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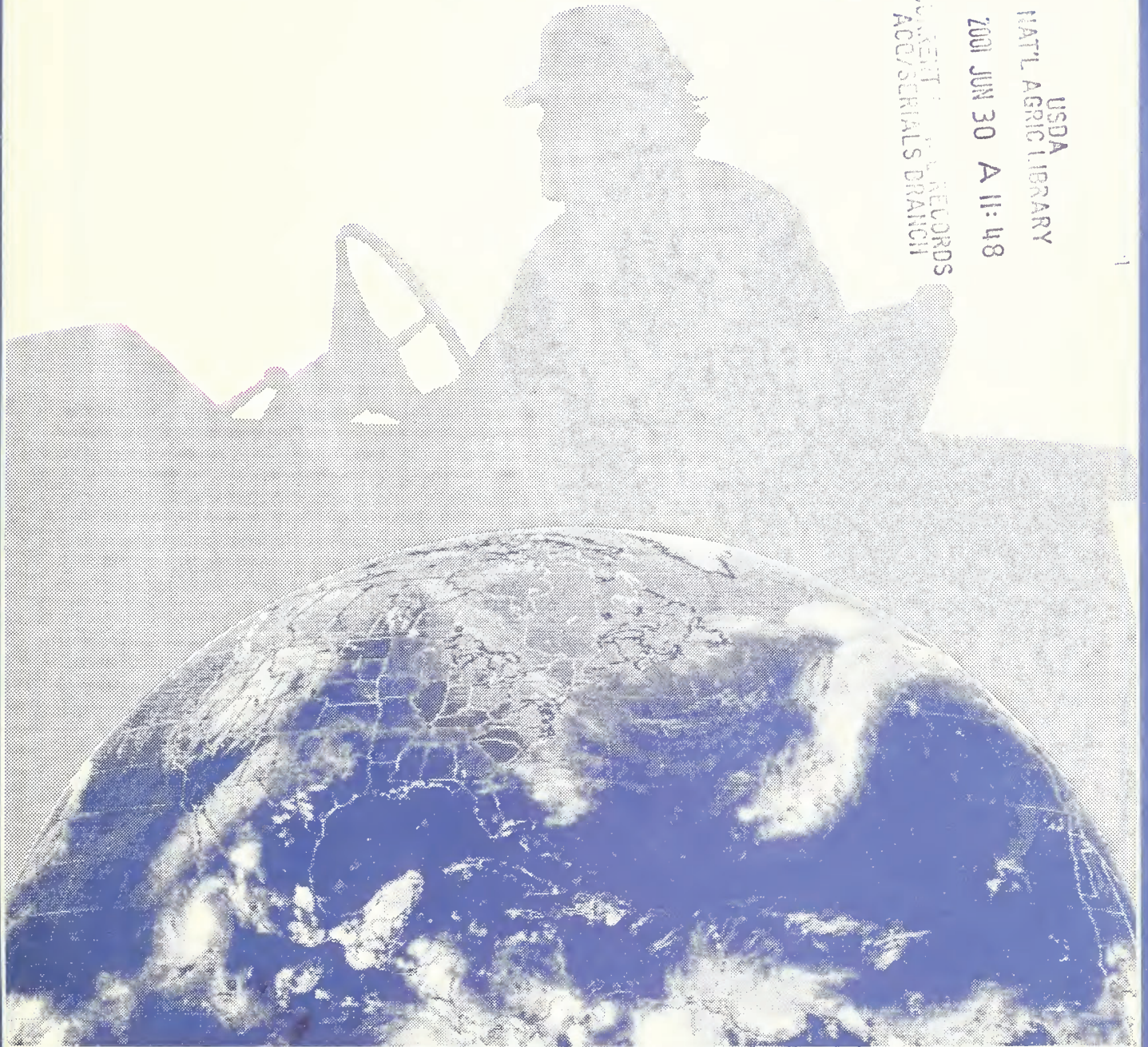
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## CONSUMER PERCEPTIONS ON SCIENTIFIC SOLUTIONS TO FOOD SAFETY & ENVIRONMENTAL DILEMMAS.

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Food safety and environmental issues are of particular concern to women. This fact is certainly not surprising. After all, women are still the chief shoppers, preparers and servers of food and they generally carry the responsibility for feeding themselves and their families safely and nutritiously.

Food safety considerations have become an integral part of buying decisions. In fact, in a survey conducted in April/May of 1990 by the Consumer Research Department of the Good Housekeeping Institute, safety was named as the most important consideration when shopping for food. Almost 40 percent of the respondents said they no longer take the safety of foods for granted, but feel they must check everything they buy.

Concern about the environment is also increasing. When Good Housekeeping asked 1200 women what they felt were the three most important problems facing the United States today, the environment was second only to drugs in its frequency of mention.

In many instances, food safety is coming under the umbrella of the environmental movement. We are rapidly moving from a demand for "safe" food, to a demand for "clean" food. However, the definition of clean food is open to wide interpretation. For many it is the food in local supermarkets. For some, it is food with no detectable pesticide residues. Still others demand food grown without pesticides. Any food that contains additives or preservatives is not considered clean by some individuals, while others eliminate meat, or any foods containing animal products as well.

The common thread that runs among all of these definitions of clean food, however, is the fear of chemicals--a fear that seems to be growing. In a 1985 Institute survey, consumers were asked if they thought that chemicals were ever "good for you." Eighty-one percent said "yes." But in a 1990 survey, only 59 percent gave a positive response to the question.

Furthermore, one out of two consumers said that the smallness of the amount of a potentially unsafe ingredient does not reduce the fear of that ingredient.

Consumers fear chemicals because they associate them with another powerful fear--the fear of the unknown. They are afraid that chemicals that are thought to be safe today will be found to have terrible consequences years later. They also strongly associate chemicals with cancer.

This fear of chemicals is revealed in many ways. For example, surveys show that consumers most commonly use ingredient labels on packaged foods to cut "bad" things out of their diets. Most often rejected are ingredients with chemical-sounding names such as additives and preservatives. But ingredient labeling does allow the consumer to make a choice, so any risk--real or imaginary--is more acceptable.

The Alar crisis caused food fears to skyrocket. This was a scare that focused, not on a heavily processed product with an unpronounceable ingredient list, but on apples--a product from Mother Nature. Consumers felt deceived; they were no longer in control of their food; they had not chosen to take this risk. Even worse, the Alar scare focused on the most feared disease--cancer--and the most innocent and vulnerable victims--children. Science proved no match for the emotions this issue generated.

Even though Alar was not a pesticide, this chemical was used as a springboard to accelerate a panic over pesticides. It is particularly difficult for consumers to take a rational approach to risk assessment for pesticide use since there is no question that pesticides are potentially toxic chemicals.

Scientists try to convince the consumer that pesticides are safe by talking about negligible risk and statistical probability. But how many mothers are willing to accept the probability of one chance of harm in a million exposures after she sees a picture of this mother and her son who was born with no arms or legs, allegedly due to prenatal exposure to pesticide residues?

Although the caption on the photo clearly used the word "alleged," the food purchaser, who is primarily female and often a parent, will not pay attention to that stipulation. Nor will she ask about levels of exposure, or type of pesticide, or any other rational question. Emotions take over and she simply personalizes that mother's situation and internalizes it---thinking, what if that one in a million were my child?

Another problem is that many consumers question the benefits of

pesticides. In the Institute's 1990 survey, half the respondents thought that the use of pesticides decreases the quality of produce and 46 percent thought that pesticides increase the price of produce.

Yet despite consumers' concern with chemicals in the food supply, most experts say that microbiological contamination poses the greatest risk.

Consumers also recognize microbiological hazards as part of the clean food issue. Food poisoning was given as the top health-related food hazard in the latest Institute survey. "Spoilage and germs" was also the specific food safety concern most often mentioned in the Food Marketing Institute's 1990 Trends survey.

Consumers worry about food not being fresh, and not being handled properly. They worry about refrigerated cases in the supermarket not being cold enough, meat cases not being clean enough, and chicken being contaminated with salmonella.

However, consumer concern does not carry over to food safety in the home. Consumers might worry about refrigerated convenience foods not being stored properly in the supermarket, but they do not think twice about allowing foods to thaw overnight on the kitchen counter. They worry that the employee in the supermarket deli may not have washed his hands before slicing their cheese, but think nothing of using the same platter for both raw and cooked meat. In short, consumers are concerned about food-borne illness, but they are not willing to accept any blame themselves.

The risks of food poisoning are also more acceptable to consumers than some other risks because the effects of such food-borne illness tend to be more familiar and are usually reversible.

Consumer have to make decisions about what to buy and what to eat every day, yet they do not trust much of the information they receive about food safety issues. The public gets one message from activist groups, another from the government, and constantly changing warnings and reassurances from the media--so it's not surprising that consumers are confused and skeptical.

In Good Housekeeping's survey, the family doctor received the highest credibility rating when it came to food safety information, but few consumers actually received their information from this source. Family and friends, government, and consumer groups ranked together in the middle. Television was the top source of food safety information, but it ranked low on the credibility scale.

The food industry received the lowest confidence ranking by consumers. This is unfortunate since there is so much technical expertise in industry. Yet it is also understandable considering today's marketing climate and the food industry's tendency to play both sides of the fence. One group will spend millions on public relations and educational campaigns to convince consumers that food is safe, while another uses advertising campaigns that exploit and fuel consumer perceptions that food is unsafe in order to gain market share. Such a two-sided approach leads consumers to believe that the food industry has no ethics and is solely profit driven.

Consumer activist groups and the media certainly do their share of food terrorism as well, but consumers are more likely to recognize the profit motive of the food industry.

Whether or not consumers accept scientific solutions to food safety and environmental issues depends on their perceptions of the risks and the benefits of these solutions. But consumers perceive risks quite differently from scientists. To the consumer, manmade is equated with harmful while natural is perceived as harmless. Furthermore, harm in any amount is equated to harm in every amount.

These perceptions may prevent consumers from accepting the new technologies that may offer solutions to food safety issues as solutions and cause these technologies to be rejected as experimental, artificial and inherently risky?

We must find ways to help consumers demystify new technologies so that they can make sensible, informed decisions. If not, emotion-laden controversies such as we have seen over the use of food irradiation, will be repeated again and again.

Consumers are so confused, skeptical and angry that I doubt that any single group can restore consumer confidence in the food supply. We need innovative food safety programs in which experts in academia, in the food industry, in government, and consumer groups work together to help the consumer understand new technologies and put any risks into the proper perspective. Such programs must address not only scientific issues but also the subjective issues that scientists tend to ignore.

Only with open communication characterized by honesty, responsiveness and respect will consumers be able to make decisions based on facts not fears.