

Health Reasons to Cut Back on Corn Consumption

By Adam Voiland

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Pop quiz: Which of the following contains ingredients derived from corn? (a) Kellogg's Corn Flakes; (b) Pepsi; (c) Smucker's jam; (d) a McDonald's Big Mac; or (e) Wonder Bread. Answer: all of them. And then some.

The American food supply, in fact, is awash in corn. This year, U.S. farmers reaped 13 billion bushels of the yellow stuff—the largest corn harvest in American history. Such bumper crops, made possible in part by massive federal subsidies to corn farmers, help keep corn prices—and food prices in general—down, but health experts worry that the glut of corn is harming our health. Cutting back on corn, they say, could be a smart health move.

One concern: All that corn, which is rich in sugars and calories, has to go somewhere, and we're guzzling far too much of it in the form of high-fructose corn syrup, an economical sweetener used in an array of processed foods and beverages. Per capita production of high-fructose corn syrup has increased some 4,000 percent since 1973, and the syrup now rivals sugar as America's most common sweetener. The average American now consumes a whopping 42 pounds of high-fructose corn syrup each year, according to U. S. Department of Agriculture data. That's an extra 75,281 calories per year—enough to feed a typical person for 37 days. The bulk of that comes via soda, energy drinks, and juice drinks. From soft drinks alone, teens typically get 15 to 20 teaspoons per day of added sugars from high-fructose corn syrup—some 11 percent of their daily total caloric intake, according to a report from the Food Trust, a Philadelphia based nonprofit organization. Another study shows that soft drinks have replaced milk as a dietary staple and have become the third-most-common breakfast food.

"If the average American could cut just one soft drink or sugared water drink a day they would immediately cut out 10 pounds a year," says Barry Popkin, an agricultural economist and professor of nutrition at the University of North Carolina. Corn syrup is the most common sweetener in those drinks, but plain old table sugar is also a problem, says Ronald Davis, president of the

American Medical Association. Chemically, the corn syrup is nearly identical to table sugar, and both substances most likely play a part in the nation's obesity problem, experts say.

It's not just people who eat too much corn. The bulk of the nation's crop ends up feeding livestock, which can be cheaply fattened on corn before slaughter. But beef from corn-fattened cattle, for example, tends to have more artery-clogging saturated fats than grass-fed beef, says Popkin. Research also suggests it's lower in healthful substances like Omega-3 fatty acids.

Ominously, researchers have even found that cattle that subsist mainly on corn develop high stomach acidity, which appears to breed *E. coli* O157:H7, a deadly strain of the bacteria. Six years ago, USDA microbiologist James Russell noted in the journal *Science* that switching cattle to a diet of hay for even a brief period before slaughter could eliminate most of the problematic *E. coli*. But some scientists and industry groups have questioned Russell's findings. Now, a new study to be published in *Applied and Environmental Microbiology* by researchers at Kansas State University has found that cattle fed distillers grains, a byproduct of ethanol production, have a significantly higher prevalence of *E. coli* O157:H7 in part of their digestive system. If further studies confirm the finding, "this could have profound implications in food safety," says T.G. Nagaraja, the study's author.

Ultimately, it's not that corn is inherently unhealthy or should be banished from the food system, says Aaron Woolf, director of the 2007 documentary *King Corn*, which highlights the dominance of corn in the agricultural system. "Corn is an astounding plant capable of producing an astounding amount of food from an astoundingly small space," he says. "The problem is the scale at which we produce it."