



# Industrial Agriculture v. Sustainable Agriculture



By bcohen on May 12, 2009.

Differences tabulated. In columns. And marked by me. I'll start above the fold with an excerpt:

i-b941a56c60172e38eff6d2dbf227e1ca-Domination v Harmony.jpg The main distinctions are between a system that tends toward domination and one that strives for harmony; between that which seeks to specialize and that which promotes diversity; between promoting competition and seeking community and cooperation; and between that which is defined by values of speed, quantity, and profit and that defined by values of permanence, quality, and beauty. One prefers mechanistic identity, that is, the other ecological.

Here is the full table, as reproduced from Thomas Lyson's (2008) article, "Agriculture of the Middle: Lessons Learned from Civic Agriculture," in *Food and the Mid-Level Farm: Renewing an Agriculture of the Middle*, Thomas A. Lyson, G. W. Stevenson and Rick Welsh, eds. 165-178, on 172 (MIT). \* Yes, now I need to go to the library and scan a clean copy.

i-b0cd25e77cfca9020d82bd00a06e0663-lnd v Sust re-marked reduced.jpg

\*Lyson, who wrote the well-received book *Civic Agriculture: Reconnecting Farm, Food, and Community* in 2004 but unfortunately passed away in 2006, compiled the table from Beus & Dunlap (1990). "Conventional versus alternative agriculture: the paradigmatic roots of the debate," *Rural Sociology* 55:590-616

Tags: Industrial agriculture

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## More like this

### BBQ Competitions

This past weekend was the Memphis in May BBQ Competition, one of the largest such competitions in the world. As some of you may know, I am a BBQ fanatic (and I finally just perfected my babyback ribs, by the way) and I love competitions like this, though I've never participated in one. And being a...

### The secret identity of "Dakota," and a really bad plan

Remember "Dakota," the exquisitely-preserved hadrosaur that was the selling point of a book that barely featured it? (See here for more gripes) It turns out that it's an Edmontosaurus, although the species name is left off so I have no idea whether the specimen represents a new variety of...

### Evolution of Ant Agriculture

*Mycocrepus smithi*, in the fungus garden An exciting week for ant aficionados! A new study by ant phylogenetics gurus Ted Schultz and SeÅjn Brady provides the first detailed picture of attine evolution. These New World ants have long attracted the attention of biologists because they, like our...

### Psychiatric Agriculture

I am at a coffee shop in a far away town, and I have things to do. So I am not going to write about this extensively at the moment. Still, while looking for something else, I encountered this abstract. The title was odd enough to get my attention.  
href="http://www.ncbi.nlm.nih.gov/entrez/query..."

Seeking to juxtapose industrialization and sustainability in the manner illustrated is a sure sign that somebody's got an agenda that's only indirectly related to the problem of providing adequate nutrition for everybody.

I think the only way to sustainability, short of killing (or letting die) billions of our fellows, is to get serious about industrial agriculture. We should be developing vertical farms that are located in densely populated areas, thereby freeing huge swaths of land from the plow so they can be returned to forest and savannah.

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By bob keopp (not verified) on 12 May 2009 [#permalink](#)



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## More by this author

[The myopia of energy production: "Nothing will go wrong!"](#)

May 16, 2010

Me again. I once put up a post on the problems with trusting the safety of energy producing systems. The post was not well received; I see as I re-read the comments that I was particularly irritable about it. But I find the point I was trying to make way back when captured better in the...

### #1: Cannonballs and the Meaning of Truth

December 24, 2009

"The world is full of light and life, and the true crime is not to be interested in it." A.S. Byatt "What seems a detour has a way of becoming, in time, a direct route." Richard Powers I had more fun doing this series than anything else in the past 3+ years here at the Fair. It was a unique...

### #2: The Current Literature on Science: Author-meets-Blogger Series in Review

December 23, 2009

(Ten Best of the Decade from Half of the World's Fair) This series began with the kindness of a friend who agreed to let me ask him about his book about Barry Commoner, science, and modern environmentalism. It then spawned a series of 17 interviews with authors of books in science studies...

### #3: Landscape and Modernity (Ten Best of the Decade from Half of the World's Fair)

December 22, 2009

These never got formalized into an official series post

A very interesting post. Thanks.

And in response to Bob Koepp, could you clarify your statement:


"I think the only way to sustainability, short of killing (or letting die) billions of our fellows, is to get serious about industrial agriculture."

You seem to imply that industrialized agriculture can produce more food per acre. This is not true. Industrial agriculture produces more food per dollar, and that's only if you ignore the costs of damages (present and future) caused by pollutants released by the industrialized agricultural system as well as socioeconomic inequalities. Sustainable agriculture can produce much more food per acre without the ecological damages, but requires more intelligent use of technology and more involved management.

Secondly, the idea of vertical farms would be tremendously energy intensive both the build and maintain. However, the idea of urban, roof-top farms is certainly worth looking into and offers many benefits to the communities responsible for maintaining them.


I am a University of Wisconsin-Madison graduate with a BS in the life sciences. I also enjoy reading about economics and in particular, environmental or non-valuation economics which focuses on externalities that free markets fail to take into account.

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 *By Andrew (not verified) on 12 May 2009 #permalink*

Andrew - Industrial agriculture in the form of vertical farms can produce vastly more "per acre" if acreage is measured by the amount of planetary surface required. Forty acres stacked on top of each other use only one acre at ground level. Further, if the vertical farms employ closed system technologies, you eliminate the need for pesticides, there is no "runoff" whatsoever into the external environment, and any potential for unintended gene flow is minimized. By siting such "farms" in the middle of urban areas, you can provide people with fresh picked produce that hasn't been transported except from upper levels to street level markets. And most importantly, you free land from the plow, which has destroyed more natural habitat than any other human invention. What's not to like about this picture?

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 *By bob koepp (not verified) on 12 May 2009 #permalink*

On your first comment, Bob, I think you're right that Lyson had a motive for comparing features of two different systems (as did Beus and Dunlap before him, and me after). This does not negate the fact that the features of the two columns are valid. Also, suggesting that sustainable agriculture systems don't provide adequate nutrition is not accurate. Not only does the food produced that way offer nutritional superiority (see Joan Gussow's work, among others), it is also more effective for soil nutrition (see Albert Howard, about 70 years ago), thus requiring less land extension and fewer chemical inputs. Furthermore, I agree with Andrew's comment about urban farming, of which vertical farms are a subset.

And here's a third thing: On my view, the primary issue we need to tackle to move towards "sustainable" living is conceptual, about pursuing means that help us see our connections to and membership on the land. Vertical farms don't necessarily do this and, as in Despommier's versions, seek to control rather than participate. That is, vertical farms suggest that we can isolate food production and maintain separation from the land.

Finally, an additional problem I see is with the premise that the problem here is food availability -- more prominently, we have a problem with food distribution. I share your concern for feeding the world, but I would like to work on reducing our own waste and over-production (the reigning agricultural policy paradigm for several generations now) first, so that (on the waste side) Americans don't throw away 1.3 pounds of food a day or 30% of our total food.

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 *By bcohen on 13 May 2009 #permalink*

Ben - I question the "validity" of the juxtaposed "features". What's not "sustainable" about the scenario I sketched? Further, in what sense is a system that permits the restoration of vast areas of natural habitat at odds with "harmony with nature," "diversity," "community" and "a primary emphasis on permanence, quality, and beauty?" One can, of course, simply stipulate that "industry" is contrary to such things, but to what end, and with what justification?

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 *By bob koepp (not verified) on 13 May 2009 #permalink*

I think bob's on the right track on this one. I saved my detailed comments for the post in the link though.

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 *By ScienceSealedD... (not verified) on 13 May 2009 #permalink*

i really liked the microscopic view of both the methods. Also the various discussion is really healthy. hope to get some more inputs here for extending the knowledge.

for further information, kindly visit: <http://www.advancednutrients.com>

these never got formalized into an official series (not to demystify it too much, but that formalization process requires mostly that Dave make an icon to put on the sidebar). Nevertheless, they ended up as an eight-part set of posts about landscape art of various types. I'll put a representative...

[#4: Science Showdown \(Ten Best of the Decade from Half of the World's Fair\)](#)

December 21, 2009

This one was immense. It was also a dual effort (and not by "one of the guys" at the blog). Like the Puzzle Fantastica, this one is very difficult to re-post in its entirety. Luckily, Dave made a great graphic with links embedded to each game. I'll reprint the Press Center, then, which includes...

## Science 2.0

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Blogs

<http://hydroponics-nutrients.blogspot.com>  
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 [By Hydroponics Nu... \(not verified\) on 17 May 2010 #permalink](#)

promoting competition and seeking community and cooperation; and between that which is defined by values of speed, quantity, and profit and that defined by values of permanence, quality, and beauty. One prefers mechanistic identity, that is, the other ecological fence charges

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 [By eliza \(not verified\) on 19 Sep 2015 #permalink](#)

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### [Danish Castle Road Trip](#)



I spent last week in Denmark at a friendly, informative and rather unusual conference. The thirteenth Castella Maris Baltici conference ("castles of the Baltic Sea") was a moveable feast. In five days we slept in three different towns on Zealand and Funen and spent a sum of only two days presenting our research indoors. The rest of the time we rode a bus around the area and looked at castle sites...

### [Home](#)



This morning we took it easy - a little shopping for kids, some cakes at Veniero (white is shampita, brown is Napoleon), a little walk, including past the Museum Of Sex (did not have time to go in, though), with the special exhibit about sex in animals (including this, of course). Then a long wait at the new JetBlue terminal at JFK which is nice, big and technically very modern. Now at home,...

### [Mary's Monday Metazoan: It's a jelly day](#)



(via Larry Linton)