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Getting Our Messages Across to Consumers

The safety of food is something that concerns us all, whether as consumers or producers. Because there are many different ways in which food can become “unsafe,” the measures we need to put in place are often diverse and complex. We can often detect spoiled foods by noting changes in appearance, such as mold growth, smell (e.g., rancidity), or taste (e.g., souring). This makes it relatively easy to identify and reject spoiled foods, but many food safety measures are concerned with identifying risks that are not readily detected by the human senses.

The UN declared 2011 the “International Year of Chemistry,” during which time we were meant to celebrate “what chemistry has done for us.” I actually only caught up with this momentous event on the last day of 2011 when reading an article with the leader “There’s bad chemistry in our bodies” (1). The article went on to highlight the dangers that humanity has apparently inflicted on itself through the development of so-called hazardous chemicals—you know, the chemicals that have helped us increase food production and improve quality and safety. In an alarmist fashion, the article went on to report that tests for 100 hazardous substances revealed that, on average, we each harbor 27 of them. It also went on to report that researchers had found “potentially” dangerous chemicals in every one of 14 basic (not defined) foodstuffs they took from retail shelves.

I have no doubt that the basic information is scientifically correct, but as usual, the style of the popular press is to be unspecific, with no names mentioned and lots of unspecified connections to diseases that afflict modern humans. I don’t know about you, but I am increasingly incensed by the use of words like “potentially,” “may,” “maybe,” and “could,” which when used in the context of food safety are popularly construed as “will.” I would far rather interpret them as “don’t know,” but then I’m a scientist and not your average newspaper reader. This brings me to the focus of my column—getting our food safety messages across to consumers.

Because as food scientists we are concerned with food safety, we are constantly looking at ways of detecting and predicting relevant risks to help food manufacturers and suppliers limit or eliminate risks. To achieve this we have collectively studied and implemented various food safety systems such as HACCP. In doing so we have achieved considerable success, and despite the various scares that we experience from time to time, food has the potential to be safer than ever before. Yes, I did use the “p” word—because systems are only as good as their implementation and, critically, their management, both of

which are the responsibility of people. In times of financial stringency there will always be the temptation to take short cuts and stretch the boundaries of acceptance. I heard the following not long before writing this column, “Well it’s only 1 degree over the upper limit.” That may be the case, but my question was, “How long did it spend at ‘only’ 1 degree over the limit?”

A big problem that we face as scientists is that we need to publish our work; indeed, in many cases our funding bodies dictate that we must publish our work in order to get the funding in the first place. This makes our reported work accessible to a wide audience, especially in these days of instantaneous and worldwide communication. We strive to be very precise in the manner in which we present our findings, but in many cases, this precision is our undoing, because readers seldom go beyond the abstract. I am thinking specifically about the nature and precision of measurements. When I joined the industry, we were happy to talk about parts per million, but today we have moved to delivering data in parts per billion and trillion. Commonly, the data presented on measurements of undesirable chemicals in our foods are at the limits of detection using current techniques. And let’s face it, we are only going to get better at measuring smaller and smaller quantities.

There is an argument that states that in the case of some undesirable chemicals there are no safe limits, but in the complex world we inhabit we are bound to be exposed to hazardous substances, and some of these will make their way into the food chain, albeit at low levels. I think that the biggest challenge we face is not what and how we measure food safety risks but how we turn the data into information that enables us to reduce the “real” risks we face in food production and consumption.

I was unfortunate enough to get involved with the production of a radio program on bread in 2011. The writer/producer wanted to call it “Bread Kills.” His examples included the fact that in ancient times the presence of grit from millstones wore down people’s teeth, causing them to develop mouth ulcers and other conditions that contributed to shortening their lives (his view not mine). Later, he attacked the consumption of white bread and advocated the return to “traditional” stone grinding and consumption of wholemeal bread. Now don’t get me wrong, I am a strong believer in and consumer of wholemeal breads for their established fiber benefits, but when I pointed out that there “might be” (I catch on fast with journalist-speak) an increased risk of consuming undesirable minerals from traditionally stone-ground flour milled using the wrong type or poorly maintained stones, these comments were cut out of the interview.

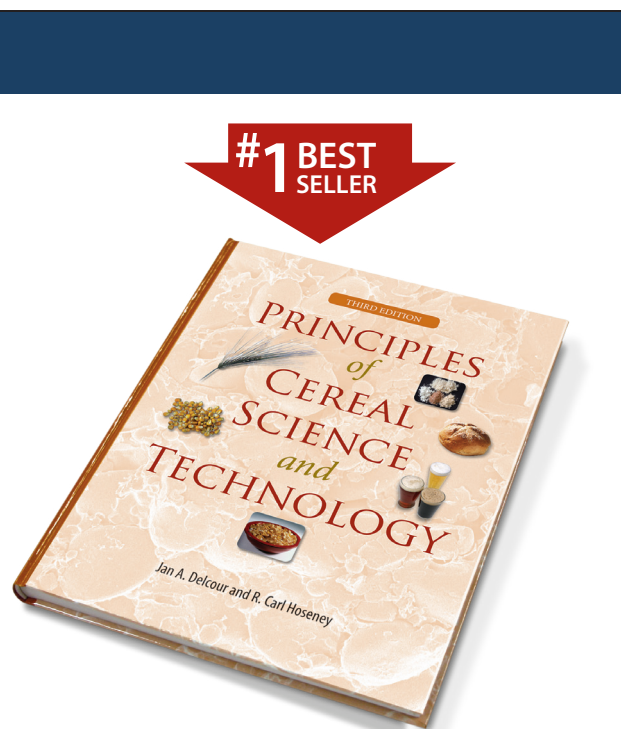
So how do we deal with alarming trends like the examples that I have just given? In truth, we have to accept that we will never be able to educate journalists in the popular press or the public about the background to the work of scientists concerned with food safety—whatever we say, personal perceptions and prejudices frequently overrule logic. However, this does not mean that we should stop trying. Our problem is that all too often we are in a reactive and defensive mode when issues of food safety are aired.

I would suggest that we need a more proactive, though careful, approach to food safety measures. The message has to be that “we do take comprehensive measures to ensure food safety and to reduce risks for consumers,” but life is not without risks in one form or another, and we have to try and understand the balance of risks from the myriad activities associated with modern life. We also have to get the message across that risks are not equal throughout a society and across societies around the world. Of course, we always need to keep improving food safety and that is precisely what a lot of research work aims to do. To help get these messages across to the press and the public, we will need to look carefully at how we report our work and make sure that we are able to put it into practical contexts, so the benefits of current and future safety measures are recognized for what they are—a contribution to improving the quality of life for all humans.

Reference

1. Lean, G. Human bodies contain too many damaging chemicals. The Telegraph, December 30, 2011.

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