

term productivity; (3) the existing system relies heavily on fossil fuel sources of energy which in time will be exhausted.

Erosion and soil productivity. The available evidence does not support the argument that present levels of erosion in the United States pose a serious threat to the long-term sustainability of the nation's agriculture. The relevant evidence is from studies of long-term effects of erosion on soil productivity done with the Productivity Index (PI) model, the Erosion Productivity Impact Calculator (EPIC) model and with regression analysis at Resources for the Future (RFF). The studies are discussed and their results presented in Crosson (1986). Suffice it to say here that the studies agree in showing that continuation of present rates of cropland erosion for 100 years would reduce crop yields at the end of the period by at most 5-10 percent from what they otherwise would be. If technological advance increases yields over that period at only one-half the annual rate experienced over the last 40 years, the negative yield effect of erosion would be offset several times over.

If the USDA (1987) is right in expecting the amount of land in crops to decline over the next 50 years, erosion will decline also, probably proportionately more than the decline in cropland since production would tend to concentrate on less erosive land. In this case, the long-term threat of erosion to soil productivity would be even less than presently estimated by PI, EPIC and RFF.

Conventional systems and soil biota. Although the alternative agriculture movement severely indicts the conventional system for its destructive effects on soil biota, documented evidence of this is hard to find. At least we have found little of it in our literature review. Oelhaf (1978, p. 33), an advocate of alternative agriculture, asserts that inorganic fertilizer may adversely affect "soil life" in various ways, but his