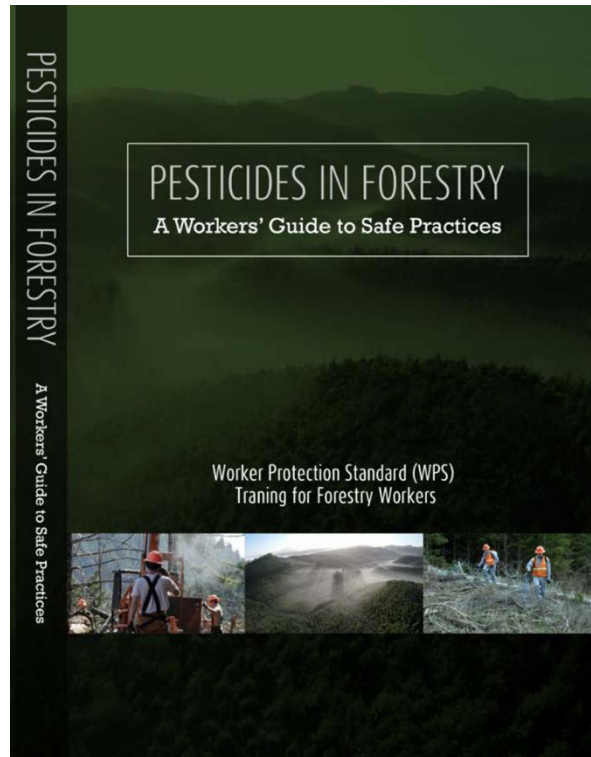


OREGON OSHA PESTICIDE EMPHASIS PROGRAM ANNUAL REPORT Federal Fiscal Year 2016



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Introduction:

Oregon OSHA and the United States Environmental Protection Agency (EPA), Region 10 Pesticides and Toxics Unit, collaborate on pesticide safety issues. Oregon OSHA enforces the Worker Protection Standard, which is supplemented with a pesticide emphasis program. This report is the annual review of the pesticide emphasis program for federal fiscal year 2016 (FY2016). 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 Oregon OSHA’s Program Directive A-235, entitled “Local Emphasis Program for Pesticides.” Inspections were completed from a programmed list selected from these North American Industrial Classification System (NAICS) codes which will be referred to as “selected NAICSs” for the purposes of this report.

- NAICS 111998 General farming, field Crops, except Cash Grains, Not Elsewhere Classified
- NAICS 111339 Deciduous Tree Fruits
- NAICS 111421 Nurseries & Tree Production
- NAICS 111422 Floriculture Production
- NAICS 115112 Crop preparation including pesticide spraying

NAICS were selected based on the amount and toxicity of pesticides in use, frequency of pesticide applications, the diversity of crops, and the number of workers employed, and work practices in use. 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:

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 the pesticide-related standards such as the Worker Protection Standard, Hazard Communication, Respiratory Protection, Pesticide Storage, Fumigation, Thiram, and supervision. Implementation of these requirements can reduce the likelihood of exposures resulting in acute or chronic effects. 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 FY2016 activity. Please see each section for tables and explanations of each.

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◆ **Inspection Activity:**

In FY2016, 51 inspections were done, with 47 inspections (92%) resulting in citations, and covering 1131 employees. The Worker Protection Standard (WPS) was applicable in 37 inspections, indicated by Tier 1 and Tier 2 in the table below. WPS Tier 1 inspections accounted for 60% (31/51) of the pesticide emphasis inspections, and 12% (6/51) were Tier 2. For all WPS inspections, 83% (31/37) were classified as Tier 1. Inspections where pesticides have been used within the preceding 30 days plus the restricted entry interval are classified as Tier 1; inspections where pesticides have not been used within the preceding 30 days plus the restricted entry interval are classified as Tier 2.

In the selected NAICS, 31 inspections were conducted with citations issued in 29 cases, of these, 87% (27/31) were classified as WPS Tier 1 inspections. Of the 51 pesticide emphasis inspections, 29% (15/51) fell outside the scope of the Worker Protection Standard.

Statistics for Completed Inspections by Industry (NAICS), FY2015

Industry (NAICS)		Completed inspections	Citation issued	In compliance	Percent with citation issued	Percent in compliance	WPS Tier 1	WPS Tier 2	Pesticide Emphasis, Non-WPS	Employees covered
Selected NAICS	111339	10	10	0	100	0	10	-	-	193
	111421	9	8	1	89	11	7	2	-	242
	111422	5	5	0	100	0	4	1	-	78
	111998	6	5	1	83	17	5	1	-	32
	115112	1	1	0	100	0	1	-	-	3
	111219	2	1	1	50	50	1	1	-	9
	111211	1	1	0	100	0	-	1	1	2
	111332	1	1	0	100	0	-	-	1	4
	111334	1	1	0	100	0	1	-	-	250
	112310	2	2	0	100	0	-	-	2	53
	115310	2	2	0	100	0	1	-	1	13
	312130	1	1	0	100	0	-	-	1	2
	325320	1	0	1	0	100			1	12
	333210	1	1	0	100	0	-	-	1	17
	444220	1	1	0	100	0	1	-	-	13
	453220	1	0	1	0	100	-	-	1	20
	561730	3	3	0	100	0	-	-	3	55
	722110	1	1	0	100	0	-	-	1	45
	722310	1	1	0	100	0	-	-	1	12
	813410	1	1	0	100	0	-	-	1	76
Total		51	47	4	92%	7%	31	6	15	1131

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2016

Based on the types of inspections listed below, 30 were programmed planned and 25 of these were completed in the selected NAICS. There were 15 complaint inspections with 86% (13/15) receiving citations; of these 66% (10/15) had serious violations. There were 6 referrals in FY2016 with 83% (5/6) receiving citations; of all which had serious violations.

Attempted and completed inspections by inspection type and industry (NAICS), FY2016

	Total	Selected NAICS					Other NAICS
		111339	111421	111422	111998	115112	
Total completed inspections	51	10	9	5	6	1	20
Complaint	15	1	2	1	1	-	10
Referral	6	-	-	-	-	1	5
Programmed Planned	30	9	7	4	5	-	5
Attempted (triple zero)	17	8	2	-	6	-	1

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2016

◆ Violation characteristics:

The following table highlights the distribution of violations. In FY2016, there were 240 pesticide related violations cited with penalties totaling \$9470. WPS penalties accounted for \$3110. In the selected NAICS 182 violations were cited with penalties totaling \$5010. WPS violations accounted for 46% (83/182) of those violations with penalties totaling \$2640. Pesticide-related violations accounted for 99 violations with penalties totaling \$2370. Other pesticide-related violations include the Oregon OSHA standards addressing hazard communication, respiratory protection, personal protective equipment, emergency eyewash, supervision, pesticide storage, and work-site inspections.

Pesticide Violations and Penalties in FY2015 Totals

Industry (NAICS)		Total Pesticide Related Violations	WPS Violations				Other Pesticide Related Violations			
			Serious	Other than serious	Repeat	Total penalties	Serious	Other than serious	Repeat	Total penalties
Selected NAICS	111339	53	3	17	-	\$630	13	20	-	\$1300
	111421	41	8	10	-	\$860	5	18	-	\$120
	111422	51	5	23	-	\$540	10	13	-	\$480
	111998	30	3	11	-	\$360	5	11	-	\$320
	115112	7	2	1	-	\$250	2	2	-	\$150
	Totals	182	21	62	-	\$2640	35	64	-	\$2370
	111211	2	-	-	-	0	2	-	-	\$300
	111219	7	1	2	-	\$120	3	1	-	\$0
	111332	4	-	-	-	0	1	3	-	\$120
	111334	2	2	0	-	\$350	-	-	-	\$0
	112310	8	-	-	-	0	8	-	-	\$500
	115310	4	-	1	-	0	3	-	-	\$220
	312130	3	-	-	-	0	1	2	-	\$150
	325320	0	-	-	-	0	-	-	-	\$0
	333210	7	-	-	-	0	7	-	-	\$1840
	444220	3	-	3	-	0	-	-	-	\$10
	561730	11	-	-	-	0	11	-	-	\$500
	722110	6	-	-	-	0	6	-	-	\$360
	722310	1	-	-	-	0	-	1	-	\$0
	Totals	58	3	6	-	\$470	42	7	0	\$3990
Grand Total		240	24	68	0	\$3110	77	71	0	\$6360

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2016

If a WPS violation is grouped with another violation, the WPS and non-WPS violations are counted separately, but the penalty amount for the whole group is retained with the WPS violation.

The violations below are classified as either handler or worker related using the definitions of the Worker Protection Standard. A handler is an employee who either mixes, loads, applies, or works on spray equipment and can be exposed to the concentrated form of the pesticide. Workers are employees who are working with plant materials that may have pesticide residue on them. The most frequently violated standards were for personal protective equipment (PPE-Respirators and PPE-Other).

Pesticide Violations Cited in FY2016

Violation type		Violations
Handler related	PPE Respirators	41
	PPE- Other	38
	Hazard communication	32
	Pesticide storage	24
	Central posting	22
	Training	16
	Decontamination	13
	Emergency eyewash	12
	Label specific information	1
	Health Hazard Control Measures/Hazard ID	5
	Emergency Aid	1
Worker related	Central posting	15
	Training	8
	Safe Practices brochure	6
	Notification to workers	4
	Decontamination	2
	Non-pesticide related	30

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2016

Pesticide Analytical Response Center (PARC) Cases: For the eight PARC cases listed, WPS applied in only 3 cases. The pesticides involved were primarily herbicides (42%) and disinfectants (32%). Of the 6 cases with multiple exposures, 66% involved disinfectants.

PARC Cases with Oregon OSHA Involvement in FY2015									
Source	Exposure Type	Product	Signal Word	# Exp	Type of Establishment	WPS Applies	Citation Issued	Primary cause	Medical Treatment sought
C	Indirect/nearby application	Sniper	Warning	3	Farming/Nursery	✓	✓	Failure to provide notification	no
C*	Dermal contact with residues	Switch, Mustang & Pristine	Warning, Caution	>1	Farming/nursery	✓	✓	Failure to train, notification	yes
C	Drinking water	Multiple		1	Farm	✓	✓	Improper storage	no
C	Inhalation	Pulsar Plus Calcium Hypochlorite Briquetts	Danger	1	Public pool		✓	Elevated levels of trichloramine	no
C*	Splash	PQ 80	Danger	1	Potato Warehouse		✓	Lack of PPE, training	yes
C*	Inhalation	Pyranha	Caution	1	Poultry housing		✓	Improper respiratory protection	yes
C*	Dermal exposure	Dicamba, Glyphosate	Danger, Caution	1	Landscaping		✓	No training, no decontamination	yes
R	Inhalation	Pheromones	n/a	1	Pheromone Mfg			Provided voluntary respirator/has beard	yes

Source: C = Complaint filed with Oregon OSHA; R = Referral from PARC; OERS = Oregon Emergency Response System; # exp = the number exposed; ER= Report of hospitalization submitted by employer; * indicates narrative to follow.

◆ Six PARC Cases Highlighted

The following narratives (referenced in the previous table with an asterisk) provide a synopsis for six cases.

The investigation involved a complaint of adverse health effects of headache, skin irritation and dizziness reported by workers harvesting blackberries. Employees could readily see white residues on the blackberry leaves yet they were provided no WPS training or notification about pesticide applications despite pesticides being applied every 10 days. The blackberries were covered by large hoop structures covered with plastic which also increased the temperatures of already hot days. No training was provided to supervisors on heat stress which sent one employee to urgent care. Symptoms other workers experienced could have resulted from heat, pesticide exposure, plant contact, or from a combination thereof. The employer was cited for lack of WPS training, not providing pesticide application information and failure to provide heat stress awareness training to supervisors.

A lack of personal protective equipment (PPE) and training on chemical hazards were underlying factors that resulted in two non-WPS pesticide exposures. One involved a splash from a disinfectant, the other involved dermal contact from handling lawn clippings wet with herbicides. Both employees sought medical care.

Another non-WPS case involved an employee applying an insecticide inside poultry confinement housing who experienced adverse respiratory effects after performing the activity alone, which normally involved two employees. The employer was cited for multiple respiratory protection violations including providing the incorrect type of respirator cartridges.

Consultative Services FY2016

Consultations which addressed WPS in FY 2016	
All NAICS	
Total	26

*Source: Information Management Division,
Oregon Department of Consumer and Business Services, December 2016*

◆ External Training:

External training consists of speaking requests performed in conjunction with Oregon Department of Agriculture credit events and workshops put on by the Oregon OSHA Public Education Section. Speaking requests were conducted mostly in conjunction with day long multi-program agendas put on by grower groups, such as the Horticultural Society, the Oregon Agricultural Chemical and Fertilizer Association, the Oregon Department of Agriculture, or the Oregon State University Extension Service, for the purpose of maintaining credits for pesticide licensees.

Oregon OSHA speaking requests in FY2016

Date	Topic	Attendees
10/13/2015	OVMA PPE for Pesticide Applicators	300
11/3/2015	OACFA Pesticide Storage	110
11/4/2015	OACFA Pesticide Storage	120
11/5/2015	OACFA Pesticide Storage	240
12/3/2015	EPA PREP Oregon OSHA Ag Respiratory Protection	49
12/11/2015	Respiratory Protection for Ag Ops	19
1/5/2016	OSU Learning from History: Preventing Pesticide Spills	225
1/12/2016	OSU Repetitive Issues with PPE & Changes to WPS	115
1/26/2016	Horticulture Society Pesticide Safety Workshop	23
1/27/2016	Horticulture Society Pesticide Safety Workshop	37
1/28/2016	Horticulture Society Pesticide Safety Workshop	25
2/3/2016	OSU The Label & PPE	100
2/9/2016	Forestry WPS	70
3/18/2016	WPS & Complaint Procedures in Forestry	23
5/12/2016	Oregon OSHA 101 for Cannabis	60
8/3/2016	Forestry WPS	57
		1650

Classes (Workshop & Internet)	Sessions	Attendees
Hazard Communication – Aligned with GHS (HazCom)	6	472
Personal Protective Equipment (PPE)	Internet	543
Worker Protection Standard (WPS)	7	96
		1,111

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2016

Public Outreach: Oregon OSHA tracks publication circulation and video requests. The next few tables show activity for FY2015.

Oregon OSHA Publications in FY2016

Titles	Number Distributed
Pesticide Use and Your PPE	789
Safe Practices When Working Around Agricultural Chemicals (English/Spanish)	7388
Air You Breathe: Oregon OSHA's Respiratory Protection Guide for Agricultural Employers	517
Pesticide Worker Protection Standard reference guide	584
Agricultural Activities AO 3-2014	26

Oregon OSHA Resource Center Pesticide-related Videos, FY2016

No	Name	English	Spanish	Requests
72	BREATHE EASY - RESPIRATOR SAFETY (E/S)	X	X	4
447	BREATHE EASY: A RESPIRATORY PROTECTION PROGRAM (SPANISH)		X	1
67	HAZARD COMMUNICATION - AGRICULTURE SERIES		X	1
352	HOW TO CONDUCT WORKER PROTECTION TRAINING/TRAIN THE TRAINER	X		1
474	OREGON PESTICIDE SAFETY GUIDE (FLIP CHART)	X		1
171	PESTICIDE HANDLERS AND THE WORKER PROTECTION STANDARD		X	1
151	PESTICIDE PROTECTION TRAINING FOR AGRICULTURAL WORKERS (E/S)	X	X	6
95	PESTICIDE SAFETY WORKER PROTECTION (1987. REV 1997)	X	X	2
1051	PROTECTING YOURSELF FROM PESTICIDE HAZARDS IN THE WORKPLACE	X	X	1
				18

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2016

◆ Oregon Pesticide Symposium—Multi-Agency Annual Meeting:

The annual Oregon Pesticide Symposium was held in March 2016, and included even more agencies with the inclusion of Cannabis topics. Agencies represented included: Oregon OSHA, Oregon Department of Agriculture, Oregon Department of Forestry, Oregon Department of Environmental Quality, Oregon Health Authority, Oregon Liquor Control Commission, Oregon Department of Transportation, Oregon State Fire Marshal, Oregon Institute of Occupational Health Sciences, the National Pesticide Information Center, the Marion Soil and Water Conservation District, Oregon State Police, Marion County Sheriff's Office, Oregon State University and the EPA Region 10.

◆ Conclusions:

The working relationships between Oregon OSHA and the EPA Pesticides Unit (Region 10) remain positive and productive. Oregon OSHA has continued to provide assistance to the EPA on developing solutions to the outdated and incorrect respirator language on pesticide labels. The Oregon Pesticide Symposium provides opportunities for agencies to collaborate and coordinate around pesticide safety and worker protection issues. The number of agencies present and people in attendance has grown. PARC remains a vital connection for communicating and coordinating agency actions related to pesticide exposure incidents.

◆ Accomplishments:

- ◆ The nation's first Worker Protection Standard for Forestry Workers video was released! This video was accomplished after years of effort by the collaborative work of Oregon OSHA, Oregon Department of Agriculture, EPA Region 10 and produced by Slipstream media.
- ◆ Oregon OSHA participated in Oregon's first Cannabis Symposium for state regulatory agencies hosted by the Oregon Department of Agriculture
- ◆ Expanded the Oregon Pesticide Symposium to include all Oregon pesticide agencies that either conduct investigations or conduct activities in support of an investigation based upon each agency's regulatory authority. Participants reviewed pesticide cases to better understand each agency's roles and responsibilities, engaged in activities designed to foster information exchange and improve communication.
- ◆ Oregon OSHA maintained a national presence by participating in the Pesticide Educational Resource Collaborative efforts to review development of outreach materials to aid stakeholders with achieving compliance the Worker Protection Standard Revisions.
- ◆ Established uniform written procedures to make pesticide incident referrals to the Pesticide Analytical and Response Center (PARC).

◆ Goals for the coming year:

- ◆ Collaborate with Oregon Department of Agriculture and Oregon State University to develop a WPS Train-the-Trainer program for Oregon.
- ◆ Develop outreach for the newly regulated marijuana industry with regards to pesticide use.
- ◆ Present an entire track at the Governor's Occupational Safety and Health Conference on the health and safety aspects associated with the emerging Cannabis industry.
- ◆ Partner with the Oregon Department of Agriculture to provide outreach and education on the use of the compressed gas, Sulfur Dioxide – newly registered as a Restricted Use Pesticide- to wineries who use the product to disinfect empty wine barrels.
- ◆ Continue to develop, update and provide assistance to the regulated communities regarding the changes made to the Worker Protection Standard.
- ◆ Finalize changes to the Worker Protection Standard made by EPA.