

Figure 3.7. Organic carbon content in top 30 cm of soils in soil temperature families. (Organic carbon values plotted to midpoint of soil temperature families.) Source: Buol et al. 1990. Buol et al., 2011

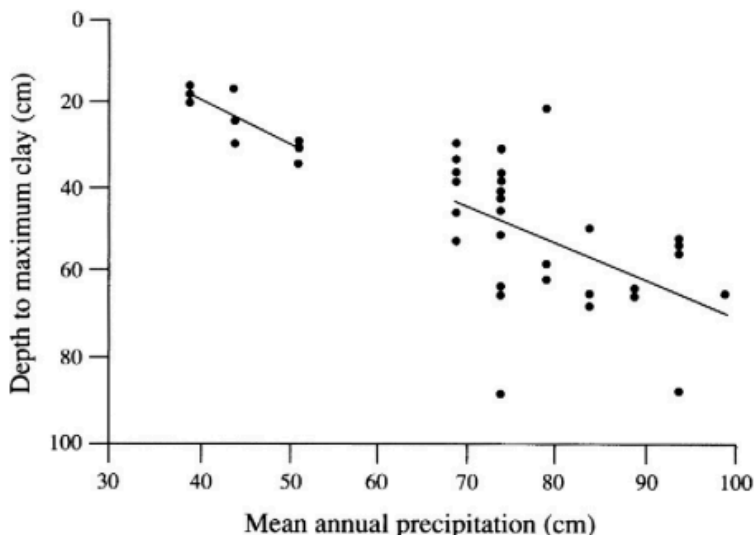


FIGURE 4.15 Depth-to-peak content of clay in the soil profile, an index of weathering and soil development, decreases from east to west across the Great Plains of the United States as a function of the decrease in mean annual precipitation. Source: From Honeycutt et al. (1990). Used with permission of American Society of Agronomy.

Schlesinger & Bernhardt, 2013

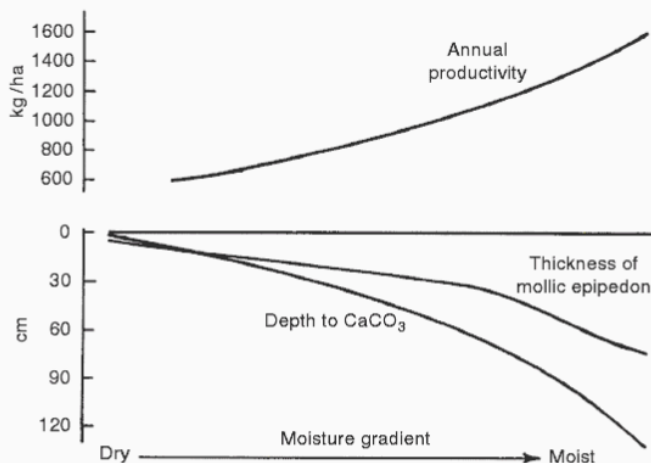


Figure 3.5. The thickness of the mollic epipedon, which is highly correlated with productivity of range vegetation (grass, forbs), proxied for accurate seasonal climatic data from remote desert basin and mountain range sites in Montana (where most climatic parameters had to be estimated), as summarized graphically. Climate becomes both more moist and cooler (left to right). (Adapted from Munn et al. 1978, © Soil Science Society of America, with permission) Buol et al., 2011

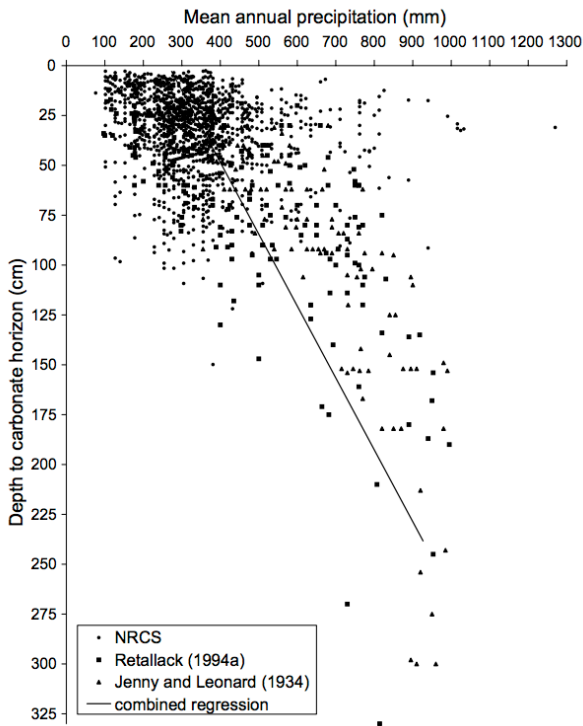


TABLE 2. GEOGRAPHIC DISTRIBUTION OF NRCS LOCALITIES

State	Percentage of soil type localities
Utah	19.4
Idaho	14.8
Nevada	13.7
Texas	11.8
Arizona	10.7
New Mexico	9.3
Colorado	3.9
California	3.6
Montana	3.3
Wyoming	2.8
Oregon	2.3
Washington	1.7
Other*	2.4

*North Dakota (7 type localities), Minnesota (4), Oklahoma (4), Virgin Islands (4), Kansas (3), South Dakota (3), Puerto Rico (2), and Nebraska (1).

Royer D., 1999

Figure 1. Results from combined data set (NRCS + Retallack + Jenny): $r^2 = 0.31$; $\sigma = 150$ mm; regression equation is $P = 2.775D + 257.8$, where P = mean annual precipitation (mm) and D = depth to top of carbonate horizon (cm). Regression line only extended to $P = 914$ mm (see text for details). NRCS is Natural Resources Conservation Service.

