A Fungus in the New York Times

By ACSH Staff — August 16, 2004

A shorter version of this letter was sent to the Times -- and to the Houston Chronicle, which reprinted the Times piece under discussion:

To the editor:

In his column [1] on language in the Sunday *New York Times*, William Grimes praises the virtues of huitlacoche, "a fungus that grows on corn" and "ranks as a delicacy in Mexico, where cooks use it to impart a rich, mushroomy flavor to food." True though this may be, Grimes ignores or is unaware of the dangers that huitlacoche poses to pregnant women, particularly poor women who may not have a choice of what to eat.

Huitlacoche is a fumonisin, a carcinogenic mycotoxin produced by the fungus called fusarium ear rot. It inhibits the utilization of folic acid, lack of which in pregnant women often results in infants with spina bifida and, less commonly, acephalous infants. This was very likely the cause of the thirty acephalous infants born in the lower Rio Grande valley in 1990-1991. A recent article in the *Journal of Nutrition* has studied occurrences of the condition worldwide, including those in Texas, and makes the risk very clear.

In his praise for Chez Panisse, Grime demonstrates an identification with the food police who would have us fear modern food production while praising that which is "natural" and therefore "safe." Going online, one finds that huitlacoche is a proffered item in "health food stores" in the U.S. A recent investigation by the United Kingdom Food Standard Agency found some batches of "organic" maize (or corn) to have close to thirty times the usual level of fumonisins. The much-maligned transgenic Bt corn has far and away the lowest level of fumonisins, 90 to 95% less than conventionally grown maize, which is in turn vastly below "organically" grown maize, which has the highest level of infestation (DeGregori 2002, 108 109, Burke 2004, and FSA 2003a&b). Fumonisin-infested maize or corn can be fatal when fed to pigs and horses and can end up in milk when fed to cows. And we must never forget the other major fungal infestation of corn (as well as rye and peanuts), aspergillus flavus, whose aflatoxins have brought untold misery to humans, such as the affliction known as St. Anthony's Fire, and remains a scourge causing serious health problems and death for the poor, especially where they cannot afford fungicides and the routine screening to identify the infestations. In many poor areas of Africa, the infestation is real and identifiable, but for them, the choice is either to eat the infested grain or starve.

We would not wish to prevent healthy adults (who are not pregnant) from enjoying this delicacy, as long as they are aware of the dangers and can avail themselves of vitamin B supplementation, one of marvels of twentieth-century science, which identified vitamins and then learned to manufacture them cheaply. The issue is serious enough, though, that the Times might wish to run a brief news item for those who do not read the letters column, so that readers have the information to make

the proper judgment and take the necessary precautions. Precautionary principle anyone?

Thomas R. DeGregori Professor of Economics University of Houston

References:

Sincerely yours,

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DeGregori, Thomas R. 2002. Bountiful Harvest: Technology, Food Safety and the Environment. Washington, D.C.: Cato Institute.

FSA (Food Standards Agency). 2003a. Contaminated Maize Meal Withdrawn from Sale, London: Food Standards Agency, United Kingdom, Wednesday, 10 September.

http://www.food.gov.uk/news/newsarchive/2003/sep/maize [3]

FSA (Food Standards Agency). 2003b. More Contaminated Maize Meal Products Withdrawn from Sale, London: Food Standards Agency, United Kingdom, Friday, 26 September.

http://www.food.gov.uk/news/newsarchive/2003/sep/moremaize [4] and http://www.food.gov.uk/multimedia/pdfs/maizemeal10.pdf [5]

Marasas, Walter F. O.; Ronald T. Riley; Katherine A. Hendricks; Victoria L. Stevens; et al. 2004. Fumonisins Disrupt Sphingolipid Metabolism, Folate Transport, and Neural Tube Development in Embryo Culture and In Vivo: A Potential Risk Factor for Human Neural Tube Defects among Populations Consuming Fumonisin Contaminated Maize, The Journal of Nutrition 134(4):711 716, April.

Thomas DeGregori is a professor of economics at the University of Houston and a member of the Board of Directors of the American Council on Science and Health. He is author or a number of recently published books and articles including Bountiful Harvest: Technology, Food Safety, and the Environment. Washington (Washington, D.C.: Cato Institute and Origins of the Organic Agriculture Debate). His homepage is: http://www.uh.edu/~trdegreg [6].

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Links

- [1] http://www.nytimes.com/2004/08/15/magazine/15ONLANGUAGE.html
- [2] http://www.rsc.org/chemistryworld/features/free/CW00406F0030.htm
- [3] http://www.food.gov.uk/news/newsarchive/2003/sep/maize
- [4] http://www.food.gov.uk/news/newsarchive/2003/sep/moremaize
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