



LAND
STEWARDSHIP
PROJECT

Land Stewardship Project Fact Sheet #1

Updated:
April 2008

Bigger is *Not* Better

Small-scale family farms are more efficient than their large-scale industrial counterparts.

Perhaps one of the most prevalent myths in American agriculture is that larger farms are more efficient than smaller ones, and thus expanding to mega-size is the only way to compete. However, the economic evidence shows that production-wise, small operations are quite efficient, and the main driving force for getting bigger is to maintain access to size-biased markets.

When only yield of one or two crops is considered, larger farms are more productive, simply because they can take advantage of economies of scale to produce thousands of acres of one crop, such as corn. However, when economists look at the *total output* — sum of everything a farm produces: grains, fruits, animal products, forage, etc. — of a particular farm, smaller, more diverse operations win hands down.

Crunching the numbers

◆ Small farmers worldwide produce from two to 10 times more per unit area than do larger, corporate farms, according to the Institute for Food and Development Policy.¹ An analysis done by the Institute found that the greater total productivity of smaller farms can be explained by many factors. For one thing, smaller farms tend to raise more high value crops such as vegetables and fruits. But they also tend to make better use of the land by utilizing multiple cropping and livestock management strategies. Smaller farmers are more likely to intercrop on the same field, utilize livestock waste efficiently and involve labor that is more personally committed to the efficiency of the operation.

◆ When factors such as quality of land and management, the contribution of the farm dwelling to output and the impact of off-farm employment on output and production costs are taken into consideration, small family and part-time farmers are at least as efficient as larger commercial

operations, according to a 1997 analysis by University of Minnesota agricultural economist Willis Peterson.²

Using a formula based on the “long run average total cost curve” (“total cost” in this case is defined as out-of-pocket expenses less interest payments and property taxes plus a charge for capital), Peterson examined the efficiencies of farms ranging in size from \$2,500 in annual sales to \$500,000 and over in annual sales. The larger farms had higher than average total costs, while smaller operations had lower than average costs.

“In fact, there is evidence of diseconomies of scale as farm size increases,” concludes Peterson.

◆ Mike Duffy would agree with that. The Iowa State University agricultural economist has studied records of the Iowa Farm Business Association (3,000 commercial farmers) for several years.³

For row crop farmers, the cost of production starts to lose its efficiencies of size advantage somewhere between 400 and 600 row crop acres, says Duffy. For hog farmers, efficiencies of scale advantages are lost when they market



Continued on reverse page...

beyond 1,000 head per year, he says.

◆ In case studies conducted by the Land Stewardship Project and the Minnesota Department of Agriculture's (MDA) Energy and Sustainable Agriculture Program, it was found that four farms using sustainable methods were more than three times as profitable on a per-acre basis as their larger, more conventional, neighbors.⁴

◆ One 350-acre southeast Minnesota crop and livestock farm studied as part of a LSP/MDA case study used pasture farrowing, straw-bedding and other low-cost, sustainable hog production techniques to produce pork for about 28 cents per pound. At the time, large factory farms were producing pork for closer to 40 cents per pound.⁵

What can you do?

◆ Don't allow the "bigger is better" claim to go unchallenged when it is voiced in public forums. Write letters to the editors of your local newspaper pointing out what sound economic analysis has found.

◆ Tell your representatives on both the state and federal levels you oppose farm policy that favors large-scale, monocultural agriculture. For example, "emergency" commodity payments that go only to corn and soybean producers unfairly punish smaller, more diverse farmers.

◆ Ask whether new agricultural technologies being developed and introduced by land grant institutions are "size neutral" in their benefits. Can a farm that does not have access to Wall Street capital successfully adopt and use this technology?



For example, research on how to make large-scale manure pits smell less favors mega-livestock factories, rather than independent, family-sized operations.

Sources

¹ Rosset, Peter M. "Policy Brief No. 4: The Multiple Functions & Benefits of Small Farm Agriculture," Food First/The Institute for Food & Development Policy, September 1999; phone: 1-800-274-7826; website: <http://www.foodfirst.org/pubs/policybs/pb4.html>.

² Peterson, Willis, L. (University of Minnesota). "Are Large Farms More Efficient? (Staff Paper P97-2)," University of Minnesota Department of Applied Economics; website: www.apecon.agri.umn.edu/splist.html.

³ Duffy, Michael (Iowa State University). "Testimony given to the National Commission on Small Farms," 1997

⁴ Dansingburg, Jodi (Land Stewardship Project), Douglas Gunnink & Charlene Chan-Muehlbauer (Minnesota Department of Agriculture). *An Agriculture That Makes Sense: Profitability of Four Sustainable Farms in Minnesota*, Land Stewardship Project, June 1994

⁵ Dansingburg, Jodi (Land Stewardship Project), Douglas Gunnink (Minnesota Department of Agriculture). *An Agriculture That Makes Sense: Making Money on Hogs*, Land Stewardship Project, July 1996

This fact sheet is brought to you by the members and staff of the Land Stewardship Project, a private, nonprofit organization devoted to fostering an ethic of stewardship for farmland and to seeing more successful farmers on the land raising crops and livestock. For more information, call 651-653-0618 or visit www.landstewardshipproject.org