

WILL CHEMOPHOBIA WRECK FOOD SECURITY?

In our freedom of expression society, now magnified a thousand times by digital communications, there is a fine line between the logical and the emotional, between science and opinion. Fortunately in the United States we have adhered to scientific methods in developing our agriculture, as exemplified in the Crop Protection Handbook building blocks for food security which are based on best science and restricted by regulations developed by systematic testing.

That this system works to the benefit of all mankind is demonstrated over and over through supplies of low cost, healthful food and a population living longer than ever before.

But the small and well-led minority who want a “natural” way of life free of chemicals are making headway in achieving broad public support to eliminate and limit many products that have proved their worth over decades of time, and have been approved by rigorous scientific testing.

A new principle developed by the European Union overrides the science part of restricting chemicals for crop protection use. Their ag regulatory policy incorporates a new concept called the precautionary principle which is enforced through REACH an acronym for Registration, Evaluation, Authorization and Restriction of Chemicals. The Precautionary Principle provides that if any human activity raises a perceived threat of harm, immediate regulatory and legal sanctions should be imposed even if no cause and effect relationship can be established scientifically. This opens up pesticide regulation to political decisions often based on emotion, which not only bans and limits useful chemicals for manufacturers and agriculturists, but has a smothering effect on research and innovation which are the lifeblood of successful crop protection strategies now and in the future.

The U. S. government has worked for years beginning in 2001 to get the EU to give up the REACH program without success. Beginning in 2011, the EU is on the way to banning 22 chemicals, and now the precautionary approach is picking up momentum in other countries, and threatens to become the standard worldwide.

In effect, the EU has rejected the traditional scientific method of risk analysis, which considers products safe through exhaustive feeding tests. If these studies show no known risk at a thousand or more times the rate found in food, regulatory approval is granted. The EU uses a hazard based analysis which can remove chemicals or fail to grant approval irrespective of scientific studies.

For those in agriculture responsible for producing food, the new precautionary approach is an invitation to hunger and threatens global food security.. The fact is that despite our

bountiful supplies of food, our giant corn and soybean crops, in any year we are just a step or two away from disastrous crop loss from a host of dangers including insects, disease, weeds, as well as climate and weather factors. An arsenal of approved products is absolutely essential to keep pests at bay as they move around the world, as they mutate into new forms and as they develop new strains that are resistant to previous control measures.

One need only to look into insect plagues and disease blights to understand how precarious our food supply can be. The same blight that caused the great Irish potato famine of the 1800's, broke out again in 2010 in the U. S. causing considerable loss of potatoes and tomatoes. As this is being written, the Florida citrus industry is being threatened with extinction because of the HLB bacteria imported from China and spread by the Asian citrus psyllid also a recent import. The entire billion dollar citrus industry is at risk, infection rates are out of control. A huge research and control program is underway to control the psyllid and to reduce the effects on the trees vascular system.

Meanwhile, through millions of dollars spent on R & D and the development of new active ingredients, modern crop protection programs are much more friendly to the environment, safer to use and are reduced risk and much less toxic. New application methods are being researched which reduce or eliminate residues. These are dramatic changes--- consider reducing application rates from two pounds or more per acre to as little as one or two ounces per acre of the newer products.

Nevertheless, the anti chemical lobby continues to gain adherents under the guise of organic or sustainable to eliminate chemicals, with a poorly informed consumer public not understanding that organic crops are also treated with pesticides and have levels of pesticide residues.

This small well led and well financed lobby doesn't hesitate to make claims that frighten consumers who have no knowledge of the intensity of the controversy that is taking place, nor the stakes involved.

For instance, the anti-pesticide lobby charged that in a test of Broccoli in 2007, residues showed up that they claim could cause reproductive problems, or were endocrine disrupters, or were neurotoxins. This is like calling fire in a crowded theatre. The facts are that 65% of the samples had no residues at all, and the remainder were all within legal limits.

It is scary stuff, and hard for the consumer to understand the concept of relative risk, when the news media is virtually one sided in its reporting.

It is generally not realized by consumers that many natural substances are toxic if consumed in large enough quantities. For instance, Vitamin D, essential for life, has about the same level of toxicity as arsenic.

And now, a new player has entered, one with considerable leverage. The supermarket food retailer is demanding evidence of residue levels, and even setting their own standards or prohibiting the use of certain families of chemicals. This movement is especially strong in the European Union, and picking up speed in the U. S.

As a result, uncertainty and doubt clouds the future for the crop protection industry and of agriculture, at the very time concern about our ability to feed the world is mounting. The crop protection industry from basic manufacturers of active ingredients to the distribution system to the land grant college system and USDA have made American agriculture the leader in the world. It is a system developed over years of growth and evolution. Yet keeping the foundation of this system strong is a national policy that is coming under more and more criticism by those who do not understand the stakes involved.

If we are to meet our responsibility of increasing the food supply by half again to meet population growth, it is essential we must strengthen, not weaken, our building blocks for food security. It is all our responsibility to educate the public on the benefits and necessity of crop protection. Discarding science for precautionary principles leaves a conclusion too painful to consider.