

**OREGON OSHA
PESTICIDE EMPHASIS PROGRAM
ANNUAL REPORT**

Federal Fiscal Year 2003

February 27, 2004

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Oregon OSHA Pesticide Emphasis Program FY 2003 Annual Report

Introduction

This is the fourth year in a 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 an annual review of the pesticide emphasis program for federal fiscal year 2003 (FFY 2003). The data elements and analysis are presented, along with recommendations for program improvements for the coming year.

Overall, this has been a productive year in meeting inspection goals and increasing outreach through voluntary services.

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." This year's report includes graphics which illustrate a four year comparison of the inspection data. For this past growing season, five Standard Industrial Classifications (SICs) were selected to focus inspection activity on pesticide usage and worker protection issues:

- SIC 0139 Field Crops, except Cash Grains, Not Elsewhere Classified
- SIC 0172 Grapes
- SIC 0175 Deciduous Tree Fruits
- SIC 0191 General Farming
- SIC 0721 Crop preparation including pesticide spraying

Other SICs inspected as a result of complaints, referrals or programmed Agricultural Health inspections are included in this report if the inspection addressed pesticide-related issues. In addition, as a result of the Pesticide Emphasis Program completing four years of activity, a discussion of the effectiveness of the program will be included in this report.

Data Summary

The Pesticide Emphasis Program continues to be an effective tool in reducing occupational exposures from pesticides in the agriculture industry. The following is a brief summary of findings resulting from the evaluation of FFY 2003 activity:

- In FFY 2003 70 inspections were completed which identified 254 pesticide-related violations.
- 47 of the 70 inspections covered standard industrial classifications (SIC) identified in the emphasis program. Employers whose SIC is identified in the Program Directive will be referred to as “selected SIC’s” for the purposes of this report.
 - 20% of these violations were classified as serious
 - 10 of the inspections resulted in civil penalties directly related to violations of the Worker Protection Standard.
 - Hazard Communication, pesticide training and the lack of various decontamination supplies accounted for over 60% of the violations.
 - 80% of the violations cited related to the pesticide handlers who work with concentrated pesticides.
 - In FFY 2003 20% of the employers inspected had been inspected by OR-OSHA within the last four years. Of this group only one repeat violation was identified.
 - In FFY 2003, 31 inspections were attempted but were unable to be conducted for various reasons.

In FFY 2002 OR-OSHA adopted the Tier One and Tier Two inspection category system from Federal EPA. Tier One inspections are those inspections which are initiated within the last 30 days of a pesticide application. If pesticides have not been applied in the previous 30 days the inspection is considered to be Tier Two. In the selected SIC’s 80% of the inspections completed in FFY 2003 were categorized as Tier One.

It is important to note that the majority of the inspections were accomplished during or shortly after pesticides had been applied which is when occupational exposures are likely. The scheduling system implemented in FFY 2003 effectively reduced the number of employers that are repeated in the inspection process from year to year. Although repeat inspections will continue to happen, only one repeat violation was identified in FFY 2003. Violations continue to be identified during inspections of employers who have not been inspected under the Pesticide Emphasis Program in previous years.

In FFY 2003 the agency continued its’ outreach efforts:

- The Pesticide Emphasis Program information was added to OR-OSHA’s Agricultural Web page.

- Health Analyst Chris Ottoson and Pesticide Coordinator Garnet Cooke prepared “Productive Partnerships: Improving Pesticide Safety in Oregon”, which Chris Ottoson presented at the 2003 American Industrial Hygiene Conference and Exposition in Dallas, Texas.
- Senior Health Compliance Officer Timothy Capley conducted presentations on WPS for the Oregon Cranberry Farmer’s Alliance and at the 2003 Inter-mountain Agricultural Conference.
- Senior Health Compliance Officer Lori Cohen conducted training for OR-OSHA’s consultative services staff. Notably, the consultations completed in the selected SICs increased from nine to 40 in FFY 2003. Externally, Ms Cohen provided pesticide training for the Oregon Golf Course Superintendent’s Association.
- Pesticide Coordinator Garnet Cooke presented “Preventing Pesticide Accidents” at Linn-Benton Community College.
- Health Enforcement Manager Stan Thomas completed work with the National Assessment of the Worker Protection Standard group in Washington, D.C.
- The annual training of the pesticide enforcement team was completed in March 2003 and included the Oregon Department of Agriculture, EPA Region 10 and OR-OSHA’s Technical Section.

CONCLUSIONS

As a result of the Pesticide Emphasis Program, OR-OSHA is having an impact on preventing occupational pesticide exposures in Oregon. This is accomplished through interventions with employers, whether by means of inspections, consultations or training where exposure scenarios are identified and if not in compliance are ultimately corrected. While an occupational exposure does not necessarily result in an immediate pesticide illness, those that do become a reportable condition in Oregon. A direct reduction of pesticide illnesses in the state is difficult to quantify due to two main factors: failure of the affected individual to seek medical attention, as that person may not associate the flu-like symptoms of organophosphate poisoning with pesticide poisoning, or if medical treatment is sought, improper recognition of the condition by the physician.

The Pesticide Emphasis Program was developed with the understanding that employee exposures to pesticides can occur through a variety of ways. Direct exposure to concentrate can occur during mixing/loading activities or spills, as well as from exposure to dilute formulations during applications- through improper work practices, lack of proper personal protective equipment, drift, re-entry issues, spills, handling contaminated equipment, poorly maintained equipment, accidents and the inability to properly remove concentrate or residues from the skin.

The violations cited correlated with areas where exposures could occur. In FFY 2003, hazard communication, pesticide training and lack of various decontamination supplies accounted for almost two-thirds of the violations cited. While there were violations relating to personal protective equipment, these tended to apply to specific requirements associated with personal protective equipment, e.g., an employee not having a respirator fit test prior to wearing a respirator, rather than the lack of a respirator.

Knowledge of the health effects of pesticides, how to safely handle the products and the equipment, and steps to take in an emergency are critical for employees working with pesticides. That knowledge and the ability to remove pesticides from the skin or eyes are essential in preventing exposures, or if exposed, minimizing the effects. 80% of the violations related to handlers who work with concentrated pesticides. These violations are fairly consistent to FFY2002, and appear to be related to information not found on the pesticide label.

The Pesticide Emphasis Program has been effective in addressing pesticide safety issues: hazardous conditions and potential exposures are being removed through inspections focused in key agricultural operations; emphasis inspection targeting remains on employers who have not been inspected in the last two years; the primary hazards and violations seen in selected SICs remain valid; voluntary services (consultations, training, audiovisuals, etc.) continue as essential resources for employers seeking assistance.

GOALS for 2004

For the coming fiscal year, our goals include: maintain the same performance levels achieved this past year; continue pesticide emphasis inspections with the current scheduling list; provide an annual training day for OR-OSHA staff and other agency stakeholders; develop and implement an outreach and enforcement strategy for employers covered under the recently adopted Division 7, Forest Activities standard; and encourage the development of bilingual training modules for agriculture under the PESO program (PESO is an acronym for the Spanish rendering of occupational safety and health training, developed by OR-OSHA).

COMBINED INSPECTION DATA FY 2003

Table 1

SIC	# Insp.	# Prev Insp.	Insp. w/ viol.	WPS Violations Ser. OTS		WPS penalties	Violations non/WPS Ser. OTS		Non/WPS penalties	# Repeat	# Employee
0139	12	2	9	7	7	\$465	1	14	0**	0	294
0172	6	1	5	4	2	\$165	3	7	**	0	29
0175	18	4	15	4	40	\$705	5	33	\$195	0	400
0191	10	2	8	8	12	\$880	3	28	**	1	187
0721	1	0	1	1	0	\$100	0	0	0	0	0
0111	1	0	1	0	2	0	0	6	0	0	1
0161	1	0	1	0	0	0	0	2	0	0	2
0171	4	3	3	2	9	\$100	7	5	\$600	0	71
0181	11	2	9	0	9	0	1	14	\$105	0	522
0761	1	0	1	0	1	0	0	0	0	0	220
0783	1	0	1	0	2	0	1	5	\$165	0	8
0811	2	1	2	2	1	\$510	2	1	\$100	0	130
0851	1	0	1	0	0	0	0	3	0	0	1
5191	1	0	0	0	0	0	0	0	0	0	9
TOTALS FY 2003	70	15 20%	57	28	85	\$2925	23	118	\$1165	1	1874
TOTALS FY 2002	87	-	46	27	83	\$2900	36	90	\$2560	0	1879

**penalty was part of a grouped violation

FY2003

TOTAL PESTICIDE RELATED VIOLATIONS = 254 SERIOUS - 20%
TOTAL WPS VIOLATIONS = 113 SERIOUS - 20%

FY 2002

TOTAL PESTICIDE RELATED VIOLATIONS = 236 SERIOUS 27%
TOTAL WPS VIOLATIONS = 110 SERIOUS 25%

**PESTICIDE ENFORCEMENT ACTIVITY
IN SELECTED SICs**

Table 2

PARTIAL WORKER PROTECTION STANDARD INSPECTIONS (Workers Only)
*(Inspections conducted by Safety Compliance Officers - *Tier 1 and *Tier 2)*

SIC	0139	0172	0175	0191	0721	TOTALS
# Inspections	1	0	1	2	0	4
# Employees	4	0	10	71	0	85
# with PRV*	1	0	1	0	0	2

* Pesticide related violations

Table 3

COMPREHENSIVE PESTICIDE INSPECTIONS (Workers and Handlers)
*(Inspections conducted by Health Compliance Officers - *Tier 1 and *Tier 2)*

SIC	0139	0172	0175	0191	0721	TOTALS
# Attempts	21	9	27	12	2	71
# Inspections	11	6	17	8	1	43
# Employees	290	29	390	116	1	826
# with Violations	8	5	15	8	1	37

COMBINED PESTICIDE INSPECTION TOTALS - Table 4

SIC	0139	0172	0175	0191	0721	TOTALS
# Inspections	12	6	18	10	1	47
*Tier 1	7	3	18	8	1	37
*Tier 2	5	3	0	2	0	10
# Employees	294	29	400	187	1	911
# with Violations	9	5	16	8	1	39
% Inspections with Violations	75%	80%	90%	80%	100%	80%

*Tier 1 Inspections: Pesticides used within the preceding 30 days plus the restricted entry interval

*Tier 2 Inspections: Pesticides used greater than 30 days plus the restricted entry interval

**PESTICIDE ENFORCEMENT ACTIVITY
IN NON-SELECTED SICs**

Table 5

PARTIAL WORKER PROTECTION STANDARD INSPECTIONS (Workers only)

*(Inspections conducted by Safety Compliance Officers - *Tier 1 and *Tier 2)*

SIC	0111	0161/0171	0181	0811/0851	0761/0783	5191	TOTALS
# Inspections	0	1	0	0	0	0	1
# Employees	0	7	0	0	0	0	7
# with Pesticide Viol.	0	0	0	0	0	0	0

Table 6

COMPREHENSIVE PESTICIDE INSPECTIONS (Workers and Handlers)

*(Inspections conducted by Health Compliance Officers - *Tier 1 and *Tier 2)*

SIC	0111	0161/0171	0181	0811/0851	0761/0783	5191	TOTALS
# Attempts	1	4	13	3	2	2	25
# Inspections	1	4	11	3	2	1	22
# Employees	1	73	522	131	228	9	964
# with Violations	1	4	9	3	2	0	19

Table 7

COMBINED PESTICIDE INSPECTION TOTALS

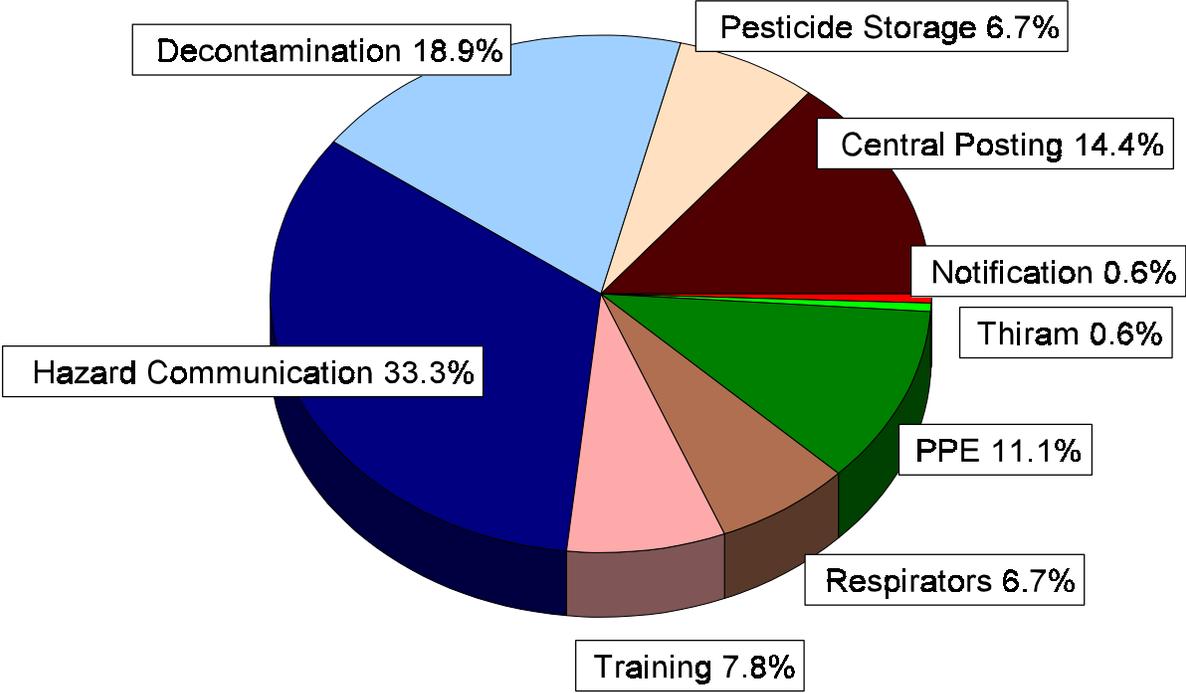
SIC	0111	0161/0171	0181	0811/0851	0761/0783	5191	TOTALS
# Inspections	1	5	11	3	2	1	23
*Tier 1	1	5	7	2	2	1	18
*Tier 2	0	0	4	1	0	0	5
# Employees	1	80	522	131	228	9	971
# with Violations	1	4	9	3	2	0	19
% Inspections with Violations	100 %	80%	80%	100%	100%	0	80%

**Tier 1 Inspections: Pesticides used within the preceding 30 days plus the restricted entry interval*

**Tier 2 Inspections: Pesticides used greater than 30 days plus the restricted entry interval*

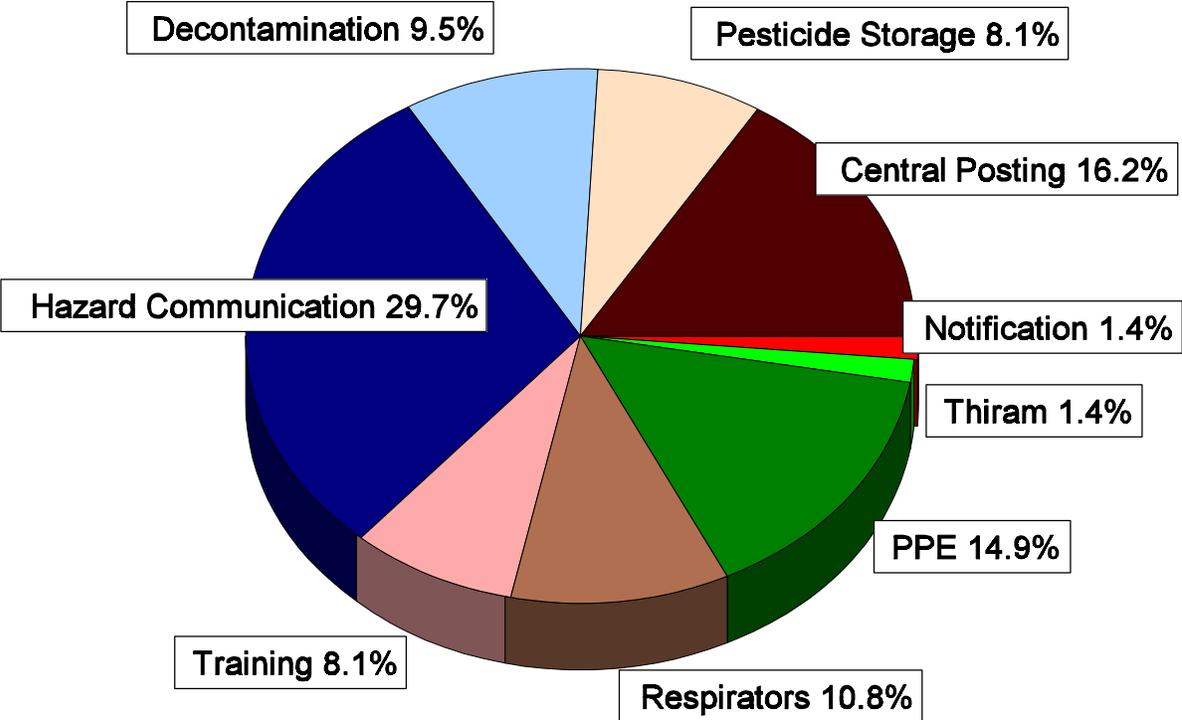
PESTICIDE VIOLATION CATEGORIES

Selected SICs

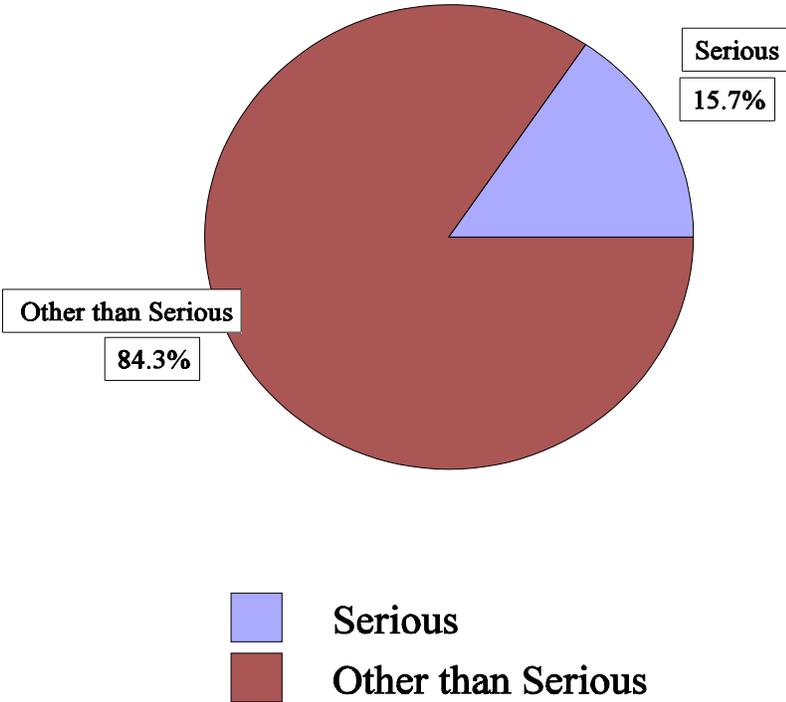


PESTICIDE VIOLATION CATEGORIES

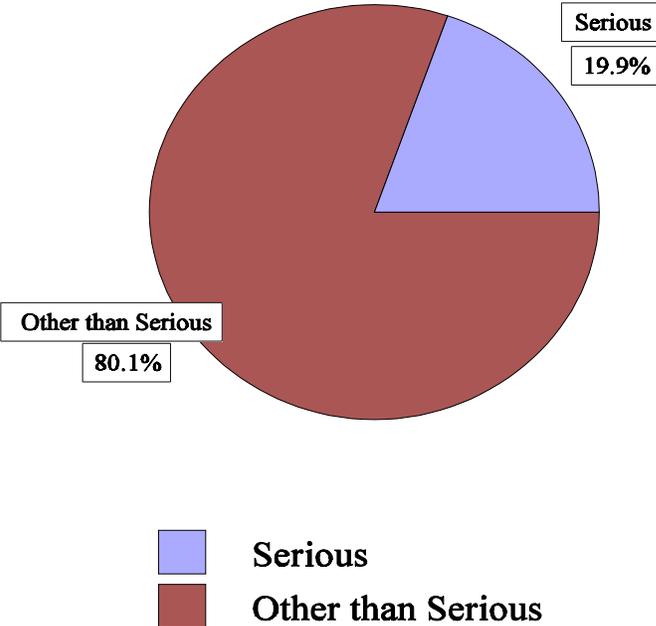
NON-SELECTED SICs



SEVERITY OF PESTICIDE RELATED VIOLATIONS



SEVERITY OF WPS VIOLATIONS



Selected SICs - Table 8

	FY2003	FY 2002	FY 2001	FY 2000
Number of Inspections	53	61	62	47
Number with PRV*	38	28	34	29
# of Different Employers	51	51	59	29
Employers in compliance	6	15	19	3
Handler related violations	80%	74%	56%	70%
Worker related violations	20%	26%	44%	30%

**Pesticide Related Violations*

Non-Selected SICs - Table 9

	FY 2003	FY 2002	FY 2001	FY 2000
Number of Inspections	23	26	28	19
Number with PVR*	19	18	15	10
# of Different Employers	22	24	20	19

**Pesticide Related Violations*

Combined Inspection Results - Table 10

	FY2003	FY 2002	FY2001	FY 2000
Total Inspections (all SICs)	70	87	90	66
Total WPS Violations	113	110	128	81
Total WPS Penalties	\$2925	\$2900	\$4910	\$1710
Total Pesticide Related (non- WPS) Violation	139	126	119	36
Total Pesticide Related (non-WPS) Penalties	\$1165	\$2560	\$2295	\$285
Total # of employees covered	1874	1879	2241	2480

**Pesticide Related Interventions - Consultative Services
Conferences**

2003 Intermountain Agricultural Conference	January 14-15, 2003
Willamette Valley Ag Expo	November 18-20, 2003
Northwest Agriculture Show	January 28-30, 2003
Farwest Nursery Show	August 21-23, 2003

Consultations - By SIC

0139	0172	0175	0191	0721	Total
2	5	13	20	0	40

PESTICIDE RELATED INTERVENTIONS - External Training

<u>Agriculture classes</u> 401 - Worker Protection Standard, workshops and on-site training 203 - Personal Protective Equipment, workshops, on-site training, and Internet courses 205 - Hazard Communication Program, workshops, on-site training, and Internet courses	159 sessions
Total in attendance	817

<u>Health Compliance Officer Speaking Requests</u> Linn Benton - Pesticide Safety OR-OSHA & OSU - WPS Medford Oregon Cranberry Farmer's Alliance - WPS Oregon Golf Course Superintendents Association	<u># attending</u> 30 18 75 120
Total in attendance	243

PESTICIDE RELATED INTERVENTIONS - RESOURCE CENTER

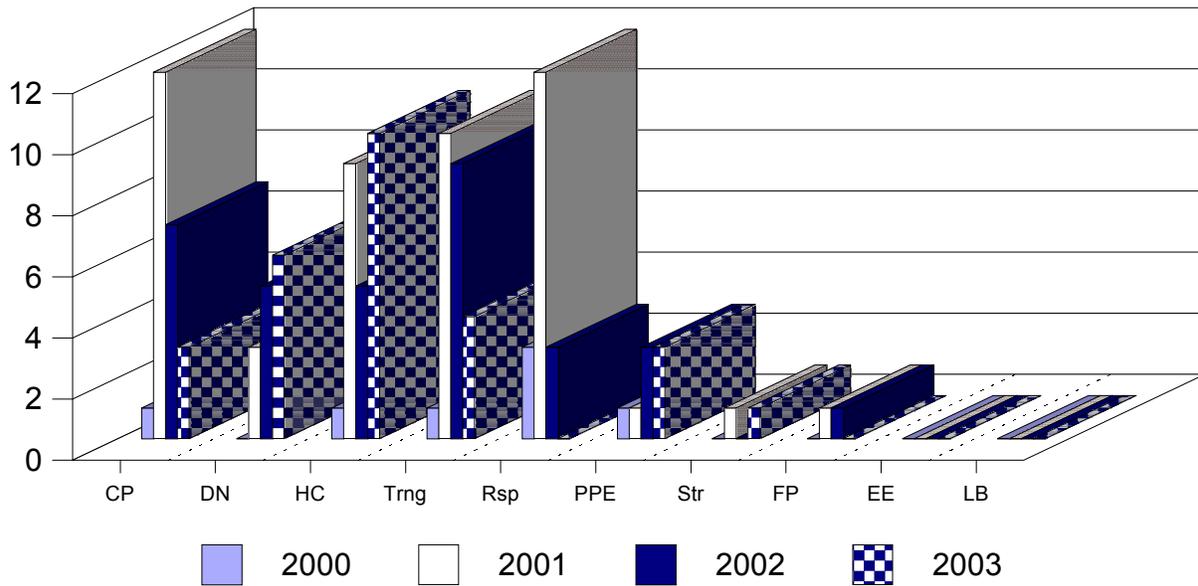
Pesticide video loans	54
“Safe Practices When Working Around Hazardous Agricultural Chemicals” brochure	19,550
Washing pesticide contaminated clothing magnet (Spanish)	875
Division 4, Agriculture (also available on OR-OSHA CD with all industries, as well as on-line.)	100

**OR-OSHA Resource Center
Pesticide-Related Videos
2003**

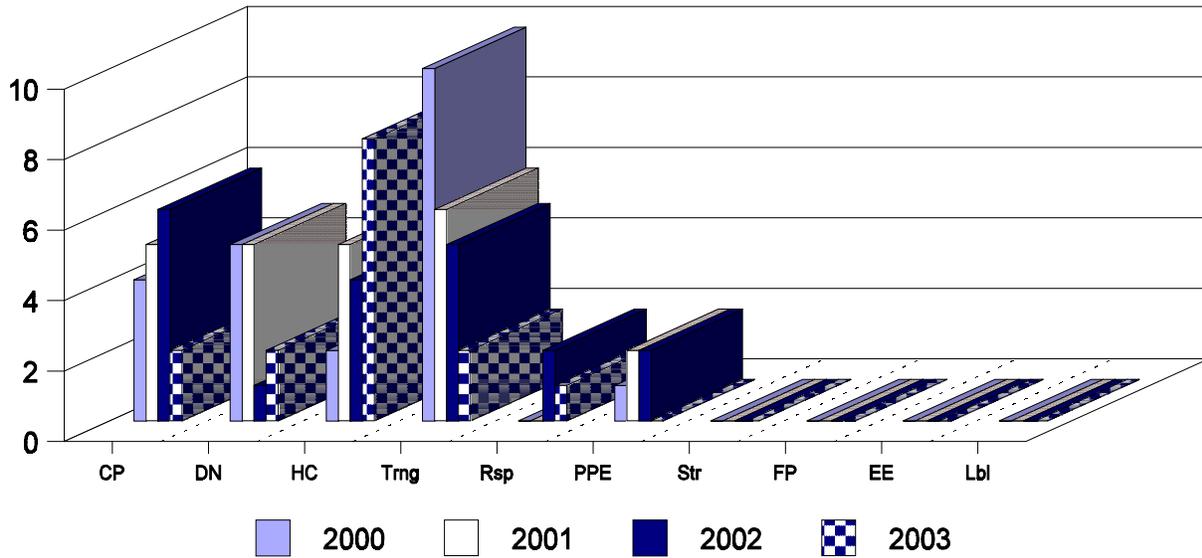
Requests filled from Oct 1, 2002 to September 30, 2003

Item #	Name	English	Spanish	Times Req.
464	EPA WPS for Orchard Workers	x	x	5
465	EPA WPS for Pesticide Handlers	x	x	3
474	Oregon Pesticide Safety Guide	x		2
475	Oregon Pesticide Safety Guide		x	2
381	Chasing the Sun/Siguiendo El Sol	x	x	2
384	Greenhouse Pesticide Safety Training Workers & Handlers	x	x	0
352	How to Conduct Worker Protection Training/Train the Trainer	x		4
380	Pesticide Handlers and the Worker Protection Standard	x		1
383	Pesticide Handlers and the Worker Protection Standard		x	2
600	Pesticide Safety: Help Workers Protect Themselves	x		7
608	Pesticide Safety: Help Workers Protect Themselves		x	6
323	Pesticide Safety Worker Protection Oregon	x	x	6
392	Pesticide Training for Agricultural Employees	x	x	0
327	Shedding Some Light on Pesticide Protection	x		6
332	Worker Protection Standard An Overview	x		2
1051	Protecting Yourself From Pesticide Hazards <i>new</i>	x	x	6
	Total Videos Requested			54

Violation Summary per Year for 0139

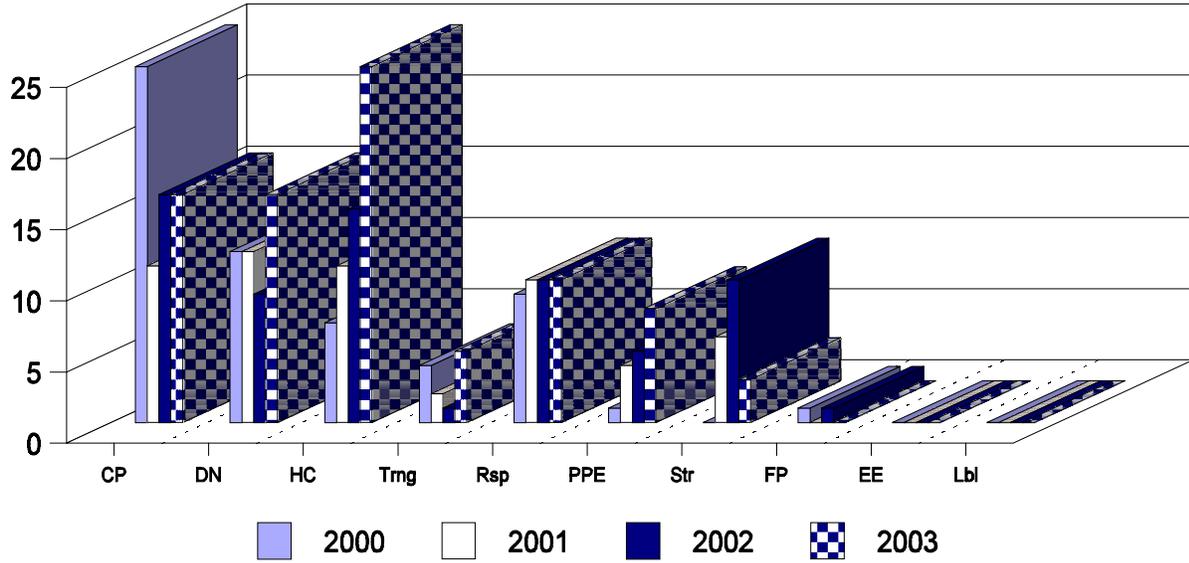


Violation Summary per Year for 0172

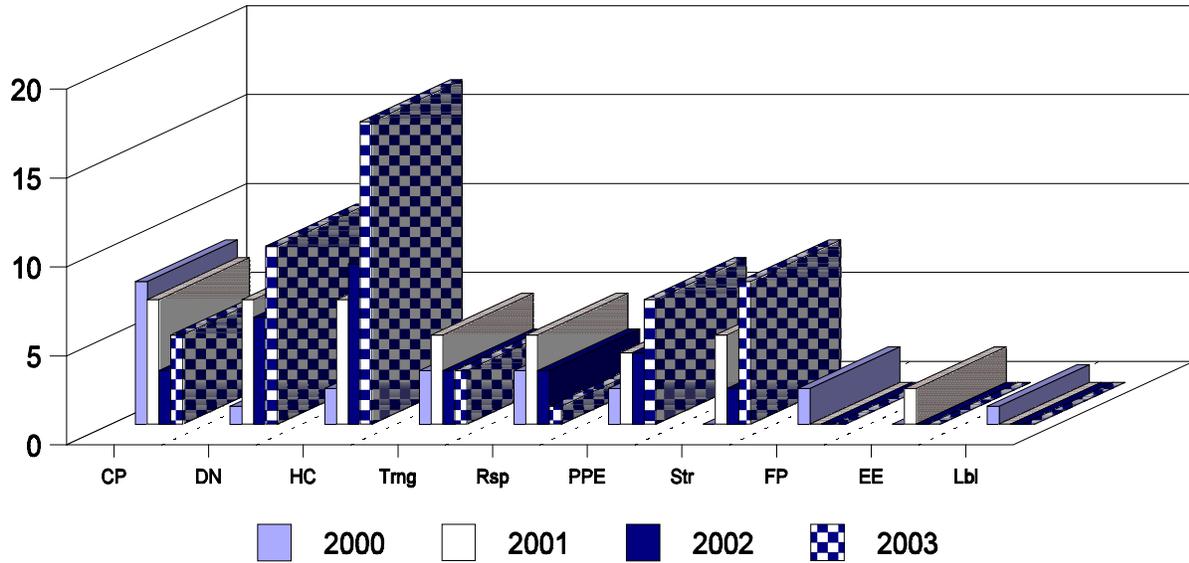


CP= Central Posting DN= Decontamination
 HC= Hazar d Communication; Trng= Training
 Rsp= Respirator; PPE=PPE; Str= Storage
 FP= Field Posting; EE= Early Entry; Lbl= label

Violation Summary per Year for 0175



Violation Summary Per Year for 0191



Violation Numbers By Year & SIC

