

## ANOTHER REASON TO BUY LOCAL:

### COMING SOON TO CALIFORNIA STRAWBERRIES – A NEWLY APPROVED CARCINOGENIC PESTICIDE

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Rodale News©

California knows how to grow strawberries, that much is certain. The Golden State grows 90 percent of the country's beloved berry supply. But lately the controversy surrounding the strawberry industry is anything but sweet, thanks to the possibility that the state could soon approve a pesticide that is used to induce cancer in cell-culture experiments. Methyl iodide, which is well-known among scientists for its ability to bind to DNA and cause mutations, is being touted as the replacement for methyl bromide, a fumigant that is being phased out because of all the damage it's done to our stratospheric ozone layer. The problem is, the replacement pesticide is listed as a carcinogen in California, and it's also been associated with miscarriages and thyroid disease.

"The methyl group can affect your DNA and change the way your genes function," explains chemist Susan Kegley, PhD, founder of the Pesticide Research Institute, and consulting scientist for Pesticide Action Network. "Methyl iodide is a reactive and toxic chemical." She likens the chemical industry's claim that it's safe to that of the early tobacco industry tycoons. "We've been using it for two years and there are no problems." A *San Francisco Chronicle* story wrote that even chemists are hesitant to handle the dangerous chemical. And we're supposed to eat food grown with this stuff?

**THE DETAILS:** In 2007, the U.S. Environmental Protection Agency (EPA) registered methyl iodide for use as a pesticide. Most states just accept what the EPA approves, but California, Florida, Washington, and New York have their own approval programs. New York is not using methyl iodide after the pesticide company Arysta refused to hand over more detailed information regarding the pesticide. Florida approved it, with some restrictions, and California and Washington still haven't made a decision. That means it's already registered for use in 47 states, where it's currently being used on strawberries, tomatoes, peppers, and nursery crops.

The concern is that it will harm people living near strawberry fields because of the chemical's ability to cause miscarriages and ailments linked to neurotoxins. There's also worry that since the fumigant is injected into the ground before planting to kill organisms in the soil, it could contaminate water supplies. Since methyl iodide was only registered in 2007, there's no long-term data looking at the health and environment implications of using the substance on such a large scale or in more populated areas. After all, strawberries like to grow where people like to live—where it's not too hot and not too cold, says Carolyn O'Donnell, spokeswoman for the California Strawberry Commission (CSC).

And although O'Donnell says farmers want to use methyl iodide, it appears their neighbors do not. [*Correction: O'Donnell has since told Rodale.com that she did not state that farmers represented by CSC want to use methyl iodide.*] The California comment period regarding

methyl iodide invoked nearly 60,000 responses, the majority against registering it for use in the state. Despite the public outcry, the state's pesticide regulators have set acceptable levels of methyl iodide that are more than 100 times higher than levels recommended by its own scientists and an independent panel of eight scientists and doctors, including experts in toxicology, carcinogens, and neurotoxicity. "They ignored their own staff work and the panel's work," says panel member Ron Melnick, PhD, a senior scientist at the National Institutes of Health. "The exposed population will be the test for whether or not this is a developmental neurotoxin."

Melnick also says California's Department of Pesticide Regulation jacked up the acceptable level by 120 times, assuming that workers respirators work at 90 percent. The panel suggests the devices work at about 50 percent, not to mention exposure levels for nearby field workers or neighbors who aren't wearing protective gear. "[The Department of Pesticide Regulation's decision] is not science based. It's not health based. If you consider other reasons after those two, you come to economics and politics," says Melnick. Now, residents are waiting to see if the plan receives final approval.

O'Donnell stresses, however, that pesticide use and record-keeping requirements are stricter in California than anywhere else in the country, and notes that local agriculture commissioners in each county will be responsible for approving where methyl iodide can be used. But what we don't know is what happens when this volatile and reactive chemical chronically drifts into neighbors' yards, or what happens when it's applied year after year in the same fields. "The unanswered question is what happens? Do strawberries take up extra iodide in the soil? What happens when you fumigate the same field every year and it accumulates in the soil?" asks Kegley. The EPA does not require testing for such effects.

**WHAT IT MEANS:** Maybe one question we need to be asking is, "Why are we even using toxic pesticides on our food supply in the first place?" In a new study published this month in the journal *Nature*, Washington State University researchers found that organic farming enhances biodiversity, in turn boosting natural pest control. Using methyl iodide and other chemical pesticides kills the soil's beneficial microorganisms, along with the predatory insects that kill pests and naturally control plant diseases. Plus, nearly 130 organic farming operations in California produce strawberries without toxic chemicals and fumigants, so we know it can be done.

### **Here's how to select strawberries that benefit human and environmental health:**

- **Buy organic.** Driscoll's, the largest marketer of strawberries in the country, grows some of its own, but also contracts smaller farms to grow and sell under that name. The company sells both organic and nonorganic strawberries, so be sure to always opt for USDA-certified organic, a certification program under which the use of methyl iodide and many other harmful neurotoxic and carcinogenic chemicals are banned. **Better yet, buy from local organic growers at your area farmer's market.**
- **Question your farmers.** Ask your local strawberry growers what they use to control disease and pests. According to manufacturer Arysta, methyl iodide is already being used in 12 states: Florida, North Carolina, South Carolina, Georgia, Alabama, Tennessee, Virginia, West Virginia, Michigan, Maine, New Jersey, and Oregon. It's not just for strawberries, but is also used with tomatoes, peppers, and nursery stock, too.

- **Grow your own.** Use tips from *Organic Gardening* magazine to grow the perfect chemical-free strawberries in your backyard. Choose certified-organic plants from seed catalogs to ensure the berries are organic from seed to harvest. Check out selections from seed catalogs like Johnny's, Fedco, or Seeds of Change over the winter, and prepare to plant as soon as the soil can be worked in the spring. For places with warm winters, such as California, Florida, and the Southeast, fall planting is recommended.