Reliance on fossil fuels. The nitrogen fertilizer used in the United States is produced from natural gas, and most pesticides are petroleum based. Since petroleum and natural gas are exhaustible resources, they will someday become more expensive than they are now, and eventually their price will become so high as to exclude them from any but the most high value uses. Their continued use by the existing agricultural system would be inconsistent with our definition of long-term sustainability.

The point of course is true. The question is its relevance. That fossil fuels will someday become much more expensive than they are now does not mean that we should now stop using them, or even curtail their present rates of use. The issue is one of timing. So long as the cost of fossil fuels, taking account of the future opportunity cost of the resource, is less than the cost of the alternatives, then it is in the social interest to use fossil fuels.[4] As the supply of them is used up, and their cost rises, it will be in the social interest at some point to switch to cheaper energy sources. It also will be in the social interest to invest in research to develop those cheaper sources so that they are available when costs of fossil fuels begin a long-term rise. In agriculture renewable sources of energy, such as those used in alternative agriculture, almost surely will become economically more important. In a sense, therefore, one can argue that to maintain the sustainability of American agriculture into the indefinite

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4. This statement is true if the social costs of fossil fuels and of alternatives are understood to include environmental costs as well as economic costs. In fact, current patterns of fossil fuel use do not fully reflect environmental costs e.g. those that might result from the "greenhouse effect." Conventional agriculture, however, uses little coal, the worst environmental sinner among the fossil fuels.