

OREGON OSHA PESTICIDE EMPHASIS PROGRAM ANNUAL REPORT

Federal Fiscal Year 2009



New Oregon OSHA WPS Poster for Forestry

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Oregon OSHA Pesticide Emphasis Program FFY 2009 Annual Report

Introduction

This report reflects the ongoing 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 2009 (FFY 2009). 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 111998 General Farming, Field Crops, except Cash Grains, Not Elsewhere Classified
- NAICS 111339 Deciduous Tree Fruits
- NAICS 111421 Nursery
- NAICS 115112 Crop Preparation including Pesticide Spraying

Other industry NAICS codes 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

Pesticide exposures occur throughout the handling process, from purchase to disposal. The goal of the Pesticide Emphasis Program is to reduce occupational exposures to pesticides in agriculture through enforcing pesticide-related standards such as hazard communication, worker protection standard, respiratory protection, pesticide storage, fumigation and supervision. Implementation of these requirements can reduce the likelihood of exposures resulting in acute or chronic effects. In addition, the program evaluation includes a review of the need for expanding into additional occupational settings where pesticides are used.

The Pesticide Emphasis Program continues to be an effective tool for identifying and correcting hazards related to pesticides, as well as disseminating information, education, and compliance assistance in the agriculture industry. The following is a brief summary of the findings resulting from the evaluation of FFY 2009 activity.

Inspection Activity

In FFY 2009, 86 inspections were completed which identified 394 pesticide-related violations. These included violations of the Worker Protection Standard (WPS) and other occupationally related standards pertaining to pesticides. Seventy-three of the 86 inspections covered NAICSs identified in the emphasis program (**Figure 1**). Employers whose NAICS are identified in the Program Directive will be referred to as “selected NAICSs” for the purposes of this report. The 86 inspections included 72 programmed (agricultural health or pesticide emphasis), seven complaints and seven referrals (**Figure 3**). Eighty-six percent (74/86) of the inspections were classified under WPS as Tier One, those in which pesticides had been applied within the previous 30 days (**Figures 4 and 5**). Two of the 86 inspections fell outside the scope of the WPS.

The 86 inspections accounted for 81 different employers. Four employers had multiple locations inspected. Fifty-seven locations had previous inspection activity with OR-OSHA. Of these, 11% (6/57) were in-compliance. Twenty-seven locations had never been inspected, and of these, 7% (2/27) were in-compliance. Overall the in-compliance rate was 9% (8/86) (**Figures 6 and 7**).

A summary table compiles the previous inspection data for 2002 thru 2008 and is included as a reference (**Figure 2**).

Violation Characteristics

Of the 394 pesticide related violations in FFY 2009, 30% (117/394) were cited as serious. Pesticide related violations include the Oregon OSHA standards addressing hazard communication, respiratory protection, emergency eyewash, supervision, pesticide storage and fumigation. Of the WPS violations, 16% (30/186) were cited as serious (**Figure 1**).

An analysis of the decontamination violations demonstrated the greatest number of violations occurred at the pesticide mix site. Failure to provide a clean set of coveralls at the pesticide mix site in the event of an emergency was cited nine times (9/31). Failure to provide decontamination supplies at the pesticide mix site and the handler not provided with a pint-size eyeflush container during applications were each cited seven times.

Handler Related:

303 of the 394 violations were handler related. Of these:

- 113 were related to personal protective equipment, of these:
 - ◆ 74 related specifically to respiratory protection requirements
- 31 were decontamination violations
- 19 involved training issues
- 20 were central posting related
- 1 involved label specific training
- 8 were violations of the fumigant rules
- 51 violations involved hazard communication
- 38 involved pesticide storage violations
- 13 violations were lack of a 15 minute emergency eyewash at the mix/load site
- 9 involved supervision, medical records and health hazard control measure issues, or failure to report over-night hospitalization

Worker Related:

91 of the 394 violations were worker related. Of these:

- 58 were central posting deficiencies
- 10 involved failure to provide the “Safe Practices When Working Around Hazardous Chemicals” brochure
- 13 were training related
- 5 involved deficiencies in notifying workers regarding pesticide applications
- 5 decontamination violations

Repeat Violations

In FFY 2009, there were no repeat violations. A violation is classified as 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.

Pesticide Analytical Response Center (PARC) Cases

In FFY 2009 there were two occupationally related pesticide exposure cases referred to Oregon OSHA. The first involved an employee of a warehouse store alleging health effects after unpacking a shipment of clothing which had been fumigated with naphthalene. An inspection was attempted based on the information provided to Oregon OSHA; however, the warehouse store involved had no knowledge of the individual working there. Attempts were made to contact the employee, but no response was received. No further action could be taken.

The second case involved an employee who was hospitalized with symptoms related to aluminum phosphide poisoning. The employee had been using the aluminum phosphide fumigant “Weevil-cide” to control gophers. Aluminum phosphide reacts with moisture to produce phosphine gas. The employee and coworkers would place the tablets into moistened holes in the orchards, a practice that increases the rate of phosphine gas released. The employee had been terminated from employment two days prior to hospitalization. After the employee was admitted into the Intensive Care Unit (ICU) the employee’s spouse went out to the family car and returned to the unit with a labeled flask of the aluminum phosphide product. A nurse in the ICU, while on the phone with Poison Control, opened the flask and poured the tablets onto her gloved hand. When the odor of phosphine became too strong, she put the tablets back into the flask and placed the flask in the patient’s bed-side table. The employer was cited for multiple violations of the fumigant rules. The hospital was cited for supervision related issues as a result of the manner in which the fumigant was handled.

External Training

External training consists of two parts, workshops put on by the OR-OSHA Public Education section, and speaking requests done in conjunction with Oregon Department of Agriculture events. Speaking requests increased in FFY 2009 and continued into the next fiscal year. Requests received at the end of FFY 2009 for Eastern Oregon were at an all time high. Topics for speaking requests mirrored the areas where the larger numbers of pesticide violations have occurred. Speaking requests were conducted mostly in conjunction with day long multi-program agendas put on by grower groups, the Department of Agriculture, or the Oregon State University Extension Service. Attendees earned credits for maintaining for their pesticide licenses. These multi-program events carried the greatest attendance numbers (**Figures 8 and 9**).

Conclusion

The Pesticide Emphasis Program had an exceptional year. OR-OSHA was able to partner with other state agencies and grower groups to support the increased demand for pesticide-related training. The annual Pesticide Inspectors Forum was held with staff from multiple sections within OR-OSHA, Oregon Department of Agriculture and EPA. OR-OSHA makes available to employers and workers a full array of services which are used extensively.

Inspections in general farming (NAICS 111998) doubled from 11 to 22 in FFY 2009. The number of serious violations cited for pesticide related violations, in that NAICS, exceeded the number of other than serious violations cited. No industry NAICS codes were added to or deleted from those listed in the program directive based on this annual review.

Accomplishments

- ◆ The development of a forestry specific WPS poster was completed in FY 2009. This poster, the first of its kind in the United States, was distributed to the forestry sector, the Pacific Northwest Agriculture Safety and Health Center and EPA Region 10. A picture of the poster is on the cover of this report.
- ◆ Division 2, General Industry was amended to include the Worker Protection Standard, to apply to those industries which fell outside Division 4, when the WPS was originally adopted.

Goals for the coming year

- ◆ Conduct inspections where pesticide applications have been identified in silviculture-related operations.
- ◆ Develop a guidance document in the selection, care and use of personal protective equipment related to pesticides.
- ◆ Improve the coordination and delivery of pesticide-related public speaking requests through the OR-OSHA Public Education section, given the increased interest for continuing education programs for licensed pesticide applicators.
- ◆ Disseminate information provided by Oregon Department of Agriculture regarding new soil fumigation requirements to growers and Integrated Pesticide Management programs for K-12 and Community Colleges (See Senate Bill 637).

Combined Inspection Data FY 2009

Figure 1

NAICS	# INSP	INSP. W/ VIOL.	WPS VIOLATIONS		WPS # Repeat	WPS Penalties	PESTICIDE RELATED VIOLATIONS		# REPEAT	PESTICIDE RELATED PENALTIES	# EMPLOYEES
			SER.	OTS			SER.	OTS			
111339	17	13	2	23	0	\$165	7	23	0	\$970	208
111421	31	27	9	60	0	\$1000	24	60	0	\$1705	1168
111998	22	18	6	43	0	\$1115	36	19	0	\$2865	501
115112	3	3	1	2	0	\$100	4	3	0	\$1100	42
111211	1	1	6	0	0	\$2250	2	0	0	\$2500	14
111219	3	3	0	9	0	0	0	2	0	0	23
111334	1	1	4	2	0	\$900	0	1	0	0	20
111332	1	1	0	6	0	0	3	5	0	\$165	8
112111	1	1	0	0	0	0	3	3	0	\$165	7
113210	1	1	0	2	0	0	0	1	0	0	15
115115	1	1	2	5	0	\$100*	1	3	0	0	15
444220	1	1	0	4	0	0	1	2	0	\$165	7
561730	1	1	0	0	0	0	0	2	0	0	4
621493	1	1	0	0	0	0	1	0	0	\$810	25
712130	1	1	0	0	0	0	1	1	0	\$210	35
TOTALS FY 2009	86	74	30	156	0	\$5630	83	125	0	\$10655	2092

**indicates part of a grouped violation*

Combined Inspection Data FY 2002-2008

Figure 2

	# INSP	INSP. W/ VIOL.	WPS VIOLATIONS		WPS # Repeat	WPS Penalties	PESTICIDE RELATED VIOLATIONS		# REPEAT	PESTICIDE RELATED PENALTIES	# EMPLOYEES
			SER.	OTS			SER.	OTS			
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	\$12860	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

Figure 2 is a compilation of the previous years' summary table.

TYPES OF INSPECTIONS

Figure 3

NAICS	111339	111421	111998	111211	111219/ 111334	111332	112111/ 113210	115112	115115	444220	561730/ 621493	Totals
Programmed	15	27	20	0	3	1	1	3	1	1	0	72
Complaint	1	3	1	0	1	0	1	0	0	0	0	7
Referral	1	1	1	1	1	0	0	0	0	0	2	7

PESTICIDE ENFORCEMENT ACTIVITY IN SELECTED NAICSs

Figure 4

NAICS	111339	111421	111998	115112	TOTALS
#Attempts	19	32	29	4	84
# Inspections	17	31	22	3	73
* Tier 1	17	27	18	3	65
* Tier 2	0	4	4	0	8
# Employees	208	1171	501	42	1922
# Inspections With Violations	13	27	20	3	63
% Inspections with Violations	76%	87%	91%	100%	86%

*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 5

NAICS	111211	111219	111334	111332	113210	115115	444220	561730	712130	TOTALS
# Attempts	1	3	1	1	1	1	1	1	1	11
# Inspections	1	3	1	1	1	1	1	1	1	11**
* Tier 1	1	3	1	1	1	1	1	0	0	9
* Tier 2	0	0	0	0	0	0	0	1	1	2
# Employees	14	23	20	8	15	15	7	4	35	141
# With Violations	1	3	1	1	1	1	1	1	1	11
% Inspections with Violations	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

*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

** Two Inspections fell outside the coverage of the Worker Protection Standard and are not included in the table.

FY 2009 WPS Inspection History Summary

Figure 6

<u>WPS Tier One</u> Type of OR-OSHA Encounter	Inspections with WPS violations	Inspections with only PRV* [#]	No PRV violations	Ag Exempt**	In Compliance	TOTAL
Never inspected before	22	2	0	1	1	26
Previous health inspection	10	0	1	0	4	15
Previous health > 5 years	9	1	0	0	0	10
Previous safety inspection	19	1	1	1	1	23
Total:	60	4	2	2	6	74

*PRV= pesticide related violation, e.g., hazard communication, personal protective equipment, storage, etc.

** = an employer who has less than 10 employees, 4 hours of annual training, a comprehensive consultation every 4 years, no disabling illnesses or injuries in the previous 2 years, and no valid complaints

Figure 7

<u>WPS Tier Two</u> Type of OR-OSHA Encounter	Inspections with only PRV	No PRV	No Violations	Total
Never inspected before	0	0	1	1
Previous health inspection	1	0	1	2
Previous safety, ag labor housing or field sanitation	5	2	0	7
Total:	6	2	2	10

Two inspections fell outside the scope of the Worker Protection Standard and are not included in the above tables.

*PRV= pesticide related violation

Pesticide Related Interventions – External Training

Figure 8

<u>Number of agriculture classes held</u>	
<ul style="list-style-type: none"> • 401 – Worker Protection Standard, workshops and on site training 	21
<ul style="list-style-type: none"> • 203 – Personal Protective Equipment, workshops, on-site training and Internet courses 	4
<ul style="list-style-type: none"> • 205 – Hazard Communication Program, workshops, on-site training, and Internet courses 	26
Total number in attendance	614

Figure 9

<u>Speaking Requests</u>	<u># In Attendance</u>
<ul style="list-style-type: none"> • Oregon Agricultural Chemical & Fertilizer Association (Pendleton, Wilsonville and Eugene) Fumigation Mgmt Plans 	466
<ul style="list-style-type: none"> • Respiratory Protection, Chemeketa Community College* 	35
<ul style="list-style-type: none"> • General Ag Training 	25
<ul style="list-style-type: none"> • Horticulture Society, Worker Protection Standard* 	20
<ul style="list-style-type: none"> • Pesticides: WPS, Pesticide Storage, Hazard Communication, PPE; Montana* 	22
<ul style="list-style-type: none"> • Chemical Applicator Short Course: Respirators for Agriculture 2 sessions* 	360
<ul style="list-style-type: none"> • Agriculture Rules for Hazardous Materials Storage (Technical) 	16
<ul style="list-style-type: none"> • OR-OSHA’s Pesticide Emphasis Program (for ODA’s staff)* 	15
<ul style="list-style-type: none"> • Agriculture Safety & Pesticides (Stayton High School)* 	10
	969

**Speaking request conducted by Health Compliance Officers*

Pesticide Related Interventions – Resource Center

Figure 10

OR-OSHA Publications (quantity) distributed through:	OR-OSHA Field Offices	External Requests
“Safe Practices When Handling Agricultural Chemicals” brochure	12300	11270
Washing pesticide contaminated clothing magnet (Spanish)	75	13
Washing pesticide contaminated clothing (English)	400	128
Cultivate a Safe Environment	150	21
The Air You Breathe	1050	16
Field Sanitation Notice	1100	29
Agriculture Seasonal Worker Orientation	450	13
Division 4, Agriculture	75	13

Pesticide Related Interventions – Consultative Services – Conferences*

Figure 11

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

*Conferences where OR-OSHA services/publications available through conference booth

Pesticide Related Interventions – Consultative Services – Consultations by NAICSS

Figure 12

	111339	111421	111998	11512	Total
Health	0	15	5	0	20
Safety*	68	36	15	1	120

*Does not include pesticides, but identifies outreach potential

**OR-OSHA RESOURCE CENTER PESTICIDE RELATED VIDEOS
2009**

Requests filed from October 1, 2008-September 30, 2009

Figure 13

#	Name	English	Spanish	Times Req.
464	EPA WPS for Orchard Workers	x	x	1
465	EPA WPS for Pesticide Handlers	x	x	3
474	Oregon Pesticide Safety Guide	x		1
475	Oregon Pesticide Safety Guide		x	1
384	Greenhouse Pesticide Safety Training Workers & Handlers	x	x	2
352	How to Conduct Worker Protection Training/Train the Trainer	x		5
380	Pesticide Handlers and the Worker Protection Standard	x		0
383	Pesticide Handlers and the Worker Protection Standard		x	4
600	Pesticide Safety: Help Workers Protect Themselves	x		0
608	Pesticide Safety: Help Workers Protect Themselves		x	2
323	Pesticide Safety Worker Protection Oregon DVD # 95	x	x	3
392	Pesticide Training for Agricultural Employees	x	x	3
327	Shedding Some Light on Pesticide Protection	x		2
332	Worker Protection Standard An Overview	x		1
1051	Protecting Yourself From Pesticide Hazards	x	x	0
446/ 447	Breathe Easy: Respiratory Protection Program DVD #72	x	x	0

TOTAL 28