

OREGON OSHA PESTICIDE EMPHASIS PROGRAM ANNUAL REPORT

Federal Fiscal Year 2008



**Garnet R Cooke, Pesticide Coordinator
Stanton E Thomas, Health Enforcement Manager
Chris Ottoson, CIH, Health Operations Manager
Elizabeth A. Lowery, Executive Assistant**



Oregon OSHA Pesticide Emphasis Program FY 2008 Annual Report

Introduction

This is the eighth year in a working relationship between Oregon OSHA (OR-OSHA) and the United States Environmental Protection Agency (EPA), Region 10, Pesticide Enforcement Unit. OR-OSHA enforces the Worker Protection Standard, which is supplemented with an inspection emphasis program.

This report is the annual review of the pesticide emphasis program for federal fiscal year 2008 (FFY 2008). The data elements and analysis are presented, along with recommendations for program improvements for the coming year.

Data Elements

The data elements examined in this report are based on OR-OSHA's Program Directive A-235, entitled "Local Emphasis Program for Pesticides." Inspections were completed from a programmed list selected from the following list of North American Industrial Classification System (NAICS) codes:

- NAICS 111339 Deciduous Tree Fruits
- NAICS 111421 Nursery
- NAICS 111998 General Farming
- NAICS 115112 Crop preparation including pesticide spraying

Other NAICSs inspected as a result of complaints, referrals or programmed Agricultural Health inspections are included in this report if the inspection addressed pesticide-related issues.

Data Summary

The goal of the Pesticide Emphasis Program is to reduce occupational exposures to pesticides in agriculture as well as to evaluate the need for expanding into additional occupational settings where pesticides are used. The Pesticide Emphasis Program continues to be an effective tool for disseminating information, education, and compliance assistance and enforcement activities to reduce occupational exposures to pesticides in the agriculture industry. The following is a brief summary of the findings resulting from the evaluation of FFY 2008 activity.

Inspection Activity

In FFY 2008, 96 inspections were completed which identified 479 pesticide-related violations. These included violations of the Worker Protection Standard (WPS) and other occupationally related standards pertaining to pesticides. Seventy-nine of the 96 inspections covered NAICSs identified in the emphasis program (Figure 1). Employers whose NAICS is identified in the Program Directive will be referred to as "selected NAICSs" for the purposes of this report. The

96 inspections included 71 programmed (agricultural health or pesticide emphasis), 11 complaints and 14 referrals (Figure 2).

The 96 inspections accounted for 83 different employers, of which 58 had previous inspection activity with OR-OSHA. Of these, 14% (8/58) were in-compliance. Of the 25 employers who had never been inspected, 8% (2/25) were in-compliance. Overall the in-compliance rate was 10% (10/96) (Figures 9 and 10).

Violation characteristics

Of the 479 pesticide related violations in FFY 2008, 20% (95/479) were cited as serious. Of the WPS violations, 11% (23/207) were cited as serious. There were 11 inspections with civil penalties directly related to violations of the Worker Protection Standard. Eighty-five percent (82/96) of the inspections were classified as Tier One, those in which pesticides had been applied within the previous 30 days (Figures 7 and 8).

Handler Related:

- ◆ 362 of the 479 violations were handler related. Of these:
 - 131 were related to personal protective equipment, of these:
 - 72 were related specifically to respiratory protection requirements
 - 35 were decontamination violations
 - 30 involved training issues
 - 23 were Central Posting related
 - 2 involved label specific training
 - 5 were violations of the fumigant/thiram rules
 - 49 violations involved Hazard Communication
 - 58 involved pesticide storage violations
 - 26 violations were lack of a 15 minute emergency eyewash at the mix/load site
 - 3 involved supervision, medical records and health hazard control measure issues

Worker Related:

- ◆ 84 of the 479 violations were worker related. Of these:
 - 41 were Central Posting deficiencies
 - 12 were training related
 - 7 involved deficiencies in notifying workers regarding pesticide applications
 - 3 decontamination violations
 - 21 violations involved Hazard Communication

Repeat Violations

In FFY 2008, there were two repeat violations. A violation is termed a repeat when a specific standard is violated, is corrected, and occurs again within a three-year period. To encourage employers to maintain diligence in preventing the reoccurrence of previously cited violations, repeat violations carry higher penalties (Figure 1).

Pesticide Analytical Response Center (PARC) Cases

In FFY 2008 there were 8 PARC cases investigated by Oregon OSHA, a decrease from the previous year. These cases occurred in a variety of industry settings including agriculture (4 cases), forestry (1), retail (1), landscaping (1), and structural (1). Five cases had symptoms that were consistent with exposure routes and the pesticide involved. Only one investigation did not result in violations being alleged. Two of the cases involved multiple exposures, one case had 4 exposed, and up to 60 were exposed in the structural incident, with at least 6 expressing some type of symptoms (not all 60 employees were interviewed.)

The pesticides involved most frequently were herbicides (5/8), with glyphosate use accounting for 3 of the 5 cases. One of the herbicide cases was reported as a hospitalization by the employer. Although not confirmed through biological sampling, the illness was deemed exposure to 2, 4- D by the hospital. PARC physician Dr. Daniel Sudakin reviewed the medical records and temperature data and felt the symptoms were associated with a heat related illness. Temperatures the day prior to hospitalization were over 90°F; and the employee affected consumed less than a cup of water the entire day. The employee wore coveralls over street clothes and applied the 2,4 -D utilizing a back pack sprayer.

The two cases with multiple exposures were a drift incident with 4; and a structural case with over 60 employees affected, and at least 6 experiencing symptoms. The structural case involved BP-100 which was the same insecticide used in a structural application fatality case in 2005 (non-occupational). One of the most strongly affected employees was taking heart medications as was the individual who died in 2005. The label for the product did not adequately quantify what is meant by: “adequate ventilation.”

Conclusion

OR-OSHA’s Pesticide Emphasis program had an exceptional year agency wide. All sections throughout the Agency contributed to a successful year, as noted below. The annual pesticide program meeting was held with staff from multiple sections within OR-OSHA, as well as with Oregon Department of Agriculture and EPA staff.

Nurseries continued to be an important inclusion into the Pesticide Emphasis Program. In the 55 inspections conducted, only eight were in-compliance. Of the 479 pesticide related violations cited throughout the year, over half were in this NAICS. Nursery workers accounted for 74% of the total number of employees covered in FY 2008.

Accomplishments

- ◆ Oregon OSHA sustained outreach activities with external speaking requests, securing a return commitment to the Oregon Agricultural Chemical & Fertilizer Association’s annual training event.
- ◆ Consultative Services certified Oregon’s first agriculture employer, Monrovia Nursery, into second year Safety & Health Achievement Recognition Program (SHARP) status. SHARP was developed to provide Oregon employers with coaching and direction so that they could

learn to more effectively manage workplace safety and health and in turn be recognized for their achievement.

- ◆ The Enforcement Section continued to maintain a strong presence in the field with a 33% increase in the number of inspections conducted
- ◆ The development of the Forestry Specific pesticide safety poster has progressed to the Oregon OSHA graphics department.
- ◆ The development of a Forestry Specific WPS training video has also progressed. David Zahler, CF, Media Specialist; and Jeffrey Wimer from Oregon State University's College of Forestry are applying for an Oregon OSHA grant to develop this much needed resource for the forestry sector.

Goals:

- ◆ Finalize and produce the Forestry WPS pesticide safety poster. This poster would be applicable nationwide.
- ◆ Proceed with the Forestry WPS pesticide safety DVD.

◆ Combined Inspection Data FY 2008

Figure 1

NAICS	# INSP	INSP. W/ VIOL.	WPS VIOLATIONS		WPS # Repeat	WPS Penalties	VIOLATIONS NON/WPS		# REPEAT	NON/WPS PENALTIES	# EMPLOYEES
			SER.	OTS			SER.	OTS			
111339	8	8	5	15	0	\$325*	2	14	0	0	185
111421	55	47	10	118	1	\$2170*	47	101	1	\$5300	1762
111998	11	10	0	25	0	0	18	25	0	\$880	117
115112	5	5	2	1	0	\$275*	9	7	0	\$1195	66
112111	2	2	0	0	0	0	0	5	0	\$100	6
111219	4	3	0	10	0	0	2	7	0	\$390	49
111334	2	2	2	8	0	\$165*	7	5	0	\$330	14
111332	1	1	2	0	0	\$105	1	2	0	\$105	3
111331	2	2	0	5	0	0	2	5	0	\$165	99
115115	2	1	1	0	0	\$750	1	0	0	\$180	50
111335	1	1	1	2	0	\$100	3	0	0	\$165	4
561710	2	2	0	0	0	0	2	6	0	\$100	9
926140	1	1	0	0	0	0	1	0	0	\$105	4
TOTALS FY 2008	96	85	23	184	1	\$3890	95	177	1	\$9015	2368
TOTALS FY 2007	72	63	42	121	1	\$5565	62	125	1	\$14960	1568
TOTALS FY 2006	68	56	22	117	2	\$3220	17	114	3	\$1365	2403
TOTALS FY 2005	64	52	6	123	0	\$1250	18	124	1	\$1170	1300
TOTALS FY 2004	61	43	26	62	2	\$3580	19	90	3	\$1070	2196
TOTALS FY 2003	70	57	28	85	0	\$2925	21	118	1	\$1165	1875

* Penalty was part of a grouped violation

Figure 2 TYPES OF INSPECTIONS

NAICS	111339	111421	111998	112111	111219	111332	115112	111334	115115	111331	111335	561710	926140	Totals
Programmed	6	43	10	0	4	1	2	1	1	1	1	1	0	71
Complaint	1	7	1	2	0	0	0	0	0	0	0	0	0	11
Referral	1	5	0	0	0	0	3	1	1	1	0	1	1	14

OR-OSHA PARC Cases

Figure 3 Industries where exposure occurred

Ag	Gen farm	Nursery	Forestry	Structural	Landscaping	Retail
	3	2	1	1	1	1

Figure 4 Type of Exposure

Drift	Spill	Use	Heat stress
4	1	3	1

Figure 5 Training Violations Cited (8 of the 10 cases)

Ag	Gen farm	Nursery	Forestry	Structural	Retail
	3	2	1	1	1

Figure 6 Pesticides Involved

Insecticide	Herbicide	Fungicide
Malathion	Roundup (2)	Quilt
BP-100	2,4 D	
	Oxyfluorfen	

PESTICIDE ENFORCEMENT ACTIVITY IN SELECTED NAICSs

Figure 7

NAICS	111339	111421	111998	115112	TOTALS
#Attempts	12	61	14	5	92
# Inspections	8	55	11	5	79
* Tier 1	7	46	10	5	68
* Tier 2	1	9	1	0	11
# Employees	185	1762	117	66	2130
# With Violations	8	47	10	5	70
% Inspections with Violations	100%	85%	91%	100%	87%

*Tier 1 Inspections: Pesticides used within the preceding 30 days plus the restricted entry interval

* Tier 2 Inspections: Pesticides NOT used within the preceding 30 days plus the restricted entry interval

PESTICIDE ENFORCEMENT ACTIVITY IN NON-SELECTED NAICSs

Figure 8

NAICS	111219	111334	111332	111331	115115	111335	TOTALS
# Attempts	4	2	1	2	3	1	13
# Inspections	4	2	1	2	2	1	12
* Tier 1	3	2	1	2	2	1	11
* Tier 2	1	0	0	0	0	0	1
# Employees	49	14	3	99	50	4	219
# With Violations	3	2	1	2	1	1	10
% Inspections with Violations	75%	100%	100%	100%	50%	100%	83%

*Tier 1 Inspections: Pesticides used within the preceding 30 days plus the restricted entry interval

*Tier 2 Inspections: Pesticides NOT used within the preceding 30 days plus the restricted entry interval

** Inspections within these SICs fall outside the coverage of the Worker Protection Standard.

FY 2007
WPS Inspection History Summary

Figure 9

<u>WPS Tier One</u> Type of OR-OSHA Encounter	Inspections with WPS violations	Inspections with only PRV*	No violations	TOTAL
Never inspected before	15	3	2	20
Previous health inspection	18	2	3	23
Previous safety inspection	14	2	2	18
Previous Ag Labor Housing	3	0	0	3
Previous health > 5 years	5	0	0	5
Total:	55	7	7	69

*PRV= pesticide related violation

Figure 10

<u>WPS Tier Two</u> Type of OR-OSHA Encounter	Inspections with only PRV	No Violations	Total
Never inspected before	5	0	5
Previous Health inspection	4	1	5
Previous safety, Ag Labor Housing or Field Sanitation	2	2	4
Total:	11	3	14

Pesticide Related Interventions – External Training

<u>Agriculture classes</u>		
401 – Worker Protection Standard, workshops and on site training	11	186
203 – Personal Protective Equipment, workshops, on-site training and Internet courses	5	377
205 – Hazard Communication Program, workshops, on-site training, and Internet courses	17	280
Total in attendance		843

<u>Speaking Requests</u>	<u># In Attendance</u>
Oregon Agricultural Chemical & Fertilizer Association (Pendleton, Wilsonville and Eugene)	480
Hood River Vector Control	15
WPS Employer Training, Malin OR	52
Respiratory Protection, Chemeketa Community College	10

Pesticide Related Interventions – Resource Center

Pesticide Video loans	77
“Safe Practices When Handling Agricultural Chemicals” brochure	8300
Washing pesticide contaminated clothing magnet (Spanish)	26
Cultivate a Safe Environment	400
Field Sanitation Notice	900
Agriculture Seasonal Worker Orientation	3331
The Air You Breathe	1450
Division 4, Agriculture	195

Pesticide Related Interventions – Consultative Services - Conferences

Willamette Valley Ag Expo	November
Oregon Farmers Bureau	December
Oregon Landscape Expo	December
NW Ag Show	January
Far West Ag Show	August

Pesticide Related Interventions – Consultative Services – Consultations by SICs

	111998	111339	111421	111998	115112	Total
Health	2	2	5	2	0	11
Safety*	20	69	7	20	0	116

*Does not include pesticides, but identifies outreach potential

OR-OSHA RESOURCE CENTER PESTICIDE RELATED VIDEOS 2008
Requests filed from October 1, 2007-September 30, 2008

#	Name	English	Spanish	Times Req.
464	EPA WPS for Orchard Workers	x	x	2
465	EPA WPS for Pesticide Handlers	x	x	2
474	Oregon Pesticide Safety Guide	x		1
475	Oregon Pesticide Safety Guide		x	1
381	Chasing the Sun/Siguiendo El Sol (Removed from library 12/06)	x	x	
384	Greenhouse Pesticide Safety Training Workers & Handlers	x	x	4
352	How to Conduct Worker Protection Training/Train the Trainer	x		9
380	Pesticide Handlers and the Worker Protection Standard	x		3
383	Pesticide Handlers and the Worker Protection Standard		x	1
600	Pesticide Safety: Help Workers Protect Themselves	x		5
608	Pesticide Safety: Help Workers Protect Themselves		x	9
323	Pesticide Safety Worker Protection Oregon DVD # 95	x	x	3 4
392	Pesticide Training for Agricultural Employees	x	x	2
327	Shedding Some Light on Pesticide Protection	x		3
332	Worker Protection Standard An Overview	x		2
1051	Protecting Yourself From Pesticide Hazards	x	x	4
446/ 447	Breathe Easy: Respiratory Protection Program DVD #72	x	x	2/4 16

TOTAL: 77