



THE FUTURE OF PESTICIDE APPLICATOR TRAINING: A PROPOSAL

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Why do we sometimes feel uncomfortable telling our friends we work with pesticides? Is it because pesticides evoke thoughts of dead or dying fish, thin egg shells and contaminated baby food? Why has it been so difficult to convince the public of the benefits of pesticides? Haven't pesticides been largely responsible for improving the abundance and quality of our food, controlling arthropod borne diseases and keeping household pests under control? Maybe we haven't done a good job of providing a balanced viewpoint of pesticides.

For the last 20 years (and maybe longer) USDA, EPA, state lead agency and land-grant university administrators and many state extension pesticide coordinators have failed to grasp the challenge and opportunities posed by the public's concern with pesticides.

Let us go back a few years. In 1962 Rachel Carson authored *Silent Spring*, a science classic which described the negative environmental impacts of indiscriminate use of persistent non-selective insecticides such as DDT, chlordane and aldrin. Whether you agree or disagree with the contents or style of her book, her efforts to alert the public about the dangers of indiscriminate pesticide use did just that. She wasn't the first to sound the alarm, but she was the most forceful. The "pesticide problem" she described was caused by the persistence and lack of specificity of most pesticides used in the 1960's and by the attitudes of applicators and their understanding of the consequences of indiscriminate use.

To its credit, USDA did recognize the danger of indiscriminate use of pesticides. In 1960, the Federal Extension Service asked state extension directors to appoint a pesticide coordinator to "receive, interpret, and disseminate information regarding pesticides." Four years later Congress appropriated \$1M for the purposes of meeting the problems created by the increased use of pesticides. The Administrator of USDA envisaged educational programs, schools, conferences and an intensive training program for farmers and other pesticide users. USDA's program to reduce the indiscriminate use of pesticides was the forerunner of the EPA's Pesticide Applicator Certification and Training Program.

Ten years after Rachel Carson denounced the "pesticide problem," Congress amended the FIFRA to require that pesticides be classified for either general use or restricted use. Pesticides with the potential to adversely affect humans or the environment, even if label directions were followed, were classified as Restricted Use Pesticides (RUP's). Their use was restricted to applicators willing to be certified.

Confronted with these new regulations, a few states insisted, rightly or wrongly, that the federal government had no business telling them how to run their certification program. Some exams were minimal or non-existent. Training wasn't much better. These states were the basis for a two part article in *Agrichemical Age* (1988) entitled "Barely Passing". Some applicators refused to change their attitudes and behavior regarding the use of pesticides.

Properly handled most pesticides present little human health or environmental risk. The PAT program was an opportunity to show the public that applicators could use restricted use pesticides safely, especially if it meant they might lose a critically needed pesticide. Judging from the number of Restricted Use Pesticides that were canceled, it would seem that the program was too optimistic. The truth is, some applicators simply should not be allowed to use Restricted Use Pesticides. Plato argued that good people do not need laws to tell them to act responsibly, while bad people will find a way around law. EPA elected to regulate most RUPs out of existence rather than commit to an enforcement program based on comprehensive training. In 1992 EPA and USDA spent a total of \$580M on FIFRA related programs. Of this, only one third of one percent (\$1.68M) was allocated for training the person responsible for creating the environmental havoc so vividly described by Rachel Carson.

In the last 20 years USDA's budget has not included funds to support the PAT program even though it is administered by their cooperators, the state extension services. It's not that USDA isn't interested in helping growers. In the last two years alone, USDA has spent \$231M on IPM. It has also chosen to support water quality, endangered species, and food safety programs. Clearly the potential for pesticide misuse is directly or indirectly the impetus for these programs. If pesticides didn't show up in groundwater, if pesticides didn't kill non-target birds, fish, and beneficial insects, if pests didn't develop resistance, if there weren't any secondary pest outbreaks or pest resurgence, and if consumers weren't concerned, none of these programs would be as necessary or as costly as they have proven to be.

Have we focused on the wrong end of the problem? Instead of focusing resources on the cause of the problem, pesticide misuse, the federal government has developed programs to deal with the symptoms of the problem. Programs such as integrated pest management, water quality, endangered species protection, worker safety, food safety, farm safety, and risk communication don't prevent the problem---they treat the symptoms of the problem. The common thread running through all of these programs is the potential for pesticides to cause adverse effects to humans and the environment.

On September 21, 1993, the USDA, EPA and the Food and Drug Administration called for a national commitment to develop and implement integrated pest management methods on 75 percent of total US crop acreage by the year 2000. USDA has chosen to use IPM programs to minimize health and environmental risks. Why not minimize health and environmental risks by training applicators how to use pesticides correctly? Wasn't that the intent of the amended FIFRA? Do applicators intentionally contaminate their own water supplies? Do applicators deliberately endanger themselves, families and workers by carelessly exposing them to pesticides? The fact is, there simply are not enough resources available to conduct all the required training.

Regulations are of little consequence unless they are enforced. A good enforcement program requires a good educational program. (Not that enforcement can't be an education in and of itself!). Applicators who knowingly misuse a pesticide after completing a comprehensive training program and competency based examination, should be subject to severe penalties. Their misuse not only jeopardizes the registration of pesticides needed by other applicators, but also violates the public's trust.

We are concerned about the federal government's commitment to pesticide safety. How comprehensive can pesticide safety training be when funds and positions are cut and new responsibilities are added to the PAT program? How comprehensive can training be when EPA proposes level funding for the PAT program but requests \$500,000 for integrated pest management to reduce the use of pesticides? Why not allocate that money to support hands-on extension training to show applicators how properly calibrated equipment can reduce their use of pesticides?

How comprehensive can training be when the US government's "advocate for agriculture" won't spend one percent (1%) of its water quality budget training applicators how to avoid contaminating water resources? How can this advocate for agriculture justify spending more on pesticide record keeping than it does on safety training? Why are the practical priorities less important than the political priorities, especially when dealing with food, health and the environment?

The "pesticide problem" goes beyond the applicator. Many of the problems that make the evening news or the front page of the paper are more of a media event than a genuine hazard to our food or our environment. Nonetheless, the incessant barrage of negative news creates a decidedly negative view of pesticides in the consumer's mind. Pesticides improve the quality of our food while reducing the risk of having food shortages. Consumers benefit when foods are abundant. Consumers need a more balanced view of the benefits and risks associated with the use of pesticides. The cost of their unbalanced view is high. One has only to look at what the federal government has spent on developing alternatives to pesticides, monitoring our environment, developing complicated regulatory schemes and engaging in protracted litigation with "public interest groups" and pesticide manufacturers.

Consumers don't want pesticides in their drinking water; they do want a plentiful supply of fruits and vegetables. They don't want to be exposed to pesticide drift or sprayed with pesticides as part of an insect eradication program; they do want their homes protected against termites, cockroaches and fleas. These are not unreasonable wants.

Ordinarily, an era of fiscal restraint is not a good time to propose a new program. However, we would propose that that is exactly what is needed as a way of reducing the high cost of reacting to the "pesticide problem." EPA and USDA need to get beyond the politics and "do the right thing." At the program level EPA and USDA have indicated their willingness to work together to support applicator training and pesticide education.

We would like to make a three-part proposal.

First, we propose that USDA take leadership in developing a national Pesticide Safety Education program. Several years ago Dr. Bert Bohmont chaired a committee that developed an excellent outline for such a program. That outline needs to be updated to include new human health and environmental concerns. It also needs to include a public education component. The public wants honest answers for their legitimate concerns, not diatribes from fear mongers.

The emphasis of the Pesticide Safety Education program should be on quality rather than quantity. No more numbers games. Training would be rigorous and include as much hands-on experiences as practical. Graduates would be made to feel like professionals and held to a professional standard. The program would include trainer training, distance learning, cooperative projects between states, and development of pesticide information management systems. It would include mechanisms to share training materials, training techniques, and innovative ideas.

Second, we propose that USDA's National Program Leader for Pesticide Applicator Training and EPA's Chief for the Certification and Occupational Safety consult with the American Association of Pesticide Safety Educators to develop a specific goals addressing issues such as worker protection, reduced use, implementation of IPM practices, increased use of safety equipment, and improved application skills. The proposal would be submitted to their respective administrators. AAPSE would take responsibility for coordinating input from government organizations, crop protection and user associations and environmental groups to insure widespread support.

Lastly, we propose that funding for this initiative be based on the degree to which the success of existing USDA and EPA initiatives depends on pesticides being used correctly and safely. At least 20 percent of the IPM, water quality, endangered species, food safety and farm safety funds which directly address the use of pesticides would be set aside for training. For example, if 25 percent of the success of the water quality initiative depends on preventing contamination with pesticides, then a minimum of 5 percent (20 percent of the 25 percent) would be designated for pesticide safety training. If 40 percent of the success of the Reduced Use/Risk initiative depends on reducing pesticide use then a minimum of 8 percent of the funds should be allocated for training applicators to use pesticides more efficiently and effectively. These funds would be consolidated in a single program (the Pesticide Safety Education program) to maximize their effectiveness and to insure the efficient use of training resources.

The Pesticide Safety Education program will not be a warmed-over PAT program. It will bring together the pesticide safety components of a wide range of environmental and pest management programs currently funded by USDA. It will also address the consumer's need for unbiased and informative answers to their concerns.

USDA needs to take the high road. The new Secretary of Agriculture, Dan Glickman, said that USDA will be the leader in recreating government. It's time to recreate an idea that died an untimely death 30 years ago. The extension service is still highly respected as a source of unbiased information. Its resources and reputation should be used to the advantage of its traditional constituents and the broader public. The future of the PAT program lies in the future of a broader program to minimize the impacts of pesticides to humans and the environment. It's time to quit playing politics with pesticide safety. For as long as there is a need for pesticides, USDA and EPA need to work together to insure that applicators have the tools needed to produce an abundant supply of high quality products, protect our homes, and control vectors of disease.

Last year USDA-ES requested \$2M for pesticide safety training. Although funding was deleted in the final USDA budget, \$160,000 for training appeared in the IPM budget. CSREES has again requested \$2M for pesticide safety education. This recognition of the potential benefits of expanding support for pesticide safety training is long overdue.

In 1960 state extension services appointed pesticide coordinators to "receive, interpret, and disseminate information regarding pesticides." The objective of that initiative is as valid today as it was 35 years ago. It may not be popular to support a new program -- a pesticide safety education program -- but it is the right thing to do.

This text is adapted from a presentation made at the National Pesticide Applicator Training and Certification Workshop, San Diego, CA (April 11, 1995).

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