

Rocket-fuel traces found in milk, lettuce in Central California area

By Mike Lee

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Federal investigators have found traces of a rocket fuel component in milk and lettuce from Salinas to Cedarville, N.J., according to new government data released Monday.

Perchlorate was detected in about 90 percent of 128 lettuce samples and in all but three of the agency's 104 milk samples – but not at levels that prompted alarm at the Food and Drug Administration.

"I think that suggests a much broader distribution (of perchlorate) than anybody thought and the basis of that distribution I don't think is adequately known," said Robert Krieger, an extension toxicologist at the University of California, Riverside.

The FDA said it wasn't recommending diet changes based on its findings, which resulted from the most comprehensive search to date for perchlorate in food. Still, one consumer watchdog group said the data should spark cleanup efforts, and farm groups wondered what it all meant for their products.

"There's so much being done to food that's wrong," Chris Nelson, who was grocery shopping Monday in midtown Sacramento. "This needs to be contained."

Perchlorate is both a naturally occurring and man-made compound. Most of the perchlorate manufactured nationwide is used as the primary ingredient in rocket fuel.

In recent years, increasingly sophisticated measuring equipment has detected perchlorate in water supplies, such as the Colorado River, and in foods. Crops likely are tainted by perchlorate-laced irrigation water.

At high doses, perchlorate can disrupt thyroid function, although scientists and health officials said the levels being detected nationally are not a concern for healthy adults. Thyroid disruption is especially risky for nursing infants and for children because it can retard development.

There are no perchlorate safety standards set for milk or foods. The preliminary federal guideline for drinking water says perchlorate in drinking water should not exceed 1 part per billion. California's preliminary drinking water goal for perchlorate is 6 parts per billion.

On Monday, the FDA released data collected in the first eight months of 2004.

Lettuce samples were collected at fields or packing sheds. Several types of lettuce tested showed average perchlorate levels between 7.76 parts per billion and 11.9 parts per billion.

Most milk samples were collected at grocery stores. The average level of perchlorate found in milk was 5.76 parts per billion.

Bottled water from retailers nationwide also was tested, but perchlorate contamination was so limited that it could not be measured in 49 of 51 samples.

The agency also is sampling tomatoes, carrots, cantaloupe and spinach, although those results were not immediately available.

"We are ... producing preliminary information," said FDA spokesman Brad Stone. "In terms of assessing what it means, we are going to work with a variety of other agencies and entities to assess that."

The agency's Web site advises eating a balanced diet of high-fiber low-fat foods until more is known about the health effects of perchlorate.

The National Academy of Sciences is reviewing key questions relating to whether perchlorate is a public health concern. Its report, due by January 2005, will set the target for perchlorate cleanup nationwide. Cleanup already has begun in some heavily contaminated areas of California.

Allan Hirsch, spokesman for the state Office of Environmental Health Hazard Assessment, said his agency accounted for people consuming perchlorate from sources such as food and milk when setting the state's preliminary drinking water standard.

He said his agency will review that goal of 6 parts per billion -- a first step in setting a water cleanup standard for the state -- when the National Academy of Sciences releases its report.

A spokesman for the head of a state Senate committee on perchlorate contamination was less willing to wait.

"We really try to avoid sounding alarmist on this issue because the problem is so big that it requires cooperation from any number of public and private entities," said David Miller, spokesman for Sen. Nell Soto, D-Ontario. "But this latest report makes it sound like it's time to start ringing the bells."

At the Oakland office of the Environmental Working Group -- one of the most prominent advocates for perchlorate cleanup -- Bill Walker said the FDA tests demand immediate attention from federal authorities.

"It's a national problem that needs a national solution," he said.

California farm leaders cautioned against overreacting to the preliminary studies but acknowledged a desire to rid crops of perchlorate.

"It's been the most burning thing on our minds since 2003, when we first started to become aware of the fact that perchlorate was showing up on some of the agriculture commodities that were produced in California and elsewhere," said Hank Giclas, vice president of science and technology at Irvine-based Western Growers.

Chemical problem widens

By Douglas Beeman and David Danelski

The Press Enterprise

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Federal officials have found the rocket-fuel chemical perchlorate in lettuce and milk collected from coast to coast, suggesting the chemical is more widespread than previously believed.

The federal Food and Drug Administration found low levels of perchlorate in milk and lettuce nearly everywhere it looked, including Florida, Maryland, Kansas and California. The FDA did not find perchlorate in the vast majority of bottled water tested.

In Central California's Salinas Valley, which bills itself as the salad bowl of the nation, perchlorate was found in four types of lettuce. The study does not identify why perchlorate is in lettuce and milk. Farm groups and the FDA advised the public to continue eating a balanced diet that includes fruits and vegetables until more is known. Perchlorate in sufficient amounts can disrupt thyroid function, which regulates metabolism, growth and development.

But the FDA said it might seek ways to reduce dietary exposure to perchlorate if small amounts of the chemical ultimately are found to impair health. The chemical is found in the lower Colorado River and in groundwater basins serving Inland residents.

FDA officials could not be reached for comment Monday.

Kevin Mayer, the U.S. Environmental Protection Agency's perchlorate coordinator for the southwest and Pacific region, said the FDA's data show that people are being exposed to perchlorate throughout the nation, not just in communities with tainted drinking water.

'Everybody's Kitchen'

"This brings the perchlorate question into everybody's kitchen," Mayer said by telephone.

The FDA results raise perplexing questions because the chemical was detected in areas not known for perchlorate contamination, such as in lettuce grown in New Jersey and milk sold in Washington.

"What's up with Washington state, and what's up with New Jersey?" Mayer asked.

Scientists are still debating how much perchlorate can impair the mental and physical development of fetuses and newborns, considered the most likely group to suffer ill effects.

A federal panel of experts reviewing the science on perchlorate is expected to release its findings in early January. That report is likely to play a major role in determining how much of the chemical will be allowed in water and possibly food.

The Testing Process

The FDA released test results Friday that found low levels of perchlorate in milk and lettuce. The samples were taken over eight months in five lettuce-producing states, among them California, New Jersey and Florida, and 14 milk-producing states, which included California, Washington, Kansas, Maryland and Georgia.

The tests confirm earlier, more limited tests on lettuce and milk, including tests last year by The Press-Enterprise that found perchlorate in lettuce from Inland grocery stores and crops irrigated with Colorado River water.

The federal agency said its second phase of tests will include more milk samples, along with tomatoes, carrots, cantaloupe and spinach.

The FDA said the broader testing will help determine how much of the rocket-fuel chemical the public is being exposed to, and assess whether human health is at risk.

Nathan DeBoom, chief of staff for the Milk Producers Council in Chino, noted that the FDA described its findings as "exploratory" and not a reflection of perchlorate's distribution in the nation's food supply. He added that the results are "not enough to warrant any kind of change in milk consumption."

Bob Nielsen, chief administrative officer with Tanimura & Antle, a produce grower and shipper based in Salinas, said he could not comment on where the perchlorate might be coming from in the valley. Other growers' representatives could not be reached for comment Monday.

Perchlorate keeps the fire burning in solid-fuel rocket engines. It also has been used in fireworks, road flares and rubber manufacturing. It also has been found in fertilizer from Chile. The biggest perchlorate customers are the defense and space agencies of the U.S. government.

Threat to Water Supplies

Industrial accidents and past handling practices have caused perchlorate to leach into water supplies in at least 22 states. It has tainted the lower Colorado River and some groundwater basins serving Inland residents.

The federal EPA has suggested that 1 part per billion - less than the levels in the Colorado River and many drinking water sources - is a safe level that would protect infants developing in the womb. That level could be used to develop national standards for drinking water and for environmental cleanup.

The National Academy of Sciences is now reviewing the science behind the EPA's health-risk evaluation.

The findings make more critical the resolution of the ongoing debate over how much of the chemical can be safely consumed, Mayer said.

Industry and Department of Defense scientists have argued that the EPA's analysis is overly protective and would spur unnecessary, costly cleanups. They argue that humans can safely consume water with as much as 200 parts per billion.

Determining a safe level for all people, known as a reference dose, is necessary for the EPA to set regulations for drinking water and for the FDA to regulate food, Mayer said. In view of the FDA findings, it's more critical to solve the health-risk debate, he said.

Earlier this year, California's Office of Environmental Health Hazard Assessment set a public health goal of 6 parts per billion for drinking water. That health goal will guide the state's development of a drinking-water standard for perchlorate.

Allen Hirsch, an agency spokesman, said the FDA's results are unlikely to change the state's health goal for perchlorate. The agency had estimated that people get 60 percent of their perchlorate exposure from water and the rest from food.

"Our first blush reaction (to the FDA) is the data supports the assumptions we made that a large percentage of a person's exposure to perchlorate would come from sources other than water," he said.

Lettuce has trace of unsafe chemical

By Victor Calderon

The Salinas Californian

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Traces of a hazardous chemical have been found in lettuce grown in the Salinas Valley, according to a survey conducted between December 2003 and August by the U.S. Food and Drug Administration.

The survey, released Friday, says four types of lettuce -- green leaf, iceberg, red leaf and romaine -- were found to have amounts of perchlorate, a primary ingredient of solid rocket propellant. The chemical also is used in fireworks, leather tanning and the manufacture of paint and enamel, among other things.

To discover how much perchlorate might be absorbed into food from contaminated irrigation water, the FDA undertook the survey, finding levels ranging from 1 part per billion (ppb) in green leaf lettuce to 29.6 ppb in iceberg lettuce.

The U.S. Environmental Protection Agency reports that exposure to the chemical should not exceed 1 ppb in drinking water. Health officials in California have set a preliminary safety standard of 6 ppb for drinking water, according to the Environmental Working Group, an anti-pollution advocacy group.

"These numbers are very surprising to me," said Bob Roach, assistant agricultural commissioner for Monterey County.

Roach, whose department assisted the FDA in obtaining samples, said the findings are unexpected because there are no known sources of perchlorate contamination in Monterey County.

The FDA is gathering perchlorate data to determine if "any action might be needed to protect the public health," according to the Web site where the survey is posted, www.cfsan.fda.gov/~dms/clo4data.html.

The FDA survey follows an announcement by the Environmental Working Group in May 2003 that it found perchlorate traces in four heads of lettuce purchased in the San Francisco Bay Area.

That announcement rocked the lettuce world and had Salinas Valley growers hastening to assure consumers that lettuce grown here had no perchlorate contamination.

In May 2003, Eric Lauritzen, Monterey County agricultural commissioner, told The Salinas Californian, "It isn't a maybe when it comes to Central Coast lettuce. There's been adequate testing to ensure it (perchlorate) is not here."

As Roach did Monday, Lauritzen said then that there is no obvious source of perchlorate contamination in the Salinas area.

So far, the FDA is not advising consumers to alter their eating habits or those of their children to avoid exposure to perchlorate in lettuce.

If consumed in sufficient volume, perchlorate can affect the thyroid gland's ability to make essential hormones and lead to thyroid gland tumors, the survey Web site says.

The U.S. Department of Agriculture is exploring how plants absorb perchlorate. The survey Web site says that perchlorate can get into plants when they are irrigated with water containing it or through soil that has been exposed to water or fertilizer containing the chemical.

The survey also tested perchlorate levels in lettuce in other parts of California, including the Imperial Valley and Santa Maria, as well as Arizona, Florida, New Jersey and Texas.

The FDA also is studying perchlorate levels in bottled water and milk at various locations around the nation.

Chemical in lettuce baffles industry; Officials are not taking action yet

By Dania Akkad

The Salinas Californian

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Just how the rocket-fuel chemical perchlorate ended up in Salinas Valley lettuce -- and whether it poses any health risks -- remained a mystery Tuesday to local and state officials.

"We don't really understand where it is coming from," said Bob Roach, assistant Monterey County agricultural commissioner. "It's not believed to be present in our water, although I can't find any data that confirms that."

In a survey of lettuce, milk and bottled water in 19 states across the country, the Food and Drug Administration found low levels of the chemical in nearly all of the lettuce and milk samples tested between December 2003 and August. Only one bottled water sample tested showed any presence of perchlorate.

In analyzing green leaf, iceberg, red leaf and romaine lettuce from the Salinas Valley, the FDA found levels between 1 part per billion (ppb) -- about one drop of water in a swimming pool -- to 29.6 ppb of perchlorate.

Studies over the past decade have shown high doses of perchlorate over a long period of time can affect the thyroid gland's ability to make essential hormones and can lead to thyroid gland tumors. The substance, however, also has been used to treat hyperthyroidism, according to the FDA.

The U.S. Environmental Protection Agency has presented a draft report to the National Academy of Sciences, suggesting that 1 ppb of the substance in drinking water is a safe amount, multiple sources from various agencies said Tuesday.

Perchlorate is unregulated in California and at the federal level.

Officials: Keep eating veggies

FDA and Salinas-area agriculture officials said Tuesday they encourage people to continue eating diets rich in fruits and vegetables and eagerly await the NAS critique of the EPA report of the health risks associated with perchlorate.

"Are we concerned about unwanted compounds in our commodities? Absolutely," said Jim Bogart, president of the Grower-Shipper Association of Central California.

"But we need to know what's there, what it means and if there is any risk associated with it to consumers," he added.

Roach stressed that the perchlorate levels are measured in parts per billion and to ingest a dangerous level -- in excess of the California public health recommended maximum of 6 ppb -- a person would have to eat a whole lot of lettuce.

"You'd have to eat 10 or 12 salads a day to be getting into that range," he said.

The FDA survey comes after a decade of advances in the methods and technology used to test for the substance, said Bill Walker, vice president of West Coast operations of the Washington, D.C.-based Environmental Working Group.

The agency is a nonprofit watchdog group that found perchlorate contamination in lettuce in April 2003.

Perchlorate, a primary ingredient of solid rocket propellant, has been used at military bases and defense and aerospace plants, especially in the western United States, over the past 50 years. Ninety percent of the substance in the United States, Walker said, is used in U.S. military and space rockets.

More widespread than thought

The FDA study, he said, has shown perchlorate is more widespread than researchers originally thought.

"(The FDA study) is surprising to me," Walker said, adding that the levels of perchlorate in Salinas Valley lettuce especially surprised him. "There is no known source of perchlorate in the water there."

Grower-Shipper president Bogart concurred with Walker, explaining that a year ago, after a study came out showing levels of perchlorate in lettuce in Southern California and Arizona, local water sources were tested for the substance, including water at Fort Ord, and nothing was found.

The NAS is expected to release its critique of the EPA's draft report in the next couple of months, Walker said.

The EPA's proposed 1 ppb level, he stressed, only deals with perchlorate in drinking water, and more studies are needed to see how the compound reacts differently in different foods, such as lettuce and milk.

Still, he said, the effects of perchlorate are long-term and subtle for a particular population -- babies, children and women nursing babies -- whose thyroid functions are developing.

"The average adult is not going to have any effects whatsoever, eating a nice big healthy salad and washing it down with a glass of milk," Walker said.

Bogart said local growers, who eagerly participated in the FDA survey, will be meeting over the next weeks to discuss the results.

"We need to get the information and data so we can respond and react accurately," he said