

Letter to the Editor
Phil Gyford
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[Comment: The task was to critique a futures-oriented article in the form of a letter to the journal's editor. I chose one from The Futurist by Monsanto CEO Robert Shapiro extolling the single virtues of genetically modified crops. The first section is the 'working' for the letter.]

Inference

- Genetically modified crops will be the only means of feeding the world's growing population.

Evidence

- There are 800 million malnourished people in the world today.

Assumptions

- People are starving because the world doesn't produce enough food.
- There are no other means to increase crop yield.

Alternative Evidence A

- Of the world's 800 million malnourished people, 36 million of them are in the USA (US Department of Agriculture). 36 million people is the same proportion of US population as 800 million is of the entire world, indicating that all malnourished people are suffering due to maldistribution rather than lack of supply.
- "Ethiopia was a net exporter of food during its famine." (Louise Jury, *The Independent*, 1998-07-25)

Alternative Assumptions A

- People are starving because they're too poor to buy food and because distribution needs improvement.

Alternative Evidence B

- "Today the world produces 4.3 pounds of food per capita." (Peter Rosset, *New York Times*, 1999-09-01) In 1995 average daily food consumption per capita in the United States was 2.9 pounds (United States Department of Agriculture figures, August 1997).
- "Over the past 35 years, global per capita food production has outstripped population growth by 16 percent." (John Vidal, *The Guardian*, 1999-06-19)
- Index of world food production per capita, 1984-86=100:
1989-91=101
1994-96=104
(*World Resources 1998-99*, World Resources Institute)
- On 45 large African projects crop yields were increased by 50-100% for 75,000 farmers using methods such as giving people ownership of land, planting diversified crops, composting, saving water, manuring, seed banks. The Deccan Development Society near Bangalore increased yield by more than 50% in 40 villages over 10 years. (John Vidal, *The Guardian*, 1999-06-19)

Alternative Assumptions B

- There are alternative methods of increasing yield.

Alternative Inference

- Increasing equality and using other farming techniques will help feed the world's growing population.

Dear ,

While Robert B. Shapiro is correct in suggesting we need to find better ways to feed our increasingly crowded world, he is wrong in implying that biotechnology is the sole solution.

It is correct to state, as Mr. Shapiro does, that there are 800 million hungry people in the world although to assume these people are hungry because we do not produce enough food is false. According to the US Department of Agriculture 36 million of these people are in the United States, a land far from chronic shortages of food. Similarly, even countries with extreme starvation may have enough food; Ethiopia, for example, was still a net exporter of food during its dreadful famine according to a 1998 article by Louise Jury of the London *Independent*.

Right now we produce more than enough food to comfortably feed everyone on the planet, and Joseph Stiglitz, the World Bank's chief economist, has stated that food production outstripped population growth over the past 25 years (according to the World Resources Institute it has continued to do so in recent years). While biotechnology will no doubt play a part in continuing this trend while world population increases into the next century, the need to make sure this produce reaches those who most need it is more important.

Yours,
Phil Gyford