

Executive Summary

Urban pesticide use presents numerous concerns related to human and environmental health. Pesticide application in residential, public, commercial, and industrial areas is threatening water quality in California watersheds. Urban pesticide user groups may have little pesticide training or knowledge of pesticides, appropriate disposal practices, safer alternatives and Integrated Pest Management (IPM). Additionally, the amount and type of pesticides used by some of these groups is unreported and unknown. More educational and outreach programs directed at these groups are likely to assist the reduction of pesticide use impact to human health risks and water quality; however, appropriate educational approaches for many of these groups have not been well examined.

To address these issues, we investigated pesticide use trends, behaviors, and educational resources for urban pest managers in the Arcade Creek Watershed (Sacramento County), Chollas Creek Watershed (San Diego County), and Upper Newport Bay/ San Diego Creek Watershed (Orange County). Specific objectives were to:

- 1) Identify non-residential pesticide user groups in urban environments.
- 2) Examine the pesticide acquisition, use, and disposal practices within each user group.
- 3) Investigate the sources of information about pesticides and integrated pest management (IPM) within each user group.
- 4) Identify the educational needs of each user group.
- 5) Develop recommendations on comprehensive and effective outreach approach/strategy for urban insecticide user groups.

We relied on three major resources for this study: the DPR Pesticide Use Report (PUR) database, interviews, and surveys. The PUR database was used to identify the primary urban pesticide user groups and to examine non-agricultural¹ pesticide use trends in the selected study areas. Personal interviews were conducted with pest management professionals, University of California researchers, urban watershed pollution prevention experts, representatives from professional organizations, and representatives from the Agricultural Commissioners' offices in the selected study areas. Three additional surveys were conducted: a survey of maintenance gardeners and pest management professionals, a web-based survey with University of California Cooperative Extension (UCCE) Advisors, and a phone survey with structural pest control companies, apartment managers, pet groomers and kennels, cemeteries, and parks and recreation departments.

Pesticide Use Reporting: We identified that Licensed Structural Pest Control Operators, Licensed Landscape Pest Control Professionals, and Public Agency Pest Control user groups report pesticide use. Pesticide users who are not licensed generally do not report pesticide use. These include:

- Residents who apply pesticides to their own homes or landscapes
- Some maintenance gardeners
- Pet groomers/kennels
- Employees applying incidental treatments at commercial businesses/buildings
- Employees applying incidental treatments at institutional facilities

¹ Non-agricultural pesticide use is defined as a monthly summary record (DPR Record Identification Number 2 or the letter C) in the PUR database.