



STATE OF WASHINGTON
PESTICIDE INCIDENT REPORTING AND TRACKING REVIEW PANEL
P.O. Box 47846
Olympia, Washington 98504-7846

March 30, 2009

The Honorable Tom Campbell, Chair
Washington State House Select Committee on Environmental Health
John L O'Brien Building
Room 205-A
P.O. Box 40600
Olympia, Washington 98504-0600

Dear Representative Campbell:

The Pesticide Incident Reporting and Tracking Panel (PIRT) is responding to your request for assistance regarding pesticide use reporting (PUR) systems.

Specifically this letter reviews HB 1946 (2007), including bill and fiscal analyses, while describing the experience of other states that have adopted PUR systems. In particular California, Oregon, and New York currently have the most comprehensive programs. Key characteristics of these PUR systems, such as start-up costs, groups required to report, and reporting frequency, may be useful to you and are summarized in the attached table.

This letter also describes benefits and burdens associated with PUR systems implemented in these other states. Numerous sources, including documents, presentationsⁱ, websitesⁱⁱ, and interviewsⁱⁱⁱ were used to compose this response. A list of references is attached.

First, when asked to comment about the potential benefits to human health, safety, and protecting the environment from implementing a PUR, PIRT members and PUR staff from other states described the following:

Benefits to Human Health

- *Enhances understanding of the relative risks of pesticides. Currently heavily used pesticides appear to be of high risk, but this may be a fallacy. With denominator data and the ability to divide the number of reported cases by applications, the pesticides that are of true high risk would be more easily identified.*
- *Increases the ability to conduct epidemiologic research on the relationship between pesticide use patterns and illness, particularly with good geographic location information. Research on*

pesticide effects to sensitive sub-populations, such as children, would also be enhanced.

- *For agricultural use pesticides, a standardized and comprehensive collection of spray records would enable more accurate use estimates than voluntary agricultural census surveys that have been available.*
- *Better quality spray records would be obtained.*
- *For urban and suburban pesticide applications, PUR could provide estimates of non-agricultural pesticide use if the PUR covered all applications under a pesticide handler's license.*
- *More timely access to pesticide application (exposure) information which would aid in pesticide incident investigations if reporting frequency is at least monthly and with good geographic location information.*
- *Enhances understanding of usages or methods that increase or decrease risk to public health and safety. This would result in subsequent improvements to worker health and safety.*
- *Improvements to water quality may be achieved through enhanced monitoring.*
- *Use of more realistic rates in risk assumptions by EPA and other regulatory bodies because analysis can focus on the actual chemicals being used.*
- *The collection and analysis of pesticide use data would enable PIRT to better meet the primary intent of its founding legislation, addressing human health issues related to pesticide use.*

Benefits to Fish, Wildlife & the Environment

- *There are a general lack of data and attention to environmental impacts of pesticide use. PUR data would help fill this gap.*
- *Pesticide use data can be of scientific benefit when assessing potential acute, chronic, and sub-lethal impacts to fish and wildlife species.*
- *Pesticide use data could be compared to endangered species habitat/known range to assess effects on wildlife.*
- *More efficient ground, surface, and drinking water sampling and modeling for pesticides in these water bodies.*
- *The collection and analysis of pesticide use data would enable PIRT to meet the secondary intent of its founding legislation, addressing environmental issues related to pesticide use.*

Staff from the California PUR system report the following additional benefits:

Benefits to Agriculture

- *Growers and applicators are pleased that PUR is showing a trend of declining pesticide use, by pounds used, active ingredient applied, applications, and acreage treated.*
- *Ability to assess pesticide use patterns and changes in pest problems due to new pests or predators.*
- *Ability to identify changes in pest biology, particularly pesticide resistance.*
- *Better tracking of pest management options.*
- *Identification of harm to crops, honeybees, and domestic animals, in addition to adverse impacts to human health, wildlife, and the environment.*

The above merely summarizes the benefits from pesticide use reporting. The main burdens from implementing a PUR system would include cost and additional workload for the identified responsible parties required to provide PUR information. A key to program success will be to develop a system that can be adopted in a uniform manner, preferably supporting the system on a county-by-county basis.

Comparison of California, Oregon, and New York PUR Systems

Many states have some form of pesticide use reporting. However, the three states with the most comprehensive PUR systems include California, Oregon, and New York.^{iv}

California has the oldest system, with its roots in a limited program started in 1950 by the California Department of Food and Agriculture. California's program expanded in 1970 creating a "bifurcated system" where commercial pest control operators report all pesticides used weekly or monthly (restricted pesticides reported within 7 days) and farmers reporting the use of restricted materials monthly. Full implementation occurred in 1990. California currently exempts home and garden use from reporting. California's data is reported at section, township, and range, and all data are available to the public.

The program is financed primarily through a mill tax which is about 2.1 cents per dollar of pesticide sales at the point of first sale into the state. They do not rely on general state funds.

Maintaining the PUR system costs about \$1 million annually to the counties and about 4-6 FTEs at the state level.

The Honorable Tom Campbell
March 30, 2009
Page 4

California contains the largest agriculture industry, with approximately 8.5 million harvested cropland acres, compared to 3.8 million in New York and 3.1 million harvested cropland acres in Oregon.^v Washington has 4.9 million harvested cropland acres.

New York began developing their PUR system in 1996. Commercial applicators report annually and pesticide sales data are also collected.^{vi} Home and garden uses are exempted from reporting.

Pesticide applications are reported by street address and zip code, although commercial applicators have asked to submit latitude and longitude (which NY currently cannot accept). Data at street address level are not readily accessible. Potential data users must petition to an established research board to gain access.

Funding for NY's program is primarily from a special state environmental protection fund. Although fines are assessed for violations, these monies go directly to the general state fund, not the PUR program. Maintaining the PUR system costs approximately \$2 million annually, with about 3 FTEs.

Oregon began planning their PUR system in 1999, but it did not become fully operational until 2007. All pesticide users except for households are required to report annually. Pesticide applications are reported by water basin; there are 15 basins in Oregon. Given the aggregation of data by such a large geographic location, the data are of little use and many of the benefits described above are currently not being realized by Oregon. Also, the information is kept confidential which limits public use.

Funding for Oregon's program is half from general state funds and half from pesticide product registration fees. The cost to implement Oregon's electronic reporting system was \$1 million and to maintain it annually is approximately \$600,000, with about 3 FTEs.

Analysis

California and New York started their PUR programs by accepting both paper and electronic submissions. However, they are fast moving towards predominantly electronic systems. Based on this experience, Oregon opted for an electronic system only. California has a predominantly electronic and scannable system, with paper submissions requiring a lot of support. All states agree that accepting paper submissions significantly increases the cost of the PUR programs due to the need for data entry personnel or contract services.

Those reporting sub-groups that tend to prefer submitting paper records are small and/or subsistence farmers. It may be more cost-effective to provide these small groups with technical assistance to enable them to report electronically rather than develop a state-wide reporting system that accepts paper submissions.

Oregon and New York require sellers to report pesticides sold. This is useful in tracking urban pesticide uses, however obtaining geographic information other than zip code for pesticide sales may be difficult.

Recommendation: Based on the experience of other states, the legislature may want to consider exempting or phasing-in the reporting requirements for small or subsistence farmers, or for sellers. Such a measure would enable the state to develop an electronic or scannable system only, which would reduce the costs of implementing a PUR system. If small or subsistence farmers are eventually included into the PUR system, the state should consider providing them with technical support so they could meet the reporting requirements.

California and New York have data indicating more precise geographic locations of pesticide applications which are more useful to health and environmental researchers. New York applicators are requesting the ability to report by latitude and longitude. Additionally, California requires reporting weekly for restricted use pesticides applied by commercial applicators and monthly for everyone else. This more frequent reporting ensures that data are more readily available in the event of a public health emergency.

Recommendation: Based on the experience of other states, the legislature may want to consider requiring more precise geographic location, such as section, township and range, or even the possibility for applicators to submit latitude and longitude. HB 1946(2007) only required zip code, which may not be as useful for health or environmental research.

Recommendation: More frequent reporting such as weekly and/or monthly, rather than annually, would provide data that could be used in pesticide illness incident investigations.

Oregon and NY implemented PUR systems with substantial limitations on data usage which curtail the potential benefits to health, the environment, and to agriculture. The data California gathers have been completely accessible to the public for over 40 years without substantial complaint from any interest group. Therefore, the California PUR has produced more useful information.

Recommendation: Make all data publicly available. If all data cannot be publicly available, it could be made available at the county level with an established health research board to review requests for the data by more specific location.

Most states exempt reporting of disinfectants as pesticides and also exempt households from reporting.

Recommendation: Exclude disinfectants from any legislative proposal of a PUR system. Also exclude households from reporting.

The Honorable Tom Campbell
March 30, 2009
Page 6

Conclusion

Given the infancy of the Oregon PUR system, and the limited benefits the state has realized to date, the PIRT subcommittee on PUR suggests using the New York and California systems as models. These systems are older, better tested, and have experience reducing the burdens of such PUR systems while enhancing benefits.

In the fiscal analysis of HB 1946 (2007), WSDA estimated costs to contract the design and development of a PUR system as \$1.2 million. However, this assumes a system that would accept both electronic and hard copy reports from pesticide users. The subcommittee suggests developing a system that would accept only electronic submissions. This action would significantly reduce the start-up costs of a PUR system in WA.

California has experienced fewer problems in implementing their PUR system and they have a strong county infrastructure, likely due to the fact that their PUR system was developed over a longer period of time. Based on this experience, to reduce the cost burden, and to provide for a time period to evaluate a new PUR system, the subcommittee suggests developing a PUR system that would phase-in over time. For example, a WA PUR system could begin by requiring report from commercial and licensed applicators and large farms.

To be of use for health and environmental research, the subcommittee suggests frequent reporting of pesticide application similar to California, weekly reporting of restricted use pesticides and monthly reporting for general use pesticides. Also, such reporting needs to be by a useful geographic location, preferably by section, township, and range, and including the option of providing latitude and longitude for those applicators who have access to GIS and prefer to report in this manner.

The majority of the PIRT panel members present at the March meeting voted to approve this letter. The Washington State Department of Agriculture and the Department of Labor & Industries representatives voted to abstain. No PIRT member was opposed.

Please let us know if you have any questions or need additional information.

Sincerely,



Cynthia Lopez, Chair
Pesticide Incident Reporting and Tracking Panel

cc: PIRT Panel Members

REFERENCES

ⁱ November 15, 2007 PIRT Meeting Minutes, "Pesticide Use Reporting" presented by Ted Maxwell and Kirk Cook from WSDA.

ⁱⁱ http://www.oregon.gov/ODA/PEST/purs_index.shtml and <http://www.cdpr.ca.gov/docs/pur/purmain.htm>

ⁱⁱⁱ Interviews with Margaret O'Neil and Grace Ferrell from NY Department of Environmental Conservation. Interviews with Chris Kirby and Sunny Jones from Oregon Department of Agriculture. Interviews with Lisa Ross, Mary Votaw, and Ada Anne Scott from California Department of Pesticide Regulation.

^{iv} Oregon Department of Agriculture. *Oregon Pesticide Use Reporting System. Analytical Review*. May 1, 2000.

^v <http://www.ers.usda.gov/StateFacts>

^{vi} <http://www.dec.ny.gov/regulations/8867.html>

Table 1

STATE	AGENCY	YEAR STARTED	FUNDING SOURCE	START COSTS	MAINT. COSTS	REPORT TYPE	PARTIES REPORTING	TIME PERIOD	GEO UNIT
California	Department of Pesticide Regulation	1950 1970* 1990* *Expanded	Mill tax; Registration fees; Licensing fees; Renewal fees; NO GSF	Approx \$1.5 million; Approx 8 FTEs plus county staff ¹	Annual approx \$1 million to counties; plus 4 FTEs to state	Electronic, Scannable, & Manual (Paper); most submissions electronic	Commercial pest control operators; Farmers report restricted materials only; Structural applicators	Weekly for commercial; Monthly for farmers and structural	County, Section, Township, Range, Base & Meridian
New York	Department of Environmental Conservation	1996	State funded from special fund - Environmental Protection Fund	Approx \$2 million; Approx 6 FTEs	Annual approx \$1.5 million; Approx 3 FTEs, plus data management contract	Electronic & Manual (Paper); about 60% electronic and increasing	Certified applicators; Technicians; Sellers; Homeowners exempted	Annually, this is a minimum	Street Address, City, Zip, Mile Marker; Applicators want Lat/Long
Oregon	Department of Agriculture	1999 2002 2005 2007* * Full on-line system	GSF 50%; Pesticide product registration fees 50%; Fines for non-reporters	Approx \$1.2 million; Approx 3.1 FTEs	Annual approx \$600,000; 3.1 FTEs and approx 4 FTEs of IT	Electronic only; No disinfectants	Everyone but households	Annually, Reports due February 1 for prior year	Water Basin (there are 15 in OR)

¹ This estimate is based on a study conducted by California approximating what it would cost to start a PUR system today.

Table 2

STATE	VARIABLES	WHO HAS ACCESS	USES
<i>California</i>	Month & year of application; county, section, township, range, base and meridian; operator ID/permit #; operator name & address; applicator name & address; site ID; crop treated; acres planted; acres treated; application date & time; application method; USEPA/CA pesticide registration #; product name & manufacturer; total applied; person preparing report	Anyone, no restrictions	Department of Environmental Conservation uses data to assess wildlife impacts; helps with groundwater sampling and well placement; used in product registration decisions; helps with decision to restrict product uses
<i>New York</i>	Location of intended application by address, zip code, town, city; billing address; EPA registration number; product name; quantity purchased; date of purchase. Commercial applicators also report dosage rate, application method, target organism, and place of application.	Everyone has access to data aggregated by county and some zip codes; Agreement required and health research board assesses all data requests for data by more specific location, e.g., address	Health research
<i>Oregon</i>	Location (water basin or zip code), date, site category and/or specific site, product name, EPA registration number, amount of undiluted product, application purpose, person preparing report	OR Department of Agriculture data reported by water basin in an annual report to the public; researchers may request data which is reviewed by agriculture department.	Accounting of pesticide use; environmental & health research by water basin