

# LOSING

## *the Farm*



Farm ground that is tilled loses nutrients, fertilizer, organic matter and soil. Eventually, the sediment creates water-quality problems.

*As farmers, our most important asset is our soil. Improved seeds, synthetic fertilizer and herbicides are all important to increasing productivity, but they cannot rebuild soil. They cannot replace the biological activity destroyed by poor farming practices.*

## JOIN THE BROWN REVOLUTION.

*Protect our soils and save our future.*





In 1935, the United States lost an estimated 850 million tons of topsoil.<sup>1</sup> Since the 1970s, the United States has been losing an estimated four billion tons of topsoil a year—a nearly five-fold increase in lost topsoil compared to the worst year of the 1930s Dust Bowl period.<sup>2</sup> This erosion also means nutrients are lost, fertilizers contaminate water sources and organic matter is reduced. Globally, an estimated 75 billion metric tons of soil is eroded from the world's ecosystems, the majority from farms.<sup>3</sup> In Africa, the rate of soil loss has increased 20-fold over the past 30 years.<sup>4</sup>



Drought affects crop productivity in many ways. The fracture and cracking of soil damages soil structure and renders soil less productive. Soil surfaces can crust and harden, affecting permeability, as well as crop absorption of nitrogen, phosphorus, potash, sulfur, boron and other critical nutrients, diminishing crop yields. Eliminating tillage, using cover crops and agroforestry (where appropriate) can help mitigate the negative effects of drought.



Sedimentation has a significant negative impact on streams, rivers, ports and entire ecosystems. Accelerated erosion from human use of land accounts for 70 percent of sedimentation.<sup>5</sup> Cornell University reports that about 60 percent of soil that is washed away ends up in rivers, streams and lakes, making waterways more prone to flooding and to contamination from fertilizers and pesticides. In the United States, sedimentation is the second main cause of impairment to rivers and streams, affecting almost 120,000 miles of water.<sup>6</sup>

<sup>1</sup> Source: World History In Context Web Site

<sup>2</sup> Source: Page 173, *Dirt: The Erosions of Civilizations*

<sup>3</sup> Source: USDA

<sup>4</sup> Source: World Watch

<sup>5</sup> Source: U.S. Environmental Protection Agency

<sup>6</sup> Source: U.S. Environmental Protection Agency

#### ABOUT THE HOWARD G. BUFFETT FOUNDATION

*The Howard G. Buffett Foundation is a private family foundation working to catalyze transformational change to improve the world and the lives of the most impoverished and marginalized populations. The Foundation has invested over \$150 million in research to improve agriculture and an additional \$350 million in agriculture-related programs globally.*