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THE FIRST WORD

FREE AT LAST

Now that the hurlyburly's done, now that the battle's lost and won, we can take a moment to consider what the world saw at the end of April when recombinant microbes were finally tested in the field (see Jennifer Van Brunt's article in this issue for a thorough account of what happened).

The image that will stick in the collective consciousness is a photograph of Julie Lindemann, dressed in a "moonsuit" and breathing mask (both required by regulations), set off with the uniform T-shirt of Advanced Genetic Sciences' company softball team, the Frost Busters. The photos show a faceless figure spraying God-knows-what onto a field coiled with scientific equipment to guard against environmental disaster. And that image will for many be the most important thing they know about biotechnology.

Meanwhile, out of camera range, the journalists who would convey this threatening image stood without protective garments, without breathing apparatus, perhaps without Frost Busters T-shirts, and totally without any fear for their personal safety.

What is the public to make of all this? And how? Some public consensus is necessary, after all, any time an action is likely to affect people not directly involved in decision-making; then decisions about the relative desirability of the benefit and the acceptability of the risk are political rather than individual or corporate.

But there's a rub. It is the determinations of desirability and acceptability that are political; risk and benefit are quantifiable. While controversy and disagreement are possible, one does not discover that kind of value by plebiscite, any more than one can legislate the value of *pi* (not that *that* hasn't been tried).

Yet "the public" lacks many of the tools it needs to make a rational decision (pro or con) on the biotechnologies. Only one American in three knows what a molecule is, only one in six knows what DNA is. Yet these concepts are critical to evaluating claims made for and against the biotechnologies.

Some of these points, made during a meeting of the Council of Biology Editors, annoyed two members of the audience. Isn't it arrogant, they suggested, to assume that the blessing of scientific information would necessarily convert the ignorant masses? (The heavy irony is mine; the objectors were really quite polite.) Wasn't the public getting a raw deal?

Well, yes and no.

Perhaps we, with our special interests, are giving the general public a raw deal by asking for too much technical understanding: How many molecular biologists, for example, really understand Star Wars' technology? Or nuclear power plants? Or, for that matter, computers, cars, or radios? Yet we unhesitatingly hold opinions, based on the slenderest information.

One does tend to assume, when one has been persuaded by the data and underlying concepts oneself, that information alone will persuade others. This, of course, ain't necessarily so. But the risk seems worth taking. Yea or nay, public opinions are worth far more when that public is well informed—if only one could motivate laymen to learn without first promising them riches beyond imagination or scaring the bejesus out of them.

Access to Tools. How do you educate? Over the past year and a half, *Bio/Technology* has been happily involved with an unusual group of people in something called the Keystone Biotechnology Regulatory Policy Project. The Keystone Center (Keystone, CO) is a private, non-profit group whose purpose is to build elusive consensus on controversial issues of public policy. The biotechnology working group includes corporate CEOs, research vice presidents, congressional staffers, regulators, top academic researchers, and representatives of environmental and public interest groups.

Communication is Keystone's *raison d'être* and stock-in-trade, and the group has done much to open up communication between people who might be expected, on the evidence of their affiliations, to be bitter political enemies.

Some similar rapprochement might be possible on a larger scale. What is necessary is an open exchange of information—a willingness of people from all points of the political spectrum to pool solid information and cooperate to see that it reaches inquirers as expeditiously as possible. The Keystone groups have begun to blueprint a mechanism that would do this—with the underlying assumption that good information will raise the level of public discourse and improve the quality of public decision-making. — Douglas McCormick