Growing controversy

GMO critics overlook facts about science, safety and pesticides

By Ken Grace

Science can easily be misunderstood and misused in the debate over potential risks and benefits of genetically-modified (GM) crops. Concerns over farm pesticide applications or corporate business practices may be valid, but they have nothing to do with the science of GM crops to protect yields, add nutrients, or reduce pesticide applications.

Critics of “Roundup Ready” corn or soybeans overlook the fact that these herbicide-resistant crops were developed to reduce pesticide use by allowing farmers to apply the single broad-spectrum weed killer Roundup (the same product we use in our yards), rather than multiple applications of “harder” herbicides.

Regarding labeling of supposed GM foods, processed grocery products like soybean or corn oil and corn syrup do not contain DNA. Those are identical to oils and syrups refined from non-GM crops. So labeling products containing them as “GM” or “non-GM” just doesn’t provide any useful information.

The recent commentary by Hector Valencia ("Controversy about GM crops has a silver lining," Star-Advertiser, Island Voices, July 5) cited health concerns about a pesticide called Bit incorporated into cotton, corn, soy and potatoes. It is an insect-killing protein produced by naturally occurring bacteria in the soil. This natural pesticide has been used by organic farmers for decades as a safer alternative to synthetic pesticides. Modifying plants to contain this same protein provides the need for any spray applications. It’s a combination of biotechnology and organic pest control.

Three recent studies on GM crops mentioned by Dr. Valencia have significant limitations or flaws. The first study concerned a “fusarium” viral gene added to some GM crops like Rainbow potatoes. The whole potato genome sequence has been described and published, so it isn’t really hidden. As potato researchers Richard Musher and Dennis Geneser had explained to Dr. Valencia, a “segment” is an incomplete piece of a gene that cannot be used by the plant to produce anything. Moreover, the study pointed out that even if the gene were present, it does not produce any allergens or toxins. So, no health issues exist.

This is an example of good science exaggerated to sound threatening when there really is no threat. Two other recent studies mentioned in the earlier commentary are not such good science, though, and have been widely criticized.

The first of these two problematic studies reported tumors and other damage to rats fed GM corn for two years. Those researchers used the same strain of rats commonly used in short-term GM crop safety studies. But, those rats are especially susceptible to cancer, and will all develop tumors naturally and die within two years. The small number of naturally sick rats and the unusual statistical analysis used in this study make the results pretty meaningless. The researchers declined to share their data, but analyses by other scientists of the information in their paper failed to find significant effects from the GM corn.

The second questionable study was of pigs fed GM or non-GM animal feed. The researchers reported that the GM feed group had more severe stomach inflammations, but this seems to be a statistical error created by analyzing the same pigs over and over again for any differences. Critics have pointed out that the GM feed group had fewer overall atonie problems.

There certainly can be legitimate concerns about specific uses of GM technology, or about misuse of pesticides in farming. Big companies should also report to have their business practices examined. But, these are all different issues. Let’s not wrap them all up together and label the result "GM crops." And, let’s take an honest look at what the science really says, not what we want to say.

Kauai residents have right to know about use of pesticides

By Andrea Brewer

Born, raised and educated on Kauai, I was brought up with an ethic of care for this land, its future and the people of this area. I was also taught that we have a moral and economic responsibility to know about what we eat and what goes into our food supply. The movement on Kauai to protect our land, water and communities from the impacts of the agro-chemical-GMO (genetically modified organism) industry is reflective of this deep sense of responsibility that my generation feels for our home and our future.

Leased agricultural lands on the west side of Kauai — more than 1,500 acres in close proximity to schools, residences, churches and hospitals. Kauai residents currently do not jobs will be lost. While the claim of these incredible cooperative corporations that they can’t afford to be more responsible in their chemical usage seems exaggerated, if not absurd, we are compassionate and sensitive to the position workers are being put in.

In fact, the industry does decide to leave purely because we’ve asked them to be transparent and responsible; then we must generate new agricultural jobs that are higher-paying, less hazardous and longer-term. Jobs that express who we are and are integral to our local economy, rather than those dependent on the whims of transnational corporations who can get