

A marketing research approach for improving Extension publications

Gordon W. Frankie James I. Grieshop
 Carlton S. Koehler J. Kenneth Grace
 Kathleen A. Hesketh

A two-way exchange of information between producer and ultimate users could lead to more effective publications.

In July 1982, the University of California Cooperative Extension began charging for most of its publications, an action prompted by budgetary constraints. In effect, most of the existing 1,200 or so publication titles suddenly carried retail price tags, and unavoidably Extension entered into competition with commercial publishers such as Ortho and Sunset. This change increased the need for Extension to seek ways to improve the salability of existing and new publications.

The study reported here was undertaken in the belief that the salability and quality of Cooperative Extension publications could be dramatically improved in the area of urban pests, pesticides, pest management and gardening if selected marketing research techniques were used to develop new information and revise existing publications. In its simplest form, the marketing approach seeks first to develop research information about characteristic preferences, needs, wants, and limitations of user groups and then to design and develop products or services accordingly. This approach implies a two-way exchange of information between producer and user.

With regard to urban consumers, Cooperative Extension traditionally employs a one-way transfer of information. Some modest efforts to exchange infor-

mation between producer and user on the subject of urban pests have been made by university workers in Michigan and Minnesota. Their approaches, however, were based mostly on common sense and intuition and not on established marketing techniques that strive to measure human attitudes and behavior.

We began a feasibility study in the San Francisco Bay Area in 1983 to learn how selected marketing techniques might be used to assess needs and wants of urbanites for home pest and pesticide information. We offered consumers a free University of California publication on pesticides and then queried them, through an accompanying questionnaire, about this published information. The goal was to use the "tested" information later in revising the publication to address specific consumer needs and wants. Local grocery stores provided the setting for the survey. It was considered a pilot study because of its brief field duration (two months), its confinement to grocery stores, and the limited questions posed in the questionnaire.

Procedure



Advertisements for a free UC publication on the safe use of pesticides were placed in all 26 Safeway food stores in Alameda County. Survey findings from

previous studies indicated that more homeowners buy pesticides from grocery stores than from other outlets. Arrangements to place the advertisement were made with the stores' district manager and individual store managers. The advertisement was a brightly colored, postage-paid, 3- by 5-inch tear-off coupon attached to shelves in home and garden sections, pet supply areas, and store coupon distribution centers.

Coupons placed in stores on July 1 were monitored every 7 to 10 days until August 31, 1983. On the last monitoring date, coupons were removed.

Consumers who sent in coupons to the Alameda County Cooperative Extension office received a free copy of the UC publication *Using Pesticides Safely in the Home and Yard*. Each person also received a seven-item questionnaire consisting of mostly open-ended questions: how they learned of the publication; why they sent for it; where they usually got this type of information; and their general impression of the publication's content (that is, did it meet their needs and wants). Information from the questionnaires was tabulated for frequency data only.

Midway through the field study, a small advertisement for the free UC publication was published for a single day in the weekly Safeway specials insert that

NO POSTAGE
 NECESSARY
 IF MAILED
 IN THE
 UNITED STATES

BUSINESS REPLY CARD
FIRST CLASS PERMIT NO. 1742 HAYWARD, CA
POSTAGE WILL BE PAID BY ADDRESSEE


U. C. Cooperative Extension
224 West Winton Avenue
 Room 162
 Hayward, CA 94544

Using **PESTICIDES** to solve your **PEST** problems?
 If **YES**, the University of California Cooperative Extension has **FREE** information for you!

Simply complete this postcard and you will receive the **FREE** illustrated booklet:

USING PESTICIDES SAFELY in the HOME and YARD

Name _____
 Address _____
 City _____ State _____ Zip _____



Postage-paid tear-off coupons were attached to shelves in home and garden sections of Safeway supermarkets.

was sent out with several daily newspapers in Alameda County and vicinity. This brief advertisement was used to measure possible increased requests for the UC publication.

Results

During the two-month coupon exposure period, we encountered no difficulty with any store in maintaining the coupons on shelves. Occasionally, shelf stockers were observed accidentally dislodging coupon booklets, which indicated that routine monitoring was essential. Two months of coupon exposure generated 397 requests for the UC publication. From this total, 210 people (53 percent) returned the completed questionnaire.

Two basic groups of questions were posed in the questionnaire: those relating to information sources and those concerning publication content.

Information sources. Most respondents (79 percent) first learned about the publication from the coupons in Safeway stores; 8 percent learned about it from the single advertisement in a local newspaper; 7 percent heard about it through a friend, neighbor or relative; and 6 percent discovered the offer from a variety of miscellaneous sources. The 8 percent frequency recorded through the newspaper exposure is substantial, considering that the advertisement appeared for only one day.

After receiving the free UC publication, 44 percent of respondents said they told friends, neighbors, or relatives about this offer. When queried about their awareness of Cooperative Extension, 23 percent said they had obtained other information from this source.

When asked where they usually obtained information on pest problems, respondents cited nurseries (48 percent) most frequently, suggesting a strong bias in our sample toward gardeners. Friends, neighbors, or relatives (23 percent) were the second most frequently mentioned source. Eight percent of the respondents indicated two other sources: pest control operators and the UC Cooperative Extension/UC Berkeley campus. Radio/TV accounted for a scant 2 percent, which is consistent with findings from other similar studies. The remaining information sources consisted of reading material (5 percent), pesticide companies/labels (2 percent), and miscellaneous (4 percent).

Publication content. Most people reported they sent for the free pesticide booklet because of a claimed general interest in home pesticide use and safety (table 1). A substantial number, however, wanted to solve specific pest problems or were seeking information on gardening. Some individuals expressed interest in toxicants.

Respondents were asked to comment on perceived shortcomings of the booklet (table 2). The most frequent response was that the information was too general. Several individuals also mentioned that the publication lacked information on specific chemical hazards (related to generality observation). Poor organization and explanations were cited by some people. Approximately equal, but lower, frequencies were recorded for information deficiencies on pets and pesticides, on relating chemical to brand names, and on nonchemical pest control.

In a related, but more specific, question people were asked to list topics that were not thoroughly covered or that should be added (table 3). This question was designed to give participants an opportunity to expand on their needs and wants. The most frequent response was the request to relate pesticides to target insects and plants. Half as many people

felt that information on hazards of specific pesticides and general pesticide safety was lacking. Several individuals expressed a desire for information on nonchemical controls and pets and pesticides.

Conclusion

This study demonstrated the feasibility of using store coupons to advertise a university publication.

Responses to the questionnaire provided initial insight and a basis for future work on revising the publication. It was clear from this pilot effort that general information on pesticides must be revised to provide focus and more details. This deficiency indicated need for the following specific changes: (1) Relating pesticides to target insects and plants. This suggestion is significant, because it resulted from an open-ended question on consumer perception of what should be in a UC publication on pesticides. (2) An expansion of information on potential hazards and safety precautions associated with pesticide use. (3) Reorganization of written material and addition of new illustrations (for example, a table of contents, list of poison control centers, and specific instead of general illustrations). (4) Inclusion of information on pets and pesticides and on nonchemical controls. Reference needs to be made to other UC publications that deal more intensively with this kind of information.

The next logical step in this research is to develop new information for the revision as indicated from the questionnaire responses. On the four identified needs, only those concerning pesticides and target pests (point 1) and pets and pesticides (point 4, in part) can be assembled immediately from existing data. The other information could be developed using another marketing research tool — the focus group interview, in which a small group of interested consumers (four to eight people) is intensively interviewed by trained interviewers. A series of such interviews would inquire about specific needs and wants, such as the pesticide information desired and knowledge of pesticide hazards and risks.

In a new ongoing study in Sacramento, California, our research group is using a much expanded questionnaire and focus interviews to elucidate specific needs and wants of urban pesticide users. These interviews are yielding useful quantities of specific information for publication revision and development.

Gordon W. Frankie is Professor, Department of Entomology, University of California, Berkeley; James I. Grieshop is Community Education Specialist, Cooperative Extension, UC Davis; Carlton S. Koehler is Entomologist, Cooperative Extension, UC Berkeley; J. Kenneth Grace was formerly a graduate student, Department of Entomology, UC Berkeley; and Kathleen Hesketh was formerly Farm Advisor, UC Cooperative Extension, Alameda County.

TABLE 1. Question: Why did you send for the pesticide booklet?

Response	%
General interest in home pesticide use and safety	40
Wanted information to solve specific pest problem	17
Wanted information on gardening	12
Interested in toxicants and their effects on the environment	7
Combinations of above	21
Wanted information on nonchemical controls	1
Miscellaneous	2

N = 210 individuals responding.

TABLE 2. Question: Please list any shortcomings of this booklet (for example, unclear sections, areas that lack proper description, unnecessary topics, etc.)

Response	%
Booklet too general	37
Need information on specific chemical hazards, public health	20
Poor organization and explanations	13
Need information on pets and pesticides	8
Need to relate chemical names to brand names	7
Need information on nonchemical controls	7
Need information on insect identification	5
Need better information on pesticide labels	3

N = 80 individuals responding.

TABLE 3. Question: Please list any topics that are not covered thoroughly, or should be added to the booklet

Response	%
Relate pesticides to target insects and plants	33
Information on hazards of specific pesticides, general pesticide safety	16
Information on nonchemical controls	14
Information on pets and pesticides	12
Relating chemical names to brand names	5
Organizational deficiencies	5
Information on gardening and pesticides	5
Information on insect identification	4
Miscellaneous information on pests and pesticides	5

N = 96 individuals responding