

OREGON OSHA PESTICIDE EMPHASIS PROGRAM ANNUAL REPORT Federal Fiscal Year 2013



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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 2013 (FY2013). 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, 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 FY2013 activity. Please see each section for tables and explanations of each.

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Inspection Activity: In FY2013, 79 inspections were done, with 61 inspections resulting in citations, and covering 1,699 workers. Citations were issued in 77% of the inspections completed. The Worker Protection Standard (WPS) was applicable in 62 inspections, indicated by either Tier 1 or Tier 2 in the table below. WPS Tier 1 inspections accounted for 64% (50/79) of the pesticide emphasis inspections, and 15% (12/79) were Tier 2. For all WPS inspections, 81% (50/62) 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, 43 inspections were done, and citations were issued in 32 cases, with 74% (32/43) classified as WPS Tier 1 inspections.

Statistics for Completed Inspections by Industry (NAICS), FY2013

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	16	10	6	62.5	37.5	12	3	1	197
	111421	15	12	3	80.0	20.0	11	4	-	220
	111422	2	2	-	100.0	-	2	-	-	36
	111998	8	6	2	75.0	25.0	5	2	1	110
	115112	2	2	-	100.0	-	2	-	-	41
Other NAICS	111140	1	1	-	100.0	-	1	-	-	63
	111191	1	1	-	100.0	-	1	-	-	8
	111219	7	5	2	71.4	28.6	6	-	1	73
	111331	1	1	-	100.0	-	-	1	-	1
	111332	2	2	-	100.0	-	2	-	1	17
	111334	1	1	-	100.0	-	1	-	-	12
	111335	1	1	-	100.0	-	-	1	-	8
	111336	2	-	2	-	100.0	1	-	1	6
	112120	1	1	-	100.0	-	1	-	-	40
	113110	1	-	1	-	100.0	1	-	-	40
	115115	2	2	-	100.0	-	2	-	-	218
	115310	1	1	-	100.0	-	1	-	-	30
	424480	1	1	-	100.0	-	-	-	1	325
	424910	2	2	-	100.0	-	-	-	2	65
	441310	1	1	-	100.0	-	-	-	1	15
	444220	1	1	-	100.0	-	-	-	1	30
	453110	1	1	-	100.0	-	1	-	-	20
	484121	1	1	-	100.0	-	-	-	1	30
	561320	1	-	1	-	100.0	-	-	1	6
	561730	5	5	-	100.0	-	-	1	4	47
611310	1	-	1	-	100.0	-	-	1	6	
621111	1	1	-	100.0	-	-	-	1	35	
Total		79	61	18	77.2	22.8	50	12	18	1,699

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2013

Based on the types of inspections listed below, 44 were programmed planned and 31 of these were completed in the selected NAICS.

Attempted and completed inspections by inspection type and industry (NAICS), FY2013

	Total	Selected NAICS					Other NAICS
		111339	111421	111422	111998	115112	
Total completed inspections	79	16	15	2	8	2	36
Complaint	16	4	2	-	1	-	9
Referral	15	1	2	-	-	-	12
Follow-up	2	1	-	-	1	-	-
Programmed Planned	44	10	11	2	6	2	13
Programmed Related	2	-	-	-	-	-	2
Attempted (triple zero)	23	4	5	2	7	1	0

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2013

◆ Violation characteristics:

The following table highlights the distribution of violations. In FY2013, there were 307 violations cited with penalties totaling \$12,130. In the selected NAICS, 166 violations were cited with penalties totaling \$2850. WPS violations accounted for 45% (75/166) of those violations with penalties totaling \$990. Pesticide-related and other violations accounted for 91 violations with penalties totaling \$1860. Pesticide-related violations include the Oregon OSHA standards addressing hazard communication, respiratory protection, emergency eyewash, supervision, Thiram, pesticide storage, fumigation, and work-site inspections.

Pesticide Violations and Penalties in FY2013 Totals

Industry (NAICS)		Total violations	WPS Violations				Pesticide Related / Other Violations			
			Serious	Other than serious	Repeat	Total penalties	Serious	Other than serious	Repeat	Total penalties
Selected NAICS	111339	47	6	19	-	\$590	2	18	2	\$600
	111421	64	2	25	-	\$100	4	33	-	\$660
	111422	23	1	10	-	\$150	7	5	-	\$300
	111998	27	1	8	-	\$150	5	13	-	\$300
	115112	5	-	3	-	-	-	2	-	-
	Totals	166	10	65	--	\$990	18	71	2	\$1860
Other NAICS	111140	1	-	1	-	-	-	-	-	-
	111191	4	1	3	-	\$100	-	-	-	-
	111219	44	4	24	-	\$200	5	11	-	\$720
	111331	6	3	-	-	\$200	3	-	-	\$100
	111332	13	1	6	-	\$120	4	2	-	\$120
	111334	1	-	-	-	-	1	-	-	\$100
	111335	2	-	-	-	-	2	-	-	\$100
	112120	6	-	-	-	-	6	-	-	\$600
	115115	3	-	3	-	\$180	-	-	-	-
	115310	5	2	1	-	\$360	-	2	-	-
	424480	6	-	-	-	-	6	-	-	\$900
	424910	11	-	-	-	-	10	1	-	\$720
	441310	2	-	-	-	-	-	2	-	-
	444220	2	-	-	-	-	2	-	-	\$3360
	453110	7	-	4	-	-	-	3	-	-
	484121	1	-	-	-	-	-	1	-	-
	561730	24	-	-	-	-	4	20	-	\$200
	621111	3	-	-	-	-	3	-	-	\$1200
	Totals	140	11	42	0	\$1160	46	42	-	\$8120
Grand Total		307	21	107	0	\$2150	64	113	2	\$9980

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2013

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 divided up into either handler or worker related, showing the categories of issues for each group. The most frequently violated standards were for personal protective equipment (PPE-Respirators and PPE-Other). Of PPE violations, failure to adequately clean PPE was cited the most often. Of the 12 Thiram related violations, 10 were serious, combined with an additional 4 serious respirator violations. Three of these inspections involved seed treatment at seed handling facilities, while the fourth involved a nursery. A complaint inspection involving Thiram also resulted in a PARC case, which is summarized later in the report.

Pesticide Violations Cited in FY2013

Violation type		Violations
Handler related	PPE Respirators	37
	PPE- Other	34
	Hazard communication	51
	Pesticide storage	28
	Central posting	24
	Training	21
	Decontamination	14
	Thiram	12
	Emergency eyewash	10
	Fumigants	2
	Notification to contractors	1
Worker related	Central posting	28
	Training	15
	Safe Practices brochure	12
	Notification to workers	5
	Health haz control measures	3
	Decontamination	3
Other	Other	8

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2013

- ◆ **Pesticide Analytical Response Center (PARC) Cases:** The number of PARC cases in FY2013 was less than half the number in FY2012. Half of the PARC cases involved multiple exposures at each site. These occurred at a vineyard, a retail store, a vegetable processing plant, and a medical clinic. While the exposure scenarios were highly varied, the lack of coordination between staff and notification about the applications remains a continuing problem.

PARC Cases with Oregon OSHA Involvement in FY2013

Source	Exposure Type	Product	Signal Word	# Exp	Type of Establishment	WPS Applies	Citation Issued	Primary cause	Medical Treatment sought
C	Handling treated object*	Vitaflo 280 (Thiram)	Caution	1	Seed Treating	no	yes	Failure to follow label/PPE/Lack of training	Yes
C	Structural*	Precor 2000 Plus	Caution	12+	Medical Clinic	no	yes	Lack of notification	Yes
C	Spill of multiple products*	Lime sulfur, fertilizers, Weedar 64, Crossbow	Danger,Danger, Caution	7	Retail store	no	yes	Attempting to move an entire stocked shelf	No
R	Chemical storage (overheating)	Perasan-A (unstable)	Danger	1+	Vegetable Processing Plant	no	yes	Storage, emergency response, improper PPE	No Plant Evacuated
C	Indirect/Nearby application Odor/no contact	Elevate 50 WDG Flint	Caution Caution	3	Vineyard	yes	yes	Failure to Inform, no WPS training	Yes
R	Alleged workers in treated area	Lorsban Advance	N/A	0	Christmas Tree Farm	yes	I/C	Neighbor conflict	No
R	Cleaning enclosed application area (truck cab & sleeper)	Hartz Flea & Tick Powder	Caution	1	Trucking Company	no	yes	Lack of notification	Yes

Source: C = Complaint filed with Oregon OSHA; R = Referral from PARC; I/C = In-compliance (no citation issued); # exp = the number exposed; * indicates narrative to follow.

◆ Three PARC Cases Highlighted

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

Physician Complaint– Seed treatment: A temporary employee at a seed warehouse was placing bags under the hopper to be filled with treated seed, which he then sewed and placed on a pallet. The process was somewhat dusty but did have a dust collection system. He wore a short sleeved shirt, no coveralls, or eye protection. The work gloves he used had rubberized fingers and palms with stretch fabric on the back. He worked with Vitaflo-280 (Caution –Thiram) treated seeds on Wednesday and with Mertect (Caution – no Thiram) treated seeds on Friday. The same station was used for both. After he left work on Friday, he began to itch, and after showering noticed welts all over his body including the soles of his feet and scalp. He had not consumed alcohol. He returned to work on Monday and was sent to an immediate care clinic. Investigation revealed the employee had not been trained on the hazards of Thiram, nor was he instructed on the appropriate personal protective equipment to use. He lost 5 days of work, per physician restrictions. The employer received numerous serious violations.

Complaint – Pesticide Application in a Medical Clinic:

A commercial pesticide application for a flea infestation occurred at a low income medical clinic shortly before the majority of employees arrived onsite. Some employees were already present. According to the clinic physician, almost 75% of employees were adversely affected to some degree. Symptoms experienced included vomiting, nausea, headaches, eye tearing, itching and trouble breathing. The product applied was Precor 2000 Plus (Caution). Two complaints were received which had alleged employees were ill, there was no forewarning/notification of the application, no Material Safety Data Sheets provided, and the clinic was not closed when ventilation (opening windows and doors) failed to prevent employee illness. The complaints were found to be valid and the employer was cited for multiple serious violations.

Complaint – Pesticide spill in a retail setting:

A complaint was received that alleged pesticide exposure after a pesticide spill in a retail setting. Three employees had jacked up an entire section of retail shelving loaded with pesticides in order to place casters under the shelf to facilitate moving it. The entire shelving unit then fell over dumping insecticides, fungicides, herbicides and fertilizers in liquid, granular, and powder form together. Products that broke open included Lime Sulfur, Crossbow, Weedar 64, Roundup, Miracle Grow granules and Worry Free brand Garden Insecticide. Signal words of the products included Caution and Danger level. All available employees were summoned to assist in the cleanup. There was a strong smell of rotten eggs (when Lime Sulfur is mixed with phosphate containing fertilizers, or acids, hydrogen sulfide gas is generated.) Employees wore only 6 mil nitrile gloves in addition to their personal clothing during the cleanup process. Three employees experienced headache, nausea and dizziness. The employer was cited for two serious violations.

External Training:

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

Pesticide Related Interventions – External Training, FY2013

Classes (Workshop & Internet)	Sessions	Attendees
1240-Hazard Communication Program (Haz Com)	10	540
1241-Personal Protective Equipment (PPE)	1	363
1410-Worker Protection Standard (WPS)	5	88
		991

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2013

Oregon OSHA speaking requests in FY2013

Date	Topic	Attendees
10/11/12	HazCom and the new GHS	5
10/18/12	HazCom and Global Harmonization	39
10/18/12	Pesticide Training	16
10/26/12	WPS	11
11/5/12	Pesticide Safety & Ag Jeopardy (High School Ag Class)	58
11/6/12	Controlling Pesticide Spills	135
11/7/12	Controlling Pesticide Spills	120
11/8/12	Controlling Pesticide Spills	255
11/13/12	Deadly Consequences: Aluminum Phosphide	150
11/13/12	Controlling Pesticide Spills	150
11/13/12	HazCom and the New GHS	30
11/15/12	Deadly Consequences: Aluminum Phosphide	120
11/15/12	Controlling Pesticide Spills	120
11/27/12	WPS for Ag Expo	90
11/30/12	Pesticide Spills	50
12/5/12	GHS Chemical Classification & Labeling System	50
12/5/12	Hazard Communication - Spanish	16
1/3/13	Global Harmonization System (GHS)	25
1/15/13	PPE for Pesticide Applicators	100
1/23/13	Pesticide Applicators Training	200
1/30/13	Oregon Pesticide Regulators	30
1/30/13	What's New in Ag (PPE Assessment)	30
1/30/13	Preventing, Preparing & Managing Pesticide Spills	30
1/30/13	WPS & Haz Com: What are They	30
1/30/13	What's Wrong with this Picture (Ag Haz ID)	30
1/30/13	Respiratory Protection for Ag	30
1/30/13	Pesticide Notification	30
2/1/13	Aluminum Phosphide Fumigant Hazards & Management Plans	100
2/5/13	PPE for Ag, Storage & Safe Vehicle Transportation of Pesticides	120
2/5/13	Pesticides, PPE, WPS	145
2/6/13	WPS & HazCom	120
2/9/13	Organic Pesticides & Pesticide Storage	30
2/12/13	PPE for Pesticide Applicators	75
2/20/13	Hazard Communication Program for Ag	16
2/20/13	Respiratory Protection for Ag Operations	10
2/22/13	WPS	115

Date	Topic	Attendees
4/4/13	PPE and Respiratory Protection for Ag	20
4/24/13	OSHA Rules for Noxious Weed Staff (ODA)	11
5/2/13	Hazard Communication Program	25
5/3/13	WPS	13
5/8/13	PPE	26
5/23/13	HazCom & Global Harmonization	80
		2881

Public Outreach: Oregon OSHA tracks publication circulation and video requests. The next few tables show activity for FY2013.

Oregon OSHA Publications in FY2013

Titles	Number distributed
The Air you Breathe (respirators, #3654)	930
EPA quick guide to the WPS (#3924)	704
Forestry WPS Poster (#4856)	2
Pesticide use and your PPE (#1018)	1,509
Safe practices when Handling Agricultural Chemicals (pesticides, #1951)	4,535
Washing pesticides contaminated clothes (magnet, #2858)	264
Washing pesticides contaminated clothes - SP (magnet, #2858-S)	127
Rules. Division 4 Agriculture	33

Oregon OSHA's consultations are tracked to include potential outreach of information in the selected industries.

Oregon OSHA Consultations by NAICS in FY2013

Industry (NAICS)	Health	Safety
111339	-	12
111421	2	1
111422	1	-
111998	1	9
115112	-	2
Total	4	24

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2013

Oregon OSHA Resource Center Pesticide-related Videos, FY2013

#	Name	English	Spanish	Requests
72	BREATHE EASY - RESPIRATOR SAFETY (E/S)	X	X	10
66/67	HAZARD COMMUNICATION - AGRICULTURE SERIES	X	X	6
352	HOW TO CONDUCT WORKER PROTECTION TRAINING/TRAIN THE TRAINER	X		2
474	OREGON PESTICIDE SAFETY GUIDE (FLIP CHART)	X		2
170/380/38	PESTICIDE HANDLERS AND THE WORKER PROTECTION STANDARD	X	X	6
151	PESTICIDE PROTECTION TRAINING FOR AGRICULTURAL WORKERS (E/S)	X	X	4
95/383	PESTICIDE SAFETY WORKER PROTECTION (1987. REVISED 1997)	X	X	3
600/608	PESTICIDE SAFETY: HELP WORKERS PROTECT THEMSELVES (1995)	X	X	3
392	PESTICIDE TRAINING FOR AGRICULTURAL EMPLOYEES	X		2
332	WORKER PROTECTION STANDARD: AN OVERVIEW	X		1
				39

Source: Information Management Division, Oregon Department of Consumer and Business Services, December 2013

◆ Oregon Pesticide Symposium—Multi-Agency Annual Meeting:

The annual Oregon Pesticide Symposium was held in March 2013, in conjunction with the Oregon Governor's Occupational Safety & Health Conference. Attendees included staff from Oregon OSHA, Oregon Department of Agriculture (ODA), EPA Region X, AgriSafe, Oregon Department of Environmental Quality, the Pacific Northwest Agriculture Safety and Health Center (PNASH), and the National Pesticide Information Center (NPIC).

◆ Conclusions:

Outreach activities reached an all time high in FY2013. From the PARC cases that Oregon OSHA investigated, it is clear that pesticide safety can be improved through better communication between employers and their workers when applications are being planned. Pesticide applicators need to be involved in the planning and coordination of their activities. Recent PARC cases remind us how the workplace is negatively impacted when workers become ill or sickened, often forcing people to leave for the day or seek medical attention in some circumstances. Oregon OSHA enforcement and voluntary compliance activities provide many opportunities for addressing worker protection and pesticide safety. The annual meeting among multiple agencies affords opportunities for developing strategies that enhance and improve worker protection.

◆ Accomplishments:

- Presented a Pesticide tract at the Governor's Occupational Safety & Health (GOSH) Conference.
- The Oregon Pesticide Symposium continues to provide a forum of networking among multiple regulatory and educational agencies to enhance protections to pesticide users.
- Conducted outreach by partnering with Oregon LIVE and the consultative services section to vineyards and wineries.
- Conducted outreach to the Organic Growers through Oregon Tilth to increase awareness that the products they use are regulated pesticides and that the pesticide regulations do apply to them.
- Conducted internal field staff training to increase awareness of the prevalence of aluminum phosphide products.
- External speaking requests increased by 100%, extending pesticide safety outreach opportunities to 2,881 attendees.
- Agriculture and Pesticides were topics featured in Oregon OSHA's Resource publication.

◆ Goals for the coming year

- Provide assistance to the NIOSH/NPPTL program in addressing barriers to the use of personal protective equipment.
- Expand outreach through Hazard Alerts to employers who use aluminum phosphide products of the need for structural and burrowing rodent fumigation management plans.
- Develop a Questions and Answers Guide for Soil Fumigants in partnership with the Oregon Department of Agriculture.
- Expand the Oregon Pesticide Symposium to include all Oregon agencies that regulate pesticides for better information exchange and to improve communication.