Pesticides and Drinking Water

FOR RELEASE: TUESDAY, OCTOBER 18, 1994

STATEMENT OF
CAROL M. BROWNER, ADMINISTRATOR
U.S. ENVIRONMENTAL PROTECTION AGENCY
ON PESTICIDES IN DRINKING WATER

Most drinking water systems in this country are well regulated and monitored frequently. But this study is another in a series of wake-up calls telling us that we can no longer take for granted that every water system is safe all the time. That is why from day one, drinking water protection has been among the Clinton Administration's top environmental priorities. While our analysis shows fewer people exposed to drinking water with unacceptable levels of these herbicides than the report, we feel that even one person at risk is too many.

The Clinton Administration is dedicated to reducing pesticide use, protecting drinking water and, in general, making up for twelve years of inaction in previous Administrations. Although Congress failed in the last session to pass the Administration's Safe Drinking Water Reform Bill, costing states and municipalities $1.3 billion designated to address drinking water problems, EPA is still taking an array of actions. We are drastically reducing the use of two of the most troubling pesticides, undertaking a review process that could lead to canceled uses altogether of the others, and developing new, long-overdue drinking water standards.

In addition, it is the responsibility of local water systems to let customers know when there is a problem with their water. EPA is aggressively enforcing to assure that water systems comply with their obligations and fully protect the health of the citizens who use their product.

PRESS CONFERENCE RELATIVE TO PESTICIDES AND DRINKING WATER ANNOUNCED

From:
Vivan M. Jennings, USDA
Deputy Administrator
Agriculture Extension Service

Date:
18 Oct 94 06:34:00 EDT

We have been alerted that a press conference tomorrow, Tuesday, October l8 at l0 a.m. E.S.T. will originate from the National Press Club by Ken Cook, President of the Environmental Working Group, a Washington D.C. non-profit, regarding five pesticides in drinking water: atrazine, cyanazine, simazine, alachlor, and metolachlor. The release is called "Tap Water Blues".

It is expected to be covered by three TV networks and broadcast in 25 cities. The executive summary follows. A standard USDA response will be provided on email as soon as available. Local sources to refer to include EXTOXNET (from NAPIAP) fact sheets and the water quality bibliography on line. We do not have a copy of the report at this time.

TAP WATER BLUES

Every spring, farmers across the Corn Belt apply 150 million pounds of five herbicides--atrazine, cyanazine, simazine, alachlor, and metolachlor-- to their corn and soybean fields. And every spring, rains wash a substantial portion of those chemicals into the drinking water of 11.7 million people in the Midwest and Louisiana. During sustained periods of peak spring runoff, up to 18,000 pounds per day of these herbicides flow down the Mississippi River into the Gulf of Mexico (U.S. Geological Survey 1993b). Drinking water contamination with these herbicides is a serious public health issue; the manufacturers' own laboratory studies show that these five herbicides cause nine different types of cancer, various birth defects, and heritable genetic mutations. None of these herbicides are removed by the conventional drinking water treatment technologies that are used by more than 90 percent of all water utilities in the U.S. To analyze the extent of exposure and health risks associated with herbicides in drinking water we examined the results of over 20,000 tests for five herbicides in finished tap water and in drinking water sources (rivers and reservoirs). The results of our analysis show that:

- 14.1 million people routinely drink water contaminated with five major agricultural herbicides (atrazine, cyanazine, simazine, alachlor, and metolachlor).
- 11.7 million of these people live in the heart of the Corn Belt and in Louisiana, including every major Midwestern city south of Chicago. Within this population, an estimated 65,000 infants drink these herbicides from birth via infant formula reconstituted with herbicide- contaminated tap water. An additional 2.4 million people are exposed to these herbicides via drinking water in the Chesapeake Bay watershed.

Drinking water is commonly contaminated with two or more of these five herbicides. For example, 61 percent of samples taken at the Kansas City, Missouri contained two or more of these five herbicides, 47 percent of samples collected from four northern Ohio rivers that serve as drinking water sources contained three or more, and 38 percent of samples from 27 Midwestern drinking water reservoirs containing four or more of these five herbicides.

More than 3.5 million people in 120 cities and towns face cancer risks more than 10 times the federal cancer risk benchmark, based on average annual exposure to these herbicides in drinking water. This includes residents of Columbus, Ohio; Indianapolis, Indiana; Kansas City, Missouri; Springfield, Illinois, Cedar Rapids, Iowa; and Omaha, Nebraska (Table A).

People in small rural communities are at particularly high risk; over 400,000 people in 98 rural communities face cancer risks from 10 to 116 times the federal benchmark (Table B).

A total of 67 different pesticides and pesticide metabolites have been detected in Midwestern sources of drinking water since 1987.

Rather than solve this problem at its source, the federal government has established legal levels of contamination, called maximum contaminant levels (MCLs), for three of these five herbicides in drinking water (atrazine, alachlor, and simazine). For metolachlor, and the most toxic of them all, cyanazine, the government has not established a legal contamination standard, but instead has set non- enforceable lifetime health advisories (LHA's). For chemicals with non-enforceable health standards, virtually any level of contamination, no matter how high, is legal.

Drinking Water Standards are Weak:

Federal drinking water standards are among the weakest of all national environmental regulations. Like all EPA health standards for toxic chemicals, drinking water standards do not account for simultaneous exposure to many different contaminants commonly found in drinking water. They ignore the toxicological significance of seasonal peaks in exposure in which millions of people drink water contaminated with herbicides at levels above government health standards. They do not account for the potential vulnerability of infants and children, and they fail to protect against exposure to the most sensitive human organ systems--such as the endocrine system, the immune system, or the developing brain and nervous system. The EPA Office of Ground Water and Drinking Water (OGDW) further compounds these flaws by failing to incorporate into drinking water standards, metabolites and degradation products that naturally occur as these herbicides degrade in the environment. This is problematic because many of these breakdown products are as toxic as the herbicides themselves. They are incorporated into standards when these same herbicides are found in food. On top of all this, OGDW uses a less protective method of regulating human exposure to carcinogens --a method not used by any other division at the EPA.

The result is far weaker standards for these cancer-causing herbicides when they appear in water than when they are found in food. For example, the drinking water standards for the two herbicides found most frequently in water, atrazine(Aatrex) and cyanazine (Bladex), are l9 and 29 times weaker than the food standards applied by EPA's pesticide division.

EPA Required Quarterly Monitoring Understates Human Exposure:

Herbicide contamination of drinking water is typically highest in the late spring and summer months. The May through August peak contamination period is well documented and in many cases accounts for over half of the total annual exposure to the five herbicides analyzed in the study. Often, this sustained exposure is so hight that even the current permissive federal drinking water standards are exceeded for extended periods.

Our analysis identified more than l.3 million people in six states who drink water with average May through August contamination levels that exceed federal drinking water standards for at least one, and some cases two of these five periods.

Table A. 3.1 million individuals in 23 cities with populations over 25,000 are exposed to cancer risks from herbicide contaminated drinking water that exceed federal cancer standards by a

factor of one (1) or more (the federal cancer standard is one additional cancer death per million exposed individuals, or l x l0 to the minus 6 power.) :

Springfield, IL; Mankato, MN; Bowling Green, OH; Richmond, IN; Danville, IL; Cedar Rapids, IA; Indianapolis, IN; Alliance, OH; Columbus, OH; Decatur, IL; Jefferson City, MO; Delaware, OH; Marion, OH;Lawrence, KS; Leavenworth, KS; Kansas City, KS; Kansas City,MO; Topeka, KS; Ottumwa, IA; Lawrence, KS; Omaha, NB; Iowa City, IA, Fort Wayne, IN

Source: Environmental Working Group.

Received from:

Vivan M. Jennings, USDA
Deputy Administrator
Agriculture
Extension Service
Tel: (202) 720-5623
Fax: (202) 720-4924

Kathy Kimble-Day
Program Analyst, NAPIAP
Tel:(202)720-6506
Fax:(202)720-4395