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CONCERNS OF THE AGRICULTURAL COMMUNITY

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On behalf of the New Mexico Farm & Livestock Bureau, I am pleased to appear here today to address the very important topic of water quality and ground-water protection. We believe there is a need for research, education, and technical assistance to agricultural producers in the area of water quality. From Farm Bureau's perspective, we think the Farm Bill is an appropriate vehicle to do some of these things and we will be working toward that goal.

The protection of our water resources, from both a quality and quantity standpoint, is essential to the future of agriculture. As has been noted many times in recent years, over 90 percent of our rural population relies on ground water as a source of drinking water. No one has more at stake over the protection of water resources than farmers and ranchers. They live on the land they work, and their own wells or irrigation water are often the first indication of possible problems. Water quality has been a concern of agriculture long before it became a "public" issue. Farm Bureau has had a water quality program and has conducted training and educational workshops for our members for more

than a dozen years. These programs have focused on both ground water and surface water protection, and have promoted practices designed to prevent contamination and soil erosion. I offer this only as evidence that contrary to public perception, farmers are vitally concerned about the issue and have been active in resolving the problem for some time.

As we have all learned in recent years, water quality is a very complex issue. A tremendous need exists for research into the causes of ground-water contamination, how to prevent it, and what effects trace amounts of contaminants will have on health and the environment. Indeed, the more we learn, the more we realize the need for additional information. Contrary to early thinking, the evidence from an Iowa study is now showing that the general application of pesticides and fertilizers may not be the primary cause of contamination. Rather than this being a nonpoint source problem, it now appears much of the contamination can be traced to point sources, such as sink-holes, cracked well casings, drainage wells, applicator mixing and loading sites, and commercial facilities. Such information is

extremely important in determining what the appropriate response should be. It also suggests that we should proceed cautiously or we risk spending time and money responding to the wrong perception.

Furthermore, it underscores the fact that this is ultimately a problem where the solutions are local in nature and generally site and soil specific. We believe public policy should recognize the need for states and local governments to have primary responsibility for addressing this issue. However, an essential role exists for the federal government to play if we are to have a consistent and coordinated response. Specifically, we believe the federal government must take the lead in developing standards, establishing broad policy guidelines, undertaking research, and providing technological and financial assistance.

From agriculture's standpoint, we believe the U.S. Department of Agriculture is particularly well suited to address those aspects dealing with research technical assistance and cost sharing. The Soil Conservation Service (SCS), the Agricultural Stabilization and Conservation Service (ASCS), the Agricultural Research Service (ARS), the Cooperative State Research Service (CSRS), and the Cooperative Extension Service all have extensive technical, scientific, data collection, and outreach capabilities that should be utilized.

Let us now turn to research and information needs we believe are desired and would benefit the farm and ranch community. Sound information is absolutely essential to good decision making at the farm level. Opportunities should be created for cost and technical assistance to farmers and ranchers. Many of the Best Management Practices will cost money to implement, such as purchasing new application and tillage equipment, installing concrete pads around mixing and loading sites, digging new wells, establishing filter strips, etc. Short-term economic considerations should not serve as barriers to long-term environmental quality.

The establishment of a cost-sharing program for well testing should be considered. We believe a well-testing program should be voluntary and confidential, and should not be linked to threatened denial of farm program benefits. Such a linkage presupposes an unwillingness on the part of agriculture that does not exist and contributes to an atmosphere of suspicion and finger pointing. The basic assumption should be that any water quality problem found is the result of longstanding, generally accepted farming practices and lawful use, not misuse. Therefore, the focus should be on incentives rather than penalties.

Regarding specific research needs, we suggest the following areas for consideration:

Predictive Modeling: How can we better understand what happens to chemicals after application, and what can be done to predict their fate prior to application? How can this information be used routinely on the farm?

Plant Nutrition: Additional research is needed to determine the optimum level of nutrients necessary for crop production. More efficient nutrient management will reduce both input costs and the potential for contamination.

Environmental Fate: We need to learn more about the movement and behavior of farm chemicals after they are applied. What can be done to encourage breakdown? What role does soil and water management play?

Chronic Effects: What are the long-term health effects of consuming drinking water with trace amounts of pesticides? Additional research should be done to determine whether the human immune system and nervous system are affected.

Integrated Pest Management (IPM): What needs to be done to increase the use of IPM on a broad scale? How do EPA's regulatory decisions affect the adoption of IPM technologies? What are the research and data needs necessary to foster widespread use of IPM programs? What is the most effective means of communicating this information to farmers? The widespread adoption of IPM is a priority for Farm Bureau.

Biotechnology: We need to strengthen research on alternatives to chemical pest controls as a way to increase options available to farmers and ranchers. The development of microbial agents for weeds, diseases, insects, the introduction of resistance into crop plants, and even the degradation of chemical waste offer great promise to agriculture. We need to examine the regulatory impediments that may inhibit research and marketing of those products.

Crop Rotation: Examination of crop rotation practices to find the optimum soil/crop rotation should help reduce the need for herbicide, insecticide, and fungicide controls by keeping pest populations in check.

Integrated Farm Management Practices: This is what we believe the concept of low-input sustainable agriculture means at the farm level. An integrated farm management systems approach incorporates tillage, nutrient, chemical and pest management within the context of conservation practices, soils, and crop production plans. The systems approach may help reduce energy costs, input costs, soil erosion and contaminant leaching. It offers agricul-

Concerns of the Agricultural Community

ture some exciting long-term possibilities from the perspective of improving net farm income and environmental protection.

Undoubtedly, there are many more areas where research would be appropriate. The American Farm Bureau and many state Farm Bureaus have had a great deal of interest in ground-water protection for many years. In the absence of federal and state regulation, a concerted private sector effort has been aimed at educating and informing farmers and ranchers about ways to protect ground water. Farm Bureaus' commitment to assist farmers in protecting their ground water extends throughout the organization. Hundreds of county and state Farm Bureau workshops and training programs have been conducted focusing on conservation practices, awareness, prevention, and well testing.

In February, 1986, The American Farm Bureau Federation conducted an educational water testing program at its annual Program Kickoff Meeting. Samples were received and analyzed from 44 states including New Mexico. The Farm Bureau has also prepared a Self-Help Checklist designed to help farmers and ranchers analyze their own water supply and farming operations. This publication instills an awareness of good operating practices and also serves as a record-keeping system for annual tests of pH levels, nitrates, bacteria, and dissolved solids. In addition to the checklist, Farm Bureau has joined with the National Agricultural Chemicals Association, the U.S. Extension Service, and the National Agricultural Aviation Association in the preparation of another publication entitled, *Protecting Our Groundwater--A Grower's Guide*. This publication was designed to assist growers by promoting safe pesticide handling practices. Literally tens of thousands of these booklets have been distributed to farmers and ranchers across the country in the last year.

The American Farm Bureau Federation's board of directors recently authorized development of a water-testing program similar to one in Ohio that would be offered to state Farm Bureaus nationwide. In conclusion, farmers and ranchers have made a strong commitment to protecting their water resources from agricultural chemicals even though a specific federal policy is absent. That commitment and concern will continue to grow because of the unique dilemma the issue poses for farmers and ranchers.