

Executive Summary

In December 1995, the California Environmental Protection Agency's Department of Pesticide Regulation (DPR) retained Dennis H. Tootelian, Ph.D. to assist it in conducting a survey of publicly owned treatment facilities. Dr. Tootelian is a Professor of Marketing in the School of Business Administration at California State University, Sacramento.

The overall purpose of the study was to evaluate how best to conduct an expanded public outreach program targeted to residents and businesses to reduce illegal handling and disposal of pesticides. This was based, in part, on a grant that DPR had received from the U.S. Environmental Protection Agency to conduct such a program. The objectives of this study were to assess:

- The extent to which problems exist with specific pesticides (i.e., diazinon, chlorpyrifos, tributyltin, copper-containing pesticides).
- The extent to which problems exist with specific pesticide uses (i.e., industrial, business/commercial, residential, landscape maintenance and roadside weed control, agriculture, parks and golf courses).
- What types of outreach programs have been used by publicly owned treatment facilities.
- The perceived value of outreach programs, and what methods of communication and support materials would be most valuable to such future efforts.

Methodology

The population for the study was defined by DPR Management to be publicly owned treatment facilities in California. This was considered to be the primary group with which it would be involved in future public outreach programs.

To obtain information from the Managers of these facilities, it was decided that a mail questionnaire would be most appropriate. Mail surveys were appropriate for difficult to reach and geographically disbursed groups, and it allowed potential respondents with sufficient time to think through their answers.

The sampling plan used for this study consisted of both a random sampling element and the selection of specific facilities within targeted geographic areas. This was done because DPR Management wanted to ensure that certain areas which had experienced problems were included in the sample. The other facilities were randomly selected.

A total of 448 publicly owned treatment facilities were identified for inclusion in the survey. This was believed to be sufficient to achieve a broad representation of the State for purposes of the study.

The questionnaire was developed based on input from both DPR Management and the consultant. In addition to a cover letter which took the first panel, a series of ten questions were included in the

remaining panels. Since some questions were multi-part in nature, a total of 34 actual questions were asked. Multiple choice, dichotomous choice, and open-ended questions were included in this questionnaire. For attitudinal questions, five-point Likert-style scales were used.

Conclusions

Based on the results of this study, several conclusions appeared to be appropriate. They are summarized below:

- Of the pesticides studied, copper-containing pesticides were considered to pose the most significant problem. This was found for all respondents as well as those in the Bay Area.
- Respondents considered landscape maintenance and roadside weed control to be the most significant problem use for pesticides. This also was found for Bay Area respondents. Overall, agriculture was second, while in the Bay Area, it was residential use.
- A large percentage of respondents indicated they were uncertain as to how significant a problem various pesticide uses posed. This also suggests that the potential magnitude of the problems with pesticide use is unknown.
- One-third of the respondents have conducted public outreach programs, and the most common types of programs were exhibits and bill inserts. The messages conveyed tended to focus on proper disposal of pesticides, and protecting the environment.
- Public Service Announcements (PSAs), brochures for reprinting, and point-of-purchase displays were perceived to be the most valuable informational materials for outreach programs. While other informational materials also were considered useful, these three were the most commonly cited.
- Respondents perceived radio/television and bill inserts to be the most effective methods for communicating with the general public. Interestingly, exhibits and presentations, which were used extensively, were infrequently cited as the best method.
- The best months for conducting public outreach programs appeared to be April, May, and June. January, November, and December were viewed as the least desirable.
- While a somewhat greater number of respondents indicated that a generic outreach program created by DPR for use by service areas was preferable, a sizable number suggested a statewide program conducted by DPR. The findings indicate that there is no clearly appropriate way to undertake an outreach program.
- The great majority of respondents believe that a public outreach program would be valuable. This is especially important since their support for such a program would be invaluable for maximizing the impact of the program. Based on this study, it appears that widespread support does exist for a program.