Fewer pesticides and more antioxidants on organic crops: so what?

By ACSH Staff — July 14, 2014

A multi-center, international group of scientists culled the world’s literature and found several hundred studies which they then analyzed (a meta-analysis) to discern significant differences between conventionally-grown crops and organic crops (and foods made from them). They found, on average, a 17 percent higher level of antioxidants and a lower rate of detection of various synthetic pesticides. They also found a higher level of toxic cadmium.

The article in the New York Times on this study by Kenneth Chang was (surprisingly) noncommittal on the health significance of this huge study, with the journalist citing several experts who registered between so what? and skepticism concerning its [lack of] overarching public health and nutritional significance.

ACSH’s Dr. Gil Ross had this comment: Even if this study’s conclusions are accurate/valid and the technique of meta-analysis is inherently fraught with vagaries making such conclusions suspect at best there is nothing surprising here. (And this meta-analysis is victim to many of the more egregious erroneous aspects of the methodology, such as not excluding poorer-quality studies from the outset). Of course, crops grown under organic mandates will have fewer of the licensed, approved, safe pesticides than conventionals: what else is new? And the literature support for the health benefits of isoflavones, polyphenols, etc. is scanty at best (cadmium is indeed a toxic heavy metal at high enough exposure but none of the levels found pose a realistic health risk to anyone of any age from dietary consumption).

Further, added ACSH’s Dr. Ruth Kava, None of the reviewed studies measured any remnants of so-called organic pesticides—those that are permitted under the National Organic Program. There are many of these, and they are not necessarily safe for human consumption, but the organic foods industry seems to want to keep them secret.
Also feel free to see ACSH's own evaluation of organic food's alleged health benefits here [4].