

OREGON OSHA PESTICIDE EMPHASIS PROGRAM ANNUAL REPORT

Federal Fiscal Year 2007

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Oregon OSHA Pesticide Emphasis Program FY 2007 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 2007 (FFY 2007). 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 and Field Crops, except Cash Grains, NEC
- 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. Employers whose NAICS is identified in the Program Directive will be referred to as "selected NAICSs" for the purposes of this report.

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, 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 2007 activity.

Inspection Activity

In FFY 2007, 72 inspections were completed which identified 352 pesticide-related violations. These included violations of the Worker Protection Standard (WPS) and other occupationally-related standards pertaining to pesticides. Fifty-five inspections were completed in NAICS identified in the emphasis program (Figure 1). Overall, 53 inspections were programmed (agricultural health or pesticide emphasis), 9 were complaints and 10 were referrals (Figure 2).

Seventy different employers were inspected; of these, 48 had previous inspection activity with OR-OSHA. Of the 48 employers with previous inspections, three were found to be in-compliance. Of the remaining 22 employers who had never been inspected, five were in-compliance. Overall the in-compliance rate was 11 percent (Figures 9 and 10). Eighty-one percent of the inspections were classified as Tier One, those in which pesticides had been applied within the previous 30 days (Figures 7 and 8).

Violation characteristics

Of the 352 pesticide-related violations, 30 percent were cited as serious. Of the WPS violations, 26 percent were cited as serious. Overall, the number of serious violations increased with 42 WPS violations and 62 pesticide-related violations cited, compared to 22 and 17, respectively, in FFY2006. There were 16 inspections with civil penalties directly related to violations of the Worker Protection Standard.

The increase in the number of violations cited is attributable to these changes. The number of respirator-related violations doubled in FFY 2007 from the previous year. In FFY2006 half of the personal protective equipment violations cited were related to respirators. In March 2007, the respirator rule in Division 4 was changed to reflect similarity to General Industry's Respiratory Standard but written in clear language. In September 2006, the addition of the requirement for a 15-minute emergency eyewash for pesticides which are either Danger/Poison or Danger/Corrosive accounted for 23 violations in FFY2007. The other notable increase in violations was for handler-related training. These violations doubled from the previous year and includes both WPS and Hazard Communication requirements, which did not associate itself to a particular rule change.

Handler-Related:

- ◆ 277 of the 352 violations were handler-related. Of these:
 - 105 were related to personal protective equipment, of these:
 - 76 related specifically to respiratory protection requirements
 - 18 were decontamination violations
 - 32 involved training issues
 - 17 were Central Posting related
 - 2 involved label specific training
 - 2 were violations of the fumigant/thiram rules
 - 50 violations involved Hazard Communication
 - 23 involved pesticide storage violations
 - 23 violations were lack of a 15 minute emergency eyewash at the mix/load site
 - 5 involved supervision, medical records and health hazard control measure issues

Worker-Related:

- ◆ 86 of the 352 violations were worker-related. Of these:
 - 53 were Central Posting deficiencies
 - 12 involved failure to provide the "Safe Practices When Working Around Hazardous Chemicals" brochure
 - 13 were training related
 - 7 involved deficiencies in notifying workers regarding pesticide applications
 - 1 decontamination violation

Repeat Violations

In FFY 2007, 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

The Pesticide Analytical Response Center is overseen by the Oregon Department of Agriculture. It is a multi-agency work group that investigates pesticide-related exposure incidents as they become known. In FFY2007 there were 14 PARC cases investigated by Oregon OSHA. These cases occurred in a variety of industry settings including agriculture (4 cases), forestry (3), wood treatment (2), retail (2), landscaping (1), right-of-way (1), and structural (1). Eight cases had symptoms that were consistent with exposure routes and the pesticide involved. Investigation into the remaining six cases did not show a correlation between the symptoms alleged and the pesticide used. Four of the PARC cases involved violations of the Worker Protection Standard which carried penalties.

The routes of exposure were most often associated with use (7 cases) and spills and/or splashes (3). Training issues were cited in 8 of the cases investigated. Retail cases involved spills from either damaged in-store packaging, or splashes which occurred during cleanup of an old pesticide storage area. The latter case resulted in extensive penalties being levied.

A preliminary investigation was made into one case, which is not included in the total, in which a 37-year-old individual collapsed and died after spraying trichloropyr. The medical examiner determined the cause of death to be from a sudden cardiovascular event and not due to pesticide exposure.

Conclusion

There was a modest increase in enforcement inspections and an increase in the number of violations that were cited in FFY2007. There was also an increase in the number of occupational pesticide exposure cases that were referred to the agency from PARC. This inspection year's data does not vary substantially from previous years in terms of the pesticide-issues being addressed. This emphasis on pesticide safety remains a viable use of enforcement resources in educating employers and protecting workers within agriculture.

Accomplishments: OR-OSHA's Pesticide Emphasis Program had an exceptional year agency-wide:

- ◆ Oregon OSHA's Technical Services Section developed a respiratory publication entitled "The Air You Breathe" which contains templates for the written respirator program and includes the respirator training CD "Breathe Easy." Technical also translated the respirator fact sheets into Russian and Spanish.
- ◆ The Pesticide Web page was updated. <http://www.cbs.state.or.us/osha/subjects/pesticides.html>
- ◆ Revisions were made to the "Cultivate a Safe Environment" and the "Agricultural Seasonal Worker Orientation" publications.
- ◆ The following new rules were adopted:
 - ◆ A 15-minute emergency eyewash at the mixing/loading site is required when using either Danger, or Danger/Corrosive are used. These products are capable of producing either acute toxicity, or irreversible eye damage - OAR 437-004-1305(5)(a).
 - ◆ Requirements for the use of fumigants - OAR 437-004-9010.
 - ◆ Health hazard control measures reinserted into Division 4 (OAR 437-001-760(1)(c & d).
- ◆ Technical Services also participates with the Oregon Sustainable Agriculture Resource Center (OSARC), which will provide one-stop shopping access to informational, financial, and technical resources related to sustainable agriculture. <http://inr.oregonstate.edu/download/osarc.pdf>
- ◆ There was a 52 percent increase in requests for pesticide-related videos from the Resource Center.
- ◆ There was a significant increase in the number of external speaking requests, including a four-hour workshop at the Northwest Agriculture Show.
- ◆ Consultative Services certified Oregon's first agriculture employer, Monrovia Nursery, into the Safety & Health Achievement Recognition Program (SHARP.) 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 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.

Goals

- ◆ *Inclusion of forestry into the Pesticide Emphasis Program for FFY2009 inspection year.*
- ◆ *Development of a forestry-specific pesticide safety poster.*
- ◆ *Develop agriculture program appropriate material for conference booths.*
- ◆ *Expand the PESO program into agriculture and WPS.*

Combined Inspection Data FY 2007

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	6	5	0	6	0	0	1	2	0	\$270	35
111421	40	37	20	79	0	\$2700*	33	72	1	\$2590	1282
111998	8	6	2	10	1	\$365*	5	15	0	\$265	101
115112	2	2	3	0	0	\$440	0	4	0	0	16
111211	2	1	0	0	0	0	9	1	0	\$2520	9
111219	1	1	0	6	0	0	0	9	0	0	17
111334	4	4	3	10	0	\$715*	4	11	0	0*	24
111332	3	3	1	9	0	\$100	0	6	0	0	23
115114	1	1	3	0	0	\$330*	3	5	0	\$165	25
115115	2	1	6	0	0	\$300	1	0	0	\$300	20
115310	1	1	4	1	0	\$615*	0	0	0	0	8
444220	2	1	0	0	0	0	6	0	0	\$8850	8
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
TOTALS FY 2002	87	46	27	83	0	\$2900	36	90	0	\$2560	1879

* Penalty was part of a grouped violation.

Figure 2 TYPES OF INSPECTIONS

NAICS	111339	111421	111998	111211	111219/ 111334	111332	115112	115114	115115	111421/ 115310	444220	Totals
Programmed	4	33	7	1	4	0	1	1	1	0	1	53
Complaint	1	4	1	0	0	1	0	0	1	1	0	9
Referral	1	2	0	1	1	2	1	0	0	1	1	10

OR-OSHA PARC Cases

Figure 3 Industries where exposure occurred

Ag	Gen farm	Nursery	Xmas trees	Forestry	Structural	Landscaping	Right of Way	Retail	Wood treatment
	2	1	1	3	1	1	1	2	2

Figure 4 Type of Exposure

Drift	Spill	Splash	Use	Exposure to treated material	Other
1	2	1	7	2	1

Figure 5 Training Violations Cited (8 of the 14 cases)

Ag	Gen farm	Nursery	Xmas trees	Forestry	Structural	Landscaping	Right of Way	Retail	Wood treatment
	2	1	1	2	0	1	0	1	1

Figure 6 Pesticides Involved

Insecticide	Herbicide	Fungicide	Disinfectant	Fumigant
Chlorpyrifos	Roundup	CCA	Zerotol	Chloropicrin
Imidacloprid	Crossbow	Formaldehyde	PQ 80	
Cyfluthrin	2,4 D			

PESTICIDE ENFORCEMENT ACTIVITY IN SELECTED NAICSs

Figure 7

NAICS	111339	111421	111998	115112	TOTALS
#Attempts	11	41	9	2	63
# Inspections	6	39	8	2	55
* Tier 1	5	31	6	1	43
* Tier 2	1	8	2	1	12
# Employees	35	1279	101	16	1431
# With Violations	5	36	6	2	49
% Inspections with Violations	83%	92%	75%	100%	89%

*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	111211	111219	111334	111332	115114	115115	111421	115310	444220	TOTALS
# Attempts	2	2	4	3	1	3	1	1	2	19
# Inspections	2	1	4	3	1	2	1	1	2	17
* Tier 1	2	1	4	3	1	2	1	1	N/a**	15
* Tier 2	0	0	0	0	0	0	0	0	N/a**	0
# Employees	9	17	24	23	25	20	3	8	8	137
# With Violations	1	1	4	3	1	1	1	1	1	14
% Inspections with Violations	50%	100%	100%	100%	100%	50%	100%	100%	50%	82%

*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	12	1	2	15
Previous health inspection	11	3	1	15
Previous safety inspection	15	0	0	15
Previous Ag Labor Housing	2	0	0	2
Previous health > 5 years	9	0	0	9
Total:	49	4	3	56

*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	4	3	7
Previous Health inspection	3	1	4
Previous safety, Ag Labor Housing or Field Sanitation	2	1	3
Total:	9	5	14

Pesticide Related Interventions – External Training

<u>Agriculture classes</u>	
401 – Worker Protection Standard, workshops and on site training	
203 – Personal Protective Equipment, workshops, on-site training and Internet courses	42
205 – Hazard Communication Program, workshops, on-site training, and Internet courses	
Total in attendance	382

<u>Speaking Requests</u>	<u># In Attendance</u>
Clackamas Community College	50
Oregon Association of Nurserymen -4- hr workshop	75
Oregon Agricultural Chemical & Fertilizer Association (Pendleton, Wilsonville and Eugene)	525
Western Farm Service – Pesticide Storage	250
Forest Chemical Seminar – Pesticide Transportation & Storage	60

Pesticide Related Interventions – Resource Center

Pesticide Video loans	98
“Safe Practices When Handling Agricultural Chemicals” brochure	19,675
Washing pesticide contaminated clothing magnet (Spanish)	150
Cultivate a Safe Environment	250
Field Sanitation Notice	400
Agriculture Seasonal Worker Orientation	200
Division 4, Agriculture	95

Pesticide Related Interventions – Consultative Services - Conferences

Willamette Valley Ag Expo	November
Oregon Landscape Expo	December
Far West Ag Show	August

Pesticide Related Interventions – Consultative Services – Consultations by SICs

	111998	111339	111421	111998	11512	Total
Health	0	1	3	2	1	7
Safety*	1	44	21	14	1	81

*Does not include pesticides, but identifies outreach potential

**OR-OSHA RESOURCE CENTER PESTICIDE RELATED VIDEOS
2007**

Requests filed from October 1, 2006-September 30, 2007

#	Name	English	Spanish	Times Req.
464	EPA WPS for Orchard Workers	x	x	2
465	EPA WPS for Pesticide Handlers	x	x	6
474	Oregon Pesticide Safety Guide	x		5
475	Oregon Pesticide Safety Guide		x	3
381	Chasing the Sun/Siguiendo El Sol	x	x	1
384	Greenhouse Pesticide Safety Training Workers & Handlers	x	x	5
352	How to Conduct Worker Protection Training/Train the Trainer	x		8
380	Pesticide Handlers and the Worker Protection Standard	x		4
383	Pesticide Handlers and the Worker Protection Standard		x	11
600	Pesticide Safety: Help Workers Protect Themselves	x		10
608	Pesticide Safety: Help Workers Protect Themselves		x	15
323	Pesticide Safety Worker Protection Oregon	x	x	3
392	Pesticide Training for Agricultural Employees	x	x	3
327	Shedding Some Light on Pesticide Protection	x		8
332	Worker Protection Standard An Overview	x		2
1051	Protecting Yourself From Pesticide Hazards	x	x	6
446/ 447	Breathe Easy: Respiratory Protection Program	x	x	446- 5 447-1

TOTAL: 98