COMMENTARY

Communicating Science to the Public: One Scientist's Experience in Writing for the General Public About Genetically Engineered Crops

ANTHONY M. SHELTON

Last year, I went out on a limb. I spent my precious sabbatical venturing into the world of journalism in an attempt to tell a story that, for years, I have wanted to tell. As a scientist, I thought I was especially equipped to tell the full story. What I was not ready for was the series of "velvet hammers" that have come down on the precious article I spent so much time, passion, and money developing. As scientists, we are encouraged to be better communicators, to reach out to the public, to make our science understandable for the taxpayers who often fund it. My experience has been humbling.

I wanted to tell the full story of genetically engineered (GE) virus-resistant papaya. Others had told pieces of it. But they didn't tell much about the science of GE crops, the misinformation and hysteria the public has heard, the farmer's inability to control many pests without using GE crops, and the global challenges that those of us who work in plant protection deal with on a daily basis. I thought the public should hear the bigger story and set out to give it a shot. The first draft of my article was 11,616 words. According to a couple of writer friends who looked at it, they said it was more like a grant proposal than something the general public would read. Point taken.

Over several months, and with the help of a paid professional science writer, I pared it down to 7,700 words and it flowed much better. I was satisfied, so I sent it off to *The Atlantic*. A couple of weeks later, I received my first "velvet hammer" letter. It was direct: "While you have some interesting material, the framing of the piece is not quite right for us." Fair enough. As one of my press colleagues said, "Getting an article published in *The Atlantic* for a first-time writer is like being a rookie hitting a grand slam to win the 7th game of the World Series. It doesn't happen." Fair enough and, as a frequent writer of grants and manuscripts, I have learned to take (most) rejections well.

I am a biologist, more specifically an entomologist, at Cornell, a land-grant university whose mission is to work for the public good. While some of my work involves more basic areas of research—population biology and insect ecology—I explore these areas because they help in my fundamental goal of developing pest management strategies that provide a food supply that is safer for consumers, producers, and the environment. In that sense, I am not unlike thousands of other agricultural scientists globally. Many of them also share my sense of frustration about how to be engaged in a constructive dialogue on genetic engineering in agriculture. Who better to talk about the subject than the people who work on the front lines of agriculture?

Perhaps there was another publisher that might be more astute and see the importance of my article and be thankful for its submission, I thought. But as I continued to look for an outlet to take my story, the list of "velvet hammer" e-mails and non-responses grew rapidly.

The problem, I learned, is that there are fewer print media outlets for long-form journalism that allows the writer to tell a more complete story. Long-form journalism is what I was trying to do with my article, "Hawaiian Papaya: Collateral Damage in the Global Debate on Biotechnology." I wanted to write the end-all-and-be-all story that discussed the science behind GE papaya, the anti-GE movement in Hawaii, and the potential effects on smallholder farmers and food security globally.

I'll give it a try in a journal that publishes only on the Web, I thought. Then I learned another lesson. A 2011 *NY Times* article quoted a freelance writer saying, "In the digital realm, there is infinite space, but somehow this hasn't resulted in a flowering of long-form content." Not looking good.

Friends and colleagues have suggested starting a blog and being more engaged in social media. Probably appropriate suggestions, but I worry that developing and maintaining a blog and Twitter posts will affect my research, teaching, and extension programs, not to mention my personal life. Maybe when I retire. But the time to inform the public about genetic engineering in agriculture is now. I believe the GE papaya story would help. To avoid further delays (and rejections) and get it off my desk, I created a blog—http://bit.ly/tragicpapaya—at the end of March, 2015. Perhaps it will be tweeted around and gather some readers, at least more readers than if it sits any longer in my computer. I still like the story.

Now I need to get back to reviewing a couple of manuscripts, planning the next project, meeting with members of my lab, and preparing for tomorrow's class.

Anthony Shelton is an ESA Fellow and International Professor of Entomology at Cornell University in the U.S. Visit shelton.entomology.cornell.edu for more information on his work.

DOI: 10.1093/ae/tmv019