

**OREGON OSHA
PESTICIDE EMPHASIS PROGRAM
ANNUAL REPORT
Federal Fiscal Year 2018**



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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 2018 (FY2018). 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 111219 & 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 111332 Grape Vineyards
- NAICS 111419 Crops Grown Undercover (primary focus Cannabis)
- NAICS 113110 Timber Tract Operations
- 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, 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 FY2018 activity. Please see each section for tables and explanations of each.

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◆ **Inspection Activity:**

In FY2018, 57 inspections were done, with 52 inspections (91%) resulting in citations, and covering 1,139 employees. The Worker Protection Standard (WPS) was applicable in 41 inspections, indicated by Tier 1 and Tier 2 in the table below. For all pesticide emphasis inspections where WPS was applicable, 87% (36/41) were classified as Tier 1 and 12% (5/41) were Tier 2. 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, 34 inspections were conducted with citations issued in 32 cases, of these, 81% (26/32) were classified as WPS Tier 1 inspections. Of the 57 pesticide emphasis inspections, 28% (16/57) fell outside the scope of the Worker Protection Standard.

Cannabis inspections occurred in 4 different NAICS codes and were combined together under Cannabis. Of the 34 inspections in the selected NAICS, 38% (13/34) occurred in Cannabis. Ninety-two percent carried violations.

Statistics for Completed Inspections by Industry (NAICS), FY2018

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	111219	2	2	-	100	0	2	-	-	4
	111332	2	2	-	100	0	1	1	-	11
	111339	4	4	-	100	0	4	-	-	81
	111421	8	8	-	100	0	5	2	1	151
	111998	5	4	1	80	20	2	1	2	74
	Cannabis	13	12	1	92	8	12	1	-	100
	111211	2	2	-	100	0	2	-	-	24
	111140	1	1	-	100	0	1	-	-	6
	112910	1	1	-	100	0	-	-	1	10
	113210	1	0	1	-	100	1	-	-	6
	115115	3	2	1	67	33	2	-	1	428
	115310	4	3	1	75	25	4	-	-	94
	312130	1	1	-	100	0	-	-	1	10
	321114	1	1	-	100	0	-	-	1	30
	561710	1	1	-	100	0	-	-	1	1
	561730	3	3	-	100	0	-	-	3	17
	621999	1	1	-	100	0	-	-	1	27
	713910	1	1	-	100	0	-	-	1	10
	721110	1	1	-	100	0	-	-	1	35
	722211	1	1	-	100	0	-	-	1	14
921140	1	1	-	100	0	-	-	1	6	
Total		57	52	5	91%	9%	36	5	16	1139

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2018

Based on the types of inspections listed below, 31 were programmed planned. There were 13 complaint inspections with 77% (10/13) receiving citations; of these 50% (5/10) had serious violations. One complaint had two repeat violations. There were 8 referrals in FY2018 with 88% (7/8) receiving citations; with 100% (7/7) having serious violations. Complaints accounted for 22% (13/57) of the total inspections conducted.

Attempted and completed inspections by inspection type and industry (NAICS), FY2018

	Total	Selected NAICS					Other NAICS
		111339	111421	111422	111998	115112	
Total completed inspections	57	4	9	1	9	-	34
Complaint	13	-	2	-	3	-	8
Referral	8	-	-	-	-	-	8
Programmed Planned	31	4	7	1	5	-	15
Unprogrammed related	2	-	-	-	-	-	2
Accident/Fatality	1	-	-	-	-	-	1
Monitoring	1	-	-	-	1	-	-
Attempted (triple zero)	6	1	3	1	-	-	1

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2018

◆ Violation characteristics:

The following table highlights the distribution of violations. In FY2018, there were 238 pesticide related violations cited with penalties totaling \$11,345. WPS penalties accounted for \$4,660. In the selected NAICS 189 violations were cited with penalties totaling \$5,545. WPS violations accounted for 40% (76/189) of those violations with penalties totaling \$1,990. Pesticide-related violations accounted for 113 violations with penalties totaling \$3,555. Pesticide related violations in the Cannabis sector accounted for 39% (74/189). These violations totaled \$3,715, 78% of the total. Non-WPS pesticide-related violations include the Oregon OSHA standards addressing hazard communication, respiratory protection, personal protective equipment, emergency eyewash, fumigants, supervision, pesticide storage, and work-site inspections.

Pesticide Violations and Penalties in FY2018 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	111219	7	-	5	-	-	-	-	2	680
	111339	30	-	16	-	-	-	14	-	0
	111332	4	-	1	-	-	1	2	-	100
	111421	47	1	16	-	180	5	25	-	350
	111998	27	1	7	-	300	4	15	-	220
	Cannabis	74	12	17	-	1510	17	28	-	2205
Totals		189	14	62	-	\$1990	27	84	2	\$3555
	111211	9	6	-	-	1540	1	2	-	0
	111140	1	-	1	-	-	-	-	-	-
	112910	4	-	-	-	-	3	1	-	100
	113210	0	-	-	-	-	-	-	-	0
	115115	1	1	-	-	560	-	-	-	0
	115310	3	2	-	-	570	1	-	-	270
	312130	2	-	-	-	-	1	1	-	100
	321114	2	-	-	-	-	1	1	-	120
	561710	1	-	-	-	-	1	-	-	420
	561730	9	-	-	-	-	5	4	-	920
	621999	2	-	-	-	-	-	2	-	0
	713910	1	-	-	-	-	-	1	-	0
	721110	2	-	-	-	-	2	-	-	420
	722211	6	-	-	-	-	6	-	-	240
	921140	6	-	-	-	-	6	-	-	540
Totals		48	9	0	-	\$2670	27	12	0	\$3130
Grand Total		238	23	63	-	\$4660	54	96	2	\$6685

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2018

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), hazard communication and pesticide storage.

Pesticide Violations Cited in FY2018

	Violation type	Violations
Handler related	PPE Respirators	42
	PPE- Other	24
	Hazard communication	40
	Pesticide storage	16
	Training	21
	Decontamination	6
	Emergency eyewash	7
	Health Hazard Control Measures/Hazard ID	4
	Label specific information	4
	Equipment Inspections	1
Worker related	Display of Pesticide Info	35
	Providing Establishment Specific Info	2
	Training	13
	Safe Practices brochure	13
	Notification to workers	1
	Eating in area w/ toxins	1
	Decontamination	8
	Non-pesticide related	25

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2018

Pesticide Analytical Response Center (PARC) Cases: For the seven PARC cases listed, WPS applied in three cases. The pesticides involved varied greatly. Four of the seven PARC cases originated as complaints to Oregon OSHA. There were five cases with multiple people exposed. Bystander exposures accounted for the most frequent route of exposure.

PARC Cases with Oregon OSHA Involvement in FY2017									
Source	Exposure Type	Product	Signal Word	# Exp	Type of Establishment	WPS Applies	Citation Issued	Primary cause	Medical Treatment sought
C	Working in field-field treated 2 weeks prior	Palisade EC EPA # 100-949 QuiltXcel EPA # 100-1324	All Warning	1	Grass seed	✓	✓	Confused pollen with pesticides, pre-existing allergies	✓
PARC	Handling seedlings	No pesticides recently applied	n/a	3	Tree nursery	✓		Possible plant related dermatitis	✓
C*	Use	T-Zone EPA # 2217-976 Ranger Pro EPA#524-517 Scythe EPA # 10163-325	Caution Caution Warning	1	Landscaping		✓	Backpack application equipment leaking- no decontamination	
C*	Bystander: Ag Labor housing	Luna Experience EPA # 264-1091 Fyfanon ULV EPA # 279-3540 Omni Imidacloprid 4F EPA #38167-415905 Success Naturalyte EPA # 62719-292	All Caution	3+	Orchard	✓	✓	Diarhea/stomach pain Not pesticide related(possible foodborne illness)	✓
OERS	Bystander - Reaction of Incompatibles	Oasis 146 Multi-Quat EPA # 1677-198 + unknown drain cleaner	Danger	2	Pizza parlor		✓	Storing/mixing incompatible chemicals- spill initiated reaction possible chlorine gas	
OERS*	Bystander	Steri-fab EPA # 397-13	Warning	9	Hotel		✓	Ventilated into enclosed work area (long hallway) where employees were working	✓
C	Bystander	Crossbow EPA # 62719-260-829	Caution	2	City landscaping		✓	Failure to notify other employees in work area	✓

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.

Four PARC Cases Highlighted

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

A complaint was received regarding a suspected exposure to labor housing occupants. Workers reported multiple cases of stomach pain and diarrhea shortly after they began harvesting cherries. Their labor housing unit was located near both a vineyard and cherry orchard on the same property. Workers believed pesticide applications occurred because the workers could hear tractors at night, and were concerned that their outdoor cooking areas had been exposed to pesticide contaminated dust blowing from the vineyard. They did not view any suspected instances of drift. A series of communication issues were identified after employees reported their illnesses to their supervisor who failed to pass the information up the chain. The orchard failed to post pesticide application information to keep the employees informed. The investigation could not determine whether pesticides were the source of the diarrhea, however it was even more likely a result of communicable disease. A serious and other than serious violation were alleged for the communication issues.

A referral was received from the Oregon Emergency Response System (OERS) to Oregon OSHA who in turn notified PARC about a pest control company that made a pesticide application at a hotel that sent 4 people to the hospital. A joint investigation by Oregon OSHA and the Oregon Department of Agriculture ensued that revealed that the pest control operator had arrived at a hotel to treat 2 rooms for bedbugs. The applicator opened an exterior window and left the deadbolt engaged on the door, allowing the door to remain open slightly, into a long interior hallway. Hotel staff reported a very strong odor of alcohol throughout the hallway and even at the front desk some distance away. Housekeeping staff were walking back and forth extensively in this area as the laundry room was in close proximity to the treated rooms. After the first employee lost consciousness, 911 was called. During the time the first employee was being prepped for transport, other employees experienced severe headaches, nausea and vomiting. Four employees were transported to the local hospital. Multiple attempts had been made to stop the treatment process. The fire department evacuated the hotel. The host employer -the hotel - was cited for two serious violations for failure to notify employees and provide access to Safety Data Sheets prior to the application, and the exposing employer was cited a serious hazard communication violation for the multi-employer worksite. That company was also cited for this in 2002.

A confidential complaint was received by Oregon OSHA alleging exposure to the herbicides T-Zone, Ranger Pro, and Scythe during the performance of their landscaping duties. Employees used backpack sprayers which leaked, on at least 5 separate occasions, onto the employees' backs resulting in burning, redness and skin irritation. The investigation revealed a lack of appropriate personal protective equipment, exposure to pesticide spills and a lack of decontamination supplies. Multiple serious violations were alleged. A referral was made to PARC which then involved both the Oregon Department of Agriculture for licensing issues and the Oregon Health Authority for allegations of adverse effects to pesticides.

◆ **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. Chemeketa Community College continues to offer Respiratory Protection for Agricultural Operations as well as a variation for Wineries specific to Sulfur Dioxide. Speaking requests were conducted mostly in conjunction with day long multi-pesticide agendas put on by grower groups, such as the Horticultural Society, the Oregon Agricultural Chemical and Fertilizer Association’s Pesticide Stewardship Seminars, 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 FY2018

Date	Topic	Attendees
10/12/2018	PPE for Pesticide Applicators	240
11/8/2017	Worker Protection Standard	130
11/9/2017	Worker Protection Standard	333
11/14/2017	Pesticide Inspector Safety	53
11/30/2017	Respiratory Protection for Ag Ops: SO2	29
12/5/2017	Pesticide Storage & Preventing Pesticide Spills	172
12/7/2017	Pesticide Safety within Landscaping Industries	200
1/9/2018	Learning from History: Preventing Pesticide Spills	270
2/27/2018	Pesticide Training Seminar	100
3/8/2018	Pesticide Spills and Transportation	60
3/13/2018	Oregon OSHA's Pesticide Emphasis Program	21
3/15/2018	PPE for Pesticide Applicators	30
3/15/2018	Pesticide Storage and Preventing Spills in Transportation	30
4/13/2018	Respiratory Protection for Ag Ops	7
4/16/2018	Changes to WPS	12
		1687

Pesticide Related Interventions – External Training, FY2018

Classes (Workshop & Internet)	Sessions	Attendees
Hazard Communication – Aligned with GHS (HazCom)	2	31
Worker Protection Standard (WPS)	2	22
		53

*Source: Information Management Division,
Oregon Department of Consumer and Business Services, December 2018*

Consultative Services FY2018

Consultations addressing WPS	
111339	1
111421	1
111422	1
111998	4
Other NAICS	12
Total	19

*Source: Information Management Division,
Oregon Department of Consumer and Business Services, December 2018*

Public Outreach: Oregon OSHA tracks publication circulation and video requests. The next few tables show activity for FY2018.

Oregon OSHA Publications in FY2018

Titles	Number Distributed
Pesticide Use and Your PPE	355
Safe Practices When Working Around Agricultural Chemicals (English/Spanish)	9482
Air You Breathe: Oregon OSHA's Respiratory Protection Guide for Agricultural Employers	4
Pesticide Worker Protection Standard reference guide	2
Division 4 Agriculture Rules (printed copies)	12

Oregon OSHA Resource Center Pesticide-related Videos, FY2018

	Name	English	Spanish	Requests
1177	A SAFE PLACE FOR YOUR CHILD/ UN LUGAR SEGURO PARA SUS NINOS		X	1
170	PESTICIDE HANDLERS AND THE WORKER PROTECTION STANDARD	X		1
171	PESTICIDE HANDLERS AND THE WORKER PROTECTION STANDARD	X	X	
285	PESTICIDE SAFETY FOR AGRICULTURAL WORKERS	X	X	
169	WORKING SAFELY IN THE GREENHOUSE	X		

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2018

◆ Oregon Pesticide Symposium—Multi-Agency Annual Meeting:

The annual Oregon Pesticide Symposium was held in March 2018. The Oregon Pesticide Symposium continues to provide opportunities for agencies to collaborate and coordinate around pesticide safety and worker protection issues. This year's crowd favorite was Mike Omeg of Omeg Orchards, the 2017 Good Fruit Grower of the Year, who spoke about his success in using barn owls in lieu of rodenticides. Agencies represented included: Oregon OSHA, Oregon Department of Agriculture, FBI Portland Division, Oregon Department of Forestry, Oregon Department of Environmental Quality, Oregon Health Authority, 211 Info, Oregon Department of Transportation, Oregon Institute of Occupational Health Sciences, the National Pesticide Information Center, University of Washington - PNASH, 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. PARC remains a vital connection for communicating and coordinating agency actions related to pesticide exposure incidents.

Oregon OSHA's activities in the Cannabis sector took place in all sectors of the Agency, from enforcement to consultation to training opportunities. The Oregon Department of Agriculture continues to enroll growers in their Marijuana Compliance Assistance Program (MCAP) which encourages growers to seek out the services of Oregon OSHA's consultative services program.

◆ Accomplishments:

- ◆ Rulemaking on Oregon OSHA's version of the Application Exclusion Zone was completed with over 1100 comments received. These were submitted either orally at the hearings or in written testimony, or in writing.
- ◆ Oregon OSHA coordinated outreach materials for the resulting rules, including a media outreach campaign regarding the Application Exclusion Zone.
- ◆ Oregon OSHA updated Program Directive A-235, "Local Emphasis Program for Pesticides" to add cannabis grow operations and "Pesticide Incident Referral Procedures" - SOP # 58.
- ◆ An all day session on "Cannabis - from "Seed to Shatter" was presented at the September 2018 Central Oregon Safety & Health Conference.
- ◆ Oregon OSHA revised and updated the Fact Sheet "Storage of Agricultural Pesticides."
- ◆ Oregon OSHA presented "Inspector Safety" for the Pacific Northwest Pesticide Inspector Training in November 2017.

◆ Goals for the coming year:

- ◆ Develop outreach materials for the newly regulated marijuana industry with regards to pesticide use.
- ◆ Partner with worker advocacy groups to produce easy to understand pesticide safety information for labor housing occupants.
- ◆ Update the respiratory protection publication "The Air You Breathe."
- ◆ Update the "Pesticides and PPE" brochure.
- ◆ Collaborate with the Oregon Department of Agriculture on joint outreach for the seed treatment product Thiram.
- ◆ Update the Worker Protection Standard Reference Guide
- ◆ Develop outreach materials for the second phase of the Worker Protection Standard relating to the Application Exclusion Zone.