

05-04-25 Earth day

Extrait de AgBioView.

L'auteur défend de façon très argumentée et humoristique que le jour de la Terre qui a été fixé au 22 avril aux USA devrait plus logiquement être fixé le 1er avril. Les meilleurs passages sont en gras.

To Honor the Earth, Speak to the Issues and Not the Myths

- Thomas DeGregori, ACSH.org, April 21, 2005

Ah, it's spring again when our fancies are said to turn to romance. And with Earth Day upon us (April 22nd), the Greens' romantic fantasies turn to the environment, as they promote nineteenth-century Romantic ideologies to deal with twenty-first-century problems. Increasingly, the food sections of many newspapers have become year-round bastions of these romantic ideologies, touting the virtues of local produce, heritage varieties, and of course organic agriculture. My local newspaper lived up to (or possibly down to) expectations as it heralded the arrival of Earth Day with a piece by its food editor titled "Honor the Earth." How exhilarating to learn that you can "Help Yourself and Save the Planet" at the same time with a meal that "can be friendly to eater and the planet."

Eating "closer to nature" -- uncooked cuisine -- and eating "close to the source" have become romantic fads of late as these practices are believed to result in our food being fresher and more healthful. Eating locally may be fresher in harvest season, but after that it has to be stored. Try getting local farm fresh produce in northern U.S. or Europe in the depths of winter (even greenhouses would be too modern and technological by consistent Green standards, since they only date from the eighteenth-century orangeries). Thanks to modern agronomy, refrigeration, and transportation, we can choose from an incredible variety of foodstuffs to eat fresh all year-round.

Even in the tropics where there is no winter, there is still seasonality for foodstuffs. Even local and in season may not always be fresher. Leading chefs and even the New York Times recognize that fresh frozen may be the best way to get freshness to the diner's table.

To my local paper's food editor, local foods, defined as being produced within a hundred mile radius, are more "Earth-friendly because less fuel was burned trucking them in." Our intrepid editor found them to be "more expensive" than she expected. If the higher prices were warranted by higher costs and were not -- perish the thought -- just a rip-off, it should have occurred to her that these prices might reflect other environmental costs, including the added fuel costs from less efficient small-batch transportation.

Furthermore, the most important factor diminishing biodiversity is loss of habitat to cultivation. The lower yields per acre from organic produce mean that more land has to be brought under cultivation to meet the organic consumers' needs while the land use that consumers of conventionally produced food require has been shrinking steadily over the last half century or more -- as crop yields rise and animal feeding becomes more efficient. The cropland necessary to produce our politically incorrect steaks and hamburgers has been declining at 2.2% a year (Waggoner and Ausubel 2002).

In addition to having been "grown or produced within 100 miles of Houston (salt, pepper, and olive oil were exempt)," the planet-saving "test supper" could not "have been slathered with pesticides." One conjures an image of mad farmers gleefully going about splashing pesticides all over their crops oblivious to the costs of the pesticides and with some perverse desire to poison their customers and destroy their market and the planet. The use of the term "slathered" to describe the very careful use of low-dose pesticides in modern agriculture and the regulations involved, reflects a prevailing ignorance among food writers and the general public that has been very carefully nurtured by the back-to-nature enthusiasts. They assume that "organic" agriculture does not use pesticides. This is a myth if not an outright fraud. The "organic" movement argues that the "natural" pesticides that it uses are more benign than the synthetic pesticides used in conventional agriculture, but there is no evidence for that. And some of these "natural" pesticides are administered in much larger quantities, which may not be enough to qualify as being "slathered" but certainly are a far closer approximation of "slathered" than are the synthetic pesticides used in conventional agriculture.

Strange as it may seem to some, the current rules for "organic" agriculture allow some synthetic pesticides and even have a website with the approved pesticides listed (USDA 2002, <http://www.ams.usda.gov/nop/NationalList/FinalRule.html>). But assuming that the local farmers somehow manage to raise their crops without pesticides with the enormous loss of output that entails, it still doesn't mean a toxin-free product. Plants are chemical factories, and the less well protected the plant is the more toxins it will produce to defend itself against insect or microbial infestation. For some time now, Bruce Ames and others have shown that 99.9% of all toxins that we ingest are products of nature and not humans, yet we are obsessed with the synthetic one tenth of one percent (see for example, Ames, Profet and Gold 1990a&b). Two different National Research Council reports have substantiated the Ames position, but somehow word hasn't gotten out to journalists who write on food issues (NRC 1973 & 1996).

"Happy Chickens Make Good Eggs" For planet salvation, our eggs have to be from happy "free range" chickens that "were pumped up with pride, not hormones" (though no U.S. poultry is allowed to be produced with added hormones, so organic has not even an imagined advantage in that regard). Eggs, after all, "symbolize rebirth

and spring." We were told that "the yolks were a deep mustard color, high and firm, and they tasted, well, fresh," though I doubt or at least hope that she did not eat any of them uncooked and truly fresh. Not being an expert on poultry psychoanalysis, I will not comment on the happiness of the chickens, but I will dispute her judgment about taste.

There have not been any double-blind taste tests on free range chickens, their eggs, or organic produce, so it is impossible to separate our food editor's judgment from her expectations. Though there have been no double blind tests, there have been what we might call blind-sided tests that show how people's expectation influence their judgment. Penn and Teller's magnificent TV series had a segment in which they filled up bottles of water from a hose (yes, from a hose) behind a restaurant and then put a variety of fancy labels on them, including one in French which identified the water with a part of the human anatomy that we don't associate with sustenance for humans, though it can nourish plants. There was a liveried water steward and a list of high-priced waters with exotic names. Needless to say, in the later interviews with the customers, they were miraculously able to distinguish a vast array of extraordinary and differing characteristics in the bottled waters, such as one being a bit more piquant, whatever that may have meant.

I have previously reported on dioxin "contamination" of free-range chickens and the eggs that they produced, and I noted that the dioxin "contamination" was inherent in raising chickens outdoors on the ground. I also noted Danish studies have that found that 100% of free-range chickens were infected with *Campylobacter jejuni* (DeGregori 2005). The Soil Association in the UK blamed the contamination on our industrial society, not realizing or simply choosing to ignore the fact that good old Mother Nature -- in the form of forest fires -- produces its own all-natural dioxins, which are ubiquitous in soils over which free range chickens roam. In the UK, the Food Standards Agency has declared the dioxin levels to be safe, but would our Earth Day enthusiasts be so accepting of these dioxin levels if they were in conventionally grown chickens -- or would the chickens be deemed "slathered" with dioxins? Given the vast array of contaminating contacts, outdoors may not be where one wants to raise chickens if one has a choice.

Journalism vs. The Real World The article that I am critiquing is not unique for my local newspaper nor is my local newspaper different from most others in the uncritical acceptance of the claims of the romantic Green ideologists and food faddists. That is why I only indicate the author and the newspaper via a link earlier (and indeed think my local paper is quite good and getting better). I am concerned about the lack of the high standards for food and environmental reporting in periodicals in general.

Last year, for example, an environmental reporter went to Mexico, accompanying an activist group with an anti-genetic-modification (anti-GM) agenda to report on transgenic corn in Central Mexico. She not only failed to interview Dr. Norman Borlaug or anyone at the International Center for Research in Maize and Wheat, she was unaware of their existence, which is like going to Rome to do a story on Roman Catholicism and not knowing that there is a Pope and a Vatican. Nor did she think to contact anyone at Texas A&M, which is internationally known for its work in maize research and is where Dr. Borlaug spends a semester each year. Yet she was defended by the ombudsman when a group of us wrote in to question the merits of her front page story.

There is a question of professional journalistic practice here. If "Honor the Earth" had been a real news story, there might have been a skeptical journalist checking to see if any of the local outdoor market "farmers" picked up any of their produce from the same source as the indoor markets. If a journalist is going to wander through areas such as toxicology, plant physiology, and chicken psychology, one might expect her to contact experts and not just advocates. The Houston area has any number of scientists who are expert in these areas, including some on ACSH's Board of Scientific Advisors. The problem is that scientists don't wake up every morning thinking about how to influence journalists for their next campaign nor do they have focus groups to help them frame the issues. The activists do, and their constant contacting and pressuring the media has paid off for them.

Now if one really wants to avoid pesticides, try transgenic corn when it's in season, since in transgenic corn a single gene expresses a protein that is lethal to corn's insect pest, the corn borer, but totally harmless to humans as it is broken down into amino acids in the stomach before passing on to the rest of the digestive tract. Since the corn borer carries a toxin-secreting fungus on its hairs, borerless Bt corn has 95% less of the fungal toxins called fumonisins, which can cause any number of very serious infirmities. One is not likely to find Bt corn in the outdoor markets touted by the food editor, nor in any establishment claiming to be earth-friendly, since they proudly claim to be anti-GM food. It might be nice for the food editor to check with the USDA on the reduction in pesticide use as a result of Bt corn and the rise in "conservation tillage" that has been made possibly by transgenic herbicide-tolerant (Ht) soybeans. Conservation tillage has also resulted in reduction in soil loss (in some areas, it is actually leading to a build-up of the soil), water conservation, and increased bio-diversity. Again, why not check with the USDA for verification?

I would like to take some of these food writers with me to the villages in Africa or elsewhere where the food is locally grown and organic but by no means earth-friendly or healthy. In many parts of Africa where the cost of synthetic fertilizer is prohibitive, the farmers are taking more nutrient out of the soil than they are returning, leading to both short and long-term problems. Again because of prohibitive costs, crops are not "slathered with pesticides" -- but instead "slathered" with fungal and other microbial infestation, causing crop loss of as high as 75% and serious health problems from the remaining part, which the poor farmer families have little choice but to eat. The solution, or at least an important contribution to addressing these problems, would be transgenic

crops that produce their own defenses, but the activists have done everything possible to oppose this, even to the point of preferring to see Africans starve rather than receive transgenic corn for famine relief. Nevertheless, it takes more cropland per capita to provide for undernourished Africans than it does for the over-nourished Americans.

Cornucopia of Food Options, Even Low-Tech Ones Actually, I rejoice in seeing the rise in farmers markets and the production and sale of heritage or heirloom varieties. Through time, biodiversity in agriculture simultaneously expanded and contracted as farmers both created new varieties but also abandoned older ones as they encountered varieties from other areas that had greater yield, better pest resistance, or other qualities that increased the value of their crop. In some cases, the substitution replaces one species with another. When wheat was first spreading into colder climates of Europe, it carried rye as a weed. Farmers started cultivating rye because it thrived better in northern climes. Later when varieties of wheat evolved that were more tolerant of the colder climates, wheat replaced rye in many areas. In the process, some local varieties were abandoned; the forces for contraction have tended to be greater than those for expansion of biodiversity.

Of all the considerations of crop choice that farmers have historically made, net crop yield has generally been at the top both when choosing varieties and when choosing what staple crop to plant. It is no accident that in the Mediterranean countries and southern Europe, the staple crops were grown in the fertile valleys while the wine grapes and the olive trees were grown on the less fertile hillsides, even though they provided vital nutrients and became the source of treasured foodstuffs. Similarly, in agriculture around the world, one finds the staple crops planted in the fields while the fruit trees and kitchen gardens are packed around the homestead.

It is a tribute to much-criticized modern agronomy that increases in staple food production have not only kept up with very rapid population growth but have actually exceeded it, leading to increases in per capita food availability, contrary to the catastrophists' predictions of mass famine. In fact, the yield increases in these staples has been so successful that it has freed up prime land for other uses, including fruit and vegetable production. This is contrary to a seemingly unshakable belief that modern agronomy has fostered some kind of mindless monoculture. Careers are built on the propagation of this monoculture myth (DeGregori 2003, 2004).

If, then, we have farmers working smaller acreage, producing lower-yielding but higher-value (to the consumer) crops, it is precisely because higher yields in conventional agriculture free up this land for non-subsistence needs. And if journalists and others can pay the higher than expected prices for heritage produce, it is because the modern economy gives them higher incomes and modern agronomy lowers the rest of their food bill. These markets provide consumers more choices even if some of us consider them to be meaningless. That is why I rejoice in seeing these markets arising and see their existence as a result of modern agriculture and not a contradiction of it. (Also, while these heirloom varieties may or may not be superior in any attribute, they have genes that could be useful for future plant breeding. Just as I favor seed banks for preserving genetic diversity, I am delighted to see it being preserved in the field. In earlier times, less favored varieties were simply abandoned and often lost for all time.)

Perhaps Earth Day Should Be April 1st Prior to the first Earth Day in 1970, concerns about the environment and what we humans are doing to it were largely the domain of a few naturalists and, of course, the unreconstructed romantics who have always hated economic and technological progress even while they benefited from it. Whatever role the first Earth Days may have played, the fact is that by the early 1970s, environmental issues became more prominent.

In many respects, we have made progress on these issues, but in other respects there needs to be continuing, vigorous, informed, and intelligent debate. There are those who wish to reduce these issues to slogans and ideologically-driven actions, and Earth Day has become one of their vehicles towards these ends. Stewart Brand, founder of The Whole Earth Catalog, has suggested that true environmentalists and safe food activists should embrace modern technologies such as agricultural biotechnology and nuclear power (Brand 2005). This could make them constructive critics who would force those of us with boundless enthusiasm for new technologies to be more honest and responsible in its use to the benefit of all. Unfortunately, this would require the critics to be informed on the issues -- but that requires more effort than mindless repetition of slogans. Too many of them have chosen the Luddite path, to the detriment of food safety and environmental protection. Currently, all one needs to be labeled an "environmentalist" is self-designation and self-promotion, not any specific skill or knowledge. April 1st might just be a more appropriate day for them. As long as their voice is the only one heard on these issues, substantive progress is less likely.

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