Crop Biotechnology Going Forward: A News Media Perspective

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To the Farm Foundation Conference: The Second Decade of Crop Biotechnology
Washington, D.C., January 16, 2008

You have picked an especially good time for this conference. In a few weeks, it will mark 75 years since Henry A. Wallace left his colleagues at Pioneer to carry on his work in hybrid corn back in Iowa and moved to Washington to become secretary of agriculture.

It is timely also for a number of news developments about crop biotechnology.

Only last week, the European Union allowed another deadline to pass without complying with the WTO decision in the biotech case. It comes at a time when the EU livestock industry, some policymakers and real live consumers are concerned about the impact of the EU's bio-skepticism on the cost of feed.

It is timely also in the context of debate over climate change the "food v. fuel" controversy because of the contribution that biotech agriculture is making and will continue to make toward increasing both food and fuel production.

The importance of tools that will increase grain yield per acre and per plant takes on new meaning in the context of the market's reaction to last week's USDA projection of the smaller carryover of wheat and soybeans – and the lowest wheat carryover in 60 years.

Increasingly, we are seeing often skeptical mainstream journalists perhaps warming to the promise of biotechnology for crops that better tolerate drought and heat. A Reuters dispatch over the weekend is just one example.

And while it's beyond the scope of a conference on crop biotechnology, yesterday's release of the FDA final risk assessment on the safety of food from cloned animals provides another example of how the news media reports on topics that are comparable in many ways.

So while this conference is indeed timely, my role in it seems to have evolved over the past few weeks. When Mary Thompson called last fall and invited me to take on this assignment, she asked me to cover the communications lessons learned in the past and how they might apply in the coming decade.

The draft program gave me the topic, "The Media View of Crop Biotechnology." I found that agreeable, even though I wasn't certain that I was qualified to describe "the media view" even if there were a single view. And in the last few days, I see, the printed program lists the topic, "Crop Biotechnology Going Forward." That clearly is an assignment above my pay grade.

What I can offer, however, is a personal view about news media coverage of biotechnology for more than the last two decades, from the perspective of my own "beat" – how government policy and politics interact with trends in the business of food and agriculture, with a heavy emphasis on economic, demographic and technological change.

It's important to try to see the biotech revolution from a number of angles, because the prism through which we examine it refracts reality in different ways.

The American farmer sees news media coverage from one perspective. Farmers may grumble at increasing technology fees, but they planted it on 73 percent of corn acres, 87 percent of cotton ground and 91 percent of soybeans last year, and I suspect those numbers will increase this year.

The biotech science company and the seed developer have other vantage points, the academic scientist yet another. Certainly the food marketer has an entirely different viewpoint.

And so do consumers – and I'm talking here about real live people who read newspapers, watch television and shop at the grocery stores – as opposed to the folks and the foundations who have appointed themselves to speak for consumers.

My perspective is that of someone who has tried to look at what has happened in crop biotechnology – and indeed in food biotechnology in a larger sense – from several different angles.

I not only commit journalism regularly, I'm a consumer. Through four years at USDA and now nearly 27 years after getting kicked out on inauguration day 1981, I've made it a habit to read *The Washington Post*, *The New York Times* and *The Wall Street Journal* (on line in recent years) and to watch at least two of the three network newscasts every day. The proliferation of cable news chatter just added to my time as a consumer and probably taken away my time as a provider of journalism.

In the interest of disclosure, my kind of journalism is different than that of the big dailies or broadcasters. I've written primarily for newsletters with small, niche circulation – too small and too niche to finance a comfortable retirement – but enough to get me this far without being forced to learn how to negotiate the new media – the viral Internet, Web 2.0 – the mysteries about which I'll say more later.

That niche – covering legislators, policymakers, regulators and lobbyists – no doubt has colored my thinking. But it has given me a kind of access to the thinking of a large number of people whose counsel I have valued and whose judgment I came to trust over the years.

People like the late Orville Bentley, the assistant secretary for research at USDA who made it clear to me that gene splicing was just a better form of crop breeding.

People like Chet Dickerson, a retired Monsanto lobbyist and one of my earliest subscribers, who persuaded me of the potential of bovine somatotropin.

People like Terry Medley, when he was administrator of APHIS, who did so much to help me understand the regulatory approach to new biotech crops – and, I might add, ignited the spark that has turned me into a real skeptic about organic marketing claims.

And, of course, Leonard Gianessi from the National Center for Food and Agricultural Policy to Crop Life America, Val Giddings from APHIS to BIO, and Mike Phillips, from

whom you have just heard, at the Office of Technology Assessment, the National Academy of Science and BIO. Lisa Dry was very helpful during her time at BIO and since.

I should mention also Julia Moore of the Woodrow Wilson Center for Scholars, who tracked biotechnology news here and in Europe for the National Science Foundation and now applies her talents to nanotechnology and its place in the food business. Now there's a topic for a separate conference altogether.

These valuable friends and many others, especially Jay Vroom and his colleagues at Crop Life over time, have made it possible for me to understand the importance of the axiom that the activists ignore and too many journalists overlook – "the dose makes the poison."

In organizing my thoughts today, I must also admit a debt to my wife, who tolerates my "pack rat" instincts for keeping all the books that I have ever bought or received, the latter including several that cover the spectrum cheerleading for biotechnology to celebrating the moral superiority of organic foods.

Thinking back on what I have written over the years, for my own newsletters and for the first few years of an Agra Europe biotech letter for the first few years of this decade, I detect my own clear bias in favor of the technology for many of the reasons I've already explained.

If memory serves, I didn't give adequate attention to the announcement of the coordinated framework announced in 1986. I confess that it got crowded out by a little thing called the farm crisis and its legislative aftermath.

But by 1993 I was writing approvingly of the Flavr Savr tomato and BST – enough to merit a mention in a warning letter that FDA sent to Monsanto before final approval of BST, asking it to stop circulating material that attested to the drug's safety, including an article of mine. It may have amounted to prior suppression, but I wear it as a badge of honor.

My commentary on USDA's final regulations on organic food a decade ago – how it succumbed to one of the first organized electronic mail deluges by professional protestors, outlawing biotechnology, irradiation and sludge fertilizer – also earned me some criticism. I speculated that organics, over time, might wish they had the advantages of safer foods from biotechnology and irradiation. Some folks on sustainable agriculture listserv – including some at land grant colleges who ought to have known better – questioned how they advocates could counter these dangerous questions I was raised.

But as I reflect on and read through others' papers on the big biotech controversies over the years, one conclusion jumps out sharply: the mainstream U.S. news media has done a reasonably fair job covering the progress of crop biotechnology.

The industry and many scientists may have found it maddening on many occasions – especially when reporters gave as much weight to fringe scientists and creative activists as to those who spoke less colorfully from the consensus.

At the same time, if contrasted with the way that the British tabloids seized on the term "Frankenfood" – an American coinage, by the way – the American press treatment looks pretty reasonable.

Several factors lead me to the conclusion that the coverage hasn't been all that bad.

One is that the American public, by and large, has not rejected biotech ingredients in food the way that some Europeans have. In fact, if the annual surveys of public opinion by the International Food Information Council are any better than the polls before the Hampshire Primary – and I believe they are – the public really isn't concerned all that much about it.

IFIC's tenth annual survey found overall impressions about food biotechnology improved a bit in 2007. It found that those who have an opinion are twice as likely to have favorable rather than unfavorable impressions. Of the three-quarters of respondents who listed a food safety concern, disease and contamination topped the list at 38 percent. Less than 1 percent mentioned biotechnology as a specific concern. More interesting is that favorable impressions of animal biotechnology are increasing.

It would seem that the average consumer on this side of the Atlantic mostly shrugs his or her shoulders in spite of the unending drumbeat of the protest industry.

My conclusion is supported by research undertaken by Matthew C. Nisbet at the American University School of Communications.

Nisbet and a colleague analyzed 25 years of coverage of the plant biotech in *The Washington Post* and *The New York Times* – the outlets that, more than any other, set the tone for the rest of the U.S. news media.

He concludes that the two big papers consistently covered plant biotechnology as an "industry" or "regulatory" story, with coverage mostly delegated to business and science reporters, and little or no attention from the political pages. He almost seems to prefer the coverage by such tabloids as the *Daily Mail* in London for its greater drama and moral outrage.

To frame the issue around economic and research angles, he suggests, has helped limit the political controversy. He writes, "These media trends have helped create very fertile political ground for the plant biotechnology industry in the U.S."

The contrast, of course, is huge and important – paid opponents of technology, incorporating their bias against big business and feeding on a latent animosity to things American – were able to frame the issue in Europe. Despite their continuing attempts, these forces have had far less success in the United States or in Canada.

Even in Europe, there are signs that the tide may be turning, if ever so slightly. Certainly the WTO decision has helped shape a slightly more benign view of the technology. But its adoption throughout the rest of the world – and the realization that no adverse environmental effects, no allergies, no illnesses – have emerged, is helping bring a gradual enlightenment.

After the new, pro-American French President Sarkozy invoked the EU's "safeguard" clause to prohibit planting a biotech variety approved by the EU, the press in France is said to be taking the side of scientists who claim that the government completely misinterpreted the science. There are reports that farmers are upset – logically they want the technology too.

I was encouraged last November by the more balanced manner in which Andrew Pollack reported about biotech sugar beets in *The New York Times* – not always a bastion of fairness when it comes to food and agriculture. He had the requisite quotations from the anti-anything fringe, but they were far outweighed by the comments from people who knew what they were talking about.

Despite my mostly positive impression of news media coverage, it has not been without flaws – and some of them have been pretty glaring.

While business and science writers and the editorial page at *The Times* seem to be getting it right most of the time, the food section and the Sunday magazine continue to look backward.

They have what I have come to call the Burros-Pollan-Schlosser ethos – if it's industrial, it's wrong; if it's profit, it's somehow not fair. Their constant worship of local and natural seems follow a policy of food security for the Upper West Side.

Coverage of agricultural biotechnology approached its peak about the turn of the century, and perhaps at the same time sank to its low point with respect to fairness and balance, with the 1999 monarch butterfly business and the following year's StarLink controversy. Since then, for the most part, it has seemed to be uphill.

It took some time before they got it right, but subsequent reporting on the effect of Bt pollen on the butterfly made it into the papers, although on the inside pages rather than on page one, accompanied by the colorful pictures of this beautiful insect.

I'm not sure the big time media ever got the StarLink affair right, or that EPA even yet has got it right. But at least it faded from the public mind after FDA determined that none of the so-called allergic reactions could be linked to the gene in question.

It's unfortunate that the metropolitan dailies, and the television news assignment desks that would be lost without the print media, weren't immediately persuaded by the logic of Steve Taylor, the Nebraska biochemist who laid out a convincing argument that nobody could become allergic to a gene to which they had not been exposed. Aventis promptly made him available to the media, but with little impact.

A little more than a year passed before the ProdiGene affair in Nebraska and the spotlight turned to crops with pharmaceutical and industrial traits. The attention was a mixed blessing for the industry because it called attention both to potential human benefits and possible risks.

The lesson from that and other incidents is that those of us who believe in the technology – its promise, its safety and the science behind it – need to recognize that the average consumer is not only a rational being capable to logical appreciation of economics and science but also an emotional being with sometimes religious and ethical concerns – and communicate with them on all those levels.

Coverage of the StarLink, Prodigene and the later brouhaha over Liberty Link rice, and last year's court decision on biotech alfalfa also turned some attention to the regulatory process – a topic that deserves more discussion and one that I'll cover a bit later.

I suspect there are many reasons for the shortcomings I've mentioned.

One might be the recurring Watergate mentality in journalism – for 36 years after Woodward and Bernstein, lots of reporters want to win the Pulitzer.

Another is the skepticism in good journalism about taking the official line from the establishment. If the farm press too often fails to question the story line from USDA or the farm supply industry, the mainstream press often is too quick to doubt. I would suggest that they apply some of that skepticism to the permanent protest industry, most of whose practitioners drink the same Chablis and drive the same Volvos that bureaucrats and business leaders do.

In their 2004 book, "The Frankenfood Myth," Henry Miller and Greg Conko make a good case that too many journalists uncritically repeat the canard that biotech food is untested.

They cite an unnamed journalism researcher to say that *The Times* (as well as *The Times of London*) were twice more likely to quote the pseudo-scientists at Greenpeace and its allies than to quote university scientists.

Miller and Conko – along with Dennis and Alex Avery – have made careers of cataloging and countering the far-out allegations of the professional protesters. And while I would shy away from some of their characterizations of the critics, they have provided a valuable perspective that has not received as much news media attention as it deserves.

Part of the reason may be their tendency to combat shrillness with shrillness. Fighting fire with fire may not always work, especially when the blowtorch is directed at people who buy their ink by the barrel.

Yet another reason for any shortcomings in biotech reporting may lie in how the industry itself has handled media relations.

Early on, it's alleged that the biotech developers focused too much on farmers as their customers. Later, they realized that they needed to pay attention to consumer sensitivity and the need for food manufacturers to guard brand reputation.

That tendency was magnified in the European case, and there is every reason to believe that they are far more sophisticated today than they were a decade ago.

Nevertheless, one continues to wonder if the industry is as sensitive as it needs to be. Not long ago, a biotech company executive mentioned at a farm press gathering here the steps being taken to prevent "contamination."

Afterward, I mentioned to the company media relations officer that the word "contamination" – as defined by an earlier Webster – is to add something impure. She only shrugged her shoulders.

Acceptance of the term “terminator gene” is another example of a pejorative use that has become too widely accepted.

When I was publishing newsletters, I followed a policy of using more neutral terminology – BST instead of “bovine growth hormone,” BSE instead of “mad cow disease.”

Even “genetic engineering” was not in our style book. Instead, we used the words biotechnology or biotech. When writing for my U.K. client, however, I had to use “GMO.”

I take some comfort in the fact that my long-time policy is consistent with subsequent findings published years later by Jay Byrne of V-Fluence in St. Louis, a former company and government public affairs practitioner. In a treatise for a public relations journal, he writes:

“It’s official and now we're stuck with it. ‘Frankenfoods’ has made it to the latest edition of the Merriam-Webster Collegiate Dictionary.”

He points out that the words chosen by the media and others in their coverage of biotechnology offer a case study in how propaganda often trumps science and manipulates public opinion.

Byrne goes on to observe that polls show a majority of consumers support foods derived from biotechnology and at the same time oppose “genetic engineering” of food.

His search of articles from the first six months of 1993 – the year the first biotech crops were approved for commercial use – compared with the first six months of 2003 shows the success of if activists who consciously sought to emphasize the scare words.

There was a 100-fold increase in the media's use of the more inflammatory and emotional words such as "genetic," "manipulation," and "altered" over the benign, but accurate terms "biotechnology" or "bioengineered."

Someone once speculated about the likely reaction if people were asked by public opinion surveys whether they wanted genes in their food. Maybe someone even did it, maybe it’s apocryphal.

In a chapter of “Let Them Eat Precaution,” published in 2006, Patrick Moore, the Greenpeace co-founder who saw the light, has this to say:

“The biotechnology sector needs to ramp up its communications program, and to get a lot more aggressive in explaining the issues to the public through the media. Nothing less will turn the tide in the battle for the minds, and hearts, of people around the world.”

One essential way to approach communications with the news media is described in another chapter in the same book by Jay Byrne

And that is through better understanding and use of the Internet – a rapidly evolving method of communication that is poorly understood by people of my generation.

My sons and grandsons could get up here and give you a better description of this rapidly changing technology, so I will rely again on Jay Byrne.

He writes that the coming of the Internet and the increased clatter of the activist groups are not just a coincidence.

Just like political and ideological activists in any subject area, those opposed to biotechnology and other modern facets of agriculture have found the Web an increasingly powerful tool.

"Unlike their corporate targets," he says, biotechnology opponents view and use the Internet with a broader perspective and potential."

He's done a great deal of research to demonstrate their effectiveness. I can only suggest – but I'm unable to prescribe just how – the industry had better take the "new media" more seriously than it has to date.

No assessment of the news media would be complete without mention of its omissions – those topics which have not been given adequate attention.

I'd like to see more attention given to the question of whether we have the regulatory scheme right. Some advocates of the technology express concern that the U.S. is over-regulating a technology that has been proven safe, while the opponents say it's too loose. It would be nice to see some objective, investigatory reporting – but that may be a utopian wish in a news media culture that sees more return from investing in even greater coverage of Britney spears.

Another topic that deserves more coverage outside the farm press is the long-term effect on the wheat industry of its collective split decision, at least so far, to resist biotech wheat. News outlets should be exploring whether wheat acreage and production will decline in favor of more soybeans and corn and what it means for the food industry here and for international trade.

It would be useful if the general news media would give some thought about the environmental and safety impacts of plant biotechnology – especially how the widespread adoption of weed-resistant and herbicide tolerant varieties has cut the need for tillage and made farmers lives' easier.

I wish the mainstream press would pay more attention to Scott Rozelle's work – I look forward to hearing more from him tomorrow – on the reduction of pesticide poisoning in China after the adoption of biotech cotton.

They also missed the story about the South African woman farmer whom I interviewed at the BIO convention in Washington a few years ago – how biotech cotton lifted her out of poverty and made her life easier on her tiny plot.

One might fault also a tendency of writers and editors in the mainstream media for propagating the oversimplification that places the biotech debate on a liberal v. conservative spectrum, with the liberals somehow opposing its adoption and the conservatives interested only in protecting the profits of multinational companies.

Such a worldview, like a similar misreading of the protagonists in the trade policy debate, is offensive at least to this liberal, and perhaps many others.

My view of biotechnology – and indeed of trade – is consistent with that of the public servant who shaped my view of agriculture from my early career in the news business. That is former Senator, former Ambassador, the former Food Peace Director, George McGovern.

From the time we met in South Dakota – it will be 50 years next year – through the time I worked for him in campaigns and in the Senate until today, I have valued the wisdom he laid out in his 2001 book, "The Third Freedom: Ending Hunger in Our Time."

While expressing admiration for some of the principles of the environmental movement, he adds, "But I believe their opposition to biotechnology as the newly emerging handmaiden of agriculture is both ill-founded and threatening to human survival in the poor countries of our planet."

Genetically engineered crops, he writes, "may be an indispensable instrument in the war against hunger."

I can only add my enthusiastic endorsement, say again how nice it would be to have that view reflected in the news media, thank you for your forbearance this afternoon and invite any questions you may have.