Cover Saves Scarce Water

Extreme temperature changes and high winds characteristic of the semiarid, short-grass prairie of the Great Plains can have drastic and devastating effects on exposed soil. In the High Plains sub-region of the Great Plains, more than 65 percent of the soil must remain covered to limit evaporation of water.

Bare soil heats up quickly in direct sunlight; and the hotter it gets, the faster water evaporates from it. In this rainfall-limited area (average annual rainfall is 10-20 inches), maintaining soil cover is a key to profitable agricultural production.

The combination of high winds and hot temperatures wastes water if soils aren’t covered. However, ground cover (both living and residues) limits the drying effect of wind, shades the soil from hot sun, and traps snow during winter. All of which add up to more water infiltrating into the soil and less evaporating into the air.

To learn more about soil health, and to meet some of the farmers who are “Unlocking the Secrets in the Soil,” visit www.nrcs.usda.gov.

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