



## Growing More Per Acre Leaves More Land for Nature



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CGFI

P.O. Box 202  
Churchville, VA  
24421-0202

Phone: 540 337-6354  
Fax: 540 337-8593  
Email: [cgfi@hughes.net](mailto:cgfi@hughes.net)

### Can Organic Really Feed The World? Activism Disguised As Science

Tuesday August 14, 2007

A new study published in an alternative agriculture journal has gained widespread attention by claiming that organic farming not only could adequately feed the world, it might even yield more food and require less farmland. It is a truly sensational claim.

In science, the more sensational the claim, the more robust the evidence needed to support it. This time, the evidence doesn't stack up. In fact, the evidence fell so far short that the journal that published the paper also published not one, but two scathing and dismissive "editorial responses" in the same issue. This is anything but a ringing endorsement.

A simple comparison of the authors of the paper and critiques is revealing. The "organic can too feed the world" authors are a collection of urban academics without any agricultural experience. The lead author studies fossil squirrel's teeth at the University of Michigan's Museum of Paleontology. The others are with Michigan's School of Natural Resources and Environment. In contrast, the authors of the two critiques are an agronomist at the University of Nebraska, Kenneth Cassman, and Colorado organic farmer Jim Hendrix.

As Cassman put it, "their analyses do not meet the minimum scientific requirements for comparing food production capacity in different crop production systems."

First, many of the studies they relied upon to support their claim simply aren't reliable. One large data set (comprising over half of the "yield ratios" they used to estimate food production in the developing world) are merely guesstimates of increased productivity from a questionnaire sent to activists running organic "demonstration" farms. That doesn't even remotely approach "science," especially when the returned questionnaires include implausible organic yield increase claims of more than 500 percent. Another large dataset used by the Michigan researchers is so questionable that a paper critical of it published in the journal *Field Crop Research* was titled "Fantastic yields in the system of rice intensification: fact or fallacy?"

Central to this entire debate is the shortage of organic nitrogen fertilizer, a.k.a. manure. Currently, there is only enough animal manure to support one fifth of current global crop production. The only way to get more organically is to devote more land to legume crops or animal pastures that fix more nitrogen—which would require billions of acres of additional farmland the world doesn't currently have.

The Michigan researchers dismiss this sobering reality by calculating that, theoretically, enough nitrogen can be fixed by growing cover crops during fall/winter and between crops to make up the shortfall. As Dwight Eisenhower once stated, “Farming looks mighty easy when your plow is a pencil and you’re a thousand miles from a corn field.”

The final, sadly amusing testimony to the fantasy world occupied by these researchers comes from the conclusion of their policy forum article, where they point to the shining example of Cuba as “one of the most progressive food systems in the world” where organic farming is successfully feeding a country. Ah, yes, the famed Cuban “agricultural enlightenment” brought about by the ending of Soviet industrial fertilizer and pesticide donations.

How has Cuba fared after “going organic?” According to unofficial statistics, Cuba suffers massive food shortages and rations basic food staples. But don’t take my word for it. Listen to these Cuban immigrants interviewed in a December 27, 2006 story on National Public Radio’s Morning Edition:

*Joel Lopez, a skinny 19-year-old who arrived on Dec. 14, 2006 in Miami through the [immigration lottery], or Bomba as it is called in Cuba. Through a translator: “Everything is so surprising here, the cleanliness of the streets, the food, the shops. Well, there is no comparison. . . . I have been telling [my friends] about a Chinese buffet I went to. I told them about how you can serve yourself again and again!”*

*Sitting next to him is Louisa Martinez. Her husband was a baker in Cuba. But still for her, it’s the food that is the most dazzling. Through a translator: “Oh the food! Here there is a surfeit of food. Over there, there is a LOT of hunger. It’s terrible.”*

So who are you going to believe: The urban pencil pushing elites, or the real farmers and real victims of the so-called “progressive food” movement?

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