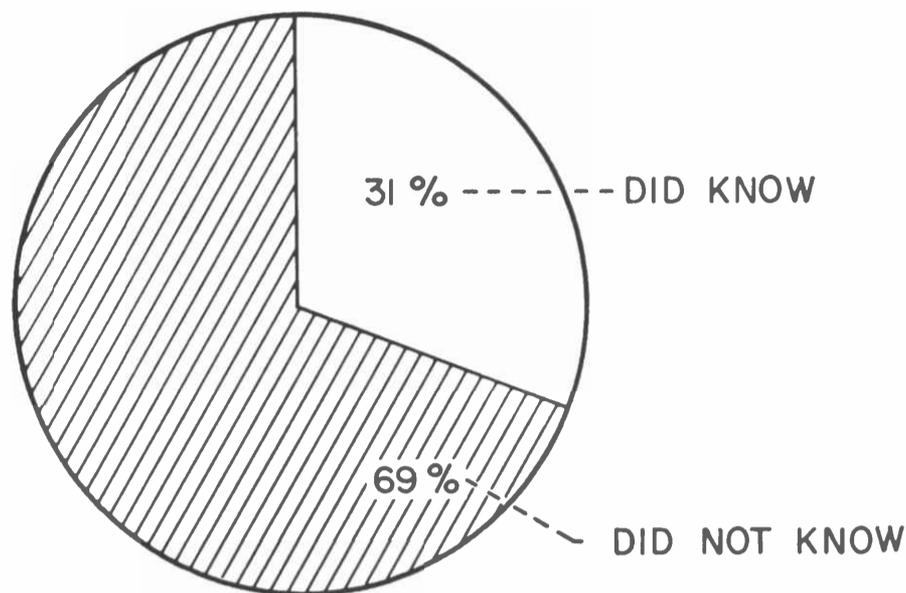


URBAN HOMEOWNERS



FARMERS

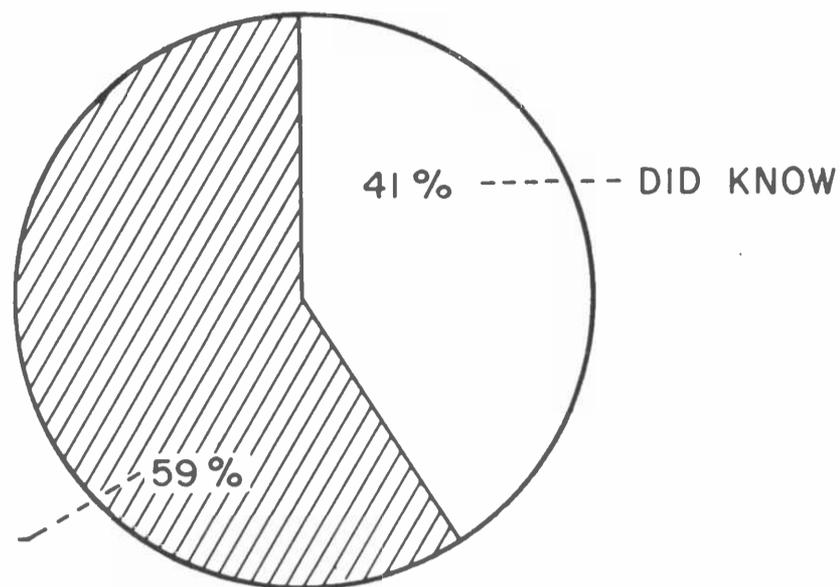


Figure 1. Percentage distribution in response to the question — “Do you know the existence of Poison Control Centers in your community?”

The use of insecticides has, in the last three decades, become an indispensable part of modern agricultural technology. In the present prospect of food shortages, their role may be even more crucial. Without chemical control of agricultural pests, not only would total farm production decrease, but increased food costs would have to be borne by the consumer. Since their introduction, the use of insecticides in agriculture has increased along with the development of a wider range of pesticides. Inevitably, a wave of concern developed about the potential hazards of insecticides both to man and to his environment. Public awareness was increased by the publication of *Silent Spring* by Rachel Carson in 1962.

Official concern about insecticides was evidenced by the establishment of a Presidential Scientific Advisory Committee in 1963 to investigate the effect of pesticides on man and his environment. While recognizing the need for continued use of insecticides, their possible dangers were emphasized by the Committee and greater educational efforts were urged to inform the user and general public about safe use.

The study reported herein provides a measure of the rural and urban public's opinion regarding various facets of insecticide use. It identifies several prevailing misconceptions and highlights the principal sources of information about insecticides.

Procedures for Opinion of Rural and Urban Residents

The target populations in this study were homeowners in Tucson and commercial crop farmers in Pima and Pinal counties. The basic premise in selecting two populations, urban and rural, was that their responses to variables would differ significantly between the two groups. The experimental groups of 200 in each group were chosen randomly from the City of Tucson Directory (1972) and from a list of commercial farmers in Pima and Pinal Counties (1973). In essence, the groups represented a large urban area and the predominantly agricultural rural community. A closed form of questionnaire was used to obtain the necessary information from individuals in the study groups. After five weeks a second mailing of questionnaires was made along with a personal letter.

Thirty four percent of the persons returned questionnaires with a slightly higher response from the rural group. The results were analyzed sta-

¹ Part of an M. S. thesis in Agriculture Education (Extension Option) by the senior author.

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Rural & Urban Residents ...

Differ in their Knowledge & Attitudes about the use of Insecticides*

by J. Ryan,

R. Stoller,

and L. Moore²

tistically with significant differences noted at the .01 and .05 levels. The most noteworthy features of the study are presented in the following discussion. The rural group is referred to as farmers and the urban group is referred to as homeowners.

Summary and Implications

While the findings indicated general public acceptance of insecticide use for various purposes, a consistently higher percentage of farmers than homeowners felt there was a need for insecticides on crops, in the home and in the garden. With respect to use on animals, only 54% of urban homeowners felt insecticide use was necessary compared to 85% of farmers.

Farmers and urban dwellers differed in their views on the economic implications of insecticide use. Farmers were more positive of the indispensability of insecticides in agriculture and were less willing than urban homeowners either to accept poorer quality foodstuffs or to make any financial sacrifice as a result of increased food costs if insecticides were not used. A higher percentage of farmers felt that food prices to the consumer would rise if insecticides were prohibited.

The urban group was apparently more concerned about the implications of insecticide use in relation to the environment and wildlife and was generally opposed to them from this standpoint. Fewer farmers considered insecticides to be environmental pollutants and a higher percentage of farmers answered that insecticides could be used to "improve the quality of the environment."

The vast majority of both groups replied that they usually read the labels on insecticide containers and believed them to have sufficient information for safe and effective use. While the majority of respondents were apparently aware of the hazards involved, a higher percentage of farmers (96%) than homeowners (73%) answered that the insecticides they used required careful handling. Notwithstanding the fact that the range of insecticides used varies with specific purposes, this discrepancy may suggest a complacent attitude towards insecticides by the urban group.

Both groups recognized that insecticide residues may accumulate in food produced and in the human body. However, the urban group was apparently more concerned about the



Figure 2. Percent Distribution of Principal Sources of Information About the Use of Insecticides for Farmers and Urban Homeowners.

possible adverse effects of these residues on health. This was reflected in the fact that almost twice as many farmers (65%) as homeowners (34%) did not consider insecticides to be a possible cause of cancer.

Both study groups were poorly informed of Poison Control Centers available for treatment of cases of insecticide poisoning. (Figure 1) Less than 50% knew of Poison Control Centers in their community or of hospitals which gave information on or treated cases of insecticide poisoning. Fewer homeowners (48%) than farmers (73%) believed that their local doctor was capable of dealing with cases of insecticide poisoning. However, most of them agreed that information on the product label would be useful to the doctor in such an event.

The urban group had little knowledge of the law in relation to insecticides. This was consistent with the findings of Brooks (1973) that rural audiences were more knowledgeable than their city counterparts in all as-

pects relating to pesticides. Most farmers were aware of the 1972 pesticide law and believed that this law affected them. However, only 60% of homeowners knew of this law and only 13% said they were affected by it. Similarly, a significantly greater percentage of farmers knew that insecticide use was controlled by law and that the law required sampling of foodstuffs in order to determine whether they contained excessive amounts of pesticides.

Farmers responses reflected a higher degree of knowledge of insecticide properties and uses than did homeowners. The latter group had an ex-

Brooks, T. M. "The Consumer and Pesticides," Unpublished Study, College of Human Resources, Southern Illinois University, 1973.

aggerated notion of the toxicity of DDT whereas the rural group correctly rated the order of toxicity of a group of insecticides. However, both groups lacked knowledge as to the

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