

Defeating Cancer Scares

After years of health scares, reason is now coming to bear in assessing the cancer risks posed by certain industrial chemicals, pesticides, food additives and the like. Two of the latest examples involve dioxin and a chemical used on apples and other crops.

Dioxin is actually the name for a family of chemicals. The particular compound of health concern is referred to as TCDD; it is produced in the manufacture of some herbicides, the antibacteriological agent hexachlorophene, and in a variety of combustion processes, including the burning of municipal garbage. The legacy of TCDD worries includes Agent Orange—a defoliant used in Vietnam that was at the center of a multi-million-dollar lawsuit brought by veterans charging that the chemical had caused cancer and birth defects—and Times Beach, Mo., where the federal government bought up a town contaminated by dioxin-laced oil sprayed along roads. The largest industrial accident occurred in Seveso, Italy, in 1976, when some 37,000 people were exposed to considerable amounts of TCDD after an explosion.

"Concern that this material [dioxin] is harmful to health or the environment may be misplaced. Although it is toxic to certain animals, evidence is lacking that it has any serious long-term effect on human beings," says Fred H. Tschierley, executive director of the Michigan Agriculture/Business Council and a former professor of botany and plant pathology, in an article in *Scientific American's* February issue. A similar conclusion was reached by Elizabeth Whelan, executive director of the American Council on Science and Health, in her recent book *Toxic Terror: The Truth About the Cancer Scare*.

Laboratory experiments have shown that TCDD causes cancer in specially bred mice and rats, and also

causes reproductive abnormalities in some test animals. But research into the effects of TCDD on humans points to nothing more serious than a mild skin irritation called chloracne, which clears up quickly without any long-term injury. In short, dioxin has never been found to cause cancer in humans.

Nonetheless, the Environmental Protection Agency has responded to public concern about TCDD with a number of regulations governing its production and limiting individual exposure to it. Moreover, the Office of Science and Technology Policy calculates that more than \$1 billion will have been spent by the federal government for research and other dioxin-related work before all the current studies are completed. This figure doesn't include the large sums spent by chemical companies or the \$180 million settlement in the Agent Orange case.

Separately, the EPA decided Wednesday that it will not pursue its previously announced intention to cancel uses of daminozide, a plant growth regulant used on apples, peanuts and other crops. The EPA said that it has "no reason to believe" that the chemical "poses some unreasonable risk." The decision follows a ruling by the EPA's Scientific Advisory Panel that "none of the present studies are considered suitable" for assessing health risk and as a basis for regulatory action. Indeed, none of the studies of workers exposed to daminozide over the past 20 years shows any health damage.

Science is now becoming more careful in assigning cancer warnings about widely used chemicals. What's needed also is for government to become more judicious in its own regulation actions and to try to dispel unwarranted public fear about illusory health risks from these much-needed chemicals.

Asides

Deficit Reduction

Federal red ink totaled only \$14.66 billion in December, the Treasury reported Friday, and that was actually less than reported for December a year before. We're not supposed to take the decline seriously, since the

October-December deficit was up 5% from a year earlier and the projection for fiscal 1986, barring Gramm-Rudman cuts, remains at \$220 billion. Still, we can't help wondering if those bouts with the debt ceiling and threatened government shutdowns late last year might have done some good.

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