

4 February 2003, PUR Workgroup -- Notes

The sign up sheets indicated 50 people attended the meeting. These people are from UC Davis, UC Berkeley, UC Riverside, California Department of Pesticide Regulation, California Department of Food and Agriculture, State Water Resource Control Board, Regional Water Resource Control Board, State Air Quality Control Board, County Agriculture Commissioner, Pesticide Action Network, California Alliance for Family Farmers, Valley? Non profit organization, Winegrape growers. UC people included professors, specialists, farmer advisors, technicians, graduate students. We had positive feedbacks about the meeting. Thanks to the steering committee for the hard work on this event. Thanks to John Steggall for taking the notes for the meeting.

1. Morning Presentations Session

Dr. Larry Wilhoit presented "Methods for assessing data accuracy in the PUR using Sales data tracks and other agricultural census data from county agricultural commissioners' office, department of Food and Agriculture, USDA Agricultural Statistics. If averaged over years, NASS data is what you'd expect compared to PUR and considering it's from surveys, i.e. it fluctuates randomly, higher and lower than PUR data depending on years. About 13% of records for 1998 had rates greater than maximum label rates (from CDFA label database). Rate of use compared to pesticide label rates. Errors in PUR can be in pounds applied or acres treated. Outliers Criteria: greater than 200 lbs/acre (0.02%), 50 lbs/acre median (0.11%), neural network (0.39%). Acres planted. CDFA vs. CAC vs. PUR. Orchard crops - good agreement. Other crops, e.g. strawberry are way off.

Dr. Lynn Epstein presented "Correlating pesticide use with new IPM practices". The use trend indicated that not much of a case for use reduction since PUR began. Lynn/Susan use a different set of data cleaning procedures than Larry. Biopesticide use is very low. Some growers tried these but abandoned after a year or two. No correlation with use of low risk, biopesticides and old methods - growers appear to be using new products in addition to older materials. Environmental IPM models often promote more usage of pesticides than what most growers are doing on their own. Growers quickly adopt new fungicides. Pheromone usage has gone up dramatically. OP vs. pyrethroid usage -- had inverse correlation. Almond growers have dropped OPs. Stone fruits have switched to from OPs to pyrethroids. UC researchers have many assumptions (when designing research programs) related to IPM, UC pest management guidelines, new technology, whether they're working with random sample of growers, etc.

Dr. Martha Harnley presented "Epidemiological studies using the PUR" trying to understand health problems vs. air pollution sources. She used PLSS, PUR, & US Census blocks in case-control or cohort studies. Resolution of PUR data is per section - this is a limiting factor. She used toxic air contaminant (TAC) data from DPR and examined chlorpyrifos, diazinon, & household dust levels. She also included weather variable in her study. The regression analysis concluded that correlations exist between usage & air concentrations, i.e. PUR is useful in such studies.

Dr. Minghua Zhang presented "Some examples in pest management using PUR. Examples include almonds and prunes OP use and the alternatives pesticides. The OP use declined in both crops and the other alternatives increased in the last decade. She also showed a large variations in using the Op and other pesticides in pest management. The message is to get the information back to the growers so the grower community may have better explanation of why the large variation of use existed and how we can use the variation to encourage the reduction of highly toxic pesticides. The PUR is a powerful tool to track the history of pest management and to understand the past pest management practices.

Mr. Steve Orme talked about the development of the PUR on the web. He also shared a few insight understandings of the PUR and the assessment of data quality and how to go about it.

Dr. Donald Weston from UCB talked about pyrethroid detection. He used PUR to choose top 5 counties for pyrethroid use. PUR also provided info on month of greatest use of the pesticide on crops, etc. He focused on his study by examining areas near lettuce, alfalfa, and almond production, in four counties (Stanislaus, Sutter, Fresno, & Madera) for the Feather River & San Joaquin River, some creeks, & sloughs. He looked at permethrin, esfenvalerate, bifenthrin, lambda cyhalothrin, DDT, etc. Tailwater ponds & drainage ditches had the highest concentrations. He also did bioassays with a couple of aquatic zooplankton and looked at absorption in the gut of a marine worm. Pyrethroids were detected at (down to) 1 ppb at 16 of 17 sites at ranges of < 1 ppb - 507 ppb.

2. Comments from the group discussion for the workgroup proposal:

Additional Objectives to be considered:

- * Make PUR useful to growers & regulatory agencies
- * Consistent tools for extraction & analysis
- * Encourage counties to standardize
- * Familiarize group members about data

Approaches:

- * Outreach to growers (magazines, web, etc)
- * Possible conference
- * More general publicity
- * Get more CAC participation
- * What about newsletter costs (may be better to stick with web -- save \$\$)
- * EPA funding may require narrower focus

3. Panel discussion and question answering session with Ada Scott, Larry Wilhoit and John Steggall – In general, the questions were more focused on the data availability and the analysis. Many questions were around the GIS PUR reporting and the counties' landuse GIS data.

4. Steering committee comments and discussion:

1. Concerns about the UC workgroup budget cuts.
2. It is agreed by the committee that we should organize another workgroup presentation meeting like this so that we can still have a forum to communicate the use of PUR. We will seek other funding possibility if the UC workgroups budget is cut. We plan to have the meeting in October sometime.
3. The committee agreed to use the available money to develop a website of PUR. Minghua will work with Joyce to find a student who can gather the information and Joyce will put the content on the Website for us.