

# A Fertilizer That Contaminates

By Jackie Hunt Christensen

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For most Minnesota gardeners, June means that it is finally safe to plant tomatoes, basil and other tender herbs and vegetables. Perhaps this year, you're going to try a variety of Grandma's heirloom tomatoes.

You may also have a favorite fertilizer you use each year. Ironite is one fertilizer that bills itself as a "natural soil supplement . . . popular choice for home, lawn and garden for 43 years. Nothing greens like Ironite. Will not burn." Sounds like something Grandma might have used herself, right?

But how would you react if that box read, "100 percent mining waste . . . Contains arsenic, cadmium, lead and mercury . . . accidental ingestion of less than one-half teaspoon of this fertilizer may be toxic to small children."

Very few people would want to use such a product on their lawn or garden, if they had access to that information. Unfortunately, state and federal regulations do not require fertilizer product labels to tell us very much about its contents. So Ironite continues to lurk on garden-center shelves around Minnesota.

This week, public health and environmental activists around the country are urging Home Depot, Lowe's and Target to withdraw Ironite voluntarily from their shelves. Its white box or bag, with simple bands of green and yellow, seems quaint and harmless, even wholesome; they remind me of the dotty old sisters in Frank Capra's film, "Arsenic and Old Lace."

The Ironite Products Company's "fertilizer" is taken from a Superfund-nominated 60-acre pile of mine tailings in Humboldt, Ariz. By calling lead "galena" and arsenic "arsenopyrite," the company tries to linguistically detoxify its product. Serious contamination of soil and food can occur with repeated applications of Ironite. Also, the risk of poisoning is very real; the Washington State Department of Health issued an advisory in 1998 about the potential risks if a child were to ingest even a tiny amount of the product. Arsenic is a known carcinogen, and even small amounts of lead or mercury can damage a child's ability to learn.

Testing of the Ironite product by state agencies in Washington and Minnesota in 1998 and 1999 have found levels ranging from 3,540 to 6,020 parts per million (ppm) of arsenic, and 3,400 to 4,380 ppm lead. (For perspective, the levels at which soil would be considered contaminated in Minnesota are 14.6 ppm for arsenic and 525 ppm for lead.)

The Maine Department of Environmental Protection found that Ironite also grossly exceeded the minimal-risk levels of mercury, in addition to arsenic and lead. (Incidentally, the state of Maine and its Department of Environmental Protection are suing Ironite for failing to obtain a permit to sell a waste-derived product.)

Where does the U.S. Environmental Protection Agency (EPA) come down on this matter? EPA actually encourages the practice of "recycling" industrial wastes. A special exemption to the Comprehensive Environmental Response, Compensation and Liability Act (also known as Superfund) allows mining wastes that are loaded with heavy metals to be used in products. Other hazardous wastes and spent acids from industrial processes, such as cement kilns, steel and copper smelting and tanneries, can be and are "recycled" into fertilizer materials.

In Minnesota, as in most other states, companies that make fertilizers are required only to disclose the plant nutrients on the product label. Since arsenic, cadmium and lead provide no benefit to plants, they are not listed on the label -- which does not make them less toxic to children or less persistent in the soil.

The state of Washington decided to shed some light on the dirty little secret in 1998 by requiring Ironite and other fertilizer vendors to disclose to the public whether their product is waste-derived, and to file a total-metals analysis for nine heavy metals (for which the state has set limits) each year when the product is registered.

In 1999 and 2000, KSTP-TV monitored University of Minnesota soil scientist Carl Rosen's use of the product in his own garden. While the naturally occurring level of arsenic averages about 1 part per million in Minnesota soils, the soil in Rosen's garden was 100 parts per million -- well over the 14.6 ppm that would qualify as contaminated.

Like the harried Mortimer Brewster, played by Cary Grant in the film version of "Arsenic and Old Lace," we all just want to get on with our own lives. We'd like to be able to plant our tomatoes with the fertilizer we choose, without worrying about contaminating our gardens.

So test your soil to find out whether you even need fertilizer. Take the time to learn about the fertilizer products you use on your lawn or garden. Tell the retailers that sell Ironite that you don't want products that are made from toxic waste.

And get your shovels ready. There is a lot of "dirt" to dig up on this issue of hazardous waste in fertilizer.

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