Soil—from Rich to Ruin to Recovery

Some of the richest topsoil in the world can be found here in Nebraska. For centuries decomposing prairie plants added organic materials to the soil each year increasing its texture, porosity, and ability to retain water. Daniel Freeman knew that good soil made for good crops.

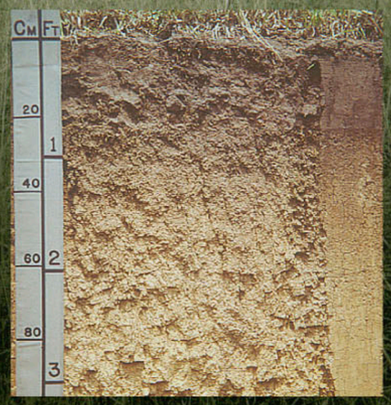
Soon the railroads began promoting the availability of good farmland farther west in Colorado, Wyoming and Montana. Advertising promised the best land in the basins and good annual rainfall. When settlers arrived they quickly realized that the thin soil was rocky with little or no moisture. Yet they still found creative ways to farm their land and meet their requirement to grow crops to fulfill their homestead claim.

By the 1920s farming on the Great Plains was prolific due to new technologies in irrigation and farm implements. The broken prairies exposed the wealth of the soil to the elements—not only rain but also wind. As a result of drought in the 1930s windstorms swept the parched soil skyward taking it as far as the Atlantic Ocean and rendering much farmland useless.

The "Black Blizzard" of 1935 carried away topsoil with hurricane strength winds. An estimated 850 million tons of topsoil blew off the land in that year

alone. Imagine a dust storm like this blowing over your home. How would you feel when you walked out your door to find the fruits of your labor flattened under layers of wind-blown silt?

The restored prairie before you represents a time before people settled the Great Plains. Compared to this photo taken in 1939, this prairie has been making a comeback—rebuilding the soil—with careful guidance from land managers. How long will it take before this soil compares to the soils of found here when Daniel Freeman arrived?



In the 1860s the top soil was much deeper than shown here. The top two inches of this soil sample may have taken as long as 2,000 years to form. Each year an average depth of exposed soil, measuring the thickness of a dime, blows away.

Strip cropping, terracing, contour plowing, and crop rotation, are a few of the sustainable farming practices that help keep soil in place. By 1938 these efforts resulted in a 65 percent reduction in soil loss. Today's farmers still use these and other conservation methods to maintain healthy soil.