FOOD SAFETY:

Some Changes Are Needed

by Jack C. Parnell

➢ **Consumers are concerned about the safety of our food. While changes are needed in the way our society deals with pesticides, the regulation of their use must be based on science. Proposals by the Administration are designed to streamline and improve the food safety regulatory network. The proposals would change pesticide registration and cancellation procedures; make Federal regulations consistent by establishing a negligible risk standard for processed foods; and establish national uniformity for tolerances.**

CONSUMERS are concerned about the safety of our food supply. Simultaneously, farmers are concerned that the facts about the wholesomeness and safety of the food they produce are being distorted. Why are there such conflicting messages?

There are several related issues. Two are particularly important—productivity of U.S. agriculture and the regulatory process to achieve food safety.

Agricultural Productivity

Most U.S. farmers use chemicals in the production of food and fiber. These chemicals explain a significant portion of recent growth in U.S. agricultural productivity, which increased 50 percent in the 1967-87 period. Most farmers use chemicals wisely. Chemicals are a significant expense in the production of most crops and farmers have every incentive to use them sparingly to reduce costs and increase profits.

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When alternatives to chemicals are available and profitable, farmers quickly adopt them. For example, significant strides have been made in recent years in the adoption of integrated pest management and other sustainable agricultural techniques. These new techniques and technologies allow farmers to maintain productivity and competitiveness while reducing chemical inputs in the production process. We must continue to support research and development efforts which deliver promising new technologies that maintain agriculture's competitiveness and efficiency while being more environmentally sensitive.

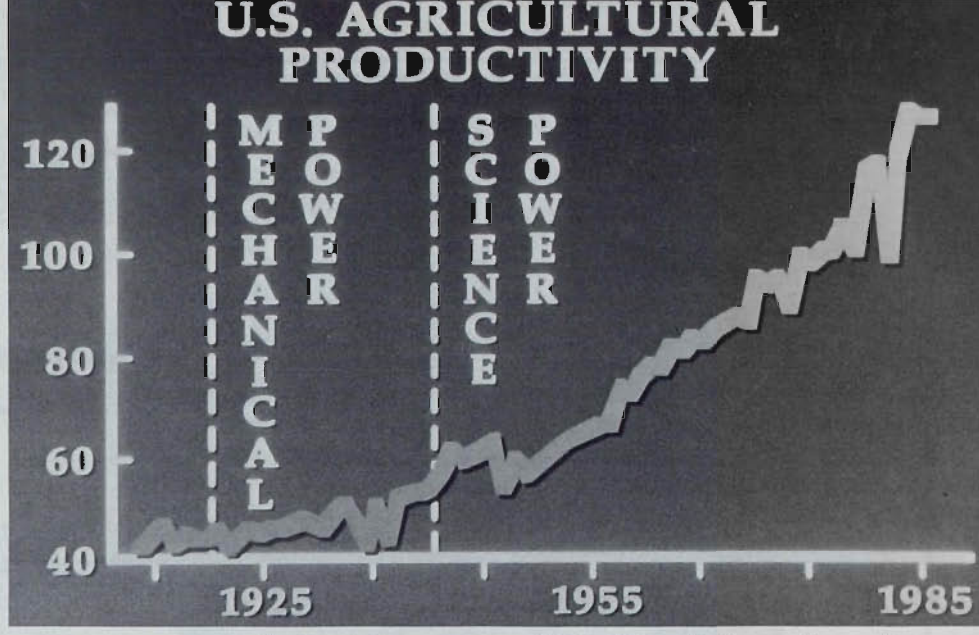


Chart and photos courtesy of National Council of Farmer Cooperatives

Regulatory Process

In the interests of providing the public with a safe and wholesome food supply at modest costs and maintaining a productive and competitive agricultural system, we need to rethink and redesign the regulatory process for agricultural chemicals so that it is based on more complete information, a more timely process and good science, rather than on emotion. Science and a scientifically-based process give us a sense of proportion that headlines do not provide. Science can tell us if there is a problem, and if so, how significant the risk is. To the extent that science determines there is a chemical on the market that should be removed, we in agriculture must be the first to say "get it off the market and get it off quickly."

If instead, we regulate the use of chemicals through media events and incomplete information, we will experience very disruptive short and longer run economic impacts on producers and consumers. We in the Federal government have a great deal of work ahead of us and I am happy to report that we are responding. Last fall the President announced a food safety initiative which would go a long way in streamlining and improving our food safety regulatory network. Briefly, his proposal would simplify and make more workable the regulation of pesticides, assure that unsafe pesticides are not used, modify the definition of the Delaney Clause to bring it in line with current science, and provide for national uniformity once chemicals have been scrutinized by modern science.

We in the Federal government have a great deal of work ahead of us

Within the U.S. Department of Agriculture, we are doing several things which will improve food safety. We have established food safety issues as a higher priority than any other time in history. Secretary Yeutter has given me the direct responsibility for overseeing the implementation of new legislation, initiatives and programs in this area. We have also strengthened our relations with the Environmental Protection Agency and the Food and Drug Administration. We are working closely together and have made several positive coordinative improvements in our relationship.

Streamline Cancellation Procedures

It is obvious that we need to tighten up EPA's authority to cancel products that science has determined problematic. Currently it takes EPA almost a decade to cancel a registration. Too long! We believe we can end some of the confusion about food safety by giving EPA more streamlined cancellation authority. We estimate that the cancellation process can be substantially reduced. Chemical companies would still be provided due process, but the procedures would be greatly simplified. There is broad consensus that cancellation should be shortened. If it is not, we can expect a steady stream of "cancellations" by media events.

Improve Government Coordination

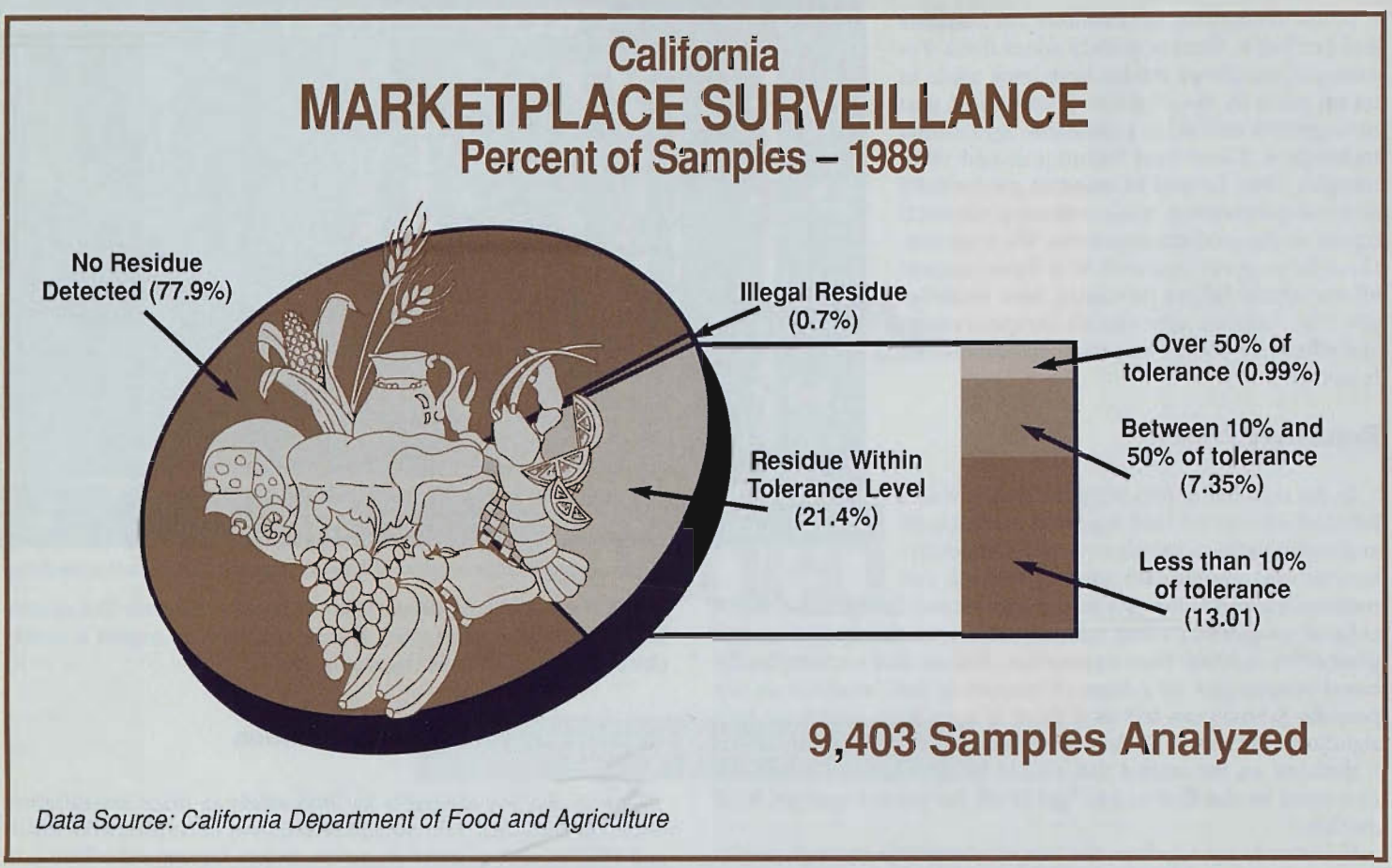
One of the key elements in food safety is prior consultation within government. EPA should be required to consult with USDA and HHS at all key decision points, before issuing cancellation or suspension orders. This way we can provide a system of checks and balances using all resources available.

For example, let's say EPA science looks at a particular chemical and thinks it is problematic. They would be required to ask us what our science says. We could then go to our land grant university system, which has some of the best bio-chemistry and toxicology in the nation, and get their reviews. If the science matched, then the procedures for removing the chemical would proceed. If the science did not match, we could ask for further review. USDA would not be given veto authority, however. The ultimate decision would remain with EPA.

We believe that effective consultation among the relevant federal agencies will promote responsible regulatory decision making that is based on the best science our nation has to offer. We believe that effective consultation is in the best interest of the American people and allows the federal government to be more protective of the public health.

Update Registrations

As you may recall, the 1988 Federal Insecticide, Fungicide and Rodenticide Act amendments required the re-registration of all pesticides that have not been scrutinized by modern science. The President's plan extended this concept by requiring that *all* pesticide registrations should periodically be kept up-to-date with the latest scientific standards. Every nine years, registrants would be required to update their data package to meet the standards of current science. If science has moved during the nine years, the registrants would be required to update their data packages. If science has not changed, the registrants products would be re-registered.



Harmonize Federal Standards

We also need to harmonize inconsistent federal standards that apply to pesticide residues on raw and processed foods. The "zero-risk" standard of the so-called Delaney clause would be replaced by a "biologically-zero" or "negligible" risk standard. It is important that the public understand that "zero-risk", while politically expedient and attractive, is not attainable. Biologically-zero or negligible risk is attainable.

Currently, federal standards for setting pesticide tolerances are not consistent for raw and processed foods. The Delaney clause in the Federal Food Drug and Cosmetic Act requires "zero-risk" for processed foods. In other words under Delaney, no substance

Biologically-zero or negligible risk is attainable

which causes cancer in humans or animals can be deemed safe for use in any amount—no matter how insignificant the risk.

When Delaney was adopted some thirty years ago, scientists could only measure down to parts per ten thousand. Scientists can now measure down to parts per billion or trillion, or even lower. Scientific measurement has moved beyond our ability to comprehend. New technology is taking us further than we ever thought possible. Even though we can measure it, we simply don't fully understand what it means to ingest one part per billion of a particular residue over the span of 70 years in terms of human health. Is such a trace element safe? Is it relevant?

Science must work in an environment which is not controlled by media hype and interference. We can't allow policy to move ahead of science! Or, to put it another way, we can't let policy move ahead of common sense!

Establish National Uniformity

The last, and one of the most important food safety issues, is national uniformity for all federal tolerance levels. We need to be concerned about the possibility of having different standards for each of the 50 states. If this ever was allowed to occur it would create total economic havoc in this nation, as well as the potential for multi-billion dollar international trade problems. We believe that public health is also best protected by utilizing the significant resources of the Federal government to apply our scientific expertise in a uniform, consistent basis.

Most people would agree that an effective regulatory process must apply scientific principles in a standardized, consistent fashion, but also incorporate a mechanism to account for unique, individual circumstances. We believe we have proposed such a process. Once a chemical has been reviewed by current science and a new federal tolerance has been set through the re-registration process, mandated in the 1988 FIFRA amendments, that should be the tolerance for each and every state in the nation. States may obtain a waiver for a more stringent standard if warranted by special local circumstances. Therefore, if Hawaiians consume 100 times more papayas than mainland Americans, the tolerance in Hawaii for chemical residues on papayas could be stricter than in the other 49 states.

A national tolerance level is important to agriculture. We could be at a tremendous competitive disadvantage in foreign trade, if we have inconsistency and confusion at home. As we enter the closing round of multilateral negotiations we are asking the world to come together and agree on a set of uniform scientific concepts. We are asking our trading partners to resolve this matter so that artificial trade barriers will come down, and benefit consumers worldwide.

It is unfortunate that, at the same time we are asking the world to do this, we are finding states within the United States creating standards that are different from federal standards. I find it particu-

larly ironic that the countries of the European Community seem to be coming together on these kinds of standards, while in the United States we have in motion a scenario where we could have 50 different standards.

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Better Data Needed

California data suggests that we simply should not have major concerns about violative pesticide residues on food. For example, in 1989 over 99.2 percent of the produce samples in California's Marketplace Surveillance program were within tolerance levels. No residues were detected in 77.9 percent of the samples. They analyzed, using multi-residue screens, some 9,400 samples, which were collected from throughout the channels of trade—at points of entry, packing sites, and the wholesale and retail levels. In addition, other residue testing programs used to monitor the food supply in California show that 9 out of 10 samples have no detectable residues.

Unfortunately, California data are not statistically representative of the food supply for the entire nation. Therefore, EPA in the past has found itself in the difficult position of having to make regulatory decisions without actual residue data at the point of consumption. In the absence of actual residue data they have been forced to use what they had, which is farm gate data collected during the registration process. As you might guess, data collected for the registration process can tremendously skew risk calculations for residue tolerance purposes because of when the sample was taken.

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When situations such as this have arisen in the past, the Department of Agriculture would say to EPA, "Why do you assume farmers use pesticides at full strength for all recommended applications, when we know farmers are using fewer chemicals because of bottom line, pocket book concerns? Why do you assume your theoretical dietary risk calculations represent true residues on food at the time of consumption?" EPA would respond, "Show us your data and we will be glad to plug it in."

To avoid this kind of confusion and poor results in the future, we have proposed a new food safety data initiative in our fiscal 1991 budget. This initiative would establish a comprehensive $25 million program to collect and analyze data on pesticide use, residue levels, and potential exposure levels from commodities in our food supply. The data base would supply federal regulators with nationwide, statistically reliable information on pesticide use and levels of pesticide residues in the food supply.

The program would develop uniform protocols that are jointly approved by USDA, EPA, FDA. It would also wrap around existing state programs so they use the same protocols as well. We would routinely test for pesticide residues on foods to develop a statistically reliable data set that could be used to make informed and rational regulatory decisions.

We would also do extensive survey work with farmers to find which pesticides they use, on which crops, and in what amounts. Again, this would be a nationwide, statistically valid data set.

Finally a residue exposure assessment system will use food consumption data to estimate the pesticide exposure level on specified sub-populations who may have sensitivities to certain chemicals.

The Challenge

The challenge is to look at the strengths of Agriculture and build on them, with the foresight to weigh the needs of the next several decades as heavily as we do the problems of today. We must answer the question, "How can we ensure a safe, affordable, and secure supply of food to feed our nation and other nations in the coming century?"

We need an intense effort, with clear insight, and a driving, unswerving will to win the battle between media hype and quality science. In today's world, merely aspiring to be excellent will not work. We must respond quickly to changing circumstances and become pro-active, taking advantage of change and not being threatened by it.

We must not panic ourselves into a massive overreaction against pesticides. Instead, we must continue to work toward a better agriculture. Let's climb the walls of doubt in our minds and explore the universe of ideas. Let's neither shy away from the new nor abandon the tried-and-true. We cannot be afraid to trust our minds, talents and ingenuity. We cannot allow our creative fires to go out, spark by irreplaceable spark, in the hopeless swamp of uninformed criticism.

We do not have to be timid. William Jennings Bryan said it best a century ago. "Destiny is not a matter of chance, it's a matter of choice. It's not something to wait for, it's something to work for."