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A Brief History of Soil Mapping and Classification in the USA

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Soil maps show the distribution of soils across an area but also depict soil science theory and ideas on soil formation and classification at the time the maps were created. The national soil mapping program in the USA was established in 1899. The first nation-wide soil map was published by M. Whitney in 1909 and showed soil provinces that were largely based on geology. In 1912, G.N. Coffey published the first country-wide map based on soil properties. The map showed 5 broad soil units that used parent material, color and drainage as diagnostic criteria. The 1913 national map was produced by C.F. Marbut, H.H. Bennett, J.E. Lapham, and M.H. Lapham and showed broad physiographic units that were further subdivided into soil series, soil classes and soil types. In 1935, Marbut drafted a series of maps based on soil properties, but these maps were replaced as official U.S. soil maps in 1938 with the work of M. Baldwin, C.E. Kellogg, and J. Thorp. A series of soil maps similar to modern USA maps appeared in the 1960s with the 7th Approximation followed by revisions with the 1975 and 1999 editions of Soil Taxonomy. This review has shown that soil maps in the United States produced since the early 1900s moved initially from a geologic-based concept to a pedologic concept of soils. Later changes were from property-based systems to process-based, and then back to property-based. The information in this presentation is based on Brevik and Hartemink (2013).

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