

Veggies Not so Nutritious

By Lance Gay, Scripps Howard News Service
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Agriculture Department reports decline in 6 of 13 nutrients in food

In spite of what Mother taught you about the benefits of eating broccoli, data collected by the federal government shows that the nutritional content of America's vegetables and fruits has declined over the last 50 years—in some cases dramatically.

Donald Davis, a biochemist at the University of Texas in Austin, said that of 13 major nutrients in fruits and vegetables tracked by the U.S. Department of Agriculture from 1950 to 1999, six showed noticeable declines.

The six declining nutrients included protein, calcium, phosphorus, iron, riboflavin and vitamin C. The declines ranged from 6 percent for protein, 15 percent for iron, 20 percent for vitamin C, and 38 percent for riboflavin.

"It's an amazing thing," said Davis, adding that the decline in nutrient content has not been widely noticed.

He said an agriculture scientist appears to have been the first to pick up the disappearance of nutrients in 1981 in a paper comparing the data on nutrients on garden crops grown in the United States with those grown in England.

Davis, who discussed his findings at a recent meeting of the American Association for the Advancement of Science meeting in St. Louis, suspects the trend in agriculture toward encouraging crops that grow the fastest and biggest is a reason for the decline. The last five decades have been marked by the "Green Revolution," which has seen a marked increase in U.S. production and yields as farmers have turned to the fastest-growing and greatest-producing plants.

The tradeoff is that the faster-growing plants aren't able to acquire the nutrients that their slower-growing cousins can, either by synthesis or from the soil. He said there also are differences in the amounts of nutrients lost in differing varieties of wheat and broccoli.

Davis said he doesn't want his study to encourage people to stop eating vegetables on the grounds they lack nutrients. "That's completely wrong," he said, contending his study shows that people need to eat more vegetables and fruits, and not less. "Vegetables are extraordinarily rich in nutrients and beneficial phytochemicals. They are still there, and vegetables and fruits are our best sources for these."

Al Bushway, a food-science professor at the University of Maine and an expert on fruits and vegetables with the Institute of Food Technologists, said the decline of nutrients in vegetables and fruits could be made up through other foods Americans eat.

"For vegans only using plant sources for food, this could be an issue," he said. But he said most Americans would pick up adequate quantities of calcium they need by drinking milk. Bushway said that fruits and vegetables are still crucial to providing nutrients people need. "They are an important part of the diet—extremely important," he said.

The Agriculture Department data that Davis used doesn't include all of the nutrients scientists today can identify in fruits and vegetables. Scientists in the 1950s did not understand the role of phytochemicals, and other important nutrients—like magnesium, zinc and Vitamin B-6—were not counted in the data scientists collected until more recent times.