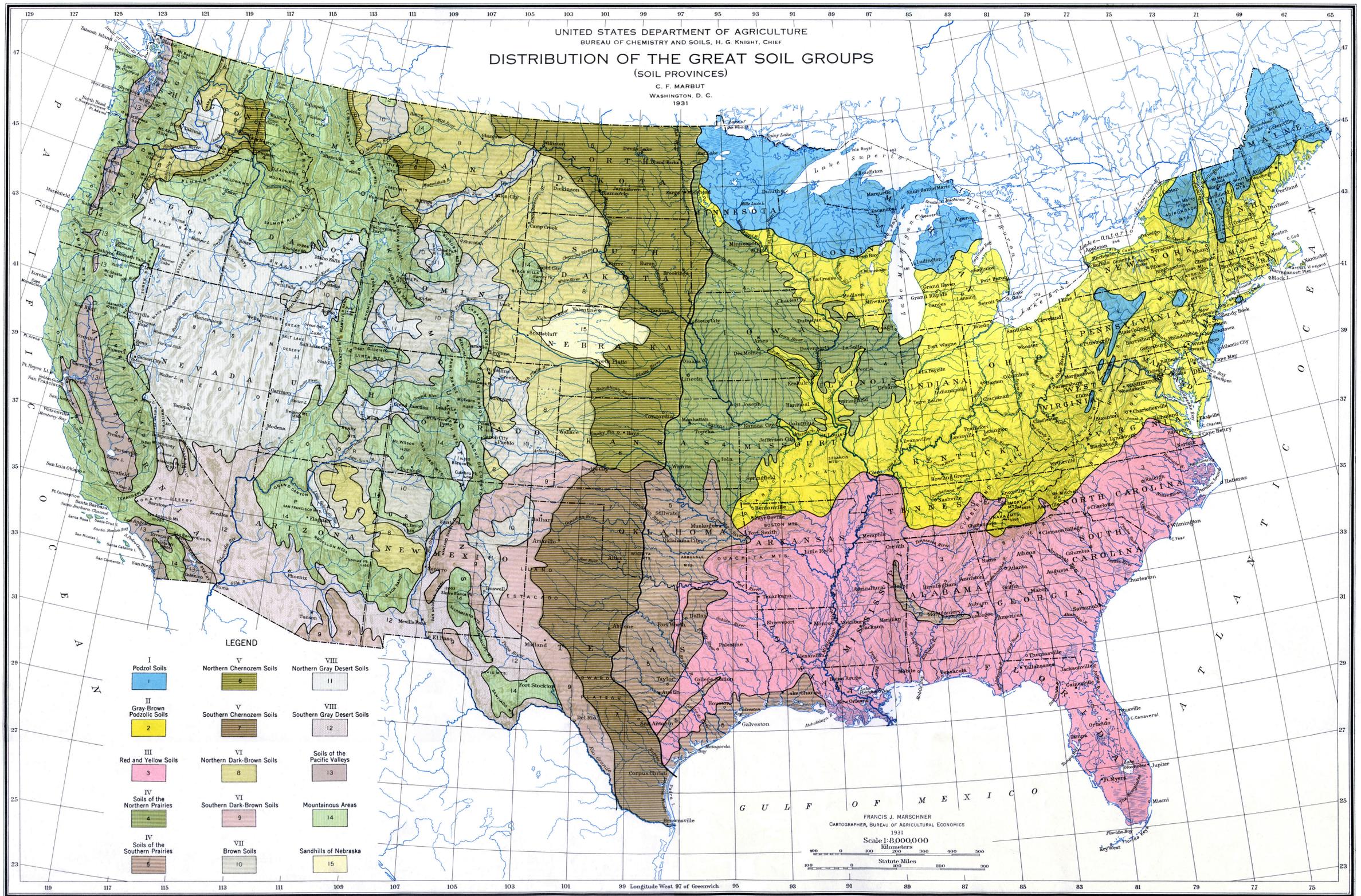


MAP OF THE MONTH *November*

ATLAS OF AMERICAN AGRICULTURE

SOILS, PLATE 2



Soils Differ

What does it mean to say “soils differ”? In what way and to what extent can differences among soils be made intelligible and conveyed? As our knowledge about soils has increased, the answers to these questions have evolved. Just as botanists have studied plants as part of nature, pedologists have studied soils as part of nature. Soils differ from each other based on color, mineralogy, age, depth, and lateral boundaries with neighboring soils. But soils also differ for utilitarian purposes. Some soils have a greater ability than others to produce high crop yields, provide firm building foundations, purify contaminated water, or sequester carbon dioxide from the atmosphere.

This 1931 map, *Distribution of the Great Group Soils (Soil Provinces)*, by C.F. Marbut provided a major step for understanding the meaning of “soils differ.” It identified soils as part of nature, showing how soil types are linked to the major biomes of grassland, forest, and desert. It also differentiated soils for utilitarian purposes. For example, the map helped illustrate that—with other factors held constant—differences in parent materials, soil age, mineral weathering, and nutrient leaching were responsible for the higher yields of corn in Indiana and Ohio than in Alabama and Georgia when soil survey began in the late-1800s. Soils as part of nature and soils as utilitarian resources are both major criteria still used in the modern USDA system for classifying soils.