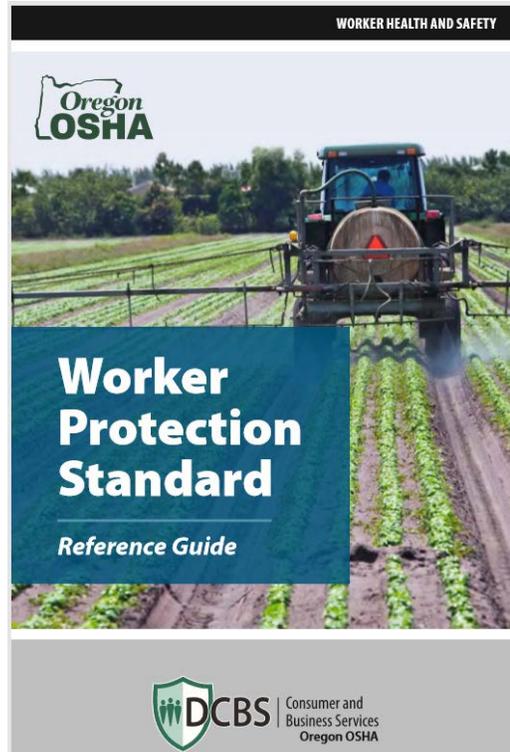


OREGON OSHA PESTICIDE EMPHASIS PROGRAM ANNUAL REPORT Federal Fiscal Year 2019



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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 2019 (FY2019). 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 FY2019 activity. Please see each section for tables and explanations of each.

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◆ **Inspection Activity:**

In FY2019, 49 inspections were done, with 39 inspections (80%) resulting in citations, and covering 649 employees. The Worker Protection Standard (WPS) was applicable in 34 inspections, indicated by Tier 1 and Tier 2 in the table below. For all pesticide emphasis inspections where WPS was applicable, 65% (22/34) were classified as Tier 1 and 35% (12/34) 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, 31 inspections were conducted with citations issued in 27 cases, of these, 66% (18/27) were classified as WPS Tier 1 inspections. Of the 49 pesticide emphasis inspections, 30% (15/49) fell outside the scope of the Worker Protection Standard.

Cannabis inspections were pulled from 2 different NAICS codes – 10 from 111998 and 2 from 111419 and listed together under Cannabis. Citations were issued in all of the Cannabis inspections.

Statistics for Completed Inspections by Industry (NAICS), FY2019

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	1	1	50	50	2			3
	111332	4	3	1	75	25	2	2		44
	111339	4	3	1	75	25	3		1	32
	111421	6	6	0	100		3	3		27
	111998	3	2	1	100		1	2		66
	Cannabis	12	12	0	100		7	4	1	87
	111419	1	1	0	100		1			1
	111940	1	0	1	-	100			1	1
	112990	1	1	0	100		1			5
	113110	1	0	1	-	100		1		19
	115115	1	1	0	100		1			10
	115116	1	1	0	100		1			55
	321912	1	1	0	100				1	40
	322130	1	0	1	-	100			1	12
	561710	2	0	2	-	100			2	7
	561730	2	2	0	100				2	28
	611110	1	1	0	100				1	40
	611210	1	1	0	100				1	3
	622110	1	1	0					1	101
	713990	1	0	1					1	20
722511	1	1	0					1	35	
923110	1	1	0					1	13	
Total		49	39	10	80%	20%	22	12	15	649

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2019

Based on the types of inspections listed below, 20 were programmed planned. There were 17 complaint inspections with 82% (14/17) receiving citations; of these 76% (13/17) had serious violations. There were 11 referrals in FY2019 with 72% (8/11) receiving citations; with 75% (6/8) having serious violations. Complaints accounted for 35% (17/49) of the total inspections conducted. Cannabis inspections in the table below were not grouped as a stand alone entity and appear under the two NAICS codes.

Attempted and completed inspections by inspection type and industry (NAICS), FY2019

	Total	Selected NAICS					Other NAICS
		111219	111339	111332	111421/ 111422	111998	
Total completed inspections	49	2	4	4	6	13	20
Complaint	17	-	2	3	-	3	9
Referral	11	1	-	-	1	1	8
Programmed Planned	20	1	2	-	5	9	3
Follow-up	1	-	-	1	-	-	-
Attempted (triple zero)	3	-	-	-	1	2	-

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2019

◆ Violation characteristics:

The following table highlights the distribution of violations. In FY2019, there were 153 pesticide related violations cited with penalties totaling \$9,125. WPS penalties accounted for \$3,565 overall. In the selected NAICS, WPS violations accounted for 48% (53/111) of the violations cited with penalties totaling \$2,835. Pesticide-related violations accounted for 58 violations with penalties totaling \$1870. WPS and pesticide related violations in the Cannabis sector accounted for 50% (56/111) of the total in the selected NAICS. The resulting penalties totaled \$2,785, 59% of the total. Pesticide-related violations, excluding WPS, 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 FY2019 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	1	-	1	-	\$0	-	-	-	\$0
	111339	11	4	3	-	\$480	3	1	-	\$360
	111332	3	1	-	-	\$100	1	1	-	\$100
	111421	29	5	11	-	\$420	2	11	-	-
	111998	11	2	-	-	\$180	6	3	-	\$280
	Cannabis	56	21	5	-	\$1655	14	16	-	\$1130
	Totals	111	33	20	-	\$2835	26	32	-	\$1870
	112990	4	2	-	-	\$100	2	-	-	\$200
	115115	14	5	-	-	\$630	9	-	-	\$630
	115116	1	-	-	-	-	-	1	-	-
	321912	2	-	-	-	-	2	-	-	\$600
	561730	9	-	-	-	-	7	2	-	\$1140
	611110	1	-	-	-	-	1	-	-	\$270
	611210	6	-	-	-	-	-	6	-	-
	622110	3	-	-	-	-	2	1	-	\$540
	722511	1	-	-	-	-	1	-	-	\$100
	923110	1	-	-	-	-	1	-	-	\$210
	Totals	42	7	0	0	\$730	25	10	0	\$3690
Grand Total		153	40	20	-	\$3565	51	42	-	\$5560

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2019

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 in 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 combined personal protective equipment (PPE-Respirators and PPE-Other) followed by combined training (hazard communication and WPS) for pesticide handlers.

Pesticide Violations Cited in FY2019

Violation type		Violations
Employer Responsibilities		3
Handler related	PPE Respirators	23
	PPE- Other	9
	Hazard communication	18
	Pesticide storage	9
	Training	27
	Decontamination	5
	Emergency eyewash, first aid	9
	Health Hazard Control Measures/Hazard ID	3
	Fumigation	1
Worker related	Label specific information	1
	Cleanup drift residue	1
	Display of Pesticide Info	20
	Providing Establishment Specific Info	1
	Training & trainer qualifications	6
	Safe Practices brochure	13
	Notification to workers	3
	Eating in area w/ toxins	1
	Non-pesticide related	23

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2019

Pesticide Analytical Response Center (PARC) Cases: For the twelve PARC cases listed, WPS applied in four cases. The pesticides involved varied greatly, as did the exposure locations- from hospitals to lumber mills. Six of the twelve PARC cases originated as complaints to Oregon OSHA. There were seven cases with multiple people exposed. Bystander exposures accounted for the most frequent route of exposure.

Source	Exposure Type	Product	Signal Word	# Exp	Type of Establishment	WPS Applies	Citation Issued	Primary cause	Medical Treatment sought
C*	Using product	Gnatrol	Caution	1	Cannabis	yes	yes	Lack of pesticide training	yes
C*	Bystander	Pyrethrum TR	Caution	2	Cannabis	yes	yes	Lack of pesticide training	no
C*	Bystander	Regalia, Grandevo, Mycotrol, Gnatrol	Caution	1	Cannabis	yes	yes	Lack of pesticide training, health hazard control issues	no
C	Bystander	440 Superior Spray Oil- EPA Reg# 2935-546	Caution	multi	Vineyard	yes	yes	Alleged drift: Application 400' away, 7 mph breeze	no
C	Bystander	Transport Mikron (Bifenthrin)	Caution	1	Restaurant	no	yes	Drift	yes
OERS	Using product	Oxvir 5	Caution	2	Recreation Center	no	no	Aggravated pre-existing condition	no
211 Info	Bystander	Mycostat P50	Danger	1	Lumber mill	no	yes	Lack of PPE, training	yes
R*	Bystander	Arilon	Caution	2	Hospital	no	yes	Inadequate communication	no
R	Bystander	Grandveo	Caution	3	Construction site	no	no	Drift	no
R*	Bystander	Nalcon 7649	Danger	12	Paper mill	no	no	Equipment malfunction	yes
211 Info*	Bystander	Leaking:48% Diazinon, 58% Malathion and Dichloron – 3% Chlorpyrifos	Legacy pesticides	Pot. multi	Residential school	no	yes	Lack of incentive to dispose of properly	no
R	Bystander	Fogger		Multi	Gov't office bldg	no	no	Employee brought pesticide into office and applied without consulting mgr.	no

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

PARC Cases Highlighted

The following narratives (referenced in the previous table with an asterisk) by the type of establishment provide a synopsis for a variety of cases.

Cannabis: Of the twelve Cannabis inspections conducted in 2019, 3 were PARC cases initiated as a result of complaints. Issues were all similar and centered around the lack of training on pesticide hazards, lack of personal protective equipment and lack of health hazard control measures. The latter occurred when grow units are located within a larger facility, and those units were ventilated into the larger facility where trimmers were working. All three of the PARC cases resulted in serious violations being cited.

Hospital: A referral was received from a county environmental health department after a pesticide application in an acute care area sickened ICU nurses. One of the unit's previous patient's personal belongings contained cockroaches, and after the patient was discharged, the hospital contacted a pest control company to address the concern. The pest control company performed the application in the discharged patient's room. The two ICU nurses were neither informed of the impending application, nor provided with the Safety Data Sheet prior to the application. They donned surgical masks in an attempt to protect themselves; however, surgical masks are not protective against pesticides. Two serious violations were alleged.

Paper mill: The PARC board representative from the Office of State Fire Marshal participated as a mediator in an after action "Hot Wash" between a paper mill, hospital and emergency responders following a pesticide event. A malfunctioning biocide injector had dumped 17 gallons into the starch cooker which sent vapors into the upstairs paper machine area and a paper testing lab resulting in 11 employees experiencing symptoms described as "being maced in the face" and respiratory irritation. The upstairs area was evacuated, and employees were evaluated by onsite emergency responders and the fire department. Employees were offered further evaluation at the nearby hospital, and the decision was made to proceed to the emergency room. One employee was sent by ambulance. The safety director had been notified about the situation at home and proceeded to the hospital with the information on the biocide, however she was prevented from entering the hospital by security. When the ambulance and the other employees, in their personal vehicles arrived, they too were stopped by security and prevented from entering the hospital. The mill employees had been working in 90 plus degree temperatures in the paper machine area, and wore short sleeves. The outdoor temperature was 34 degrees. Employees were not evaluated, nor provided with blankets and left for hours in the parking lot. After hours passed all employees, except the employee in the ambulance, went home to shower. Five returned and were immediately allowed to enter the hospital and were discharged before the employee in the ambulance. The paper mill is the largest employer in the county, and the employer with the most hazardous materials. While the mill routinely practices emergency response activities with local emergency responders, they had never included the hospital. After the incident, this practice was amended to include the hospital. It was very fortunate the affected staff were not seriously sickened. The response from the paper mill was appropriate and no violations were alleged. In addition to Oregon OSHA, the following PARC Agencies – Oregon Dept. of Agriculture, Oregon Health Authority, the Poison Control Center and the Office of State Fire Marshal were involved.

School: PARC received information from 211 Info regarding leaking old containers of pesticides at a residential school. The leaking containers were in a storage unit which held landscaping equipment, and as located adjacent to a baseball diamond and walking track of the state run school. A previous inspection many years prior had revealed legacy pesticides in the main buildings, which had been removed. This school had been on this site since 1911, and had a farm on the grounds and offered student employment. Oregon OSHA confirmed the presence of leaking legacy pesticides such as 48% Diazinon, 58% Malathion and Dichloron – 3% Chlorpyrifos, and contacted Oregon DEQ to confirm the validity of the information. Oregon OSHA cited the school for a serious storage violation and DEQ issued violations as well.

◆ **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 Northwest Ag Show, 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 FY2019

Date	Topic	Attendees
11/7/2018	AEZ and Tales from the Field	100
11/8/2018	AEZ and Tales from the Field	275
11/8/2018	Pesticide Safety Basics	100
11/27/2018	PPE for Forestry Applicators	42
12/7/2018	Respiratory Protection for Ag Ops	21
12/12/2018	Oregon OSHA's AEZ and Deciphering Respirator Language	15
1/8/2019	PPE for Pesticide Applicators (Short Course)	210
1/16/2019	Pesticide Safety Series: NW Ag Show	30
1/17/2019	Pesticide Safety Series: NW Ag Show	16
1/22/2019	PPE for Pesticide Applicators (Non-Crop)	224
2/22/2019	Respiratory Protection for Ag Ops SO2 Emphasis	27
3/1/2019	WPS for Christmas Trees	30
4/9/2019	Fruit Growers: Oregon OSHA and Multi-employer workplace	20
6/4/2019	Oregon Law Center: Oregon OSHA's Pesticide Emphasis Program	30
		1140

Pesticide Related Interventions – External Training, FY2019

Classes (Workshop & Internet)	Sessions	Attendees
Hazard Communication – Aligned with GHS (HazCom)	4	58
Worker Protection Standard (WPS)	4	59
	8	117

*Source: Information Management Division,
Oregon Department of Consumer and Business Services, December 2019*

Consultative Services FY2019

Consultations addressing WPS	
111339	4
111421	2
111422	6
111998	0
Cannabis	2
Other NAICS	22
Total	36

*Source: Information Management Division,
Oregon Department of Consumer and Business Services, December 2019*

Public Outreach: Oregon OSHA tracks publication circulation and video requests. The next few tables show activity for FY2019.

Oregon OSHA Publications in FY2019

Titles	Number Distributed
Pesticide Use and Your PPE	1279
Safe Practices When Working Around Agricultural Chemicals (English/Spanish)	11,699
Air You Breathe: Oregon OSHA's Respiratory Protection Guide for Agricultural Employers	1566
Pesticide Worker Protection Standard reference guide	2

Oregon OSHA Resource Center Pesticide-related Videos, FY2019

	Name	English	Spanish	Requests
72	BREATHE EASY	X	X	1
171	PESTICIDE HANDLERS AND THE WORKER PROTECTION STANDARD		X	1

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2019

Oregon OSHA On-Line Pesticide-related Videos, FY2019

Name	English	Spanish	Views
Application Exclusion Zone Explained	X		499
Application Exclusion Zone Explained (Spanish)		X	105

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2019

◆ Oregon Pesticide Symposium—Multi-Agency Annual Meeting:

The annual Oregon Pesticide Symposium was held in March 2019. The Symposium included a focus on the intersection between the Global Good Agricultural Practices (GGAP) and Oregon OSHA regulations, with ODA's GGAP inspectors attending. Leading Edge Associates presented on the use of Unmanned Aircraft Systems (drones) for pesticide applications, complete with demonstrations. The EPA's Criminal Investigation Division addressed interviewing techniques. Agencies represented included: Oregon OSHA, Oregon Department of Agriculture, 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. PARC remains a vital connection for communicating and coordinating agency actions related to pesticide exposure incidents.

After a worker advocacy group sought to better understand the agencies pesticide inspection processes, Oregon OSHA and Oregon Department of Agriculture jointly presented to the Oregon Law Center statewide staff meeting on inspection procedures.

Oregon OSHA offered sessions on Cannabis grow and processing operations at the Governor's Occupational Safety and Health Conference and the Central Oregon Conference. Oregon OSHA will present at the Hemp and CBD Connex 2020 Conference addressing pesticide issues found at grow facilities. While 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, the number of consultation visits at cannabis grow facilities does not reflect grow sites are taking advantage of this resource.

◆ Accomplishments:

- ◆ Updated the respiratory protection publication "The Air You Breathe"
- ◆ Updated the "Pesticides and PPE" brochure.
- ◆ Updated the Worker Protection Standard Reference Guide
- ◆ Developed outreach materials for the second phase of the Worker Protection Standard relating to the Application Exclusion Zone, including an on-line video in English and Spanish
- ◆ Partnered with worker advocacy groups to produce easy to understand pesticide safety information for labor housing occupants.

◆ Goals for the coming year:

- ◆ Continue the development of web-based outreach materials for both the Cannabis grow and processing industry with regards to pesticide use.
- ◆ Provide real world examples to the Pesticide Education Resources Collaborative's Non-Soil Fumigation Project of what went wrong during various types of fumigations for their national manual.
- ◆ Develop a fact sheet on ways to reduce take home contamination for landscapers. Landscapers who perform pesticide applications have increased opportunities for pesticide exposure due to the lack of decontamination supplies on their vehicles by spraying and moving site to site with the resulting vehicle contamination.
- ◆ Translate the "Information for the Landscaping Profession" booklet into Spanish.
- ◆ Oregon OSHA's Agriculture Labor Housing (ALH) inspections are conducted by Safety Compliance Officers who do not conduct Pesticide Emphasis Inspections. The ALH inspection checklist will be updated to reflect the Application Exclusion Zone (AEZ) to enable safety staff to make the necessary referrals to the Pesticide Emphasis Program, with the creation of a Field Inspection Guide for the AEZ for consistency.