CONFINED LIVESTOCK BETTER FOR THE PLANET BY DENNIS T. AVERY

Churchville, VA—Stanford University recently startled the world with its conclusion that conventional high-yield farming is far better for the planet than low-yield farming. And this includes the First World's current icon, organic farming. We know that high-yield farms need less land to produce the same amount of food, protecting the huge amounts of soil carbon that would be gassed off if we plowed more land for low-yield crops. However, the Stanford study says that high-yield farming may have saved 600 billion tons of CO₂ emissions. That's equal to one-third of the greenhouses gasses emitted from the whole industrial revolution since 1850!

"Our results dispel the notion that modern intensive agriculture is inherently worse for the environment than a more "old-fashioned" way of doing things," said Jennifer Burney, lead author of the Stanford study.

And, that's not all: Confinement feeding of livestock—that favorite whipping boy for Greens—also helps sharply reduce greenhouse emissions. I recently estimated it would take the land area of New Jersey for chicken "playgrounds" if we put all our birds outdoors. It would take the land area of Pennsylvania to raise our hogs on free ranges. Stanford should now estimate the soil carbon losses if we plowed those millions of additional hectares for animal "playgrounds."

Indoor animals are also more comfortable, and thus need about 15 percent less feed per pound of protein produced, saving still more acres of land for Nature and still more carbon left in the soil.

Feedlot cattle, eating grain from high-yield fields, produce less methane in their guts than cattle digesting grass—because grass is harder to digest. Studies on beef cattle show methane emissions reduced by 38 to 70 percent.

Jude Capper of Cornell University reported last year (*Journal of Animal Science*, March 13, 2009.) that more milk, from higher-yielding cows that are fed more grain and less grass, have helped reduce the carbon footprint of the U.S. dairy industry by 43 percent since 1944.

"Interestingly, many of the characteristics of 1940s dairy production—including low milk yields, pasture-based management and no antibiotics, inorganic fertilizers, or chemical pesticides—are similar to those of modern organic dairy systems," Capper notes.

Capper's study also found that supplementing dairy rations with genetically modified rBST would use 2.3 million fewer tons of feedstuffs, need 540,000 fewer acres of land for crop production, and require considerably less chemical fertilizer and pesticides

Confinement feeding also protects our streams and rivers. The manure from outdoor animals washes into the nearest creek. The wastes from confinement animals are collected and used as organic fertilizer on crops.

Are confinement animals less happy? Probably not. Cattle, hogs and chickens are all prey animals, and they see safety in numbers. They like being together. Cattle graze and travel in herds. I've watched free-range turkeys, which always seemed to be huddled together in a corner of their pasture.

If the environmental movement really believes humans are warming the planet, these studies tell us that Greens must recant on their criticisms of high-yield farming and confinement feeding. They need to stop demonizing the chemical fertilizers, the pesticides, the confinement feedlots and the biotechnology which will be needed to produce twice as much food—from today's farmed acres—in 2050.

Or is demonizing modern farming too important to fund-raising in the cities?

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Jennifer Burney, et al, "Greenhouse Gas Mitigation by Agricultural Intensification," *Proceedings of the National Academy of Sciences*, pnas.org/cgi/doi/10.1073/pnas.0914216107; 2010.

Jessica Marshall, "Grass-Fed Beef Has Bigger Carbon Footprint, Discovery News, Jan. 27, 2010.

Jude Capper, et al., "The Environmental Impact of Dairy Production: 1944 Compared with 2007," *Journal of Animal Science*, March 13, 2009