

California's Pesticide Use Reporting System (PUR)

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Outline

- 1 Description of the PUR
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- 4 Challenges
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History of the PUR

- California first required limited reporting of pesticide use by **1950**.
- The PUR database contains records starting in **1974**.
- Current full use reporting system started in **1990**.
- The PUR database contains over 2.5 million records each year since 1990.



What is Reported

- All pesticide applications in California **production agriculture** must be reported to the appropriate County Agricultural Commissioner's office.
- All pesticide applications made by **commercial pest control businesses** must be reported.
- **The exceptions:** pesticide applications made by home and garden use or most institutional use are not reported.



Two Types of PUR Records

Production agricultural applications

- Applications to agricultural fields
- California defines agriculture broadly, including forests, parks, rangelands, turf
- Each record in the PUR refers to one application

Monthly summary reports

- All other uses by commercial applicators (post harvest, landscape, structural)
- Each record refers to total use of a pesticide during each month on a site in a county by the applicator

Data Collected for Production Agricultural Records

- Pesticide product used (its name and EPA registration number)
- Amount of product used, in gallons, pounds, or other units
- Crop treated
- Area of the crop planted
- Area of the crop treated
- Date of treatment
- Geographic location of the treatment (to a square mile)
- Grower or operator identifier
- Field identifier
- Method of application (by air, ground, or other method)

CalAgPermits

- Last year (2012) a new PUR/permitting system was implemented: CalAgPermits.
- This system is a comprehensive tool for counties to manage pesticide permit and use report data with integrated mapping.
- It is fully web-based.
- Use reports can be submitted using online forms or via a variety of commercial software products.
- It is funded by CACASA and DPR.

CalAgPermits

- It is a money saving advancement.
- CalAgPermits provides better validation before data arrives at DPR.
- It provides real-time feedback for DPR validation results.
- PUR data gets entered into the database more quickly than in the past.
- It provides better location accuracy with GIS integration.

Economic Costs

- DPR and CACASA both contribute up to \$1.64 million to operate PUR and CalAgPermits each year.
- However, CalAgPermits includes more than the PUR, such as issuing Restricted Materials Permits.
- There is also a cost for the growers or other applicators who must input their information.
- There are several third-party farm management software systems that include use reporting as one component.

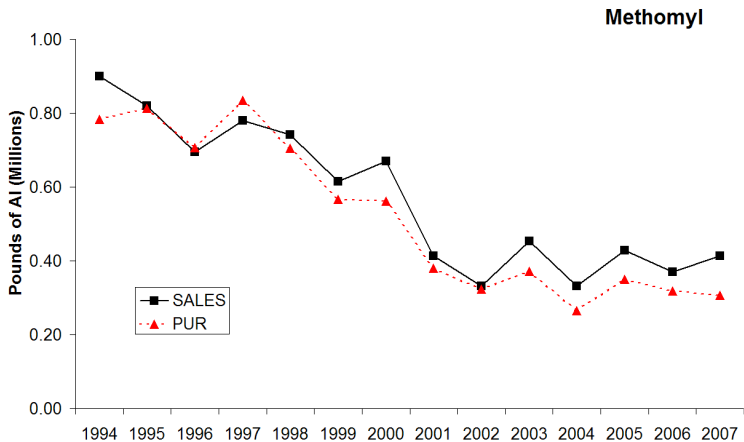
Importance of Error Screening

- It is critical that the PUR be as accurate and complete as possible.
- Even a few errors can have large effects on an analysis.
- The PUR is screened for about 40 kinds of errors.
- Error rate is less than 0.5%.
- Probably 80 to 90% of actual use is reported.



PUR vs Sales Data

Methomyl



Strengths of PUR

- PUR data includes detailed records of each agricultural application.
- Data are obtained from a census not just samples.
- Data are GIS friendly.
- Data can be linked with many other databases on the chemical, environmental, and health properties of pesticides.

Uses by Government

- Risk and exposure assessments
- Determining pesticide tolerances
- Endangered species
- Environmental monitoring
- Pest management strategies

Uses by Other organizations

- Researchers
 - Evaluating IPM programs
 - Epidemiological studies
- Public interest groups
 - Consumer and farm worker protection
 - Land use planning
- Agricultural industry
 - Marketing and research
 - Japanese MRL Prioritization Project
- For links to many different studies using the PUR, including a list of publications, see: agis.ucdavis.edu/pur/

Limitations of the PUR

- Does not include most applications to non-agricultural sites or to animals
- Non-agricultural records are monthly summaries by county
- PUR uses only a limited list of the major crops and so has no information on some minor crops or specific varieties
- Many pre-plant fumigation records do not include the crop to be planted

Limitations of the PUR

- No date of planting or harvest
- No pest information
- No information on person or business making agricultural applications

Conclusion

- The PUR is a valuable source of high quality and detailed data on pesticide use over the last 40 years
- The PUR is maintained by a wide range of state and county agencies and private companies
- The PUR can be used for a wide range of purposes
- There are limitations in the data, such as lack of pest information and incomplete urban pesticide data

Questions?

