summary Complainant observed alleged infractors applying pesticides to utility poles on and immediately adjacent to his property. He noted that the pesticide operators were not using personal protective equipment while handling or applying pesticides. He also was concerned that there might be a misapplication of pesticide that might threaten water sources.

Finding There was not sufficient evidence to support the allegation of misapplication of pesticides. There was sufficient evidence to support the allegation that operators did not use eye protection; that pesticide application records were incomplete; and pesticides were transported in an unsecured manner.

<u>Case#</u> 006T 2000	<u>Designation</u> Pesticide Invo	<b>Dived</b> <u>License</u> Unlicensed	Date of Incident Summer 99	Severity 2	Application Method Ground
<b>County</b> Cowlitz	Nature of Case Misuse		Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material in	volved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide 2,4-D	triclopyr		None	NOC	Blackberries

Summary The complainant alleges that the alleged infractor intentionally used herbicide to kill vegetation on his land without his knowledge or consent.

Finding Alleged infractor said he would spray the complainant's blackberries if they did not control them, and they appeared to agree with this. The alleged infractor said that he made a crossbow application in the area of the damage.

<u>Case#</u> 007T 2000	<u>Designation</u> Non Pesticide <u>License</u> Commercial	Date of Incident 2/18/2000	Severity 1	Application Method Ground
<b>County</b> Pierce	Nature of Case Misuse	Response time One Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
NA		None	Advisory letter	Lawn
NA			•	

Summary Resident of apartment said that a firm made an application and it looks like paint was sprayed on the lawn.

Finding Alleged infractor made application containing Chlorpyrifos, iron and fertilizer The fertilizer reacted to the iron in the solution applied and created a reaction that made a white, chalk like residue. No indication that the application was posted. Problems found with records.

<u>Case#</u> 008T 2000	<u>Designation</u> Non Pesticide <u>License</u> NA	Date of Incident Summer 99	Severity 0	Application Method NA
<b>County</b> Clark	Nature of Case Direct	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
NA NA		None	NAI	Trees
INA				

Summary Complainant reported that ornamental pear trees in the condominium landscape were dead or dying. She suspects unknown persons may have made pesticide application during 1999 that caused the death and near death of pear trees valued at \$10,000.

Finding Insufficient evidence to substantiate the allegation that pesticides were causing the damage to the trees or to substantiate the allegation that any individual person used herbicides to kill trees. There were indications that recommendations for moss control were made without considering whether products were registered for that use.

Case#	009T	2000	<u>Designation</u> Non Pesticide	<u>License</u> Commercial Consultant	Date of Incident 2/17/2000	Severity 1	Application Method NA
<b>County</b>	Pierce		Nature of Case Records		Response time Same Day	Children Involved? No	Application Type Non Ag
			Chemicals or other material in	volved:	Other Agencies Involved:	Final Action	Target / Complaint Area
	NA				None	NOC	Residence
	NA						

Summary Non-compliance with pesticide application record request.

**Finding** The alleged infractor failed to respond to a request by the WSDA for his records.

<u>Case#</u> 010T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident 3/15/2000	Severity 2	Application Method Ground
<b>County</b> Island	Nature of Case Misuse	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide diquat		None	NAI	Flowers

Summary Complainant alleges that neighbor intentionally used an herbicide on her property without her permission.

Finding Pesticide analysis shows high enough residue on the foliage of the claimant's plants to cause injury or death. Alleged infractor denies spraying the plants with any pesticides.

Case# 011T 2000 County Cowlitz	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed  Nature of Case License	Date of Incident 3/11/2000  Response time Same Day	Severity 2 Children Involved? No	Application Method Ground Application Type Non Ag
<u>County</u> Cownt2	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Miscellaneous miscellaneous		None	NOC	Property

Summary Complainant observed an unlicensed pesticide operator making pesticide applications to commercial property for payment. He also reported that the alleged infractor did not post spray warning signs after treatment and he knew that the operator did not keep and maintain spray records or have insurance. He also observed improper storage of pesticides within a common use storage area in the hospital.

Finding The investigation indicated that an unlicensed pesticide operator had operated in a negligent manner and failed to have proof of financial responsibility (FRIC). The investigation also showed that both the complainant the unlicensed pesticide operator and the hospital failed to maintain pesticide records. Also indications that the complainant and the unlicensed operator failed to post pesticide warning signs.

<u>Case#</u> 012T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident 3/24/2000	Severity 1	Application Method Ground
<b>County</b> Snohomish	Nature of Case Misuse	Response time One Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide dichlobenil		None	NOC	Weeds/Property

Summary Complainant stated that the business neighbor next door applied dichlobenil herbicide to the sidewalks, drive way, and parking lot adjacent to their business. The complainant stated that the herbicide was applied at a very high rate judging by the amount of granular material on the sidewalks and a common driveway.

Finding Insufficient evidence to support the allegation that an over-application occurred, or that damage or injury to desirable plants occurred, or that there was a pesticide application made contrary to the label directions. Damage was caused by own application of glyphosate.

<u>Case#</u> 013T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident 3/15/2000	Severity 2	Application Method Ground
<b>County</b> King	Nature of Case Direct	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		None	NAI	Weeds

Summary Complainant alleges infractor sprayed an herbicide into a flowing ditch that leads into Green River.

Finding The alleged infractor was not proven to have sprayed a pesticide off-label by applying it to a body of water. He was found to be negligent in maintaining adequate records and of observing the worker protection standards.

<u>Case#</u> 014T 2000	<u>Designation</u> <b>Pesticide Involved</b> <u>License</u> Unlicensed	Date of Incident 4/16/2000	Severity 1	Application Method Ground
<b>County</b> Clark	Nature of Case Drift	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Fungicide triforine		None	NAI	Ornamentals

Summary Complainant alleges neighbor allowed pesticides to drift onto her property without her knowledge or consent.

Finding There was no physical evidence of triforine drift on the residence resulting from an April 26 spray made by the alleged infractor. Verbal testimony from the claimants contradicts that of the alleged infractor. No direct evidence that drift occurred.

<u>Case#</u> 015T 2000	<u>Designation</u> <b>Pesticide Involved</b> <u>License</u> Unlicensed	Date of Incident 4/16/2000	Severity 2	Application Method Ground
<b>County</b> Clark	Nature of Case Posting	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide 2,4-D		None	NOC	Lawn

Summary Landscape of condominium complex was sprayed by a commercial applicator who did not place marking flags on the site notifying of the application.

Finding The alleged infractor was operating as a commercial pesticide applicator without a license from WSDA. He did not maintain adequate application records. Had he been licensed, he would have been required to post the landscape prior to making a pesticide application. He did not have a FRIC which is required of commercial applicators and his power spray apparatus was not licensed.

<u>Case#</u> 016T 2000	<u>Designation</u> Pesticide Invo	olved <u>License</u> Commercial	Date of Incident 4/20/2000	Severity 2	Application Method Ground
<b>County</b> Clark	Nature of Case Drift		Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material in	volved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide 2,4-D	triclopyr		None	NOC	Property/Trees

Summary Trees damaged by spray application made to next-door property a few days ago. Cat was also very ill. Complainant and his wife are not feeling well.

Finding The alleged infractor made an application that damaged tree limbs hanging over a fence. Problems with application records being incomplete and alleged infractor was not licensed at the time of the application.

<u>Case#</u> 017T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident 5/8/2000	Severity 2	Application Method Ground
<b>County</b> Clark	Nature of Case License	Response time One Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide 2,4-D		None	NOC	Property

Summary The complainant reported that an unlicensed commercial applicator applied pesticides to lawns and landscape areas in and around the apartment complex. She stated that the operator did not post spray warning signs during this application nor had any been posted in the past.

Finding There was sufficient evidence to support the allegation that an pesticides were applied by an unlicensed operator, and that spray warning signs were not posted. Pesticide application records were incomplete.

<u>Case#</u> 018T 2000	<u>Designation</u> Non Pesticide <u>License</u> Commercial Consultant	Date of Incident 7/7/1999	Severity 2	Application Method NA
<b>County</b> Kitsap	Nature of Case WDO	Response time 15 days	Children Involved? No	Application Type WDO
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
NA		None	NOC	Faulty WDO
NA				•

Summary Faulty WDO Inspection Report. Did not report rot, infestation and debris.

Finding Alleged infractor failed to conduct a thorough and accurate inspection. He did not report numerous areas infected and damaged by rot fungus and wooden timbers infested with anobiid and buprestid beetles. Additionally, he failed to report cellulose debris near the exterior foundation and within the crawl space of this structure, violating RCW 15.58.150(2)(e).

<u>Case#</u> 019T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 5/20/2000	Severity 2	Application Method Ground
<b>County</b> Pierce	Nature of Case Human Exposure	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide permethrin		DOH	NOC	Home/Person

Summary Complainant states that alleged infractor made insecticide application to a vacant mobile home directly across the street. The pesticide drifted onto the complainant's property and into their house, making him and his wife ill.

Finding Insufficient data to conclude an exposure caused the illness symptoms reported or to indicate that a drift occurred. There was sufficient data to indicate that pesticide application records are incomplete. There was sufficient information indicating pesticide application was made contrary to the label directions.

<u>Case#</u> 020T 2000	<u>Designation</u> Pesticide Invo	<b>Dived</b> <u>License</u> Commercial	Date of Incident 5/19/2000	Severity 3	Application Method Ground
<b>County</b> Thurston	Nature of Case Drift		Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material in	nvolved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide dicamba	MCPA	triclopyr	None	NOC	Lawn/Ornamentals

Summary Commercial pesticide application business damaged numerous broadleaf ornamentals when making an herbicide application to control broadleaf weeds in turf.

Finding Record form used by business has not been approved by WSDA and much of the required information was not recorded on the business's application form. A label violation occurred in addition to violation of WSDA Rules and Washington State Laws.

<u>Case#</u> 021T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident 4/11/2000	Severity 2	Application Method Ground
<b>County</b> Cowlitz	Nature of Case Direct	Response time One Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		None	NOC	Fence ROW/Pasture

Summary Complainant states on 4/11/00 the alleged infractor made a pesticide application to a fence line between their adjacent properties. He observed the alleged infractor apply pesticide directly to their property, and observed the pesticide drift which caused damage to desirable plants. The fence line that was treated is on land owned by the complainant, and they did not give anyone permission to apply pesticides to property.

Finding Based on testimony of the complainant, the alleged infractor, and observations at the site, there was sufficient cause to support the allegation that pesticide trespass occurred and there was damage to desirable vegetation.

<u>Case#</u> 022T 2000	<u>Designation</u> Non Pesticide <u>License</u> Commercial Consultant	Date of Incident 2/28/1997	Severity 2	Application Method NA
<b>County</b> Pierce	Nature of Case WDO	Response time Same Day	Children Involved? No	Application Type WDO
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
NA		None	NOC	WDO
NA				

Summary Faulty WDO Inspection Report.

Finding Failure to conduct a thorough and accurate inspection Did not report inaccessible areas or inadequate clearances with the substructure. Did not report cellulose debris, earth to wood contact, or inadequate ventilation within the crawl space at this residence, violating RCW 15.58.150 (2) (e).

<u>Case#</u> 023T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident 4/19/2000	Severity 1	Application Method Ground
<b>County</b> Thurston	Nature of Case Human Exposure	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide chlorpyrifos		None	NAI	Ants/person

Summary Complainant alleges that her neighbor had made insecticide applications to his lawn, house siding, and house perimeter to control nuisance ants. She states that the applications drifted onto her property and made her ill. She claims that the pneumonia and strep bacteria she has, resulted from the insecticide spray.

Finding Insufficient evidence to support the allegation that a pesticide drift occurred or that pesticides were used at rates greater that those allowed by the label. There was also insufficient evidence to support the allegation that human exposure or illness occurred.

<u>Case#</u> 024T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident 5/11/2000	Severity 1	Application Method Ground
<b>County</b> Pierce	Nature of Case Misuse	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		None	NAI	Ornamentals

Summary Homeowner alleges that neighbor used an herbicide to kill trees on their property without their knowledge or consent.

Finding The alleged infractor denies allegation of claimant. Trace of herbicide found on plants in question. Damage due to blight.

<u>Case#</u> 025T 20	00 <u>Designation</u> Non Pesticide	<u>License</u> Unlicensed	Date of Incident 5/15/2000	Severity 0	Application Method NA
<b>County</b> King	Nature of Case Misuse		Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material inv	volved:	Other Agencies Involved:	Final Action	Target / Complaint Area
None			None	NAI	Ornamentals
none					

Summary Complainant alleges that neighbor made a pesticide application to his property without his knowledge or consent.

Finding Neighbor dispute. The complainant alleges the neighbor used a pesticide to encroach on his property. The accused denies any such activity. No definitive conclusions can be reached in this investigation.

<u>Case#</u> 026T 2000	Designation Pesticide Investigation	olved <u>License</u> PO	Date of Incident 3/1/2000	Severity 1	Application Method Ground
<b>County</b> Skagit	Nature of Case Drift		Response time Same Day	Children Involved? No	Application Type ROW
	Chemicals or other material in	nvolved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide	Herbicide	Herbicide	None	NAI	ROW/Beets
glyphosate	2,4-D	direx			

Summary Allegation that Skagit County Roadside application damaged their customer's beet seed crop.

Finding There was visual evidence of damage to emerging foliage of the beets. The pattern of damage was not consistent with drift, over spray, runoff, or leaching from a nearby application. Soil and beet bulb samples taken. All sample results negative.

<u>Case#</u> 027T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unknown	Date of Incident 8/1/1999	Severity 0	Application Method Ground
<b>County</b> Skamania	Nature of Case Human Exposure	Response time Same Day	Children Involved? No	Application Type ROW
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		DOH	NAI	ROW/person

Summary Referring party states that the damaged party is suffering from medical problems as a result of pesticide applications made to utility right-of-way property. Aggrieved party states that he has recurring allergies that may be caused by pesticide applications that occurred in 1999.

Finding The WSDA does not have sufficient data or information to substantiate the allegation that a pesticide application resulted in off site movement, contamination of water supplies, or residual materials on plants in a right-of-way, or was the cause of illness or injury.

<u>Case#</u> 028T 2000	<u>Designation</u> Non Pesticide <u>License</u> Commercial Consultant	<u>Date of Incident</u> 11/11/1999	Severity 2	Application Method NA
<b>County</b> Chelan	Nature of Case WDO	Response time Same Day	Children Involved? No	Application Type WDO
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
NA		None	NOC	False WDO
NA				

Summary Faulty WDO Inspection Report.

Finding Alleged infractor failed to conduct a thorough and accurate inspection. He failed to report the presence of, and damage by, rot fungus and signs of cerambycid beetles. He did not report cellulose debris, earth to wood contact, excess moisture, or inadequate ventilation within the crawlspace, in violation of RCW 15.58.150(2)(E).

<u>Case#</u> 029T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident 6/1/2000	Severity 2	Application Method Ground
<b>County</b> Pierce	Nature of Case License	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Miscellaneous Miscellaneous		None	NOC	Lawns

Summary Complainant reports that the alleged infractor has solicited residential customers to provide them with commercial pesticide application services. Complainant alleges the infractor is not licensed.

Finding There was sufficient evidence to support the allegation that the alleged infractor operated as a commercial pesticide applicator without being licensed. The alleged infractor did not keep or maintain pesticide application records. The alleged infractor did not post pesticide treated areas with pesticide application notification signs.

<u>Case#</u> 030T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 4/15/2000	Severity 1	Application Method Ground
<b>County</b> King	Nature of Case Notification	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide MCPA	Dicamba	None	NOC	Pasture

Summary Complainant states that she was not notified about a commercial application made to property adjacent to her residence. She states that the pesticide operator did not post warning signs in the apartment complex following the pesticide application.

Finding Notification of pesticide sensitive registry persons is not required for pasture land application. There was sufficient evidence to indicate a pesticide was used in a manner not consistent with the label and that pesticide application records were incomplete.

<u>Case#</u> 031T 2000	<u>Designation</u> Non Pesticide <u>License</u> NA	Date of Incident 6/16/2000	Severity 0	Application Method NA
<b>County</b> Clark	Nature of Case Drift	Response time Three days	Children Involved? Yes	Application Type NA
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
None None		DOH, Military, USFS	NAI	Pasture

Summary Complainant reports an unmarked large cargo-type plane made repeated passes at low altitude over their property. They report seeing two water trails being sprayed or ejected from the wings. The aircraft made repeated east-west then west-east passes over their property. This type of spray deposition event also occurred on 4/26/00. They suspect the aircrafts were making a pesticide application or fuel drop over their property.

Finding There was not sufficient evidence to substantiate the claim that aircraft applied pesticide material in or around the complainant's property. WSDA has closed this case. The field residue samples will be referred to DOH for consideration by them for any further review to examine the possibility of other contaminants.

<u>Case#</u> 032T 2000	<u>Designation</u> Pesticide Involved <u>License</u> PO	Date of Incident 6/19/2000	Severity 2	Application Method Ground
<b>County</b> Clark	Nature of Case License	Response time Same Day	Children Involved? No	Application Type ROW
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		None	NOC	ROW

Summary WSDA investigator observed a public operator making pesticide applications to city streets using a motorized spray apparatus that did not have an apparatus display sign. A subsequent use observation inspection revealed the application spray records were incomplete.

Finding The operator failed to have an apparatus sign for the motorized spray equipment. The operator failed to maintain complete pesticide application records. The operator failed to have a Material Safety Data Sheet for the pesticide he was applying.

<u>Case#</u> 033T 2000	<u>Designation</u> Pesticide Inv	olved <u>License</u> PO	Date of Incident 4/18/2000	Severity 2	Application Method Ground
<b>County</b> Lewis	Nature of Case PPE		Response time One Day	Children Involved? No	Application Type ROW
	Chemicals or other material is	nvolved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide	Herbicide		None	NOC	ROW
glyphosate	SU				

Summary WSDA investigator observed a commercial applicator making pesticide applications to city streets using a motorized spray apparatus. The investigator observed that the applicator was not wearing eye protection. A subsequent records check indicated that the application spray records were incomplete.

Finding There was sufficient evidence to support allegation that the applicator did not wear required personal protective equipment required by the product label and that the application records were incomplete.

<u>Case#</u> 034T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 6/22/2000	Severity 1	Application Method Ground
<b>County</b> King	Nature of Case Drift	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide pyrethrin		None	NAI	Yard/Deck

Summary Claimant alleges that commercial spray company that made an application to neighbor's property drifted onto her property

Finding The claimant alleges that her gardener saw a pesticide drift onto her house and garden. The alleged infractor denies this claim. Residue analysis taken 4 (rainless) days after the application did not show any of the pesticide in question on the claimant's property. This investigation failed to show that drift had actually taken place.

<u>Case#</u> 035T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 7/12/2000	Severity 1	Application Method Ground
<b>County</b> Whatcom	Nature of Case Drift	Response time Same Day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Fungicide iprodione		None	NAI	Spinach/Yard

Summary Homeowner alleges spray service applying pesticides to adjacent farmer's field drifted onto their property.

Finding The claimant had indicated that the chemicals being applied to the fields surrounding their house were being allowed to drift on their property and that records being kept by the applicator were faulty. Chemical residue analysis did not indicate any of the pesticide on the claimant's property. A check on the application records did not find any errors on the part of the alleged infractor.

<u>Case#</u> 036T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unknown	Date of Incident Jul-00	Severity 1	Application Method Unknown
<b>County</b> King	Nature of Case Direct	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Unknown unknown		None	NAI	Trees

Summary Damage to trees along fence line, first noticed 7-10 days ago.

Finding The necrosis could be from chemical damage and/or from drought. Complainant did not want to pursue complaint.

<u>Case#</u> 037T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 6/27/2000		Application Method Ground
<b>County</b> Whatcom	Nature of Case Drift	Response time Same Day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide dicamba		None	NAI	Corn/Potatoes

Summary Claimant alleges that the chemical application made to his neighbor's field by a commercial pesticide applicator drifted onto his crops and damaged them.

Finding Lab analyses were inconclusive in showing that the pesticide dicamba had caused the damage to the potato crop as suspected by the claimant.

<u>Case#</u> 038T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident 6/22/2000	Severity 2	Application Method Ground
<b>County</b> Mason	Nature of Case Water Contamination	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		DOH	NOC	Weeds

Summary Complainant reports the alleged infractor was making a pesticide application to commercial property adjacent to a stream and their residence. They were concerned that the pesticide may have entered the stream or caused a health risk to their residents.

Finding There was not sufficient evidence to support the allegation that pesticides were allowed to enter water or applied in a manner that would endanger humans. There was sufficient evidence to determine that pesticides were used contrary to the label instructions.

<u>Case#</u> 039T 2000	<u>Designation</u> Non Pesticide <u>License</u> Commercial Consultant	Date of Incident 6/15/2000	Severity 2	Application Method NA
<b>County</b> Snohomish	Nature of Case WDO	Response time Same Day	Children Involved? No	Application Type WDO
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
NA		None	NOC	False WDO
NA				

Summary Faulty WDO Inspection Report.

Finding The alleged infractor failed to conduct a thorough and accurate inspection. He did not report areas infected and damaged by rot fungus and numerous substructural timbers infested with anobiid beetles. He failed to report cellulose debris and earth to wood contact within the crawl space of this structure, violating RCW 15.58.150 (2) (e).

<u>Case#</u> 040T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 8/9/2000	Severity 2	Application Method Ground
<b>County</b> Mason	Nature of Case PPE	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Miscellaneous miscellaneous		None	NOC	PPE

Summary WSDA made an observation of a commercial applicator applying pesticides without proper personal protective equipment. A subsequent records inspection indicated deficiencies in pesticide records.

Finding There was sufficient evidence to determine that the operator applied pesticides without personal protective equipment, contrary to label directions, and that pesticide application records were incomplete. There was sufficient evidence to determine that pesticides were applied without being licensed under the proper license categories and without being in possession of material safety data sheets.

<u>Case#</u> 041T 2000	Designation Pesticide Inv	olved <u>License</u> Commercial	Date of Incident 6/26/2000	Severity 2	Application Method Ground
<b>County</b> Kitsap	Nature of Case PPE		Response time Three days	Children Involved? No	Application Type Non Ag
	Chemicals or other material in	nvolved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide	Herbicide		None	NOC	PPE
glyphosate	2,4-D	triclopyr			

Summary Commercial operator was observed making landscape application to an apartment complex without required personal protective safety equipment. A subsequent non-agricultural use inspection indicated that the operator did not have a copy of the MSDS for each product being used. The operator did not have equipment to make an adequate estimate of wind velocity during pesticide application.

Finding There was sufficient evidence to determine that the operator did not wear required personal protective equipment and that the operator was not in possession of the Material Safety Data Sheets for the pesticides being applied.

<u>Case#</u> 042T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 7/13/2000	Severity 2	Application Method Ground
<b>County</b> Clark	Nature of Case Insurance	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Miscellaneous miscellaneous		None	NOC	Insurance

Summary During a routine WSDA records inspection it was determined that the alleged infractor had operated as a commercial pesticide applicator without having submitted a financial responsibility insurance certificate. A subsequent routine application records inspection determined that the application records were deficient and failed to document all required elements for a limited wood destroying organism report.

Finding There was sufficient evidence to determine that the applicator operated as a commercial pesticide applicator without meeting the requirements for financial responsibility; failed the keep and maintain complete pesticide application records; failed to make a limited wood destroying organism inspection; and failed to keep limited wood destroying organism report data.

<u>Case#</u> 043T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial/Unlicensed	Date of Incident 7/2/2000	Severity 2	Application Method Ground
<b>County</b> Thurston	Nature of Case License	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		None	NOC	License

Summary A routine pesticide applicator inspection found alleged infractors were operating as commercial applicators and operators without licenses. The inspection also revealed they were using pesticides not labeled for use in landscape. A review of application records revealed incomplete records. They did not have pesticide notification signs or carry MSDS's during application.

Finding Based on testimony of the complainant, the alleged infractor, observations at the site, and records, there was cause to support the allegation that the alleged infractors operated as commercial operators and applicators without being licensed; failed to keep complete application records; failed to post pesticide notification signs; and did not have MSDS sheets with them during application.

<u>Case#</u> 044T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 7/11/2000	Severity 2	Application Method Ground
<b>County</b> Thurston	Nature of Case License	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Miscellaneous miscellaneous		None	NOC	License

Summary A routine pesticide applicator inspection determined that the alleged infractor was operating as a commercial applicator with an expired license and inappropriate license categories. A review of pesticide application records determined that he did not keep or retain any records. He did not post pesticide notification signs & did not carry MSDS sheets when applying.

Finding The inspection and testimony provided sufficient evidence of operating as a commercial operator without being licensed and having the proper categories; not complying with the requirements for FRIC; failing to keep pesticide application records; failing to post pesticide notification signs; and not having MSDS sheets during application.

<u>Case#</u> 045T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident 7/11/2000	Severity 2	Application Method Ground
<b>County</b> Thurston	Nature of Case License	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Miscellaneous miscellaneous		None	NOC	License

Summary Routine pesticide applicator inspection determined that the alleged infractor was operating as commercial operator with an expired license. The license categories were incorrect for the applications made. A review of pesticide application records determined that he did not keep or retain any records. He did not post pesticide notification signs or carry MSDS's during pesticide application.

Finding The inspection and testimony provided sufficient evidence that the infractor operated as a commercial applicator without being licensed with the proper categories; did not comply with the requirements for FRIC; failed to keep pesticide application records; failed to post pesticide notification signs; and did not have MSDS sheets during applications.

<u>Case#</u> 046T 2000	<u>Designation</u> <b>Pesticide Involved</b> <u>License</u> Unlicensed	Date of Incident 1/1/2000	Severity 2	Application Method Ground
County King	Nature of Case Sale	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Miscellaneous miscellaneous		None	NOC	Sale/No registration

Summary WSDA received a complaint that unregistered pesticide products were being sold and distributed in Washington State. A record review of the alleged infractor determined that three pesticides were being sold and distributed in the U.S. and Washington State without being registered, and the company operated as a pesticide dealer without obtaining a pesticide endorsement or having a licensed dealer manager.

Finding There was sufficient evidence by testimony and records to determine that the alleged infractor sold and distributed unregistered pesticides in Washington state. They operated without a pesticide dealer outlet license and operated as a pesticide dealer manager without being licensed by the Washington State Department of Licensing and WSDA.

<u>Case#</u> 047T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident 7/2/2000	Severity 4	Application Method Ground
<b>County</b> Clark	Nature of Case Drift	Response time Three days	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide Triclopyr		None	NOC	Weeds/Ornamentals

Summary Claimant alleges that when neighboring vacant field was sprayed with a herbicide the chemical drifted across the street and damaged many or her plants and neighbor's.

Finding Owner of the lot, and the unlicensed applicator who made the application, accepted full responsibility for the plant damage and were willing to settle out of court. Residue analysis came back positive for the herbicide that was sprayed by the applicator.

<u>Case#</u> 048T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident 7/4/2000	Severity 2	Application Method Ground
<b>County</b> King	Nature of Case Misuse	Response time One Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		None	NOC	Trees

Summary Complainant alleges that neighbor maliciously sprayed vegetation on his property without his knowledge or consent.

Finding Alleged infractor acknowledges that the herbicide residue found on the fir trees grown by the claimant could have drifted from an application of herbicide that she had made to her property. She claims that any such drift was unintentional and she did not spray the trees on purpose.

<u>Case#</u> 049T 2000	<u>Designation</u> Pesticide Involved <u>License</u> PO	Date of Incident 3/1/2000	Severity 0	Application Method Ground
<b>County</b> Skagit	Nature of Case Drift	Response time Four days	Children Involved? No	Application Type ROW
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide miscellaneous		None	NAI	ROW/spinach

Summary County roadside application damaged spinach seed crop.

Finding The samples collected from the field did not show any detectable residue of the materials used in the road side application. No plant growth problems were observed as a result of other applications by commercial applicators. No further activity is recommended for this case.

<u>Case#</u> 050T 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 7/11/2000	Severity 2	Application Method Ground
<b>County</b> Pacific	Nature of Case Misuse	Response time Same Day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide carbaryl		DOE,F&W,AG	NOC	Ghost Shrimp

Summary Report that an adjacent landowner sprayed an insecticide to control mud and ghost shrimp on 7/11/00 and 7/12/00. He stated the applicator made an application to clam beds, applied carbaryl to mature oysters, and that he found dead shrimp, crab, fish and worms in oyster beds 1000 feet beyond the application. Also no notification signs were posted.

Finding Based on the interviews and records, there was no evidence to support the allegation that any mature oysters were treated or that carbaryl contaminated either properties.

<u>Case#</u> 051T 2000	<u>Designation</u> Non Pesticide <u>License</u> Commercial	Date of Incident 4/21/2000	Severity 2	Application Method NA
<b>County</b> Pierce	Nature of Case License/records	Response time Same Day	Children Involved? No	Application Type WDO
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
NA		None	NOC	WDO Records
NA NA				

Summary Late submission of requested records by unlicensed commercial applicator.

Finding Commercial pesticide applicator failed to provide a customer with records detailing a proposed pesticide treatment for subterranean termites. The commercial applicator was unlicensed at the time this proposal was made and the records were not made available to WSDA when requested.

<u>Case#</u> 052T 2000	<u>Designation</u> Non Pesticide <u>License</u> Commercial	Date of Incident 4/24/2000	Severity 2	Application Method NA
<b>County</b> Mason	Nature of Case License/records	Response time Same Day	Children Involved? No	Application Type WDO
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
NA		None	NOC	WDO Records
NA				

Summary Late submission of requested records by unlicensed commercial applicator

Finding A commercial pesticide applicator failed to provide a customer with records detailing a proposed pesticide treatment for subterranean termites. The commercial applicator was unlicensed at the time this proposal was made and the records were not made available to WSDA when requested.

<u>Case#</u> 053T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 7/25/2000	Severity 1	Application Method Ground
<b>County</b> Island	Nature of Case Human Exposure	Response time Same Day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		EPA,DOE,DOH,CO	NAI	Spartina/Person

Summary The complainant reported that a pesticide application was made to control Spartina in Cultus Bay, and alleges the application was made under wind conditions that exceeded the permit application requirements, drifting off target and causing her injury due to chemical sensitivity. Also that the applicator failed to notify persons on the PSI Register.

Finding Insufficient evidence to support the allegation that a herbicide drift occurred, or resulted in damage to off-target plants or persons. Insufficient evidence to support the allegation that pesticide applications were made contrary to label or permit requirements, that the site was not properly posted, and that persons were not notified,

<u>Case#</u> 054T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 8/30/2000	Severity 1	Application Method Ground
<b>County</b> Island	Nature of Case Human Exposure	Response time Same Day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		EPA,DOE,DOH,CO	NAI	Spartina/Person

Summary Complaint that a pesticide application was made to control Spartina in Cultus bay. She alleges the pesticide application caused her to become ill and she had reactions to the pesticide applied. She suffered from sore throat, headaches, burning sensations and increased heart rate.

Finding There was not sufficient evidence to support the allegation that an herbicide drift occurred, or resulted in damage to off-target plants or persons; and not sufficient evidence to support the allegation that pesticide applications were made contrary to label or permit requirements.

<u>Case#</u> 055T 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 06/03/2000	Severity 2	Application Method Ground
County Pierce	Nature of Case Drift	Response time 3 months	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		None	NAI	Unknown/Ornamentals

Summary Complainant alleges that damage to plants was caused by drift from roadside spray.

Finding Chemical analysis of samples and other evidence did not show that company made a Right of way application in a manner that caused damage or injury to the complainant's property.

The chemical application record did not list all of the WSDA required items.

<u>Case#</u> 056T 2000	Designation Pesticide Inv	olved <u>License</u> Unlicensed	Date of Incident 9/9/2000	Severity 2	Application Method Ground
<b>County</b> Clallum	Nature of Case Water Contamination		Response time Same Day	Children Involved? No	Application Type Non Ag
Chemicals or other material involved:		Other Agencies Involved:	Final Action	Target / Complaint Area	
Herbicide	Herbicide		None	NOC	Weeds/Water
glyphosate	2,4-D				

Summary Complainant witnessed the alleged infractor making herbicide applications around the bases of trees adjacent to permanent water ditches which eventually lead to Dungeness Bay. They observed vegetation dying on both sides of the water ditch and aquatic weeds growing in the water along the ditch over the next two weeks. Concerned that there may have been off site herbicide movement.

Finding The inspection and testimony provided sufficient evidence to support the allegation that alleged infractor made an application contrary to the pesticide labels and made an application of restricted use pesticides into waters without being a licensed pesticide applicator.

<u>Case#</u> 057T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 10/19/2000	Severity 1	Application Method Ground
<b>County</b> Pierce	Nature of Case Human Exposure	Response time Three days	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide malathion		DOH	NAI	NA

Summary Claimant's employee was working at a job site installing waterproof decking when a commercial operator sprayed the employee in the face with a pesticide, resulting in time loss from the job and a Labor & Industries claim.

Finding There are conflicting reports on what happened on October 19th between the complainant and the alleged infractor. The unofficially collected rags that were used to thoroughly clean off the area where the complainant was working came back positive for the material that the alleged infractor was spraying. Despite these positive findings, no definitive conclusions can be made.

<u>Case#</u> 058T 2000	<u>Designation</u> <b>Pesticide Involved</b> <u>License</u> Unlicensed	Date of Incident 2/1/2000	Severity 2	Application Method Ground
<b>County</b> Pierce	Nature of Case Misuse	Response time One Day	Children Involved? No	Application Type Non Ag
Chemicals or other material involved:		Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide malathion		DOH	NOC	Chimney

Summary Complainant alleges that employee of the landlord poured a pesticide down her chimney to kill a bird. The smell from the pesticide has allegedly made the house unlivable.

Finding The alleged infractor acknowledged that he used a pesticide outside it's labeled instructions in a faulty, careless and negligent manner. He was made aware that this was a law violation and he said that he would not do it again.

<u>Case#</u> 059T 2000	<u>Designation</u> Non Pesticide <u>License</u> Unlicensed	Date of Incident 4/25/2000	Severity 2	Application Method NA
<b>County</b> Mason	Nature of Case WDO	Response time Same Day	Children Involved? No	Application Type WDO
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
NA		None	AA	Faulty WDO inspection
NA				, ,

Summary Faulty WDO Inspection Report.

Finding The alleged infractor failed to conduct a thorough and accurate wood destroying organism inspection. He failed to report conducive conditions such as cellulose debris and his inspection records were incomplete. He also failed to provide those inspection records to the department in a timely manner, violating 15.58.150 (2) (e).

<u>Case#</u> 060T 2000	<u>Designation</u> Non Pesticide <u>License</u> NA	Date of Incident Aug, Sept 00	Severity 0	Application Method NA
<b>County</b> King	Nature of Case Bird deaths	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
None None		Wildlife/Audubon	NAI	Dead waterfowl

Summary Approximately 55 ducks and geese have died in his pond in about a two week period. Suspects someone upstream may have put something, perhaps an herbicide, into water.

Finding The deceased animals were not available for sampling nor post-mortem. A water sample from the pond was negative for OP's. (OP was chosen because of the likelihood of a crane fly OP application in the neighborhood). No further activity in this case is anticipated unless new, substantive, evidence is presented.

<u>Case#</u> 061T 2000	<u>Designation</u> Pesticide Invol	lved <u>License</u> PO	Date of Incident 9/12/2000	Severity 0	Application Method Ground
<b>County</b> Clark	Nature of Case Water Contamination		Response time Same Day	Children Involved? No	Application Type Non Ag
Chemicals or other material involved:		Other Agencies Involved:	Final Action	Target / Complaint Area	
Herbicide diquat	Herbicide clopyralid		None	NOC	Weeds/Water

Summary The complainant reported that she had observed WSU maintenance workers applying pesticides in an area with water present. She reported a 50 degree slope in the area and pesticide could enter the water creating an aquatic and a wildlife hazard. The complainant stated that she did not see any pesticide warning signs posted in or around the area that was being sprayed.

Finding There was not sufficient evidence to support the allegations that pesticides were applied directly or indirectly into water, that wildlife were negatively impacted by the pesticide applications, or that the applicator failed to post a required pesticide spray warning sign on 9/12/00. There was sufficient evidence to determine that pesticide application records were incomplete.

<u>Case#</u> 062T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 06/07/00	Severity 2	Application Method NA
<b>County</b> Clark	Nature of Case Fraud	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
NA		None	NAI	NA
NA				

Summary Fraud. Applicator reports that a customer cancelled and collected fees.

Finding Employee of commercial operator reporting cancellation to customers, then services customers, collects and keeps fees. No chemical application records available. Could not prove fraud occurred.

<u>Case#</u> 063T 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident 7/1/2000	Severity 2	Application Method Ground
<b>County</b> Pierce	Nature of Case License	Response time Same Day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		None	NOC	Landscape

Summary During a routine applicator inspection the WSDA determined that the alleged infractor was operating as a pesticide applicator/operator without being licensed. They made pesticide applications without posting notification signs, did not have proof of financial responsibility insurance certificate, and were not qualified to perform the pest control they were conducting.

Finding The investigation determined that there was sufficient evidence to show that the alleged infractors were not licensed as commercial pesticide applicators/operators, did not provide proof of FRIC, failed to keep and retain pesticide application records, failed to post pesticide spray notification signs, and had operators who were not qualified to perform pest control.

<u>Case#</u> 064T 2000	<u>Designation</u> Non Pesticide <u>License</u> Unlicensed	Date of Incident 11/27/2000	Severity 2	Application Method NA
<b>County</b> Snohomish	Nature of Case License	Response time Same Day	Children Involved? No	Application Type WDO
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
NA		None	NOC	WDO License
NA				

Summary Unlicensed structural pest inspector.

Finding The alleged infractor was not licensed as a structural pest inspector when he conducted a wood destroying organism inspection. He failed to furnish evidence of financial responsibility and failed to record a unique inspection control number on his inspection report. The alleged infractor, therefore, violated RCW 15.58.150 (2) (e).

<u>Case#</u> 065T	2000	<u>Designation</u> Non Pesticide	<u>License</u> Commercial Consultant	Date of Incident 7/31/2000	Severity 2	Application Method NA
County Pierce		Nature of Case WDO		Response time Same Day	Children Involved? No	Application Type WDO
		Chemicals or other material in	volved:	Other Agencies Involved:	Final Action	Target / Complaint Area
NA				None	NOC	Faulty WDO Inspection
NA						, ,

Summary Faulty WDO Inspection Report.

Finding The alleged infractor failed to conduct a thorough and accurate wood destroying organism inspection. He failed to report rot fungus, anobiid beetles, and dampwood termites. He failed to report earth to wood contact and cellulose debris in the substructure. He was unlicensed, failed to provide an inspection control number, and therefore, violated 15.58.150 (2) (e) and RCW 15.58.450.

<u>Case#</u> 066T 2000	<u>Designation</u> Non Pesticide <u>License</u> Unlicensed	Date of Incident 10/18/2000	Severity 2	Application Method NA
<b>County</b> Kitsap	Nature of Case License	Response time Same Day	Children Involved? No	Application Type WDO
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
NA		None	NOC	Faulty WDO Inspection
NA				

Summary Unlicensed structural pest inspector.

Finding The alleged infractor was not licensed as a structural pest inspector when he conducted a wood destroying organism inspection. He failed to furnish evidence of financial responsibility and failed to record a unique inspection control number on his inspection report. The alleged infractor, therefore, violated RCW 15.58.150 (2) (e).

<u>Case#</u> 067T 2000	Designation Pesticide Inv	olved <u>License</u> Unlicensed	Date of Incident 7/1/2000	Severity 2	Application Method Ground
<b>County</b> Pierce	Nature of Case Misuse		Response time Same Day	Children Involved? No	Application Type Non Ag
Chemicals or other material involved:		Other Agencies Involved:	Final Action	Target / Complaint Area	
Herbicide	Herbicide	Herbicide	None	NOC	Yard
dicamba	2,4-D	trifluralin			

Summary The complainant states that a herbicide may have been misapplied to a vacant lot in a residential area. After application there was a strong chemical odor and immediately after a rain there was a resurgence of the chemical odor. The fumes may have exacerbated asthmatic conditions although no specific human health impact was alleged.

Finding There was sufficient evidence to support the allegation of pesticide misapplication based on the use of a the product at rates greater than allowed by the label.

<u>Case#</u> 001Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> PO/PA	Date of Incident Summer 99	Severity 2	Application Method NA
<b>County</b> Yakima	Nature of Case Sale of RUP	Response time 42 days	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide picloram		None	NOC	Sale of RUP to Unlicensed

Summary A licensed individual worked for a county weed board during the summer of 1999 and purchased picloram from a dealer and then sold it to individuals for their use. Picloram is a federal RUP.

Finding WSDA received a complaint on 1-14-00 that a public operator had been selling picloram herbicide, a restricted use pesticide, to unlicensed property owners in 1999.

<u>Case#</u> 002Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident Fall 99		Application Method NA
<b>County</b> Columbia	Nature of Case License	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Miscellaneous miscellaneous		None	NAI	Sale and use of RUP

Summary Anonymous letter received in Olympia office alleging unlicensed purchase & application(s) of pesticides without a current private applicators license in fall of 1999.

Finding Pesticides which were allegedly purchased and applied by an unlicensed farmer in 1999 were actually purchased and applied under the valid license of his foreman.

<u>Case#</u> 003Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unknown	Date of Incident 3/1/2000	Severity 1	Application Method Ground
<b>County</b> Yakima	Nature of Case Fraud/License	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Unknown unknown		Local	NAI	Fraud/License

Summary WSDA and the Grandview Police were notified about a possible problem with fraud and unlicensed pesticide applications for elderly residences in the Grandview Area, currently under investigation by (Case # 00 - V 0938) the Grandview Police Department.

Finding A spray service notified WSDA about a company that charged an elderly homeowner for "Insecticide Injections" on fruit trees. He thought the company was unlicensed and taking advantage of the elderly. The company does not have a pesticide license and the address on the city business license is incorrect. A fraud investigation is currently being conducted by the local police department.

<u>Case#</u> 004Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 4/4/2000	Severity 2	Application Method Ground
County Yakima	Nature of Case Human Exposure	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide sulfur		DOH	NAI	Orchard/person

Summary Neighbor was spraying orchard by air blast sprayer in high winds on April 4, 2000. Complainant indicated she could see spray coming onto her property. She indicated she developed a rash in the mouth, swollen face and spent the rest of the day on oxygen. She did not see a doctor.

Finding Complainant did not wish to file a complaint after the investigation process was explained to her. She just wants prior notification of future applications.

<u>Case#</u> 005Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident Spring 2000	Severity 1	Application Method Ground
<b>County</b> Walla Walla	Nature of Case License	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Miscellaneous miscellaneous		None	NAI	License

Summary Complaint that alleged infractor made pesticide applications using the complainant's chemicals, equipment and forms, for purposes other than the complainant's business. The alleged infractor was not licensed to make the applications. It was alleged that he was using these items for his own business.

Finding The complainant alleged a former employee had been making pest control applications using equipment and chemicals belonging to the complainant's company and billing the customers using a company invoice formed by the alleged infractor. Application records collected from the alleged infractor and documents collected from WSDA Licensing showed allegations to be unfounded.

<u>Case#</u> 006Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident 3/27/2000	Severity 2	Application Method Ground
<b>County</b> Yakima	Nature of Case License	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Miscellaneous miscellaneous		None	NAI	License

Summary A landscape and spray service is making spray applications to complainant's property without current license or insurance.

Finding The alleged infractor was making insect control treatments to the complainant's property without a valid pesticide operators license and the company did not have current insurance.

Unable to find applicator. Applicator has moved away.

<u>Case#</u> 007Y 2000	<u>Designation</u> Non Pesticide <u>License</u> NA	Date of Incident 4/11/2000	Severity 0	Application Method NA
<b>County</b> Yakima	Nature of Case Misuse	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
None none		None	NAI	Yucca

Summary Complainant has about 1000 Yucca plants that are all turning brown, wilting, and dying. Suspects neighbor of spraying chemicals to kill the plants. No one has seen the neighbor spraying. Ongoing dispute between neighbors. 4/13/2000 p.m. Complainant found insect damage and requested to withdraw his complaint.

**Finding** Complainant had a nursery person come and look at plants and found insect damage to be the problem.

<u>Case#</u> 008Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 4/12/2000		Application Method Ground
County Yakima	Nature of Case Human Exposure	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide chlorpyrifos		None	NAI	Orchard/Person

Summary Complaint about a strong pesticide smell at a home. The alleged infractor's firm (an orchard) is across the street. Complainant believes it's too windy to be spraying and is concerned about breathing the pesticide.

Finding The chlorpyrifos has a strong odor and local topography could have contributed to him smelling the odor. Specific wind speed is not listed on the label. There is no evidence of drift.

<u>Case#</u> 009Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 4/13/2000	Severity 2	Application Method Ground
County Benton	Nature of Case License	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide 2,4-D		None	NAI	Yard

Summary The damaged party claims the alleged infractor was spraying pesticides around the apartment complex earlier that week. The damaged party was told that the alleged infractor is not licensed by WSDA to make these types of applications.

Finding WSDA found that the yard maintenance person did not do the spraying because he hired a properly licensed Commercial Applicator to do the spraying.

Case# 010Y 2000 County Yakima	<u>Designation</u> Pesticide Invo	·	Date of Incident 4/19/2000  Response time Same day	Severity 2 Children Involved? No	Application Method Ground  Application Type Ag
	Chemicals or other material in	nvolved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Fungicide mycobutanil	Fungicide sulfur		DOH	NOC	Peaches/Person

Summary On 4/20/00 Department of Health was notified by a health care provider that a woman was drifted on at home on 4/19/2000. Home is located in a peach orchard. She went to a doctor at the Yakima Valley Workers Clinic.

Finding Samples collected show myclobutanil and sulfur near the house doorway and in the backyard. The pickup truck in the driveway also showed pesticide residue. Clothing samples were negative for any pesticide residue.

<u>Case#</u> 011Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 4/3/2000	Severity 2	Application Method Ground
County Benton	Nature of Case Human Exposure	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide chlorpyrifos		None	NAI	Apples/Person

Summary WSDA received a complaint from a homeowner that was working in his back yard and could see and smell spray in a nearby orchard. He was concerned that he could get the pesticide into his lungs. He did not see or feel any drift of the chlorpyrifos that was being sprayed in the orchard.

**Finding** WSDA contacted the alleged infractors and they agreed to notify the complainant before they sprayed.

<u>Case#</u> 012Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 4/1/2000	Severity 2	Application Method Ground
<b>County</b> Yakima	Nature of Case Drift	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Unknown unknown		None	NAI	Apples/Property

Summary 4/3/00 An apple orchard drifted pesticide spray onto the complainant's property. The complainants could see a spray cloud cross onto their property. They had no pesticide symptoms and did not need medical attention, but want to know what is being sprayed. A homeowner complained about a neighbor spraying his apple orchard in the wind, causing drift onto her home.

Finding Complainant contacted WSDA first to file complaint, but stated she was going to contact the grower in order to resolve the problem. On a follow up phone call, she stated that the grower solved her problem and she did not want to continue with the WSDA Complaint.

<u>Case#</u> 013Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 4/18/2000	Severity 2	Application Method Air
<b>County</b> Klickitat	Nature of Case Human Exposure	Response time Same day	Children Involved? Yes	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide 2,4-D		DOH	NAI	Wheat/People

Summary Complainant was driving when airplane flew over from field on west side and drift from the application got on and in the car. The complainant and her 2 kids, 2-5 girls, all developed symptoms and had runny noses the next day. Complainant had soreness in chest, headache. One little girl got sick and she took her to a clinic. She stopped Monday to talk to applicators to find out what was sprayed.

Finding Complainant drove through smoke from alleged infractors smoke pass. No pesticide detected from complainant's vehicle using lab residue analysis. No residue was observed on vehicle. Complainant did not see any residue or have to use windshield wipers.

<u>Case#</u> 014Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unknown	Date of Incident 4/30/2000	Severity 4	Application Method Unknown
<b>County</b> Yakima	Nature of Case Bee Kill	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide carbaryl		None	NAI	Bee Kill

Summary Complainant states that he had a bee kill on 60 hives placed in an apple orchard. Complainant did not want WSDA to conduct an investigation but just wanted the bee kill documented.

Finding Site visit indicated about 3,000 to 4,000 dead bees at each site and lab results, from a sample of the dead bees showed the presence of carbaryl at 1.2 ppm.

<u>Case#</u> 015Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident Spring 2000	Severity 4	Application Method Ground
County Walla Walla	Nature of Case Drift	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide propiconazole	Fungicide thifensulfuron methyl	None	AA	Wheat/Onions

Summary Complainant has a field of winter onions that shows what appears to be pesticide damage that he thinks is from drift from an application to a neighbor's winter wheat field. Onions in part of the field have yellowed and some of the smaller onions are even going to seed. Onions have been looked at by WSU Extension, who told complainant they thought damage was from pesticides.

Finding A farmer made applications to two winter wheat fields using an herbicide and a fungicide. These fields are on a hill overlooking his neighbor's property. His neighbor's onion field had herbicide symptoms consistent with sulfonylurea herbicide drift. The terrain, weather, symptoms, and a drift pattern in the onion field all indicate drift from one of the winter wheat applications. Soil sample taken tested positive for the fungicide used.

<u>Case#</u> 016Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unknown	Date of Incident 5/3/2000	Severity 4	Application Method Unknown
<b>County</b> Yakima	Nature of Case Bee Kill	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide chlorpyrifos		None	NAI	Apples/Bees

Summary Honeybee Kill. First noticed by the orchard manager on 5/3/00/. There were a total of 96 hives in the orchard, but all had been removed at the time of the first visit to the site on (5/4/00). Complainant has noted that here have been kills throughout the valley the last couple of days as he has been picking up his hives. In this location some hives are more affected than others. There are 8 drop sites in the orchard.

Finding Honeybee kill noticed by the orchard manager on 5/3/00. The dead bees samples show residue from Chlorpyrifos and Carbaryl.

<u>Case#</u> 017Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 5/1/2000		Application Method Ground
County Yakima	Nature of Case Dead Foal	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide carbaryl		DOH, WSU	NAI	Apples/Horse

Summary The complainant said that they had a foal born dead following a spray application to the orchard next to their property. She is concerned that the spray is the cause of the foal's death.

Finding A foal was born dead and the complainant alleged that it was due to the spraying in the orchard located next to their property. Lab results indicate that drift of carbaryl did occur, but there is no evidence to link the spraying to the death of the foal. The complainant was advised to send the foal to WSU lab, but they decided not to.

<u>Case#</u> 018Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unknown	Date of Incident 5/2/2000	Severity 1	Application Method Ground
<b>County</b> Franklin	Nature of Case Drift	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide paraquat		None	AA	Sweet corn/Wheat

Summary Alleged drift of Gramoxone onto winter wheat (seed wheat) from spraying sweet corn sprayed about 2 weeks ago. 85 acre circle and about 2.5 acres affected

Finding Commercial applicator drifted herbicide on to adjacent field damaging a portion of the crop. No damage estimate.

<u>Case#</u> 019Y 2000	<u>Designation</u> Non Pesticide <u>License</u> Commercial	Date of Incident Spring 2000	Severity 2	Application Method NA
<b>County</b> Franklin	Nature of Case License	Response time 21 days	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
NA		None	Referred to EPA	Sale/Use of RUP
NA				

Summary Complainant alleges two individuals doing custom pesticide applications were not licensed with the WSDA. He said they purchased Restricted Use Pesticides from two dealers.

Finding No dealer sold RUP's to either applicator while they were unlicensed. One applied an RUP.

<u>Case#</u> 020Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 10/1/1999	Severity 1	Application Method Ground
<b>County</b> Franklin	Nature of Case Direct	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		None	NAI	Cherries

Summary Leaf emergence was not normal on the ROW bordering field sprayed 10/99 with Glyphosate. Complaint not filed. Report filed to document contact and observation.

Finding Complainant chose not to file a complaint. Carryover symptoms were identified and reported to complainant.

<u>Case#</u> 021Y 2000	<u>Designation</u> Non Pesticide <u>License</u> NA	Date of Incident 5/11/2000	Severity 0	Application Method NA
<b>County</b> Yakima	Nature of Case Human Exposure	Response time Same day	Children Involved? Yes	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
None None		City of Yakima	NAI	Human Exposure

Summary Complainant stated that while driving out of a store parking lot the alleged infractor sprayed the sidewalk toward the car. The spray came in the window and got on complainant's daughter, wetting the side of her face. He washed her face and the car.

Finding Call came to WSDA alleging a possible drift and human exposure. When the WSDA contact was made, it was determined that the original caller was not the person he claimed to be and that the incident did not actually happen.

<u>Case#</u> 022Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 5/11/2000	Severity 2	Application Method Ground
<b>County</b> Yakima	Nature of Case Direct	Response time One day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		DOT	NOC	ROW

Summary People spraying onto DOT Right-of-Way without permit

Finding Complainant alleged that the alleged infractor had sprayed the ROW and caused damage to state property. The alleged infractor stated that his employee had sprayed the area. They were not aware that a permit from the complainant was required.

<u>Case#</u> 023Y 2000	<u>Designation</u> Non Pesticide <u>License</u> Commercial	Date of Incident 5/19/2000	Severity 0	Application Method NA
County Yakima	Nature of Case License	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
NA		None	NAI	License
NA				

Summary Complainant just hired a new commercial operator and asked for his license. It was expired as of 12/31/97. The new employee has worked for other spray companies since his license had expired. Complainant wants WSDA to look into the other companies using unlicensed persons making spray applications.

Finding Complainant filed complaint alleging an employee of his worked for three other pest control companies while not having a valid WSDA commercial operator pesticide license.

Complainant and employee would not submit a written statement to WSDA or make an appointment to discuss situation. WSDA investigator did not act on complaint, as set for the in RCW 17.21.190.

<u>Case#</u> 024Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unknown	Date of Incident 5/27/2000	Severity 3	Application Method unknown
<u>County</u> Yakima	Nature of Case Drift	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide 2,4-D		OSDA	NAI	Grapes

Summary Phenoxy symptoms on grapes (40 acres). Most severe on Merlot and Chardonnay. No suspect of spray drift. Wants to document case and symptomology.

**Finding** Severe Phenoxy symptoms to vineyard. Production loss very possible. No point source determined.

<u>Case#</u> 025Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unknown	Date of Incident 5/18/2000	Severity 3	Application Method Unknown
County Benton	Nature of Case Drift	Response time Same day	Children Involved? No	Application Type Ag
Herbicide	Chemicals or other material involved:	Other Agencies Involved: OSDA	Final Action NAI	Target / Complaint Area Grapes
2,4-D				·

Summary Phenoxy symptoms on grapes. Wants WSDA to document symptoms. Does not know of any pesticide applications in area.

**Finding** Phenoxy symptoms observed. Time of exposure matches precipitation. No point source determined for the exposure.

<u>Case#</u> 026Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident 3/6/2000	Severity 2	Application Method Ground
<b>County</b> Benton	Nature of Case License	Response time One day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Miscellaneous miscellaneous		None	NOC	Ornamentals

Summary Complaint of unlicensed company making application without homeowner permission.

Finding Homeowner complained of insecticide application made to fruit trees in her yard. WSDA found that the company is not licensed to business in Washington and the chemical they allegedly used is not labeled for fruit trees. Lab results indicated the presence of Imidacloprid, which is the active ingredient in Merit insecticide. All efforts to contact the company have failed.

<u>Case#</u> 027Y 2000	<u>Designation</u> Pesticide Inve	plved <u>License</u> PO	Date of Incident 5/15/2000	Severity 1	Application Method Ground
County Yakima	Nature of Case Drift		Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material in	nvolved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide 2,4-D	Herbicide dicamba		None	NAI	Thistle/Arborvitae

Summary Homeowner complained about county weed control causing spray damage to 100 of his arborvitae trees planted along abandoned railroad right of way. The trees showed browning on the lower needles. Samples were sent for testing. Homeowner did not see the spraying. Test results show no pesticide residue from Dicamba or 2,4-D on the arborvitae. Target Plants (thistle) showed residue of both Dicamba and 2,4-D.

Finding Homeowner complained about county weed control causing spray damage to 100 of his arborvitae plants planted along abandoned railroad right of way. The trees showed browning on the lower needles. Samples sent for testing. Homeowner did not see the spraying. Test results show no pesticide residue from Dicamba / 2,4-D on the arborvitae. Target Plants (thistle) showed residue of both Dicamba and 2.4-D.

<u>Case#</u> 028Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 5/28/2000	Severity 4	Application Method Air
<b>County</b> Klickitat	Nature of Case Bee Kill	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide malathion		None	NOC	Cherries/Bees

Summary Had about 56 hives at his house and a neighbor had his cherry orchard sprayed, Foley Orchard Malathion ULV was applied by air. Orchard is about 130 yards northwest of his bees. First noticed the bees dying within 15 minutes of spraying. Bees were spinning and dying. He collected two samples that day and put them in the freezer

Finding An aerial applicator made an application to a cherry orchard using an organophosphate insecticide. This orchard is near a beekeeper's home where he keeps 56 beehives. Dead bees from the beehives tested positive for malathion, the insecticide used in the application. The beekeeper noticed his bees dying during the application and took the sample. Wind at the time of application was toward the beehives from the orchard. Application records incomplete.

<u>Case#</u> 029Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 6/13/2000	Severity 3	Application Method Air
<b>County</b> Yakima	Nature of Case Human Exposure	Response time One day	Children Involved? Yes	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide malathion		DOH	NAI	Cherries/Person

Summary Alleged Human Exposure from aerial application to cherries.

Finding Dept of Health notified WSDA of an alleged human exposure from an aerial application to cherries. Complainant showed symptoms of pesticide exposure i.e. swollen eyes, nausea etc. Clothing worn by subject had residue of Azinphos Methyl and Malathion. Co-workers reported seeing complainant picking cherries in orchard sprayed with malathion. Co-workers stated that they did not feel any spray from Helicopter.

<u>Case#</u> 030Y 2000	Designation Pesticide Investigation	<b>Dived</b> <u>License</u> Commercial	Date of Incident 6/15/2000	Severity 1	Application Method Air
County Walla Walla	Nature of Case Drift		Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material in	nvolved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide esfenvalerate	Insecticide dimethoate		None	NOC	Peas/Falcons

Summary On 6/15/2000 someone in white, low winged spray plane sprayed pea field north of complainant's home. Plane was flying directly towards house and would pull up over house and outbuildings. Complainant raises falcons and they were going crazy. Complainant thinks drift occurred to his property. He wants applicators to notify him before they make applications, as they have in the past. There is a strip of wheat buffer zone between complainant's property and peas.

Finding A foliage sample taken from the neighbor's property tested negative for the products applied. The applicator did not have complete pesticide application records.

<u>Case#</u> 031Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 6/25/2000	Severity 1	Application Method Air
<u>County</u> Klickitat	Nature of Case Direct	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide malathion		None	NAI	Cherries/property

Summary Airplane sprayed cherry orchard across street from house. Plane flew over house during application with nozzles still emitting spray. Complainant says airplane directly sprayed his house and property.

Finding Complainant spoke with applicator and reached an agreement with him that he would pre-notify the complainant and not fly over his house on future applications. Complaint withdrawn by complainant.

<u>Case#</u> 032Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 6/23/2000	Severity 4	Application Method Air
<b>County</b> Franklin	Nature of Case Bee Kill	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide malathion		None	NOC	Cherries/Leafcutter Bees

Summary Neighbor's cherry orchard was sprayed by helicopter with Malathion and now complainant's leaf cutter bees are dying. He believes that the spraying is causing his bees to die.

**Finding** Lab results, weather conditions and statements support the conclusion of off target movement and death of the bees.

<u>Case#</u> 033Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unknown	Date of Incident 06/06/2000	Severity 4	Application Method Unknown
<b>County</b> Klickitat	Nature of Case Drift	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide 2,4-D		None	NAI	Grapes

Summary Phenoxy symptoms on grapes; some varieties are severe. Symptoms appear to have come from the south

Finding The complainant requested that WSDA document herbicide symptoms. WSDA found phenoxy-type herbicide symptoms and damage due to atmospheric deposition associated with rain. Losses are placed at \$290,000.00.

<u>Case#</u> 034Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 6/20/2000	Severity 3	Application Method Air
<b>County</b> Yakima	Nature of Case Human Exposure	Response time Same day	Children Involved? Yes	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide malathion		DOH	NOC	Cherries/Person

Summary On 6/20/00, complainants were sprayed while in their backyard by a helicopter treating a cherry orchard. The helicopter sprayed the orchard again on 6/27/00 and again sprayed the backyard. They could see and smell the mist. The family has allergies and it caused burning eyes and coughing. The complainant is a physician assistant and said no one went to see a doctor.

Finding Malathion was detected in the pool & trees.

<u>Case#</u> 035Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 6/15/2000	Severity 3	Application Method Ground
County Benton	Nature of Case Drift	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide 2,4-D		None	NOI	Grapes

Summary Phenoxy symptoms on grapes. Most severe on west end of vineyard and appear to only be on one variety (White Rieslings).

Finding Complaint from property management firm concerning severe damage to their vineyard. Phenoxy symptoms observed. Herbicide damage was caused by a nearby source.

<u>Case#</u> 036Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident 6/30/2000	Severity 1	Application Method Ground
<b>County</b> Yakima	$\underline{Nature\ of\ Case}\ \ \textbf{Water}\ \ \textbf{Contamination}$	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide Glyphosate		None	NAI	Ditch/Water

Summary Neighbor spraying along ditch bank and getting spray into water. She is concerned because they have animals that drink from the same water.

**Finding** It appears the neighbor took adequate precautions to prevent contamination to the water.

<u>Case#</u> 037Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 5/15/2000	Severity 2	Application Method Ground
<b>County</b> Benton	Nature of Case Drift	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide metribuzen		None	NOC	Cherries/Potatoes

Summary Alleged damage to cherries. Suspects drift from aerial application to neighboring potato field. They noticed the damage about a month ago but it was just a few trees and now it is getting worse. That is why they did not call WSDA sooner.

Finding Herbicide chemigation on potatoes caused damage to cherry orchard. No long term effects expected.

<u>Case#</u> 038Y 2000	<u>Designation</u> Non Pesticide <u>License</u> Unlicensed	Date of Incident 7/1/2000	Severity 0	Application Method Ground
County Benton	Nature of Case Drift	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
None None		None	NAI	Ornamentals

Summary Neighbor was out spraying with a hand held gallon jug of what was thought to be Roundup and now two of their three peach trees are damaged, and tomatoes, zucchini, sweet peas etc are dying

Finding WSDA investigated and found no evidence to support the claim of drift. Plants are dying but not due to herbicide drift. Most likely caused from nutrient deficiency, disease and insects.

<u>Case#</u> 039Y 2000	<u>Designation</u> <b>Pesticide Involved</b> <u>License</u> Dealer	Date of Incident 7/1/2000	Severity 2	Application Method Ground
<b>County</b> Franklin	Nature of Case Misuse	Response time 18 days	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide chlorpyrifos		None	NOC	Corn

Summary On July 10 received e-mail from, pesticide registration specialist, regarding approximately 5000 gallons of a mix containing the insecticide dursban. This mix had allegedly been mixed wrong and became coagulated. WSDA was pursuing a 24c registration of this product and needed a few more questions answered about the product and asked if someone could check it out.

Finding Pesticide dealer had 2,000 gallons of an approximately 6,000 gallon mix containing dursban coagulate. Mix was returned to the dealer where they started the process of obtaining an SLN to apply the mix to corn. The mix was applied before the SLN process was complete, making the application off-label.

<u>Case#</u> 040Y 2000	<u>Designation</u> Pesticide Inve	olved <u>License</u> Commercial	Date of Incident 6/20/2000	Severity 2	Application Method Air
<b>County</b> Benton	Nature of Case Human Expo	sure	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material in	nvolved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide dithiocarbamate	esfenvalerate	pymetrozine	DOH, Food Safety	NAI	Alfalfa hay/Person

Summary Alleged human exposure from aerial application while working on farm. Went to hospital, and was treated and released. This exposure occurred on 6/20/00 and DOH did not officially notify WSDA of this until 8/7/00.

Finding Case closed w/o action, lack of cooperation from complainant. Too much time lapse. No physical evidence to sample.

<u>Case#</u> 041Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> NA	Date of Incident 8/4/2000	Severity 2	Application Method NA
<b>County</b> Yakima	Nature of Case Spill	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide azinphos-methyl		DOH, L&I, DOE	AA	Transportation spill

Summary A truck carrying pesticides dropped about 20 lbs of guthion onto the passing lane of interstate I-82 in Yakima.

Finding The pesticide was being transported in a company truck with about 1/3 of the load above the bed of the truck. The case of guthion was placed upright extending beyond the shrink-wrap and tape. The freeway had to be closed down for 1/2 hr by DOT while Ecology clean up crew neutralized the spill.

<u>Case#</u> 042Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident May/June '00	Severity 3	Application Method Ground
<b>County</b> Benton	Nature of Case Drift	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		None	NOC	Grapes

Summary Growth regulator symptoms on grapes. Does not suspect direct drift. Symptoms throughout vineyard.

Finding Ground pesticide applications to twelve fields of sweet corn and one chemigation application to mint were made by a farm in violation of the morning and evening cutoff hours. Four grape foliage samples from two nearby vineyards tested positive for one of the products used on the sweet corn. Application records for both crops incomplete. Product chemigated label states: "Chemigation 2pts/A only". Only used one pt/A.

<u>Case#</u> 043Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 8/16/2000	Severity 2	Application Method Ground
County Benton	Nature of Case Human Exposure	Response time Same day	Children Involved? Yes	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide malathion		DOH	AA	Grapes/People

Summary Complainant claimed spray from adjacent vineyard came through the swamp cooler and made the family ill. This has been an ongoing problem for the complainant. WSDA has had previous contact with the alleged infractor about this issue.

**Finding** Pesticide application was made during a temperature inversion causing drift off target to a residence.

<u>Case#</u> 044Y 2000	<u>Designation</u> Non Pesticide <u>License</u> NA	Date of Incident Unknown	Severity 0	Application Method NA
<b>County</b> Yakima	Nature of Case Drift	Response time One day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
None none		None	NAI	Trees

Summary Homeowner was away from home for six weeks. He returned to find some of his twelve foot arborvitae trees dried out with tips of needles brown and black. He suspects his neighbor had put down a right of way herbicide that ran down hill toward the roots of his arborvitae trees

Finding The laboratory sample results indicate no residue on the Arborvitae or soil from the herbicide used by the neighbor.

<u>Case#</u> 045Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 10/1/1999	Severity 3	Application Method Ground
<b>County</b> Yakima	Nature of Case Direct	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide miscellaneous		DOH	NOI	Trees

Summary A herbicide application for weed control around newly planted Juniper plants last October allegedly caused damage to the plants.

Finding Juniper plants planted on a hillside next to residential driveway are dead and dying almost one year from the application of herbicide to control weeds in the driveway and the juniper beds. The homeowner states the applicator is at fault. Laboratory results show residue of the herbicide Krovar in the juniper beds. Krovar is a State restricted use pesticide and the label states "not to be used in or around houses."

### WSDA 2000 Case Data

<u>Case#</u> 046Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident 5/5/2000	Severity 3	Application Method Ground
<b>County</b> Benton	Nature of Case Misuse	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		WSU	NAI	Tree

Summary Residential area tree defoliated on edge of property and suspects it was the neighbor who complained the tree was hanging over yard and shading plants.

Finding Tree damage by root uptake of herbicide poured on the trunk and base of tree. Unable to identify responsible person.

<u>Case#</u> 047Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> NA	Date of Incident 8/18/2000	Severity 0	Application Method NA
<b>County</b> Benton	Nature of Case Dog ill	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Unknown unknown		WSU	NAI	Dog

Summary Complainant's dog was left in the back yard overnight one day while they were on vacation. The dog is now very sick. She has collected samples of a white, flaky residue from their trees and railroad ties, etc. The vets cannot diagnose the dog's illness.

Finding Dogs symptoms were not related to pesticides applied to orchard. White residue from feeding gall aphids. Vet unable to determine cause of dog illness.

<u>Case#</u> 048Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unknown	Date of Incident fall 2000	Severity 2	Application Method Ground
County Walla Walla	Nature of Case Drift	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide unknown		None	NOC	Spinach

Summary Several spinach growers have what appear to be severe desiccant spots on their spinach. Up to half of the affected leaves have turned yellow in certain fields.

Finding Desiccant spots were found in several spinach fields. Application records from nearby vineyard showed Glyphosate applied. Sample of spinach foliage tested negative for all desiccants and other chemicals tested for. Records violations found and also vineyard made off-label application of insecticide. A definitive source of damage to spinach could not be determined. Record violations found and off-label use of oil.

<u>Case#</u> 049Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unknown	Date of Incident fall 2000	Severity 2	Application Method Unknown
<b>County</b> Walla Walla	Nature of Case Drift	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide glyphosate		None	NAI	Trees/grapes

Summary Complainant has 50 or 60 grapevines in his yard. The grapevines are Concords, from which he sells grapes to neighbors and others. Four locust trees also turned yellow all at once. The north end of the grape vineyard located in his yard also turned a brilliant yellow.

Finding Several backpack and small sprayer spot-spray applications were made by one neighboring farm during July and August 2000 using two herbicides. A neighboring homeowner also made a small hand sprayer application to his property. The complainant alleged herbicide damage to his locust trees and small backyard vineyard. Foliage samples tested positive for Glyphosate, however a definitive source of the herbicide could not be found.

### WSDA 2000 Case Data

<u>Case#</u> 050Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unknown	Date of Incident fall 2000	Severity 3	Application Method Unknown
<b>County</b> Yakima	Nature of Case Bee Kill	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide disulfoton		None	NAI	Bees

Summary Honeybee Kill On 9/29/00 a beekeeper filed an official complaint concerning a bee kill in a red clover field.

Finding The laboratory test show Disulfoton residue (0.13ppm & 0.22ppm) in the dead bees. Bees were treated for varroa and tracheal mite 10 months earlier. First frost was 6 days earlier. Unable to find source of the disulfoton or determine the cause of the kill.

<u>Case#</u> 051Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Commercial	Date of Incident 02/10/2000	Severity 3	Application Method Ground
<b>County</b> Franklin	Nature of Case Human Exposure	Response time same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Fumigant 1,3 dichlorpropene		DOH	NOC	Field/Person

Summary Qwest employee entered into a field to repair a cut phone cable while fumigant was being shanked in. The complaint was addressed concerning posting.

Finding No label violations were detected. Posting was not required. The applications met the exceptions to worker notification and no posting was required. The person was instructed to leave the field.

<u>Case#</u> 052Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> PO	Date of Incident 2000	Severity 2	Application Method Ground
<b>County</b> Kittitas	$\underline{Nature\ of\ Case}\ \ \textbf{Water}\ \ \textbf{Contamination}$	Response time Six days	Children Involved? No	Application Type ROW
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Herbicide picloram		None	NAI	Water

Summary County Weed Control possible misuse of picloram by applying to surface water contrary to label.

Finding Complaint was dropped after coordinator was terminated from county employment.

Case# 053Y 2000 County Yakima	<u>Designation</u> Pesticide Involved <u>License</u> PA, Commercial <u>Nature of Case</u> Drift	<u>Date of Incident</u> 9/28/2000 <u>Response time</u> Same day	Severity 4 Children Involved? No	Application Method Ground Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Fumigant metam sodium		None	NOI	Apples/Apples

Summary Neighbors apparently making soil fumigation application using overhead sprinkler system in established apple orchard and Vapam HL moved off-site to apple orchard, which still had unharvested apples. Complainant's apple trees affected.

Finding A solid set irrigation system over the tree soil fumigation chemigation application to an existing apple orchard resulted in the off-target movement of the product used to a neighboring apple orchard that had unharvested apples on the trees, causing damage. An apple foliage sample and an apple sample taken by WSDA PMD and three apple samples taken by WSDA Food Safety tested negative for the pesticide used.

### WSDA 2000 Case Data

<u>Case#</u> 054Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 11/1/2000	Severity 4	Application Method Ground
<b>County</b> Benton	Nature of Case Human Exposure	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Fumigant metam sodium		DOH, L&I, EPA	NOI	Potatoes/People

Summary Neighbor making a chemigation application of Vapam HL during inversion conditions. Vapam apparently sucked into building by ventilation fans and workers came down with symptoms from alleged exposure to the Vapam HL. WSDA notified Washington Department of Health by telephone at 9:00 a.m. on day of incident.

Finding A farm was making a chemigation application of a soil fumigant to two crop circles using a drop-down low-pressure irrigation center pivot during a temperature inversion. A slight wind helped the soil fumigant move 3/8 of a mile to a nuclear waste processing plant, where the soil fumigant was sucked into the plant's buildings, exposing 60 workers to the product. Two went to a doctor and were excused from work, 17 more went home for the day.

<u>Case#</u> 055Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 11/13/2000	Severity 2	Application Method Ground
County Yakima	Nature of Case Drift	Response time Same day	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Fungicide copper hydroxide		None	NOC	Cherries/Person

Summary 10:30 am was driving and a tractor was spraying in the orchard on the west side of the road. Spray came out and covered his vehicle to the point he had to turn on the wipers to see where he was going.

Finding Came home and called the police and they told him to call WSDA.

<u>Case#</u> 056Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> PA	Date of Incident 10/17/2000	Severity 3	Application Method Ground
<b>County</b> Benton	Nature of Case Human Exposure	Response time 8 days	Children Involved? No	Application Type Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Fungicide metam sodium		DOH	NOC	Alfalfa hay/Person

Summary Complainant and three other people experienced the same symptoms. They have experienced burning eyes and headaches and at night their smoke detector went off because the smell was so heavy. Complainant feels that there was an inversion. First noticed driving home. Other neighbors smelled the odor but didn't experience any symptoms.

Finding A farm was making a chemigation application of a soil fumigant to two crop circles using a drop-down low-pressure irrigation center pivot during a temperature inversion. A slight wind helped the soil fumigant move 3/8 of a mile to a nuclear waste processing plant, where the soil fumigant was sucked into the plant's buildings, exposing 60 workers to the product. Two went to a doctor and were excused from work, 17 more went home for the day.

<u>Case#</u> 057Y 2000	<u>Designation</u> Pesticide Involved <u>License</u> Unlicensed	Date of Incident 11/5/2000	Severity 3	Application Method NA
<b>County</b> Yakima	Nature of Case Human Exposure	Response time Same day	Children Involved? No	Application Type Non Ag
	Chemicals or other material involved:	Other Agencies Involved:	Final Action	Target / Complaint Area
Insecticide malathion		DOH, DOE	NOC	Storage/Human Exposure

Summary Complainant smelled a strong odor causing headaches, nausea and a sore throat. She states her neighbors were using Malathion, however she does not believe it was only Malathion. She wants somebody to determine what was applied or disposed of.

Finding The neighbors had a broken bottle of Malathion that still has a strong odor. They said it accidentally fell from refrigerator onto the porch. There was no indication of any pesticide applications.



# 2000 Pesticide Incidents Annual Summary Report of Definite, Probable, and Possible

Case	Exposure Date	Incident Description
000001	01/05/2000	A 51 y/o male resident was sweeping the floor at the shelter when another person sprayed an insecticide within 3 feet of his face. The patient immediately became ill and received medical treatment.  Insecticide: Pyrethrins; Diazinon  1 Definite
000004	01/15/2000	Severity: Low/Mild A 30 y/o female smoker sprinkled flea powder over her carpet. She experienced wheezing, tight lungs & productive cough. She was seen in ER & given albuterol treatment.  Insecticide: Boric acid 1 Possible  Severity: Levy/Mild
000005	01/14/2000	Severity: Low/Mild Three female office workers experienced symptoms after a container of pesticide leaked in an office cube. The smell was reported as contributing to the symptoms. None sought medical treatment. Insecticide: Diazinon 2 Possible Severity: Low/Mild
000007	01/06/2000	1 Suspicious A 25 y/o male applicator applied premixed chlorpyrifos product with a backpack sprayer to evergreen cuttings in a nursery. He reported wearing all required PPE. No known spills or contact w/ chemical. He developed headache 3 hours later.  Insecticide: Chlorpyrifos 1 Possible
000008	01/27/2000	Severity: Low/Mild Four adults experienced mild symptoms after removing furniture and personal items from an apartment 24 hours after it had been fogged with pyrethrins. One sought health care. Insecticide: Pyrethrins 2 Possible Severity: Low/Mild
000012	02/11/2000	2 Insufficient Information A 72 y/o female was working in her garden and received an eye exposure to dormant oil. She immediately washed her eye with water. Due to irritation she called the Poison Center and afterwards went to the ER for treatment and an exam. Fungicide: Calcium polysulfide 1 Definite Severity: Low/Mild
000014	02/24/2000	A father was applying head lice shampoo to the head of his 23 month old daughter and shampoo washed into her eyes. She was seen by an ophthalmologist for chemical keratitis. Insecticide: Pyrethrins 1 Definite Severity: Low/Mild
000015	02/28/2000	A 42 y/o female reports to the ER for facial irritation after spraying her hair with an aerosol wasp spray for insects she believes to be in her hair.  Insecticide: Esfenvalerate; Tetramethrin; Fenvalerate  1 Probable  Severity: Low/Mild
000025	02/10/2000	A 26 y/o female applied lice spray to carpet in her home. She did not leave as suggested on the product label and did not ventilate the space. She sought medical treatment at the ER. Insecticide: Phenothrin 1 Possible Severity: Low/Mild

Case	Exposure Date	Incident Description
000026	03/15/2000	Three construction workers were drifted upon from an application to an adjacent orchard. One worker felt the mist. One workers shirt tested positive for residues of product sprayed. Two workers and spouse of one of the workers who visited the site complained of mild symptoms.  Insecitcide: Calcium polysulfide; Petroleum distillate, oils, Esfenvalerate 1 Possible Severity: Low/Mild 1 Unlikely 1 Insufficient Information
000030	03/28/2000	1 Asymptomatic A 37 y/o female self-applied product to her scalp and exposed both her eyes. She waited 10 minutes before rinsing off in the shower. She was seen on an emergency basis and referred to an ophthalmologist.  Insecticide: Permethrin 1 Probable Severity: Low/Mild
000031	03/30/2000	A 43 y/o female became ill after her 16 y/o son poured pesticide product in hole in floor in her bedroom to treat for ants.  Insecticide: Acephate 1 Possible
000032	03/30/2000	Severity: Low/Mild Patient was exposed while applying pesticide at home with a leaking container causing exposure to the hands. Insecticide: Chlorpyrifos 1 Definite Severity: Low/Mild
000033	03/30/2000	Two adult males were drifted upon by application to a neighboring orchard. One man was repairing a roof. The other was outside his shop. Both developed mild symptoms. No medical treatment sought. WSDA tests positive for pesticide residuals on clothing. Insecticide: Esfenvalerate, Endosulfan 1 Probable Severity: Low/Mild
000036	03/31/2000	1 Insufficient Information A 43 y/o female had symptoms after her car was drifted on by a pesticide. The owner of the property where she was visiting and purchasing a dog smelled the pesticide but was not symptomatic. Neither sought medical care. Their dogs became ill. Insecticide/fungicide: Sulfur Insecticide: Endosulfan; Chlorpyrifos 1 Probable Severity: Low/Mild
000037	04/02/2000	1 Asymptomatic A 40 y/o male splashed a moss control product in eye while in his front yard. There was no information on what he was doing at the time. He flushed his eye and sought treatment at the ER.  Herbicide/algaecide: Ferric sulfate 1 Possible Severity: Low/Mild
000039	03/23/2000	A 26 y/o male pesticide mixer/applicator sought medical care for symptoms experienced after loading pesticides in a sprayer. He wore PPE. Fungicide: Fenarimol Insecticide: Chlorpyrifos 1 Possible
000040	04/11/2000	Severity: Low/Mild  A 3 y/o was in the garage where a container of livestock insecticide was on the floor. Child was found with unknown materials on his face. He was immediately showered and taken to the ER with complaint of burning eyes and a "strong chemical odor" on his head.  Insecticide: Coumaphos  1 Possible  Severity Low/Mild

Case	Exposure Date	Incident Description
000041	04/11/2000	Adult male fireman fighting a fire in a storage trailer containing pesticides developed nausea, headache and other symptoms two hours after incident despite PPE including SCBA.  Insecticide: Pyrethrins; Bendiocarb 1 Possible
000042	04/10/2000	Severity: Low/Mild  A 41 y/o male spray applicator and farm owner became ill after spraying for 2 days. He was wearing a dust respirator for PPE. He felt the pesticide mist on his face. He called the Poison Center on the second day.  Insecticide: Chlorpyrifos  1 Possible
000044	03/30/2000	Severity: Low/Mild A 40 y/o male applicator became ill after a fumigant canister came loose and sprayed him. His overalls were soaked. He went home to shower. He sought medical treatment 1 day later.
000045	03/29/2000	Fumigant: Methyl bromide 1 Probable Severity: Low/Mild A 33 y/o male forklift driver became exposed to insecticide residues that had been sprayed in the building, including his work site, small office, doors and boxes. After work he developed a pruritic rash all over body; it resolved 4 days after med treatment. Insecticide: Cyfluthrin
000046	03/30/2000	1 Probable Severity: Low/Mild A 38 y/o male developed vomiting, eye and skin irritation, after splashing lime sulfur to his face. He washed immediately & sought med treatment next day. Eye irritation resolved slowly.
000048	04/19/2000	Insecticide and fungicide: Calcium polysulfide  1 Probable  Severity: Low/Mild  A 25 y/o male applicator was applying a termiticide when the hose broke and soaked him.  He removed his clothes and showered within 20 minutes. Ten hours later he went to ER for treatment of symptoms.  Insecticide: Permethrin
000050	04/19/2000	1 Probable Severity: Low/Mild A 57 y/o female reported a drift exposure from a ground application on neighbor's peach trees. She was 100 feet away from applicator. Medical care sought for shortness of breath, headache and itching. Fungicide: Myclobutanil Insecticide and fungicide: Sulfur, Calcium polysulfide
000052	04/12/2000	1 Probable Severity: Low/Mild A 37 y/o male farm mechanic presented to the ER with complaint of both topical, respiratory and other systemic symptoms after playing soccer in an apple orchard on his break. The orchard had been sprayed the previous day. Fungicide: Myclobutanil Insecticide and fungicide: Calcium polysulfide
000055	04/13/2000	1 Probable Severity: Low/Mild A 37 y/o male pruning apple trees developed symptoms after being drifted upon from orchard being sprayed about 60 feet away. He felt and smelled the spray. He sought medical treatment the same day. Insecticide and fungicide: Calcium polysulfide 1 Probable Severity: Low/Mild

Case	Exposure Date	Incident Description
000057	04/05/2000	A 40 y/o male developed shortness of breath and wheezing after smelling pesticide odor. A insecticide had been applied in a small bathroom 5 min. before. He sought medical treatment the same day.  Insecticide: Resmethrin  1 Possible  Severity: Low/Mild
000059	4/22/2000	A 41 y/o female sprayed an insecticidal soap product and accidentally sprayed her eyes.  Insecticide: Potassium salts of fatty acids 1 Possible Severity: Low/Mild
000061	04/20/2000	A 48 y/o female developed chest tightness, shortness of breath, HA, nausea, bad taste in mouth and diarrhea after she inhaled and felt pesticide spray from county roadside week application. HCP seen two weeks post exposure.  Herbicide: Diuron, 2,4-D  1 Possible  Severity: Low/Mild
000062	04/27/2000	A 29 y/o male pesticide applicator was spraying weeds in an apple orchard from a tractor. The brakes failed, he hit a tree and was splashed in face with herbicide. He sought medical care the same day for mild ocular symptoms.  Herbicide: Glyphosate 1 Definite Severity: Low/Mild
000063	04/07/2000	A 26 y/o orchard prunner developed symptoms after he was drifted upon from a neighboring spray application. He sought medical care the same day for systemic symptoms.  Insecticide: Chlorpyrifos 1 Probable Severity: Low/Mild
000065	05/01/2000	A 61 y/o female and her 37 y/o son reported a drift exposure from ground application on adjacent apple orchard. Both reported mild symptoms. Also had a foal born dead. Lab reported Carbaryl present on property; urine samples taken from mare were negative for pesticides metabolites.  Insecticide: Carbaryl Other: NAA 1 Probable Severity: Low/Mild 1 Insufficient Information
000067	04/21/2000	A 29 y/o female developed symptoms after entering a field treated 4 days previously. She sought medical attention two days after exposure. Experienced a skin rash that lasted about a week.  Insecticide and fungicide: Calcium polysulfide Plant growth regulator: Gibberellic Acid 1 Probable Severity: Low/Mild
000070	05/03/2000	A pregnant 19 y/o applied "roach dust" to floor of her residence. The next morning she swept the floor and started to have symptoms. Dust was evident in the air when she swept the floor.  Insecticide: Boric acid 1 Possible
000071	05/07/2000	Severity: Low/Mild A 30 y/o adult female developed ocular symptoms after applying pesticides in her yard. Sought medical care at the local emergency department. Insecticide: Diazinon 1 Definite Severity: Low/Mild

Case	Exposure Date	Incident Description
000076	04/25/2000	A 29 y/o male developed ocular symptoms after a drop of herbicide hit his eye while spraying.  Herbicide: Glyphosate  1 Probable
000079	05/15/2000	Severity: Low/Mild A 24 y/o applicator was sprayed when the hose came off while he was filling his spray tank. The spray mix went onto his back and neck and inside his PPE. He developed symptoms and was taken to ER. Fungicide: Myclobutanil Insecticide: Imidacloprid, Azinphos-Methyl, Phosmet 1 Probable
000081	05/16/2000	Severity: Low/Mild A 47 y/o female applied two herbicides to her lawn. While applying she came in contact with the spray and immediately washed herself. A few hours later, she developed headache and nausea and went to see a health care provider.  Herbicide: Glyphosate: 2,4-D 1 Possible
000083	05/20/2000	Severity: Low/Mild  A 44 y/o male homeowner splashed a moss control product in his face while opening the product container to use on his lawn. He rinsed his eyes and sought medical care for ocular symptoms the same day.  Herbicide/algaecide: Ferric sulfate  1 Probable  Severity: Levy/Mild.
000084	05/19/2000	Severity: Low/Mild A 26 y/o female got a drop of insecticide into her eye when she opened the product. As the eye was irritated, she called WPC and then went to the ER for treatment. Insecticide: Fipronil 1 Definite Severity: Low/Mild
000085	05/22/2000	A 27 y/o male presents at ER complaining of symptoms from applying pesticides to an apple orchard. Diagnosed as mild organophosphate exposure.  Insecticide and fungicide: Sulfur Insecticide: Imidacloprid, Azinphos-Methyl 1 Possible Severity: Low/Mild
000086	05/15/2000	A 46 y/o male homeowner splashed a drop of a moss control product into his eye. He experienced irritation, flushed his eye and went to the ER. Herbicide/algaecide: Zinc 1 Definite Severity: Low/Mild
000087	05/01/2000	An adult male was applying herbicide to knapweed when his spray nozzle became plugged When he attempted to clear the nozzle, the gun discharged and he received several drops of the chemical in his mouth. He was wearing all required PPE. He washed and rinsed his mouth for several minutes, then taken to the ER for decontamination and treatment of mild symptoms.  Herbicide: Clopyralid 1 Definite Severity: Low/Mild
000093	05/24/2000	A 56 y/o male applied herbicide spray outside his home. He smelled odor for a brief time and experienced symptoms, of which some are possibly related. He went to ER the following day.  Herbicide: 2,4-DP  1 Possible  Severity: Low/Mild
000095	05/25/2000	Dairy worker was applying herbicide around barn when he accidentally contaminated his eyes. Sought medical care for mild ocular symptoms.  Herbicide: Glyphosate  1 Probable  Severity: Low/Mild

Case	Exposure Date	Incident Description
000096	05/29/2000	A 28 y/o male was spraying his lawn with a hand sprayer when the sprayer burst and sprayed his eyes and face. He showered & went to ER. Exposure was not determined to be a toxic dose.  Insecticide: Diazinon 1 Possible Severity: Low/Mild
000097	05/25/2000	Pesticide applicator received eye exposure while spraying pesticide in orchard. He was wearing PPE. Developed mild ocular and respiratory symptoms when the spray drifted back and onto him. He sought medical care the next day.  Fungicide: Mancozeb, Triflumizole 1 Possible
000101	05/13/2000	Severity: Low/Mild  A 42 y/o male pesticide applicator developed skin rash, burning eyes after spraying tank mix of pesticides. Was wearing required PPE, but still getting exposed where face, neck not covered. Sought medical treatment; dermatitis resolving after 5 days.  Fungicide: Triadimefon, Thiram Insecticide: Carbaryl Plant growth regulators: NAA 1 Probable Severity: Low/Mild
000102	03/25/2000	A 33 y/o male developed rash after spraying pesticides in a pear orchard. There is some question whether he always wears his PPE, but he claims that pesticides got inside his protective suit. After developing the rash he did not seek medical treatment until 6 weeks later.  Insecticide/Miticide: Oil 1 Possible
000103	05/29/2000	Severity: Low/Mild A 24 y/o male dropped a cement block on an aerosol can of herbicide spray and product sprayed into the patient's face. He began having mild symptoms, flushed face and went to ER. Herbicide: 2,4-D 1 Definite
000104	06/01/2000	Severity: Low/Mild A 2 y/o girl ingested insect repellent from a 1.5 oz. container. The child vomited three times and the grandmother called 911, WPC, and then transported the child to the ER. She was examined, treated and discharged home.  Insect repellant: DEET 1 Probable Severity: Low/Mild
000108	05/24/2000	An application of malathion was made to the exterior of a sixty y/o female's home in an effort to control ants, spiders and wasps. The windows were open and she reported a reaction to the odor. She did not seek medical attention.  Insecticide: Malathion  1 Possible  Severity: Low/Mild
000109	05/21/2000	A retired couple living across the street from a commercial application, reported the spray of the application drifting across the street and onto themselves and their property. They also reported symptoms believed to be related to the spray contact.  Insecticide: Permethrin  2 Possible  Severity: Low/Mild
000112	05/23/2000	A 25 y/o male applicator received an occupational exposure while spraying herbicides to an onion field. He wore PPE, but still developed symptoms in his right eye for which he sought treatment.  Herbicide: Oxyfluorfen 1 Possible Severity: Low/Mild

Case	Exposure Date	Incident Description
000114	05/19/2000	A 23 y/o male orchard applicator was exposed to herbicide while applying. He was wearing PPE but not eye protection. He sought medical care the same day for ocular symptoms. Herbicide: Glyphosate 1 Definite Severity: Low/Mild
000119	06/05/2000	A 60 y/o male had taken lid off container. It slipped out of his hand and insecticide splashed into his eyes. He experienced burning and itching. He immediately flushed his eyes with water and went to local ER.  Insecticide: Cyfluthrin  1 Definite  Severity: Low/Mild
000123	05/23/2000	Applicator sought medical care for symptoms from exposure while spraying hops. The wind blew the spray back in his face. He was wearing a dust mask rather than appropriate PPE. Fungicide: Myclobutanil, Mefenoxam 1 Probable
000125	06/08/2000	Severity: Low/Mild A 26 y/o male complained of mild dermal symptoms following application of herbicides and was seen in clinic. Herbicide: Glyphosate, 2,4-D 1 Probable
000127	06/13/2000	Severity: Low/Mild  A 35 yr old female & 33 yr old male farmworkers thinning apples became ill shortly after an aerial application of malathion to an adjacent cherry orchard. Both sought medical treatment the same day.  Insecticide: Malathion  1 Definite  Severity: Low/Mild
000133	05/22/2000	1 Insufficient Information A 33 y/o male farm worker developed symptoms after placing aluminum phosphide tablets in the ground. He said the ground was wet; he could smell the fumigant. He wore a respirator & rubber gloves but still developed upper respiratory and other systemic systems. Fumigant: Aluminum phosphide 1 Possible
000136	06/05/2000	Severity: Low/Mild A 21 y/o male motorist developed symptoms after he was allegedly drifted with herbicides. He felt the spray on his face and tasted it. He did not seek medical care. WSDA tests were negative for residues inside/outside of his vehicle. Herbicide:2,4-D; Dicamba 1 Possible Severity: Low/Mild
000137	04/13/2000	Nursery worker developed neurological symptoms of moderate Severity after spraying for several years. Patient had not used proper personal protective equipment. L&I conducted an investigation. Fungicide: Iprodione Herbicide and Fungicide: Copper hydroxide Insecticide: Permethrin
000139	06/14/2000	Plant growth regulators: Daminozide 1 Probable Severity: Low/Mild A 20 y/o female sprayed an insecticide aerosol in her dorm room. The product was professional strength & used incorrectly. She became ill shortly after applying the product. She sought medical care. Symptoms resolved in 1 week. Insecticide: Chlorpyrifos 1 Possible Severity: Low/Mild

Case	Exposure Date	Incident Description
000140	06/17/2000	A mother reports that lice shampoo got in the eyes of 3 y/o twin girls while she was shampooing their hair in the tub. Both children seen by a health care provider for eye irritation although one child had more intense symptoms.  Insecticide: Pyrethrins 1 Definite Severity: Low/Mild 1 Possible Severity: Low/Mild
000141	06/02/2000	A 36 y/o female was counting cherry trees when an airplane sprayed the onion field next to where she was working. She felt spray on her face and hands. She sought medical treatment 3 days later. WSDA tests were positive for residues in the area. Herbicide: Clethodim 1 Definite Severity: Low/Mild
000142	06/05/2000	A 30 y/o male accidentally sprayed himself in the eyes when he was attacked by bees. He immediately washed his face with water, but experienced irritation. He went to the ER for treatment. A foreign body was discovered that contributed to the pain.  Insecticide: Resmethrin  1 Possible  Severity: Low/Mild
000144	05/11/2000	A 32 y/o male developed a corneal abrasion and contact dermatitis after he was exposed to sulfur dust. He was wearing PPE, but the dust still got into his eyes. He rinsed his eyes for 15 minutes after exposure. However, he still developed eye irritation 2 hours later. He sought medical treatment 12 days later.  Insecticide: Sulfur 1 probable Severity: Low/Mild
000148	06/07/2000	A 40 y/o male wastewater plant operator splashed face with water mixed with sodium hypochlorite.  Disinfectant: sodium hypochlorite  1 Probable
000150	05/29/2000	Severity: Low/Mild A 29 y/o applicator was sprayed in the face when the wind came up as he was applying. He was treated for dermal symptoms. Insecticide: Bacillus thuringiensis subsp. Kurstaki 1 Probable  Severity: Lew/Mild
000152	06/21/2000	Severity: Low/Mild A 12 month old male child was brought to ER by his mom. Mom had sprayed ant and roach killer on the floor and child probably contacted with hands. Mother reported child had vomited and had some ocular involvement. Child released with a diagnosis of dermal exposure to insecticide.  Insecticide: Pyrethrins; Propoxur; Cyfluthrin 1 Possible Severity: Low/Mild
000153	06/21/2000	A 36 y/o female complained of symptoms after inhaling pesticide mist from roomate's application to flowers in yard. Fungicide: Triforine; Dicofol Insecticide: Acephate 1 Probable
000154	06/21/2000	Severity: Low/Mild  A 2 y/o girl was observed playing with diazinon crystals. The child didn't like the taste and gagged. Her mother rinsed out her mouth. Following paramedic referral, the mother called Poison Control and took the child to ER.  Insecticide: Diazinon  1 Possible  Severity: Low/Mild

Case	Exposure Date	Incident Description
000155	06/21/2000	A 46 y/o female was applying herbicide for weed control around her home. A breeze came up and blew spray into her face. She developed mild systemic symptoms and sought health care later in the evening at the ER.  Herbicide: Glyphosate 1 Possible Severity: Low/MIld
000157	06/20/2000	A fourteen month female who had sat in an area of the garden that had been treated with a herbicide a couple of hours earlier developed a rash. She was taken to a health care provider for examination and treatment.  Herbicide: Glyphosate  1 Probable  Severity: Low/Mild
000158	06/19/2000	A 20 y/o male licensed pesticide applicator was exposed while spraying apples. He wore PPE except for goggles. He had intense eye irritation. The diagnosis was seasonal allergy exacerbated by sprays.  Fungicide: Myclobutanil Insecticide: Azinphos-Methyl 1 Probable
000159	06/20/2000	Severity: Low/Mild A 29 y/o male tractor driver was exposed to an aerial drift from potato field application while raking hay. The next day he awoke with a sore throat and sought medical care. Fungicide: Mancozeb Insecticide: Pymetrozine; Esfenvalerate 1 Possible
000162	06/16/2000	Severity: Low/Mild A 71 y/o female developed symptoms after her car was drifted on by an aerial pesticide application. She did not seek medical attention. WSDA tests were positive for residues off target area.  Insecticide: Phosmet; Dimethoate 1 Possible
000163	06/06/2000	Severity: Low/Mild A 40 y/o male developed symptoms after mixing and spraying a pesticide. He did not wear a respirator while mixing the pesticide and it may not have been working properly while he was doing the spray application.  Insecticide: Azinphos-Methyl 1 Possible
000166	03/10/2000	Severity: Low/Mild A 37 y/o male became ill while working in an apple orchard that had been sprayed 9 days before. Fungicide: Copper hydroxide 1 Possible Severity: Low/Mild
000169	06/20/2000	A family of 5 were in their backyard when a helicopter sprayed the adjacent cherry orchard. They could see the drift over their yard and pool. Samples of the trees and pool water were positive for malathion.  Insecticide: Malathion 5 Probable
000171	06/03/2000	Severity: Low/Mild (5) A 22 y/o male went into a hop field to clean filters on the irrigation system. According to spray records the field had been sprayed that same day. He did not wear gloves. Worker developed dry, itchy eyes that same day. Sought medical treatment one week later when symptoms did not resolve. Fungicide: Myclobutanil; Sulfur; Potassium Bicarbonate 1 Probable Severity: Low/Mild

Case	Exposure Date	Incident Description
000173	05/29/2000	Two adult female farm workers developed symptoms after they alleged they were drifted upon. The applicator was 12 meters away and both workers felt the spray and continued working. Both patients experienced symptoms but did not seek medical treatment until several weeks later when shortness of breath and coughing didn't dissipate. One worker has history of asthma.  Fungicide: Myclobutanil Insecticide: Azinphos-Methyl; Imidacloprid 1 Possible Severity: Low/Mild 1 Insufficient Information
000174	06/05/2000	A 37 y/o female developed dermal symptoms after pruning limbs in an apple orchard. Sought medical attention the following day for urticaria. Fungicide: Calcium oxytetracycline 1 Probable Severity: Low/Mild
000178	07/07/2000	A 31 y/o male developed eye irritation after he accidentally rubbed mosquito repellant in his eye. The repellant had recently been applied to his hand. He sought medical treatment the next day.  Insect repellant: DEET  1 Definite Severity: Low/Mild
000182	06/03/2000	A 30 y/o male developed mild eye symptoms after being sprayed with chemical when hose broke. He sought immediate medical treatment for eye irritation.  Herbicide: Alachlor  1 Probable  Severity: Low/Mild
000184	06/15/2000	A 31 y/o female developed topical symptoms after picking cherries. Pesticide records showed that pesticides were applied the day she started picking cherries as well as 2 days before.  Fungicide: Propiconazole Insecticide: Malathion 1 Definite Severity: Low/Mild
000185	06/28/2000	A 25 y/o male developed eye irritation one day after he was splashed with herbicide and sought medical care. He was wearing safety goggles and washed his eyes following the accident.  Herbicide: Paraquat dichloride 1 Possible Severity: Low/Mild
000186	05/05/2000	A 33 y/o male developed rash after spilling fumigant on his shirt and shoes. He was not wearing PPE. He developed symptoms 2-3 days after exposure. Fumigant: Metam-sodium 1 Probable Severity: Low/Mild
000187	06/03/2000	A 45 y/o male developed symptoms 11 hours after he accidentally sprayed pesticide in his left eye. He was not wearing goggles. He sought medical treatment 11 days later when symptoms did not dissipate.  Fungicide: Myclobutanil Insecticide: Carbaryl 1 Definite Severity: Low/Mild
000194	06/19/2000	A 53 y/o male wearing T-shirt, shorts and no shoes applied 12 - 32 oz bottles of insecticide via hose-end sprayer to his lawn to kill mosquitoes. He became ill with systemic and topical symptoms and sought medical treatment the same day.  Insecticide: Permethrin 1 Possible Severity: Low/Mild

Case	Exposure Date	Incident Description
000196	07/09/2000	A 35 y/o male complained of gastrointestinal symptoms after using lawn chemicals on his yard. His symptoms continued and he went to a walk-in clinic 2 days later. Insecticide: Diazinon 1 Possible Severity: Low/Mild
000197	07/14/2000	A 57 y/o female applied topical scabicide to an infected area. The treatment caused a worsening of a pre-existing skin irritation.  Insecticide: Permethrin  1 Possible  Severity: Low/Mild
000198	07/16/2000	A container of moss killer fell off a shelf at a retail establishment. An employee inhaled some of the dust. Fire department EMT personnel responded and treated the employee at the scene for mild upper respiratory symptoms.  Herbicide: Ferric sulfate  1 Probable  Severity: Low/Mild
000200	07/04/2000	A 34 y/o male became ill and sought treatment at ER after applying pesticide. Insecticide: Imidacloprid; Aminphos-methyl 1 Possible Severity: Low/Mild
000202	06/15/2000	A 46 y/o apple thinner developed allergy like symptoms while working. He believes he is allergic to spray residues. Fungicide: Myclobutanil Insecticide: Carbaryl 1 Possible Severity: Low/Mild
000207	07/24/2000	A 59 y/o male farmworker was exposed to pesticide drift from a neighboring application while he was tying pear limbs. He developed mild topical symptoms.  Insecticide: Imidacloprid; Azinphos-Methyl 1 Probable Severity: Low/Mild
000208	07/12/2000	A 54 y/o female office worker experienced multiple symptoms 30 minutes after her employer applied an insecticide 3-4 feet away from her. She sought medical treatment the next day.  Insecticide: Cyfluthrin 1 Probable Severity: Low/Mild
000210	07/14/2000	A 20 y/o male developed eye symptoms after he sprayed pears with a kaolin base spray. He also thinned pears that day.  Insecticide: Kaolin  1 Definite  Severity: Low/Mild
000211	07/10/2000	A 30 y/o developed burning sensation in his eyes after one drop of concentrated plant growth regulator splashed in his eye while mixing a solution.  Plant growth regulator: Ethephon  1 Definite  Severity: Low/Mild
000213	05/25/2000	A 23 y/o female field worker had allergic reaction after thinning apples. The reentry time on the product was 72 hours and it had been 6 days since the application.  Insecticide: Azinphos-Methyl  1 Possible  Severity: Low/Mild
000214	06/28/2000	A 32 y/o male apple thinner developed respiratory symptoms. The trees had been sprayed 15 days prior to entry. Diagnosed with asthma secondary to chemical exposure. Fungicide: Triflumizole Insecticide: Azinphos-Methyl 1 Possible Severity: Low/Mild

Case	Exposure Date	Incident Description
000216	07/09/2000	A 29 y/o male orchard applicator developed symptoms while spraying pesticide. He was not wearing full head protection.  Insecticide: Phosmet: Imidacloprid  1 Probable
000217	07/28/2000	Severity: Low/Mild  A 28 y/o male unlicensed applicator was occupationally exposed. He was wearing PPE but he removed his coat for a while because the weather was hot. Shortly after, he became ill. Insecticide: Potassium salts of fatty acids  1 Definite  Severity: Low/Mild
000218	08/07/2000	Severity: Low/Mild  A box of wettable powder insecticide fell from a truck onto the freeway and burst open.  Several cars drove through the dust and some drivers developed symptoms. Both WSDA and Ecology were involved in the clean-up.  Insecticide: Azinphos-Methyl  1 Probable  Severity: Low/Mild
000225	07/17/2000	A 21 y/o male was sprayed in the face with a fungicide when he removed the hose from a sprayer He was wearing eye protection but spray ran down his forehead. Fungicide: Mefenoxam 1 Definite Severity: Low/Mild
000226	08/08/2000	A 32 y/o male applicator wore full protective gear when he applied. However, he sought medical treatment for symptoms experienced after mowing orchard grass 2 days after a fungicide application.  Fungicide: Ziram Insecticide: Azinphos-Methyl 1 Possible Severity: Low/Mild
000230	08/08/2000	A 36 y/o female cut firewood near her home which had been previously treated with a powdered insecticide. She developed systemic symptoms around 4:00 am the next morning and went to the ER for treatment.  Insecticide: Chlorpyrifos 1 Possible Severity: Low/Mild
000234	08/16/2000	A 46 y/o female awoke to smell of pesticides from an application to an adjacent vineyard. She reported symptoms that resolved in 2 days. WSDA environmental samples from inside and outside of the patient's house were positive for the pesticide applied. Insecticide: Methoxychlor; Malathion 1 Probable Severity: Low/Mild
000240	08/22/2000	A 49 y/o female applied malathion to her house plants. Approximately 20 mintues later, she reported feeling short of breath, coughing and had a headache. She took herself to the ER where she was given a shower and sent home.  Insecticide: Malathion (ANSI)  1 Possible  Severity: Low/Mild
000241	08/22/2000	A 35 y/o male applied a fungicide to his lawn and approximately 20 minutes later began to develop a rash on his arms. He washed the area of irritation and the next day went to see his MD. Diagnosed with contact dermatitis  Fungicide: Chlorothalonil  1 Definite  Severity: Low/Mild
000244	09/04/2000	A 15 y/o male reported CNS and respiratory symptoms after re-entering home which had been treated with bug bombs. Family waited 5 hours before returning home & ventilated for 1 hour before boy entered. He was treated at ER.  Insecticide: Cypermethrin 1 Possible Severity: Low/Mild

Case	Exposure Date	Incident Description
000247	08/17/2000	Three adult male crewmen on a freighter became ill after ship holds were fumigated at anchor in Port Angeles, WA. Gas leaked from holds while underway. Maritime MD from Portland tended to the crew at sea off Coos Bay, OR. Crew were cleared for duty after exams.
000248	08/30/2000	Fumigant: Aluminum phosphide 3 Probable Severity: Low/Mild (3) Six PUD employees were drifted upon while working on equipment near an application to a potato field. All smelled the spray and some felt spray mist. Tests positive for residues on clothing, truck and nearby vegetation. No medical treatment sought. Fungicide: Chlorothalonil; Sulfur 3 Probable Severity: Low/Mild (3) 1 Insufficient Information
000251	08/15/2000	2 Asymptomatic A 33 y/o female had asthma attack immediately following the spraying of a nearby potted plant in her office. EMT was called & she sought medical treatment. Her symptoms resolved about 10 minutes after leaving the building.  Insecticide: Diazinon 1 Possible
000252	08/08/2000	Severity: Low/Mild A licensed landscaper developed symptoms after applying herbicide all day in a rubber rain suit. Symptoms resolved the same day without treatment. Some uncertainty whether symptoms related to heat stress or inhalation of herbicide volatiles.  Herbicide: 2,4-D, MCPA, Dicamba 1 Possible  Severity: Levy/Mild
000255	05/26/2000	Severity: Low/Mild  A 38 y/o pregnant teacher developed symptoms after an insecticide application on fruit trees next to the school. She sought medical treatment the same day. WSDA investigation noted that the odor had entered the school air conditioning system.  Insecticide: Diazinon  1 Possible  Severity: Low/Mild
000257	09/07/2000	Nine teachers and 22 students experienced mild symptoms after an aerial application to a potato field next to a school district complex. The application occurred shortly before staff and students arrived. WSDA tests were positive for pesticide residues around the buildings. Fungicide: Chlorothalonil Insecticide: Propargite; Methamidophos 13 Probable Severity: Low/Mild (13) 11 Possible Severity: Low/Mild (11) 1 Suspicious 2 Unlikely 3 Insufficient Information 1 Unrelated
000258	09/08/2000	A Three y/o female developed eye pain and orbital swelling after lice shampoo splashed in her eyes. She was treated and released in an ER. Eye irritation persisted for several days. Insecticide: Pyrethrins 1 Definite
000261	09/15/2000	Severity: Low/Mild A 22 y/o male construction worker developed symptoms after fungicide from an open can splashed his face. He was using the fungicide to treat logs for log homes. He sought medical treatment the same day. Fungicide: Methylene bis (thiocyanate); 2-(Thiocyanomethylthio) benzothiazole 1 Definite Severity: Moderate

Case	Exposure Date	Incident Description
000262	09/14/2000	A 36 y/o male employed by roofing company was spraying an insecticide. He was wearing goggles but it was quite windy and the spray blew on his face and arms. He sought treatment for an irritated eye.  Insecticide: Esfenvalerate  1 Probable  Severity: Low/Mild
000266	09/21/2000	A 45 y/o male applicator had a backpack sprayer leak herbicide on his back. He had symptoms 3 days later and sought medical treatment 9 days later. Herbicide: Glyphosate 1 Probable Severity: Low/Mild
000268	08/18/2000	Two adult male apple thinners experienced symptoms after a spray application took place 250 feet away. Both sought medical treatment for systemic and topical symptoms.  Insecticide: Azinphos-Methyl 2 Possible Severity: Low/Mild
000272	09/22/2000	Two adult females alleged that strong pesticide odors coming from an application to a nearby residence drifted causing them and a 3 month old male to become ill. WSDA investigated.  Herbicide: Trifluralin 3 Possible Severity: Low/Mild (3)
000275	09/23/2000	A male developed symptoms 2 hours after he spilled herbicide on his shirt from a handheld spray tank. He was not wearing PPE. He sought treatment the same day. Herbicide: Diuron; Imazapyr 1 Possible Severity: Low/Mild
000276	09/23/2000	A 48 y/o worked in her garden and sprayed a herbicide. The individual became nauseous, experienced an increased heart rate and respiratory problems. She went to the local ER for medical attention.  Herbicide: Diquat bromide; Fluazifop-P-butyl 1 Probable Severity: Low/Mild
000279	09/26/2000	A 30 y/o male pest control applicator was sprayed in the eye with a herbicide when he set the hose on the ground. He sought treatment for mild ocular symptoms the same day. Herbicide: Glyphosate; 2,4-D; Dicamba; Mecoprop 1 Probable
000283	10/03/2000	Severity: Low/Mild  A 60 y/o male telephone lineman developed symptoms while digging a ditch in a field that had been treated with a fumigant 1-2 hours earlier. He sought treatment 3 days later for continuing neurological and ocular symptoms.  Fumigant: 1,3- Dichloropropene  1 Possible  Severity: Low/Mild
000285	10/09/2000	A 45 y/o male went to ER with symptoms from an accidental ingestion of diazinon when an uncovered bottle spilled on him from the top of a counter.  Insecticide: Diazinon  1 probable
000286	10/10/2000	Severity: Low/Mild  A 46 y/o male applicator sprayed himself in the face while he was checking the sprayer hose. He was wearing goggles but drops got into his eyes. He sought treatment the same day for topical symptoms.  Plant growth regulator: NAA  1 Possible  Severity: Low/Mild

Case	Exposure Date	Incident Description
000287	10/12/2000	A 36 y/o female applied an aerosol fogger to her bedding prior to going to bed. She did not ventilate properly. She awoke the next morning with HA, lethargy, shaky and numbness in her left arm which she believes were related to the exposure.  Insecticide: Pyrethrins; Permethrin 1 Possible Severity: Low/Mild
000291	07/06/2000	A 29 y/o male applicator sprayed weeds using a backpack sprayer. He wore only rubber gloves for PPE. His legs became wet from moisture and spray material on the tall grass. He sought treatment 2 weeks later when rash on his lower legs didn't go away. Herbicide: Glyphosate 1 Probable Severity: Low/Mild
000295	09/07/2000	A 33 y/o female nursery worker was mixing a container of disinfectant/algaecide when it splashed into her eye. She rinsed the eye and sought medical attention.  Disinfectant: Alkyl dimethyl benzyl ammonium chloride  1 Probable  Severity: Low/Mild
000296	09/11/2000	A 43 y/o female reported that she had a reaction to a disinfectant sprayed in her work area. She sought treatment the same day for respiratory and ocular symptoms.  Disinfectant: Hydrogen peroxide; Peroxyacetic acid  1 Possible  Severity: Low/Mild
000297	09/28/2000	A 31 y/o fruit packing employee was splashed in the eye with chlorine treated water.  1 Probable Severity: Low/Mild
000298	09/29/2000	A 23 y/o male developed respiratory symptoms while picking apples. He sought medical treatment the same day. Pesticides were applied 4, 9 and 10 days prior to symptoms. Fungicide: Ziram Plant growth regulator NAA 1 Probable
000300	10/06/2000	Severity: Low/Mild A 70 y/o male was sprayed in the face with moss control product when the hose connection came off as he was preparing to spray his shed roof. He wore latex gloves but developed a burning sensation and blistering on his face. He was seen and treated in the urgent care center. Symptoms resolved the next day.  Herbidcide/algaecide: Ferric sulfate 1 Definite Severity: Low/Mild
000302	10/19/2000	A 46 y/o male construction worker was exposed when a pesticide company sprayed him during an application to a nearby tree. He developed mild ocular and upper respiratory symptoms later that day and sought medical care the following day.  Insecticide: Malathion  1 Possible  Severity: Low/Mild
000305	10/29/2000	A 20 y/o sprayed a bug killer extensively over his 10X12 bedroom where he studied and slept. Within one half hour he had neurological and gastrointestinal symptoms. He sought medical care.  Insecticide: Chlorpyrifos  1 Probable
000307	10/25/2000	Severity: Low/Mild  A 55 y/o male reported that methyl bromide gas blew up his boot and pants leg when his rubber boot split while he was sealing a probe hole with his heel. He developed symptoms the next day & sought medical care 5 days later. The burns resolved slowly.  Fumigant: Methyl bromide  1 Definite  Severity: Moderate

Case	Exposure Date	Incident Description
000308	11/01/2000	Several employees of a firm located adjacent to fields with a center pivot irrigation system were exposed to soil fumigant following a chemigation application, volitization of the pesticide and temperature inversion.  Fumigant: Metam-sodium  9 Probable  Severity: Low/Mild (9)  1 Possible  Severity: Low/Mild
000309	11/02/2000	A 38 y/o female was working in her kitchen. There was a leaking container of a moss control product under her sink. Her eyes became red and swollen but she decided not to seek medical care although she did call the ER. She threw the container away. Herbicide/algaecide: Zinc chloride  1 Possible  Severity: Low/Mild
000311	07/02/2000	A 31 y/o male applicator sought treatment for ocular symptoms which developed after he turned back at the end of the row and the wind drifted spray in his face. He was wearing PPE which included goggles.  Insecticide: Azinpho-Methyl  1 Probable  Severity: Low/Mild
000315	06/21/2000	A 18 y/o female painter, climbing a ladder received a drop of wasp spray into her eye when another employee attempted to spray yellow jackets. She rinsed her eye and went for treatment for mild ocular symptoms.  Unknown: Wasp and Bee Spray 1 Definite Severity: Low/Mild
000316	09/28/2000	A 43 y/o female caregiver at a retirement home sprayed a clients bedding with a lice spray. Immediately she reported respiratory symptoms that continued to develop into an asthmatic attack. She was taken to a hospital for treatment.  Insecticide: Permethrin  1 Probable  Severity: Low/Mild
000318	11/05/2000	A 71 y/o woman broke a pint of Malathion stored on the refrigerator on her patio. The product spilled on her. She had no symptoms. Three neighbors developed symptoms after smelling the product. None of the four sought treatment.  Insecticide: Malathion 3 Possible Severity: Low/Mild (3) 1 Asymptomatic
000320	10/22/2000	A 15 y/o male reported he accidentally drank some flea shampoo when he reached, in the dark, for what he thought was a glass of something else.  Insecticide: Pyrethrins  1 Definite
000321	11/14/2000	Severity: Low/Mild A 37 y/o female was sorting apples in warehouse when she began to experience eye irritation after splashing sorting water in her eyes. Disinfectant: Chlorine 1 Definite
000326	12/11/2000	Severity: Low/Mild  A 45 y/o taken to ER after intentionally ingesting rodenticide and anticonvulsant Rodenticide: Strychnine  1 Definite
000330	12/24/2000	Severity: high/Severe An insecticide was applied to a dog's neck for fleas. A 3 y/o male child touched the dog and soon after had eye pain, redness and swelling. He was taken to the ER for medical treatment.  Insecticide: Imidacloprid 1 Probable Severity: Low/Mild

# **Department of Labor and Industries**

City, County, Inspection	Pesticides Involved	# of employee s exposed	Type of Business	How exposed	Other Agencies Involved	Investigation Dates (Opened) (Closed)	Citations	Type of Inspection
East Wenatchee Douglas 111208112	Dursban 50W	2	Commercial applicator	NA	None	1/6/00 1/6/00	No Violations	Follow-up Inspection
Orondo Douglas 303365951	None mentioned	3	Farm management	NA	None	5/12/00 5/16/00	General: No hazard communication training	Scheduled Inspection
Yakima Yakima 303364889	Procure 50W	2	Crop preparation		None	5/1/00 5/4/00	General:  No safety meetings  No 1 <sup>st</sup> aid trained staff  No written Hazard Communication Program  No list of hazardous chemicals	Scheduled Inspection
Sunnyside Yakima 303365985	Azinphosmethyl	1	Crop preparation	Application	None	7/15/00 7/18/00	Serious: \$6600 No respirator medical evaluation No respirator fit tests No respirator training Not cleaning & maintaining respirators Not cleaning PPE No soap or towels available No change of clothing in event of emergency Inadequate amt water for washing General: No list of hazardous chemicals	<u>Drive-by/Observed</u> <u>Inspection</u>
Sunnyside Yakima 303653026	Micro Max	2	Fruit orchard	NA	DOH	7/20/00	General: No written Accident Prevention Program No written Hazard Communication Program No Worker Protection Standard training	Referral: DOH
Wenatchee Chelan 303365837	None mentioned	2	Fruit orchard	NA	None	5/23/00 5/30/00	General: No hazard communication training	Scheduled Inspection
Sunnyside Yakima 303364798	None mentioned	4	Fruit orchard	NA	None	7/15/00 7/15/00	No violations	Scheduled Inspection

City, County, Inspection	Pesticides Involved	# of employee s exposed	Type of Business	How exposed	Other Agencies Involved	Investigation Dates (Opened) (Closed)	Citations	Type of Inspection
Royal City Grant 303365597	None mentioned	2	Fruit orchard	Handling	None	6/17/00 6/19/00	General: No change of clothing in event of emergency No list of hazardous chemicals	Scheduled Inspection
Wapato Yakima 303546303	K-Salt Provado	1	Fruit orchard	Handling	None	7/22/00 7/24/00	Serious: \$300 No change of clothing in event of emergency No soap or towels available	Scheduled Inspection
Wenatchee Grant 303593461	Guthion	5	Fruit orchard	Handling	DOH	10/6/00 10/6/00	General: No change out schedule for respirator cartridges No Central Posting	Referral: DOH
Wapato Adams 303365746	None mentioned	2	Fruit orchard	Handling	DOH	4/6/00 4/11/00	Serious: \$750  No respirator protection program  No respirator fit tests  No respirator training  Not cleaning & maintaining respirators  Inadequate storage of respirators  Not cleaning PPE  Inadequate storage of PPE  No soap or towels available  No change of clothing in event of emergency  No emergency eyewash  General:  No written Hazard Communication Program  No written Accident Protection Program  No central posting	Scheduled Inspection
Prescott Walla Walla 303653018	Success Calcium spray	1-30	Fruit orchard	NA	None	7/7/00 7/20/00	General: No respirator change out schedule No portable water provided for eyewash Inadequate PPE No central posting	Programmed Inspection
Othello Adams 303364830	Calcium Carbonate	3	Fruit orchard	Handling	None	7/1/00 7/6/00	General: Inadequate amt water for washing No soap or towels provided No change of clothing in event of emergency No inventory of pesticides	Scheduled Inspection

City, County, Inspection	Pesticides Involved	# of employee s exposed	Type of Business	How exposed	Other Agencies Involved	Investigation Dates (Opened) (Closed)	Citations	Type of Inspection
Quincy Grant 303364954	None mentioned	4	Fruit orchard	NA	None	6/16/00 6/21/00	No violations	Scheduled Inspection
Wapato Yakima 303546345	Guthion Lorsban 50W	2	Fruit orchard	NA	None	7/22/00 7/24/00	Serious: \$3780  No respirator medical evaluation  No respirator fit tests  No respirator training  Not cleaning & maintaining respirators  Inadequate storage of respirators  Not cleaning PPE  No hazard communication training  No soap or towels available  No change of clothing in event of emergency  No emergency eyewash	Scheduled Inspection
Outlook Yakima 303593453 397018625	Guthion	2	Fruit orchard	Handling	None	7/29/00 7/31/00	Serious: \$1120 No towels provided No change of clothing in event of emergency	Drive-by/Observed Inspection
Orondo Douglas 303364848	Rally 40W	1	Fruit orchard	Handling	None	5/6/00 5/25/00	Serious: \$360 No emergency eyewash No soap or towels available No change of clothing in event of emergency General: No safety meetings	Scheduled Inspection
Bridgeport Douglas 303364962	Lorsban 4E Promalin	2	Fruit orchard	Handling	DOH	4/20/00 4/21/00	General: Facial hair with respirator No list of hazardous chemicals No safety meetings Inadequate pesticide spray records No central posting	Complaint: Drift from this field to adjacent field Personal protective equipment & respirator concerns
Brewster Okanogon 303365639	None mentioned	2	Fruit orchard	Not specified	None	6/24/00 6/24/00	General: No respirator medical evaluation No list of hazardous chemicals	Scheduled Inspection

City, County, Inspection	Pesticides Involved	# of employee s exposed	Type of Business	How exposed	Other Agencies Involved	Investigation Dates (Opened) (Closed)	Citations	Type of Inspection
Brewster Okanogon 303365670	Apogee Swat	3	Fruit orchard	Handling	None	6/6/00 6/28/00	Serious: \$750 No soap or towels available No change of clothing in event of emergency General: No emergency eyewash	Scheduled Inspection
Outlook Yakima 303593495	DiPel DF	2	Fruit orchard	Applicatio n	None	7/29/00 7/30/00	Serious: \$450 No change of clothing in event of emergency Inadequate supply of water for routine washing	Scheduled Inspection
Othello Adams 303653042	Azinphosmethyl	6	Fruit orchard	Alleged Drift (not valid)	WSDA	7/28/00 8/18/00	Serious: \$1200 No respirator fit test General: No respirator cartridge change out schedule No WPS training No portable water provided for eyewash	Referral: Thinners experiencing pesticide exposure symptoms
Sunnyside Yakima 303593297	Guthion	3	Fruit orchard	Handling	NA	8/12/00 8/17/00	Serious: \$1000 No soap or towels available No change of clothing in event of emergency No emergency eyewash No hazard communication training General: No MSDS	Scheduled Inspection
Zillah Yakima 303546337 399003179	Rally Rio Imic Thiolux Sulfur	3	Fruit orchard	Handling	NA	6/22/00 6/22/00	No violations	Complaint involved respirator issues; interviews indicated invalid complaint
Orondo Douglas 303365910	Di Pel DF	1	Fruit orchard	Handling	NA	5/13/00 5/19/00	Serious: \$180 No emergency eyewash No hazard communication training	Scheduled Inspection
Orondo Douglas 303365878 048003036	Sevin 4F	2	Fruit orchard	Handling	NA	5/16/00 5/31/00	Serious: \$1050 No change of clothing in event of emergency	Drive-by/Observed Inspection

City, County, Inspection	Pesticides Involved	# of employee s exposed	Type of Business	How exposed	Other Agencies Involved	Investigation Dates (Opened) (Closed)	Citations	Type of Inspection
Wapato Yakima 303546493 397018625	Phosmet Chloronicotinyl Calcium Chloride	8	Fruit orchard	Handling	NA	6/29/00 8/3/00	General: No respirator cartridge change out schedule No change of clothing in event of emergency No portable water provided for eyewash	Referral Respirator cartridges not being changed Symptoms of pesticide exposure
George Grant 304126766	Roundup Cay Use	10	Field crops	Handling	DOH	12/1/00 12/1/00	General: No Hazard Communication Program No written respirator program Not providing personal protection equipment as required by label	Referral DOH Lack of personal protective equipment No chemical training
Mattawa Grant 303364871	None mentioned	2	Field crops	Handling	NA	7/3/00 7/10/00	General: No evaluation of respiratory hazards	Complaint Inspection Hay dust exposure Respirator deficiencies
Lynden Whatcom 115283459	Gramoxone	6	Potato farm	Handling	NA	10/24/00 12/4/00	Serious: \$200 No emergency eyewash Other safety violation not related to pesticides General: No written Hazard communication No written accident prevention program No written respirator program No respirator fit test No respirator medical evaluation	Complaint
Olympia Thurston 302213913 342011099	Benlate Diazinon 50W	6	Mushroom farm	Handling	NA	6/1/00 6/1/00	No violations	Follow up Inspection
Rochester Thurston 302213244	None mentioned	5	Dairy	Application	WISHA Safety	4/13/00 4/13/00	General: No policy on voluntary use of respirators	Referral from WISHA Safety Inspection

City, County, Inspection #	Pesticides Involved	# of employee s exposed	Type of Business	How exposed	Other Agencies Involved	Investigation Dates (Opened) (Closed)	Citations	Type of Inspection
Latah Spokane 303540363	Ban Rot Tame Astro B-Nine	5	Nursery	Handling	NA	6/21/00 10/5/00	Serious: \$750 No respirator fit test Did not replace cartridges at end of shift No emergency eyewash No portable water provided for eyewash No glove provided as required by label	Complaint Inspection No pesticide training No respirator training No replacement cartridges for respirators Not upholding REI requirements
Othello Adams 303653042	Azimphosmethyl Success Calcium	6		Handling	DOH	7/28/00 8/18/00	Serious: \$1200 No respirator fit test General: Inappropriate respiratory protection No handler training No portable water provided for eyewash	Referral Employees in orchard during spray application

### Appendix E

**WSDA Pesticide License Types** 

### WSDA PESTICIDE LICENSE TYPES

License Type Definition

**Commercial Applicator** A person engaged in the business of applying pesticides to the land/property

of another. This land can either be publicly or privately owned. Prior to license issuance, a Financial Responsibility Insurance Certificate (FRIC)

must be filed with WSDA by the insuring company.

**Commercial Operator** A person employed by a WSDA-licensed commercial applicator to apply

pesticides to the land of another. This land can either be publicly or

privately owned.

**Commercial Pest Control** 

Consultant\*

A person who sells or offers pesticides for sale at other than the licensed pesticide dealer outlet from which they are employed. In addition,

commercial consultants may offer or supply technical advice or make recommendations to the users of non-home and garden pesticides. They may also perform wood destroying organism inspections. Licensed and employed commercial applicators and commercial operators may act as

commercial consultants without acquiring the consultant's license.

**Dealer Manager\*** A person who supervises the distribution of pesticides (other than home and

garden products) from a licensed pesticide dealer outlet.

**Private Applicator** A person who applies or supervises the application of a "Restricted Use"

pesticide on land owned or rented by him or his employer for the purpose of

producing an agricultural commodity.

**Private Commercial** 

**Applicator** 

A person who applies of supervises the use of a "Restricted Use" pesticide on land owned or rented by him or his employer for purposes other than the

production of an agricultural commodity.

**Public Operator** A person who, while acting as an employee of a governmental agency,

applies restricted use pesticides by any means or general use pesticides by power equipment on public or private property. Public operators may act as public consultants. (Public operators licensed only in the Public Health

category are exempt from the fee.)

**Public Pest Control** 

Consultant\*

A person who, while acting as an employee of a governmental agency,

offers or supplies technical advice, supervision, aid, or makes

recommendations to the user of pesticides other than home and garden products. Public Consultants may not act as public operators without the

operator's license.

**Demonstration and** 

**Research Applicator** 

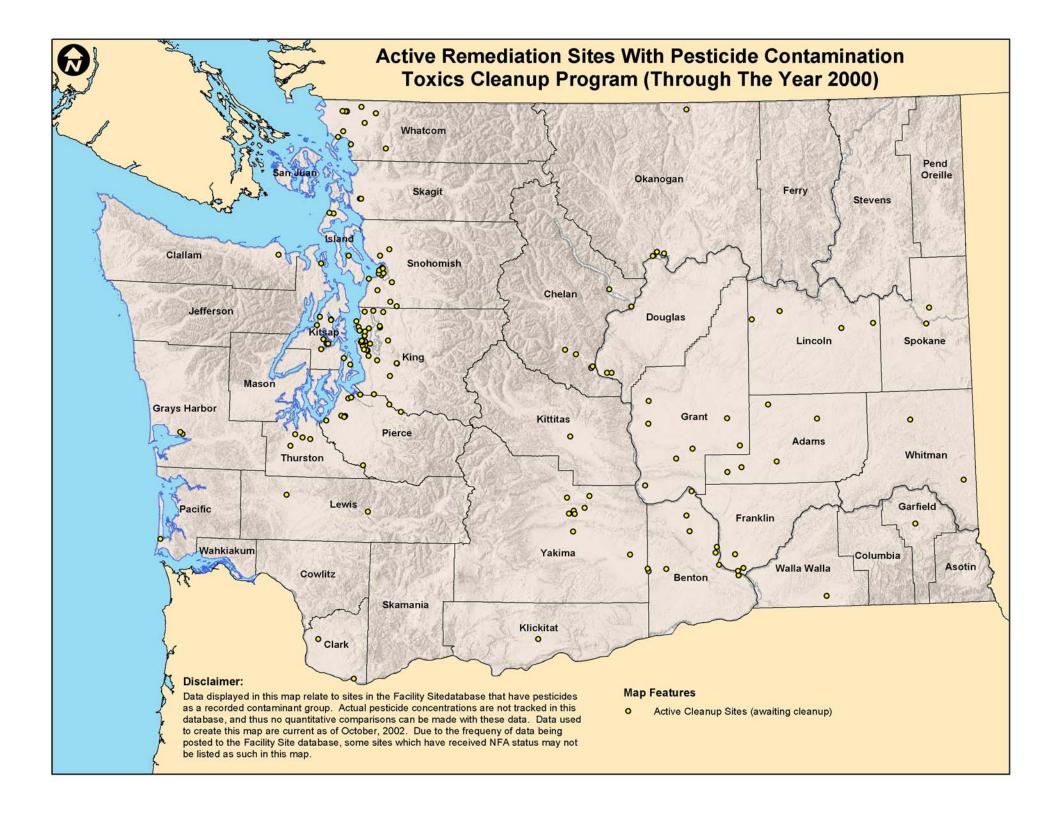
A person who applies or supervises the use of any experimental or restricted use pesticide to small experimental plots at no charge. (Public employees performing research applications fall under the licensing requirements of

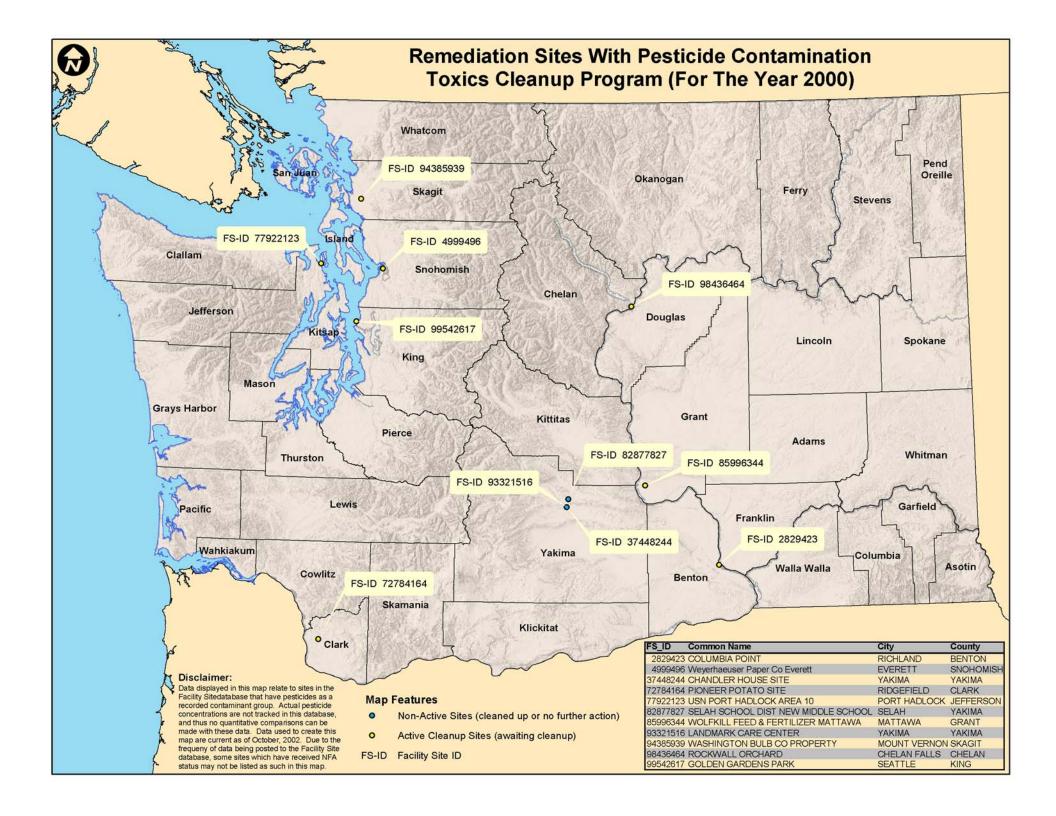
the public operator.)

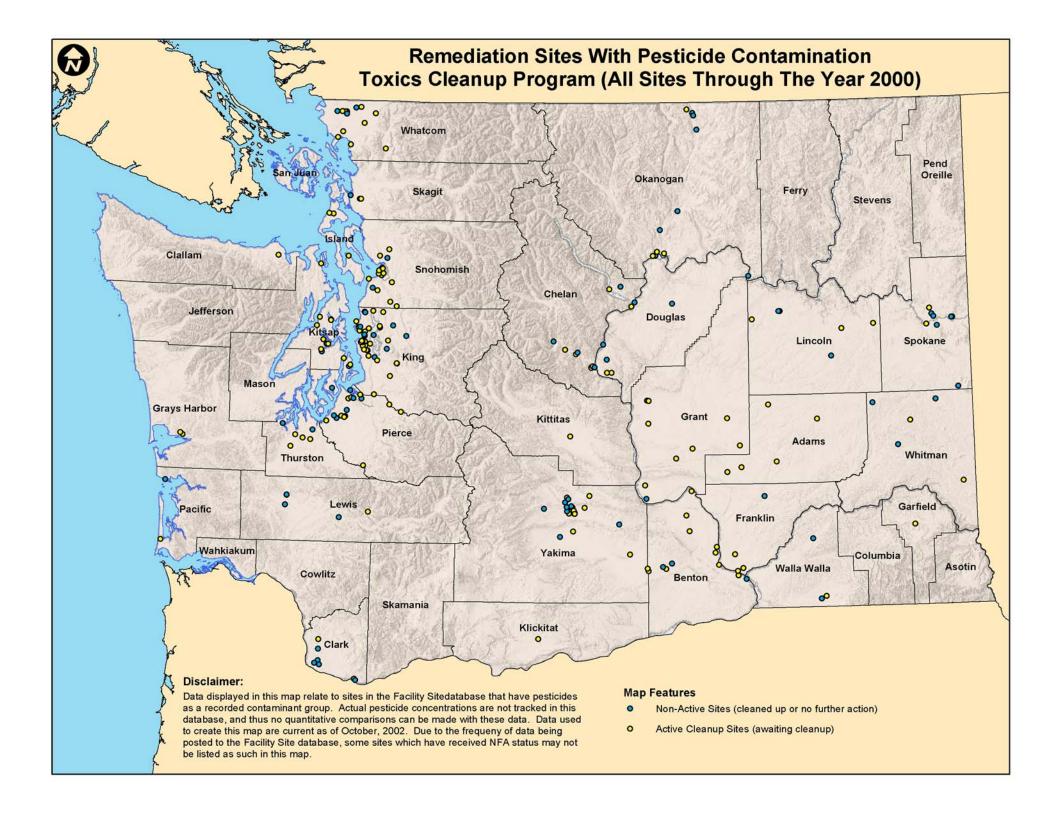
\*License does not allow the holder to use or supervise the use of a restricted use pesticide. Refer to other types for appropriate license.

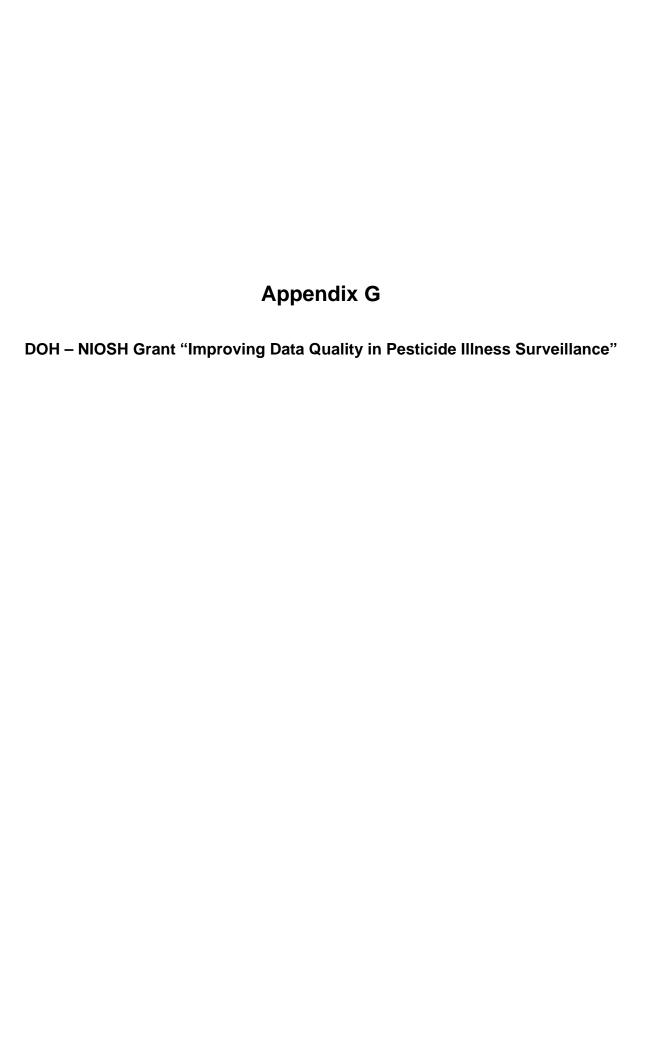
## Appendix F

**Department of Ecology Maps** 









# "Improving Data Quality in Pesticide Illness Surveillance" National Institute for Occupational Safety and Health (NIOSH) Grant, Washington State Department of Health

1. Improving the functionality and compatibility of the PIMS database management system

From 1991 through 1999, the PIMS program used an Rbase database located on a Novell server at DOH. Because of a lack of internal support for Rbase programs, DOH adoption of new software specifications and, most importantly, coded variables inconsistent with the current CDC/NIOSH standardized definitions and formats, a new database management system was created. The original database structure was revised and expanded so that data are consistent with CDC/NIOSH standard variable definitions, coding, names and formats, and can be easily exported to NIOSH, EPA and the other surveillance states in a standardized format.

- 2. Evaluating and improving the quality of data collected by PIMS
  - a. Examination of the effect of data quality on case determination for pesticide related illness: This work has been completed and is in the process of being written up for presentation.
  - b. Estimate the degree and understanding of the determinants of underreporting: As of this printing, the following activities have been initiated.

Key Informant Interviews and Worker Focus Groups have been conducted and the data are being analyzed.

DOH is presently conducting a study of hospital and emergency department out patient records from providers in the Yakima Valley to ascertain the degree of under reporting. Each of the major health facilities in Yakima County will be contacted about outpatient encounters potentially related to pesticides during the year 2000. Potential cases will be identified by External Cause of Injury Codes (E-codes) that specify specific pesticides or agricultural chemicals, or manifestation codes indicating toxic effects of specific and non-specific pesticides and non-medical substances. The records will be matched against PIMS cases.

In the third year of the project, interviews will be targeted to providers where farm workers seek medical care without filing a Workman's Compensation claim. These interviews will focus on the importance of the surveillance system and discuss provider procedures for reporting when suspected pesticide related illnesses are seen.

- c. Improving the quality of spatial data: Presently incident location is recorded only to the county level. This makes it impossible to use the data to target specific regions, conduct spatial analysis of where farmworkers seek medical care in relation to where they work or live, or to graphically display the location of incidents on a statewide basis. This portion of the study will seek to improve the accuracy of the recording of incidents by geographic location. It will be undertaken in the third year of the project.
- 3. Enhancing the analysis of PIMS data and expanding the dissemination of program and policy relevant information derived from PIMS data.

Work on this element will be completed in the second and third years of the grant. Interviews will be conducted with those who develop interventions and those affected by interventions. Interviews will also be conducted with the PIRT Panel, employer trade organizations, grower groups and farm worker representatives. A final report based on the interviews will summarize the comments and list the suggested analyses and data products.