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## CHEMICALS IN AGRICULTURE AND FOOD

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Experience has given me a general understanding of the recourse or lack of recourse that consumers have through various federal government agencies. The limited power of these agencies in consumer recourse led me to some erroneous assumptions about these same agencies when it comes to establishing regulations that might influence the use of chemicals in food.

One is prone to accept the status quo. We don't worry much about public education in the regulatory decisionmaking process and possible judicial review of laws and regulatory actions.

A recent issue of *The Texas Observer* featured a cover story about the insecticide mirex being used against the fire ant in Texas. Reading the article, I had doubts about the validity of statements concerning the chemical and the process by which decisions of this sort are made.

I doubt that my questions were much different from those of other readers. I didn't know whether to be alarmed by the revelations or to dismiss the matter. I can turn to excellent food scientists for knowledgeable discussion of these issues. But to whom does the average citizen turn?

Popular literature can be alarming, and the press can be an important tool in the educational process. Extension, relative to other elements in our land-grant institutions, excels in its understanding and use of the press. Public policy education with respect to regulatory issues will demand the ultimate in press relationships.

Some of the information developed on these issues can be controversial and appear to be slanted. But if you have established rapport with the press and developed a reputation for weighing the issues and for reliability, the press can assist you in communicating with the public. The press will look to you for information and be willing to use the materials you prepare.

In considering the use of chemicals in agriculture, we can assume that:

1. Chemicals used in food and other agricultural production and processing can have both positive and negative effects,
2. The effects of using chemicals can extend beyond the production process into the consumption phases of a commodity's life,
3. The realized effects may have varying degrees of severity and different time dimensions, and
4. New information may render prior judgments inaccurate or inappropriate.

Most extension economists seem to be aligned with the agricultural production sector, but modern circumstances require that due attention also be paid to the consumption sector. Consumers are an element of the audience to which you as public policy educators must target your efforts.

You need to represent agricultural producers, but you also have an obligation to consumers and that takes in a lot of territory. The importance of this broadened definition of audience stems partly from the manner in which regulations evolve.

The Administrative Procedure Act, first passed in 1946, gives federal regulatory agencies their rule-making authority. How is the public's interest represented in the decision making processes of regulatory agencies? Some might argue that the public interest is protected through the requirement that most rule-making proposals be published in the *Federal Register* prior to final formulation. At best, this is tenuous protection.

The *Federal Register* is hardly exciting reading. Its voluminous contents can hide important items. Moreover, an agency can eliminate the waiting period for "good cause" in many instances.

The safeguards are a bit more secure in those procedures which require a hearing. In such instances, the record must show the ruling on each finding, conclusion, or exception presented. Such detail either results in more care or, at least, a basis for challenge.

Without getting overly involved in the details of the rule-making procedures, let me stress the importance of being alert to the issues in advance. After a rule has been handed down, it is too late. A public policy education program, therefore, will require that the planners be alert to possible rule-making issues in the offing and that they alert the public.

Let's return to the example of the use of mirex. According to one account, the Environmental Protection Agency issued a notice

of intent in 1971 to cancel the registration of products containing mirex. Reasons given were that substantial questions about its safety had been raised. Notice what happened next: Allied Chemical, the sole formulator of mirex at that time, appealed the action; the issue was referred to an advisory committee. Within a few weeks, EPA reinstated the regulations. Without debating the merits of the issue or how it was handled, one has to conclude that prompt action by Allied Chemical made the difference.

More than just being alert, individuals and organizations must take the initiative in expressing their concerns to the appropriate agency. But which is the appropriate agency? The jurisdictional maze can be complex. In trying to understand your way through the regulatory tangle, Ralph Nader suggests you start with a problem.

Most problems are such that different agencies are likely to have jurisdiction over various aspects. Chemicals in food or other agricultural production are most likely to be under the jurisdiction of the U.S. Department of Agriculture.

However, the Food and Drug Administration comes into the picture when the quality of processed food is called into question. Nor can one ignore the Environmental Protection Agency. Therefore, any educational program must include due attention to (1) the organization of each of these agencies, (2) the units within each agency which are relevant to the issue at hand, and (3) the regulations it has issued.

It is foolish to suggest that the procedures, regulations, and jurisdictional guidelines can be systematically summarized because these have evolved piecemeal rather than from an overall plan. Nevertheless, those giving leadership to educational programs must simplify the essentials and give the issue definable limits.

What appears to be the greatest challenge, in my view, is the analysis of the problem in all its facets, giving due attention to the concerns of the producers, processors, retailers, and consumers. That is a tall order. To work effectively in the regulatory realm, the education of the public must occur before the rules are finalized.

Some of the technical information is probably still being gathered. But that will not interfere with addressing the basic questions that come from consumers and so frequently go unanswered, or worse yet, are turned away with indifference:

1. Does the chemical leave residual effects in the food after normal processing?

2. If there are risks from using the chemical, what would be the cost impact on the final product if the chemical were not used?
3. What is the effect of the chemical on humans?
4. Does the body store the elements? Does the element affect only certain organs?
5. Does the chemical interact with other body elements and/or other processes?
6. Are the nutritional values of the foodstuff altered by the use of the chemicals?
7. Is there any impact on the keeping qualities?

In planning an educational program, remember, you will want to reach consumers, not just producers. Illustrate the options available to individuals and families. Demonstrate differences in levels of production, product availability and quality, and commodity costs with or without chemicals. Think through with your clients the many ramifications for their lifestyles that might result from a substantially altered approach to production.

Try to elicit their feelings about such changes. Are we willing to buy flawed fruits and vegetables? The properties of natural fibers make them comfortable to wear, but will the garments made from cotton and wool fabrics be bought? or do we require chemical treatments that give them easy care but which also can be harmful to limited numbers of people or to the environment.

Questions put to home economists bear directly on the use of chemicals in food and fiber products. For example, if a food preservative is omitted or reduced in quantity, what changes must occur in handling and preparation of that product to maintain safety?

Nitrate and nitrite are used to extend the shelf life of processed meats. But is the quantity used necessary for the average time from processing to consumption? Does the preparation method affect the chemical levels? If the chemicals are not destroyed, how do they react or interact with other elements of one's body chemistry?

These may appear to be pedestrian concerns to you. But they are important to the person who is trying to make ends meet on limited income, providing nutritional and healthful foods to dependents, working with limited storage facilities that must serve a variety of food stuffs, who has limited preparation time, and

who also cares about the possible long term effects on different members of the family.

Such questions must be answered forthrightly, even if the answer is "I don't know" or "precise information on that isn't available now". How such questions are answered will influence the future demand for the commodities of your producer-clients.

Because of this close relationship to product demand, I urge close attention to concerns of the consuming public. A public policy education program which attempts to deal with the regulatory realm must effectively combine production and consumption considerations.

To accomplish this, those working in family living programs must become bona-fide partners to the undertaking. Besides your own educational enhancement, you will strengthen the communications linkage that is necessary to working in the system. The program will be effective to the extent that your clients take action.

An important aspect is attempting to recruit sympathetic administrators. Yet, administrative lobbying is the least developed link in the traditional attempts of consumer groups to influence public policy. The Washington lawyer is the basic unit of industry representation. Such a person spends little time in court but knows his way around the agencies. Most importantly he or she knows what is in the works at an agency long before a proposal finds its way into the *Federal Register*.

Can extension, research, or resident instruction afford any less? The charge is often levied that regulatory agencies become the handmaidens of the industries they are to regulate. Many of the readings would substantiate the charges. Yet, who is at fault? The editor of the Naper report on regulatory agencies asserts that:

It is not through bribery or treachery that agencies come to view the problems of industry more sympathetically than they do those of consumers. The fundamental problem is that the regulators see those who represent industry on a near daily basis, while consumer representatives are rarely seen.

In a staff paper prepared as an evaluation of the Ash council proposals by the Brookings Institution, Roger Noll takes a harder line:

...the regulatory agencies, by attempting to maintain the status quo in regulated industries, are making policies that

are not in the public interest. Consequently, the performance of regulated industries falls short of a reasonable, attainable social objective, because the regulators have a different definition of the public interest than does society generally.

This, if true, magnifies the importance of the challenge before us: if the rules and regulations pertaining to the use of chemicals in food and other agricultural production are to reflect the views of consumers, processors, and producers, it will depend on the educational programs you devise. You may say the interests of these groups are too diverse. My response can only be that all of these groups are parts of society and each must be served by the same regulations. That can only mean compromise.

The major elements for the development of a public policy education program include:

1. Identification of a problem in advance of related rulemaking.
2. Formulation of the problem in terms of the jurisdictional agencies and the processes that must be followed.
3. A broadening of target audiences to include consumers.
4. Recognition of the diverse interests of producers and consumers.
5. Development of the press as an ally.
6. Establishment of communications at agencies before you really need to communicate.
7. Examination of what it would mean not to use chemicals in food.
8. Recognition of the alternatives and the ramifications of each.