



Widespread soy contamination of wheat flour: Soy what?

By Ronald Doering

Most wheat and wheat-derived food products sold in Canadian grocery stores today contain soy that is undeclared on the label. Yes, you read that right. Because of farming operations with common storage facilities, and shared harvesting and transportation equipment, most wheat products contain detectable levels of soy. This contamination is adventitious and largely unavoidable with today's agricultural systems.

In the article "Risk Assessment of Soy Commodity Contamination in Wheat Flour," published in the *Journal of Allergy and Clinical Immunology* in February 2011, researchers at Dr. Steve Taylor's outstanding Food Allergy Research and Resource Program (FARRP) reported finding that 63 per cent of retail samples of wheat flour contained detectable soy at levels ranging from 12-1770 ppm soy protein isolate (4-590 ppm soy). The FARRP study included all-purpose, whole wheat, white wheat, bread, and pastry flours.

This raises a number of interesting questions. Should soy-allergic individuals avoid wheat-based products? FARRP says no, stating: "Probabilistic risk assessment shows that the risk of an allergic reaction from soy-contaminated wheat is very low...we do not advise soy-allergic consumers to avoid wheat-based products." Essentially, while analytical chemistry can find these trace amounts, they occur at levels that are well below the threshold at which they would ordinarily cause an allergic reaction.

Should the Canadian Food Inspection Agency (CFIA) order a recall when its routine testing finds these trace amounts? No. If the science is clear that at these typical levels the food is not a health risk to consumers, then, in my opinion, the CFIA has no authority to order a product withdrawal (recall).

What about the much-vaunted "public's right to know?" Shouldn't the presence of soy be declared on the label? In the U.S. the Food and Drug Administration has expressly indicated in a guidance document that further processed foods such as milled wheat products do not need to be labelled if the residues arise from raw agricultural commodity crops. As a practical matter, if the presence of soy contamination in wheat were to be labelled, most food products containing wheat would have to bear such labels due to the widespread nature of low-level contamination of wheat with soybeans. Labelling would confer no consumer benefit and could unnecessarily restrict the diets of soybean-allergic individuals. FARRP agrees: "These results suggest that no changes should be considered to labelling laws regarding soybean commodity contamination in wheat." Adventitious presence does not meet the definition of an "ingredient" in our regulations. Moreover, Health Canada has been clear that it would not favour a "contains"

or "may contain" statement for these kinds of situations.

This is yet another case in which the advances in analytical chemistry continue to create major problems for food regulators around the world. Countries have zero tolerance standards that were set at a time when the detectable level was one ppm. But zero keeps getting smaller and smaller. We now have inexpensive tests that can detect parts per trillion (just as a reminder for those who cannot quite conceive of these little bits — one part per trillion is the equivalent of one second in 32,000 years!). More often than the public realizes, regulators are confronted with finding such trace amounts of foreign material or of a microbial hazard where there is no standard set other than zero (no maximum residue limit, for example).

With no clear science to support setting a safe level and no expert opinion available to the food company to rebut the presumption of unsafe, regulators have recalled vast amounts of safe food. Think of StarLink, Belgium Dioxin and Sudan Red Dye. Fortunately, in the case of the widespread adventitious contamination of wheat with soy, we have FARRP to thank for providing a workable interim scientific guidance that companies can use to persuade regulators not to create unnecessary havoc for consumers and the food industry when they "discover" soy in wheat flour. ●

Ronald L. Doering, BA, LL.B., MA, LL.D., is a past president of the Canadian Food Inspection Agency. He practices food law in the Ottawa offices of Gowling Lafleur Henderson, LLP. Contact him at Ronald.doering@gowlings.com