



Pesticide Stewardship Partnership Program

2013-15 BIENNIUM SUMMARY

Produced by:
The interagency Water Quality Pesticide Management Team



Oregon
Department of Agriculture



State of Oregon
Department of Environmental Quality



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This document briefly summarizes the actions and accomplishments of the Pesticide Stewardship Partnership (PSP) Program, implemented by the inter-agency Water Quality Pesticide Management Team (WQPMT) in collaboration with numerous local partner organizations. The purpose of this summary is to provide a status report on each of the major elements of the PSP Program.

PESTICIDE MONITORING AND RESULTS

During the 2013-15 biennium, more than 1,100 water samples were collected across 8 PSP watersheds and 4 pilot watersheds, and analyzed by the Department of Environmental Quality's laboratory. In June 2015, the Water Quality Pesticide Management Team selected the Middle Rogue watershed near Medford to become the 9th PSP watershed. The Team proposes to continue some level of screening monitoring in the remaining 3 pilot watersheds, with the possible phase in of projects in those watersheds over time.

The pesticides listed below are current priorities for voluntary outreach activities across multiple watersheds based on the monitoring data. The considerations for prioritization include concentrations observed over established benchmarks, high frequency of detection in water, or occurring in combinations with many other pesticides.

- *Herbicides:* atrazine, simazine (and their degradates), glyphosate (and a degradate), diuron, linuron, metolachlor and sulfometuron methyl, dichlobenil (and degradate).
- *Insecticides:* chlorpyrifos, malathion, carbaryl, imidacloprid and bifenthrin.
- *Fungicides:* propiconazole and pyraclostrobin.

Those that exceeded benchmarks at least once were diuron, linuron, chlorpyrifos, malathion and bifenthrin.

Declines in pesticide concentrations and occurrence were observed in some watersheds, due in part to evolving pesticide use and application practices as a result of applicator awareness of off-target movement. In the Wasco area, the percentage of samples exceeding the state's malathion water quality criterion declined from 86% in 2011 to 23% in 2014. Between 2013 and 2014 the highest number of pesticides in a single sample in the Clackamas Watershed's Noyer Creek dropped from 18 to 8, with no detections of chlorpyrifos for the first time in 10 years of monitoring. In addition, the significant improvements in the Hood and Walla Walla Watersheds achieved earlier were maintained over the previous two years.



DATA COMMUNICATION AND IN-KIND OUTREACH

Water Quality Pesticide Management Team members presented information about the PSP program at dozens of forums between 2013 and 2015. The purpose of these presentations was to increase awareness and catalyze stewardship actions. Most of these presentations were directed to pesticide user and watershed groups in individual PSP areas, while others were delivered to statewide audiences, such as pesticide license recertification classes. In some watersheds, Team members presented data at several different meetings to reach as many pesticide users as possible and use the attendees to help refine monitoring schedules before the spray application season begins.

PSP outreach and assistance was greatly enhanced by partners using funds secured outside of the PSP program. For instance, the Extension Service in Walla Walla Watershed has implemented a number of codling moth integrated pest management initiatives in areas where elevated levels of insecticides have been found. In the Clackamas, OSU's Integrated Plant Protection Center (IPPC) and other partners obtained funding to work with nursery growers in areas where monitoring detected some pesticides above aquatic life benchmarks. Two well-attended technical workshops for nurseries were conducted over a one-year period, along with follow up evaluations.

WASTE PESTICIDE COLLECTION

During the 2013-15 biennium, from July 2014 through May 2015, the PSP program funded 8 events waste pesticide collection events in Milton-Freewater, Hermiston, Ontario, Madras, McMinnville, Medford, Coos Bay and Dallas. The program also partially funded 3 locally planned pesticide collection events or on-going programs in Tualatin, Hood River and La Grande.

Significant totals were:

1. Number of participants: 235
2. Total pounds collected: 145,616 (does not include amount collected in Hood River or La Grande)
3. Total cost: \$233,646 (approx. \$29,000 per event - range was \$15,840 to \$53,666)

In addition, over 10,000 pounds of empty, rinsed plastic pesticide containers were collected for recycling at these events.



TECHNICAL ASSISTANCE GRANTS

During the 2013-15 biennium, the PSP program funded 3 grant projects:

- Oregon State University for work with Christmas tree growers in the Clackamas PSP
- Salmon Safe to advance incentive-based pesticide stewardship outreach in multiple PSP watersheds,
- Long Tom Watershed Council to work with urban, industrial, and commercial pesticide users.

In addition, to reduce spray drift, two pieces of spray equipment were purchased and loaned to local Extension and SWCD partners: (1) Orchard sprayer calibration “patternator” in Hood River (with use extending to other watersheds), and (2) Tunnel Sprayer in the Yamhill Sub-Basin, which can reduce drift by 99% by collecting and re-circulating sprayed product. The major objective of both these purchases is to provide research and training opportunities on sprayer calibration and drift.

Acknowledgements: The interagency Water Quality Pesticide Management Team (WQPMT) is comprised of representatives of the Oregon Departments of Agriculture, Environmental Quality, Forestry, the Oregon Health Authority, the Oregon Watershed Enhancement Board, and Oregon State University (as a technical consultant to the Team). The Pesticide Stewardship Partnership is collaborative, watershed-based initiative that depends on the active engagement and participation of numerous local organizations working with the members of the state agency team. These organizations include soil and water conservation districts, watershed councils, grower groups, tribal governments, municipal governments, chemical distributors and crop consultants, and OSU Extension, Research and Integrated Plant Protection Center faculty.

