

*Lonnie Mathews is the chief of the Bureau of Pesticide Management at the New Mexico Department of Agriculture. Mathews is a native New Mexican, raised on a ranch in Las Vegas and graduated from New Mexico State University with a B.S. in horticulture. He has worked for NMDA for 24 years.*

## NEW MEXICO DEPARTMENT OF AGRICULTURE'S PROGRAM FOR THE EPA'S PESTICIDE/GROUND WATER DIRECTIVE

*Lonnie Mathews  
New Mexico Department of Agriculture  
New Mexico State University  
Box 3150  
Las Cruces, New Mexico 88003*

### INTRODUCTION

At the beginning of the 1980s, many of us involved in pesticide regulation believed that pesticides in ground water would be the issue of the 1980s. While there has been much discussion and some movement on the part of the Environmental Protection Agency (EPA) and some states, pesticides in ground water is one of the big three pesticide issues for the 1990s.

EPA has mandated a timetable for development of plans by all states to address prevention of ground-water contamination by pesticides. However, other factors may hinder progress in this area. Before I describe to you what the New Mexico pesticide plan may entail, I want to say up front that I believe very strongly that New Mexico does not have and is not likely to have a serious problem with contamination of ground water by pesticides. I will describe why later.

Ground water, an issue in the 1980s, and still an issue in the 1990s, may receive less attention than deserved because of three other major pesticide concerns. The first, and from New Mexico's perspective the easiest with which to deal, is protection of endangered species from pesticides. The New Mexico Department of Agriculture (NMDA) has

submitted its endangered species plan to EPA and we expect approval in 1990 with implementation in 1991. This will take some additional resources but not a significant amount.

The second pesticide issue concerns worker safety. This is a new area for most pesticide regulatory agencies and involves people's health and real or perceived risks to their health. It will require resources and a great deal of effort to develop and implement a regulatory program. This program alone has the potential to be as large as our entire current pesticide program. With our limited staff, worker safety has the potential to pull considerable resources from other programs such as ground-water protection.

The third issue is a non-problem as far as most of us in the business are concerned but it is a very real problem in the minds of many people. The issue is food safety. While due in part to the sorry state of science education in the United States, it is nonetheless the kind of topic which takes time and resources out of proportion to its real importance. Because of these and other competing pesticide issues, we may well be discussing pesticides and ground-water protection at the turn of the century.

### EPA'S GROUND-WATER STRATEGY

In December of 1987, EPA published a document on a proposed strategy for Agricultural Chemicals in Ground Water and as far as we know, this is still the guidance document EPA is following for planning purposes. The proposed strategy made some points we believe are important to note and which we hope reflect EPA's attitude as these plans are developed.

1. Integration of pesticide registration activities with efforts to prevent ground-water contamination
2. Plans tailored by the states to meet specific local ground-water protection needs
3. Strategy focused on the prevention of unacceptable contamination of ground water by pesticides

The last two concepts are the most important as far as NMDA and the agricultural community are concerned.

The plans must be developed locally and reflect local conditions on a relatively fine scale. Otherwise, we will see what we saw with the original EPA endangered species maps where the boundaries for the species were drawn to county lines and bore little, if any, resemblance to the actual distribution of the species.

Also, "unacceptable contamination" is an important concept. While no one wants deliberately to contaminate ground water, increasingly sophisticated chemical analytical methods may in fact reveal some minute contamination at levels far below any shown to affect human health. Also, some agricultural areas with no community water supplies and with domestic well water pumped from a different aquifer, might well be willing to accept some low level of irrigation water contamination. An urban area of the state might not be willing to accept that same level of contamination. It is important that local citizens have some control over the use of their ground water.

### NMDA'S THOUGHTS ON A PESTICIDE/ GROUND-WATER STRATEGY

We intend to begin work during 1990 on a state plan for the prevention of ground-water contamination by pesticides. The plan will not be finalized until at least 1992. Apparently, EPA hopes to have negotiated plans and cooperative agreements with all states by 1995.

NMDA envisions forming a task force for pesticides and ground water similar to the one

developed for our endangered species plan. The task force will have members from interested state and federal agencies and universities. Public hearings will be held at various stages for citizen input. However, we see these task forces as forums for scientific input primarily and not for policy input.

NMDA believes our work in New Mexico will be much less than that necessary in many states. Because water has always been important in the West, our water laws and what we know about our water are more advanced than in many eastern states. Information on identifying aquifers, water quality, and other background data required by EPA for a ground-water plan is already available to us.

We see New Mexico's pesticide/ground-water plan as a relatively short supplement or appendix to the overall Water Quality and Water Pollution Control Plan developed by the New Mexico Environmental Improvement Division. At this time, we do not believe we will need additional statutory authority to implement a workable plan.

In general, we see the pesticide plan as consisting of the following parts:

1. Identification of cropping patterns and pesticide use patterns
2. Development of an extensive monitoring and well survey protocol
3. A three-tier approach to pesticide regulation to prevent or mitigate pesticide contamination of ground water

Monitoring is an essential part to any ground-water plan and requires a large commitment and coordination among a number of agencies. No one agency has the manpower to monitor all agricultural areas for pesticide contamination. Also, this is an area where existing programs can be used to piggy-back work for the pesticide/ground-water program.

The tier approach to pesticides regulation to prevent or mitigate contamination of ground water would work something like this:

1. leachable pesticides would be identified
2. some level of maximum contamination would be set - probably the health advisory level for a particular pesticide
3. detection at any level and increased monitoring would occur
4. at some percentage of the maximum level, restrictions on the use of the pesticide would be imposed
5. at levels approaching say 60 to 75 percent of the maximum level, a total ban on the use of the pesticide would be imposed

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This is essentially the concept the Governor's Ground Water Advisory Committee accepted in 1988.

Again, because of the relatively low volume and types of pesticides used in New Mexico, and the changing pattern of pesticide use away from soil-applied insecticides, I do not believe New Mexico has a pesticide/ground-water problem, nor do I expect one to develop. However, a state plan for monitoring on a broad scale will give us valuable knowledge we do not now have and should insure against developing a ground-water problem unknown to us.