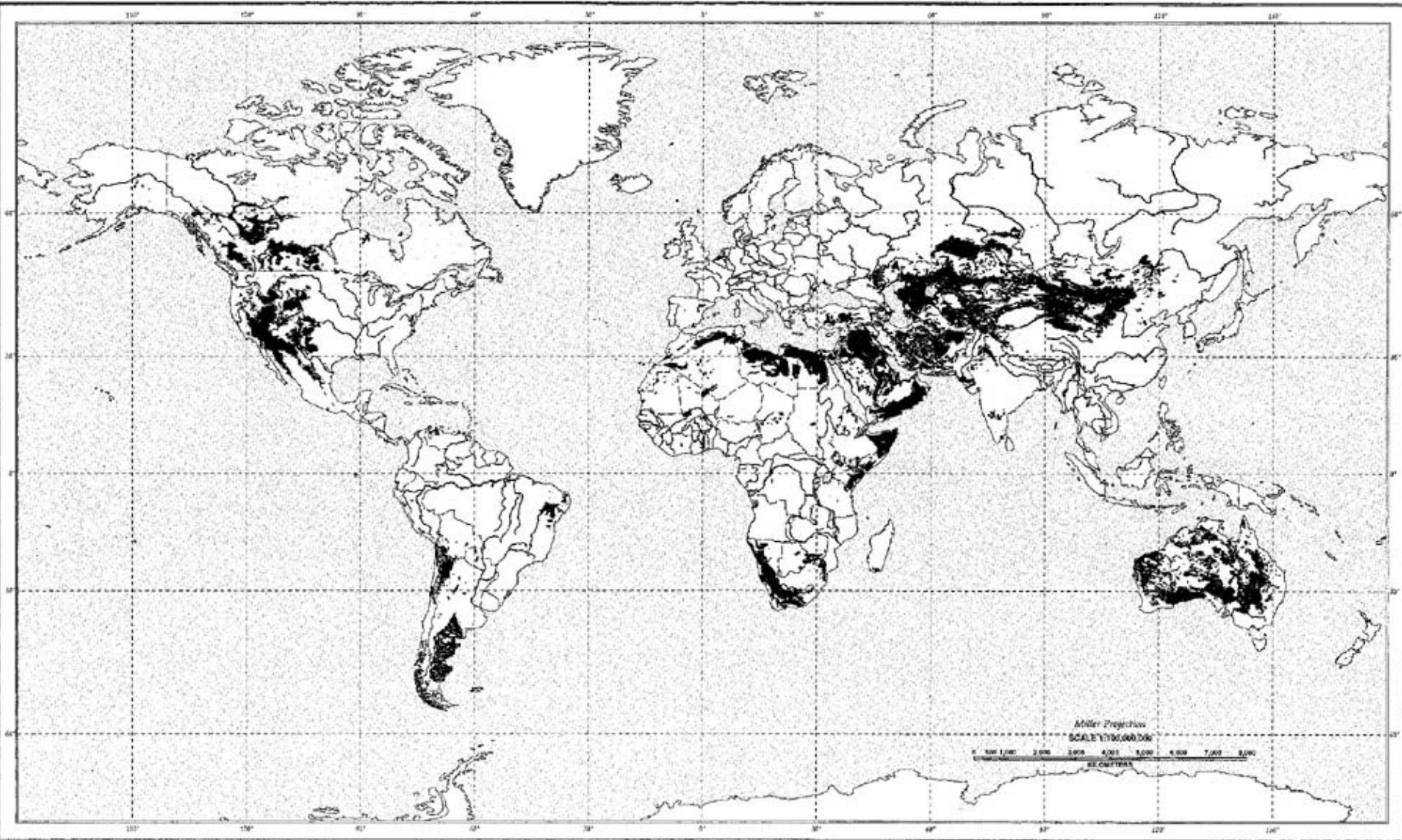


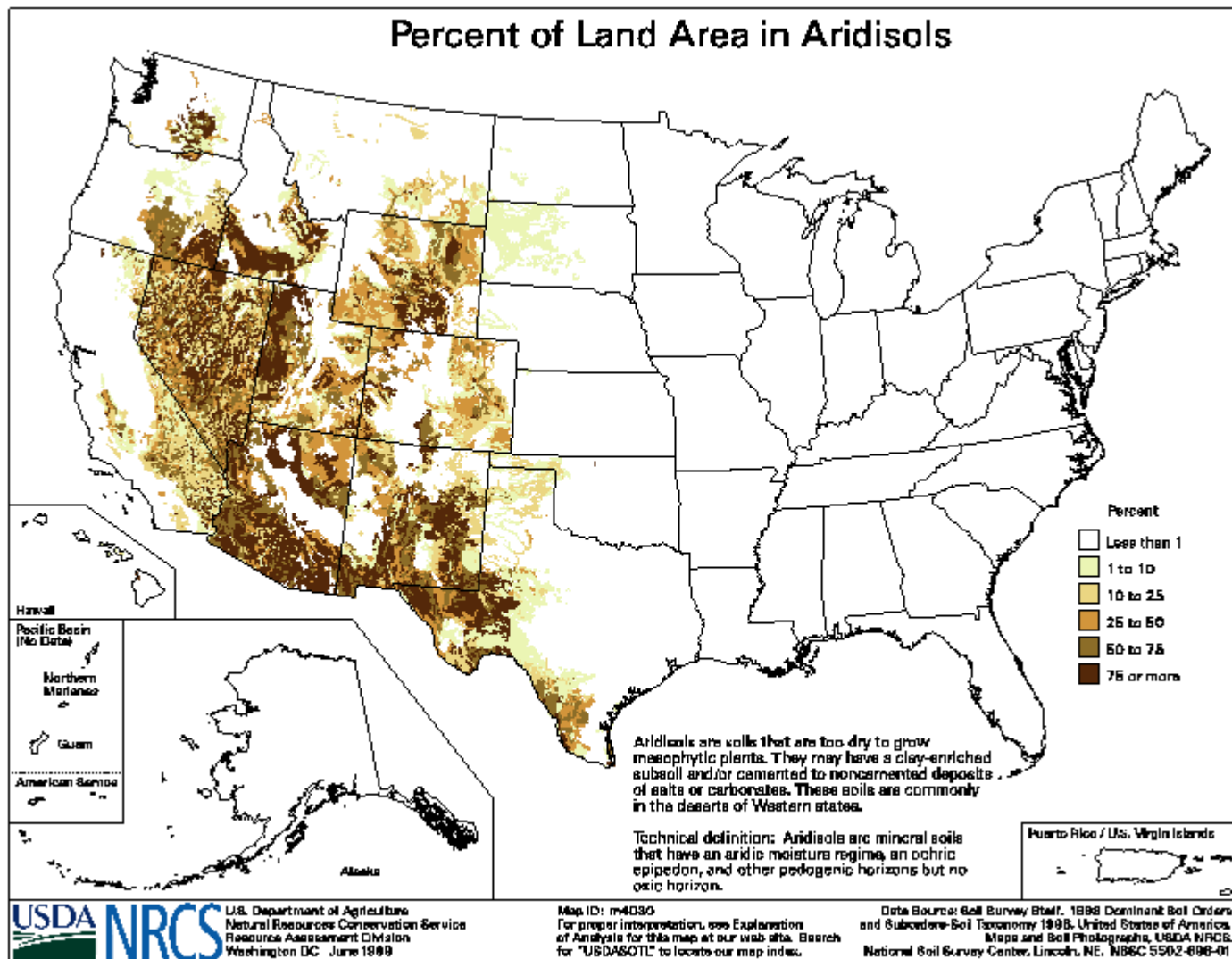
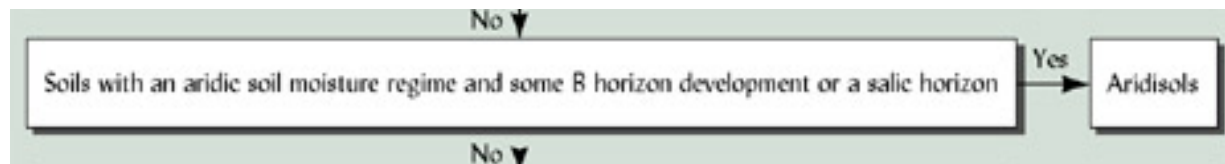
# ARIDISOLS

## Soils of arid region (classified by climate)

U.S. Dept. of Agriculture  
Natural Resources Conservation Service  
Soil Survey Division  
World Soil Resources

### Global Distribution of Aridisols









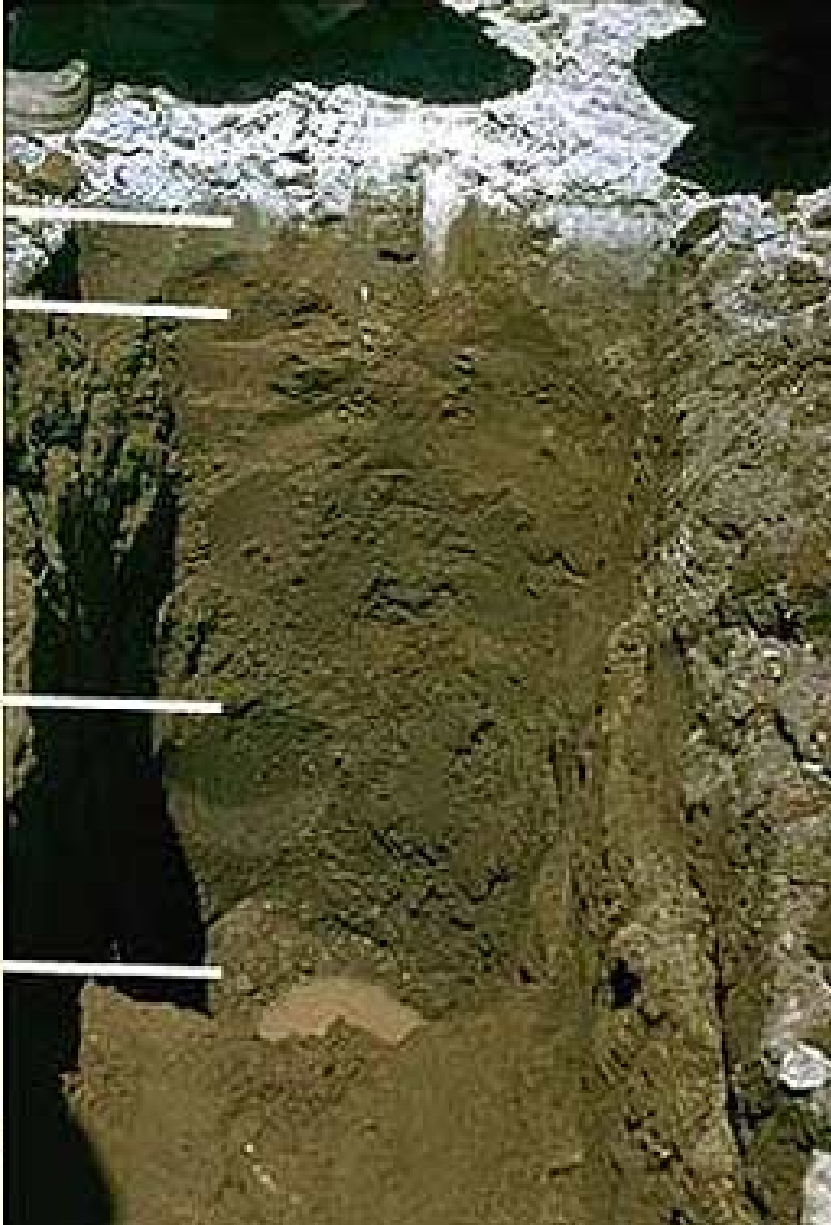
**Az**  
**0-8 cm**

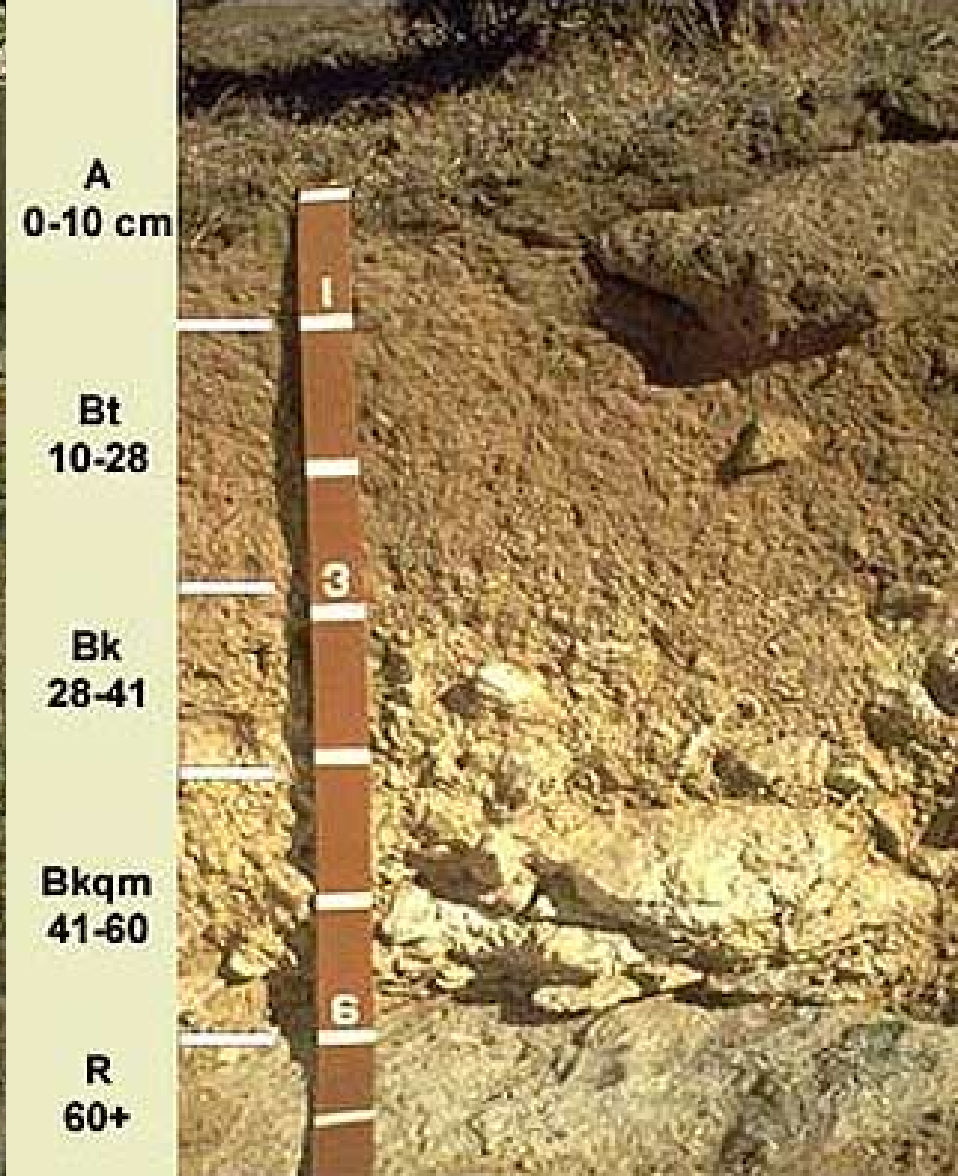
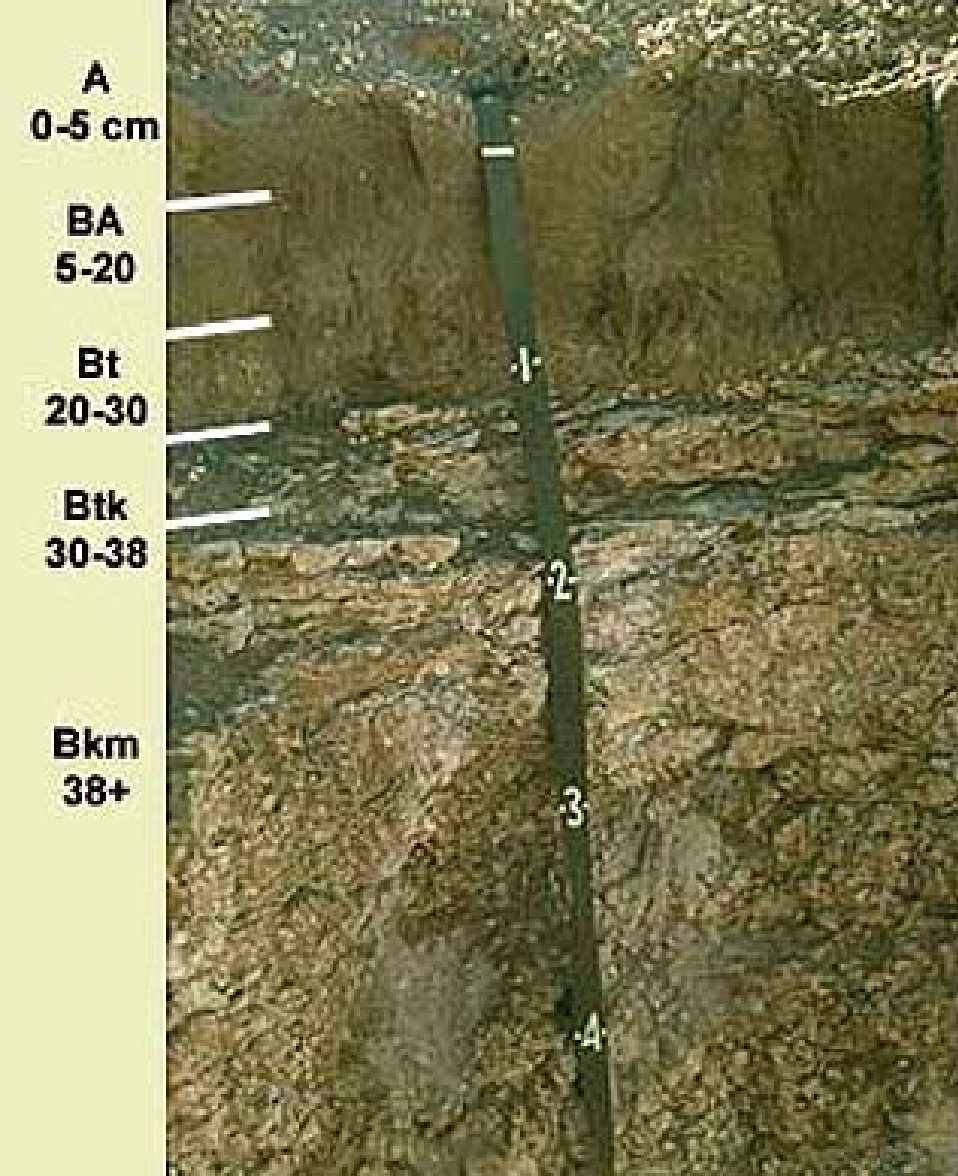
**Bz**  
**8-13**

**C1**  
**13-51**

**2C2**  
**51-89**

**3C3**  
**89-152**







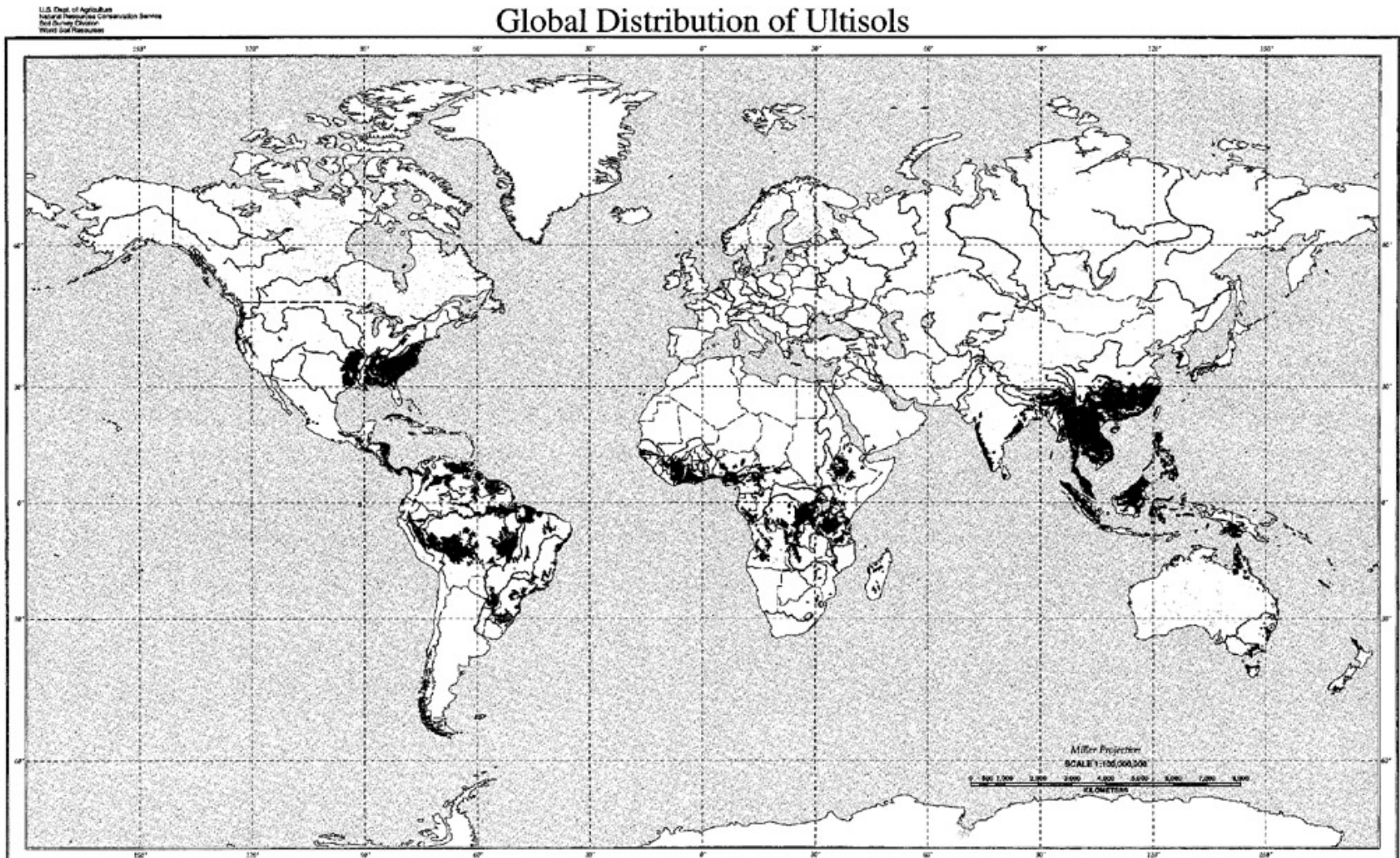




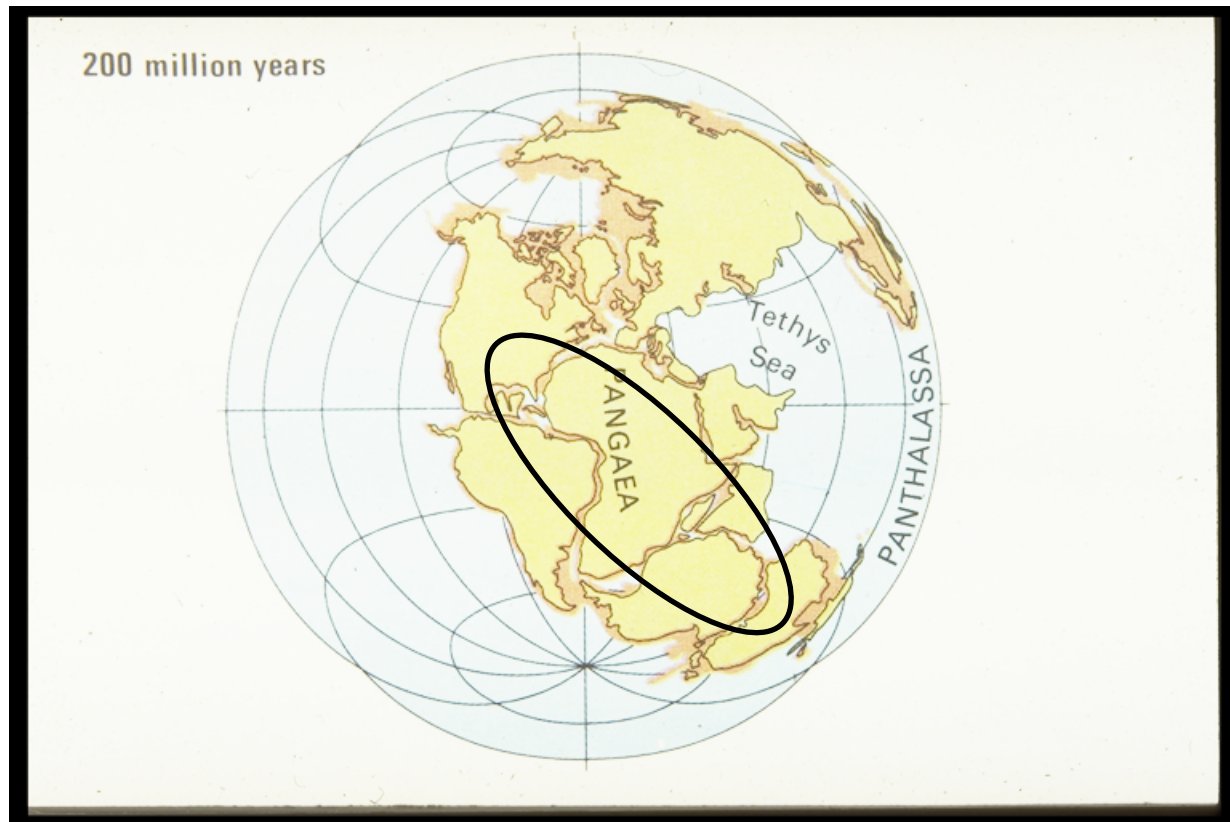
# ULTISOLS

**Similar to Alfisol, but <35% base saturation  
Result of more intense weathering & leaching,  
or weathering over a longer time.  
Often redder in color than Alfisol due to  
oxides.**

Global Distribution of Ultisols



The region inside the black oval was  
the continental interior of Pangaea 200  
million years ago

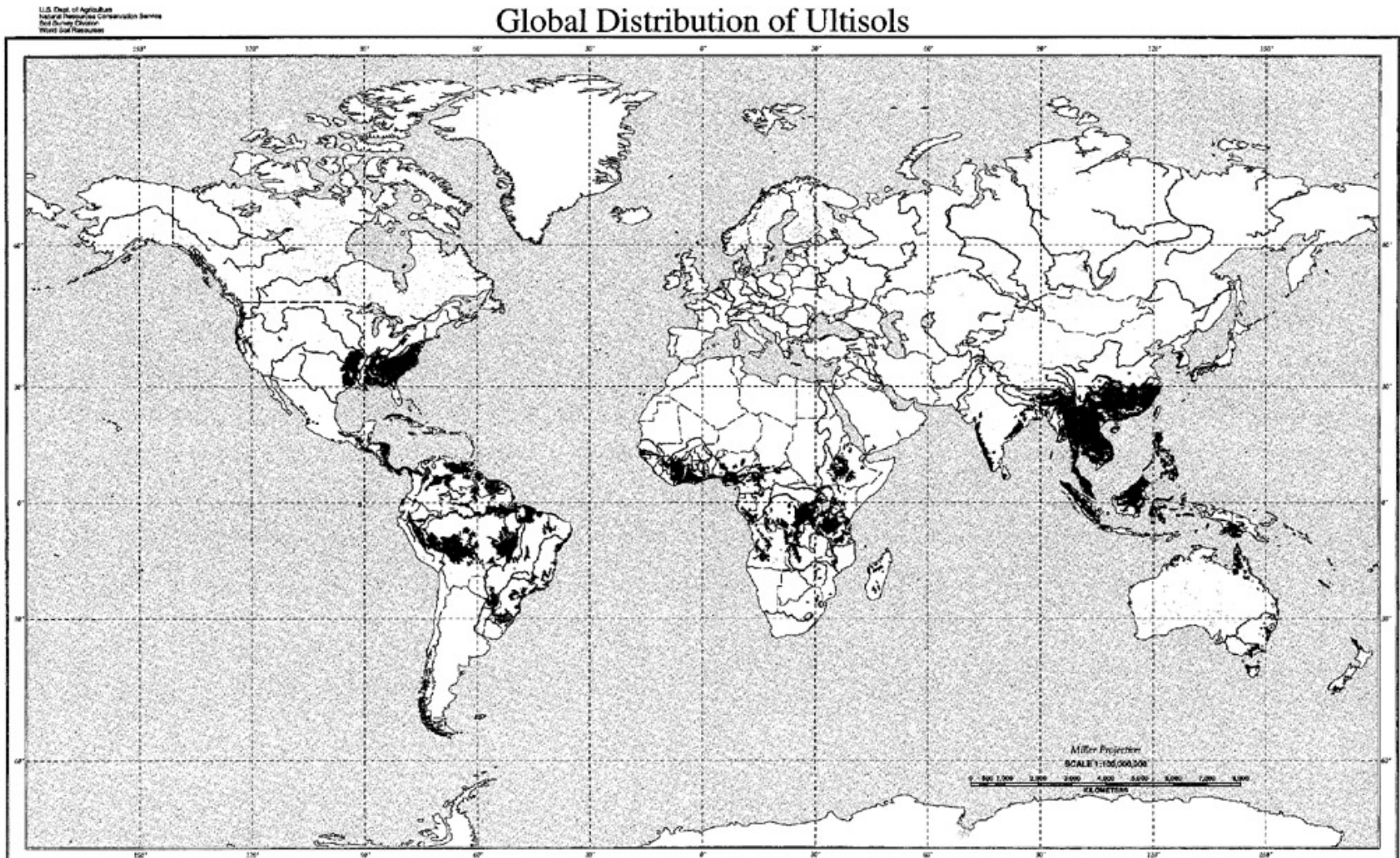


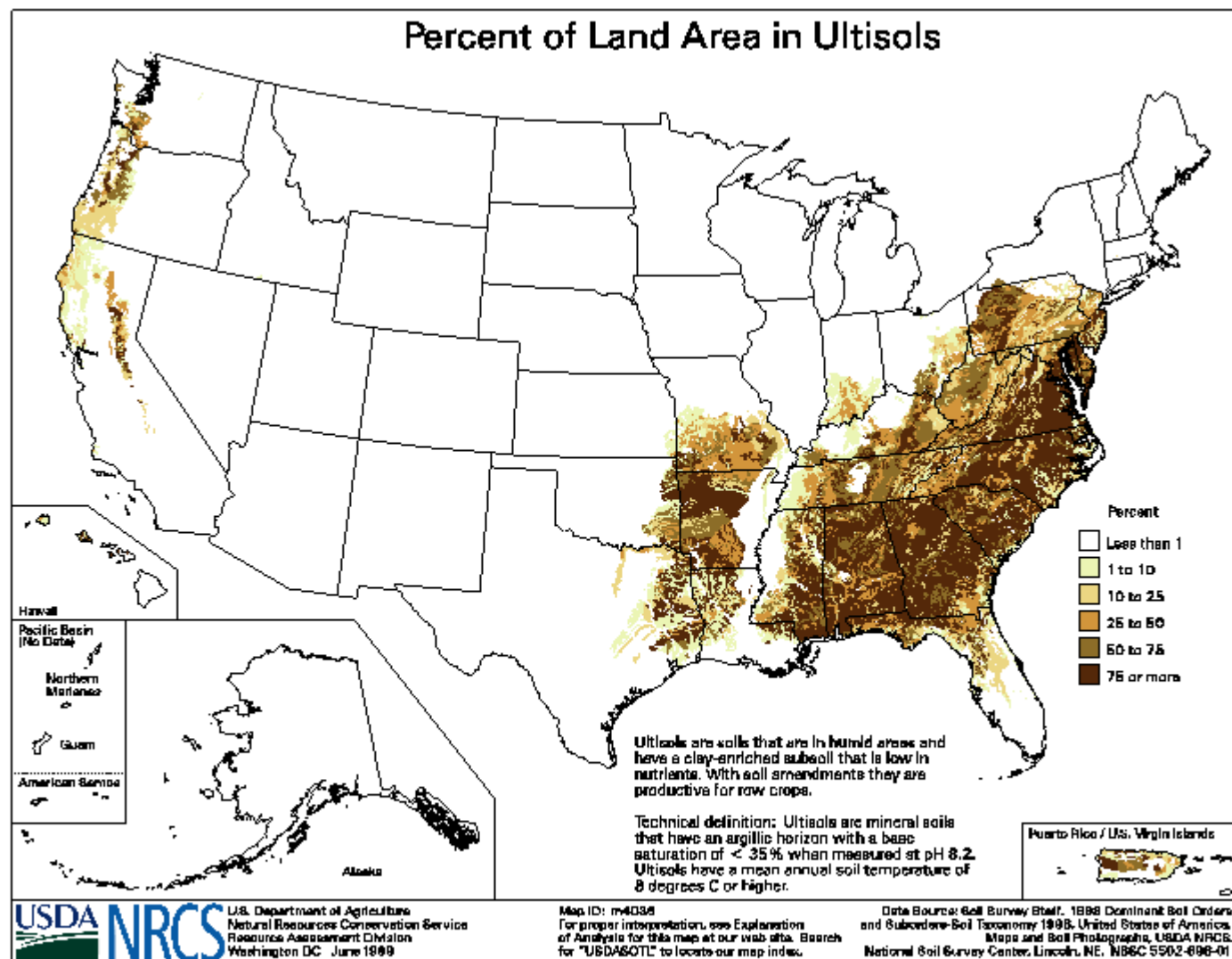
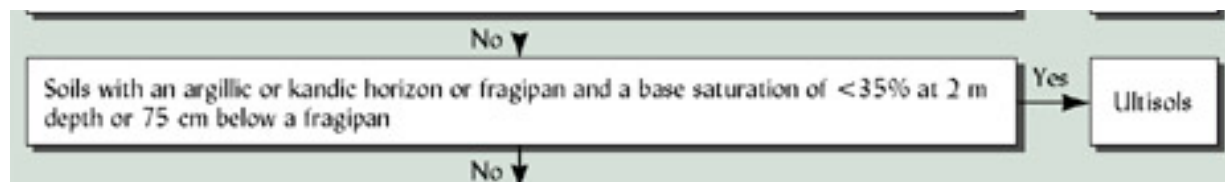


# ULTISOLS

**Similar to Alfisol, but <35% base saturation  
Result of more intense weathering & leaching,  
or weathering over a longer time.  
Often redder in color than Alfisol due to  
oxides.**

Global Distribution of Ultisols







A  
0-8 cm  
E  
8-18  
  
Bt  
18-66  
  
C  
66+



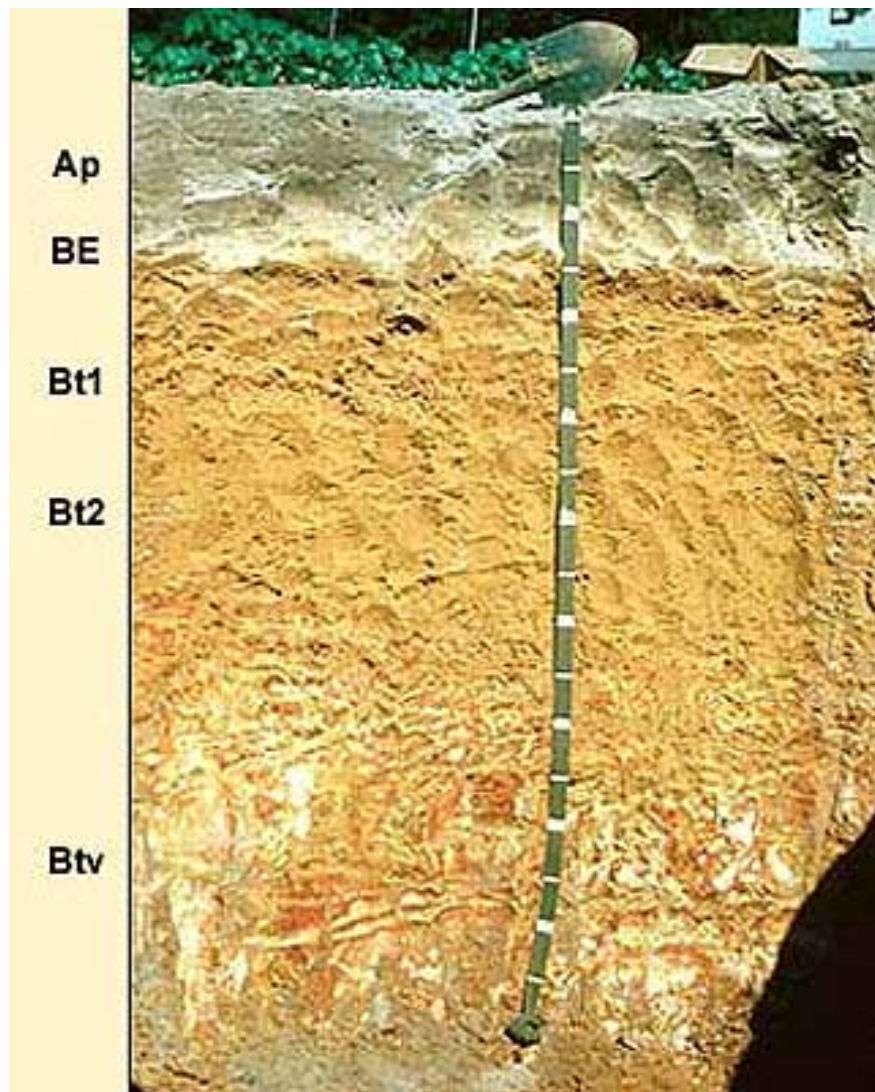
Ap  
0-20 cm  
Bt1  
20-55  
  
Bt2  
55-112  
  
BC  
112-142  
  
C  
142-191+



E  
0-20 cm  
BE  
20-50  
  
Bt  
50-145+









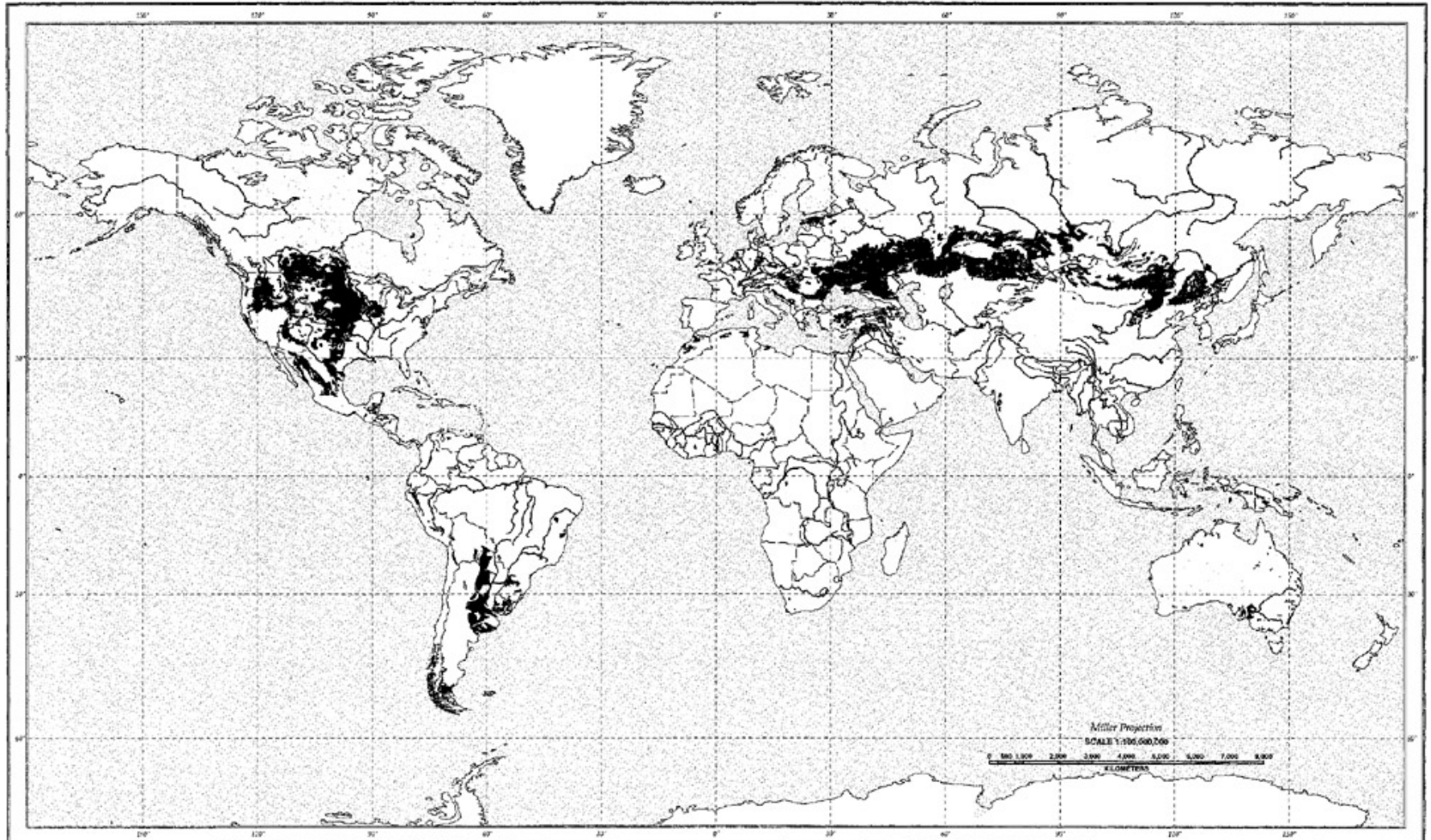
# MOLLISOLS

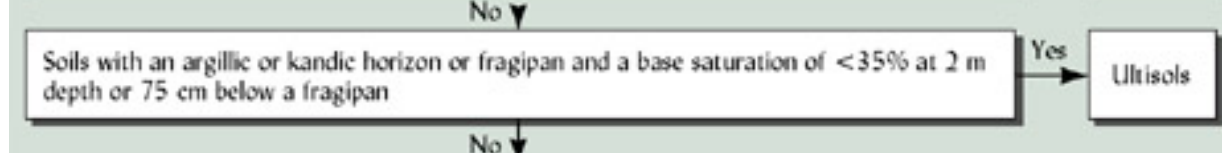
**High surface accumulation of organic matter**  
**Surface horizon is dark, high in bases, well-structured**

**Dominant natural vegetation is prairie grasses**

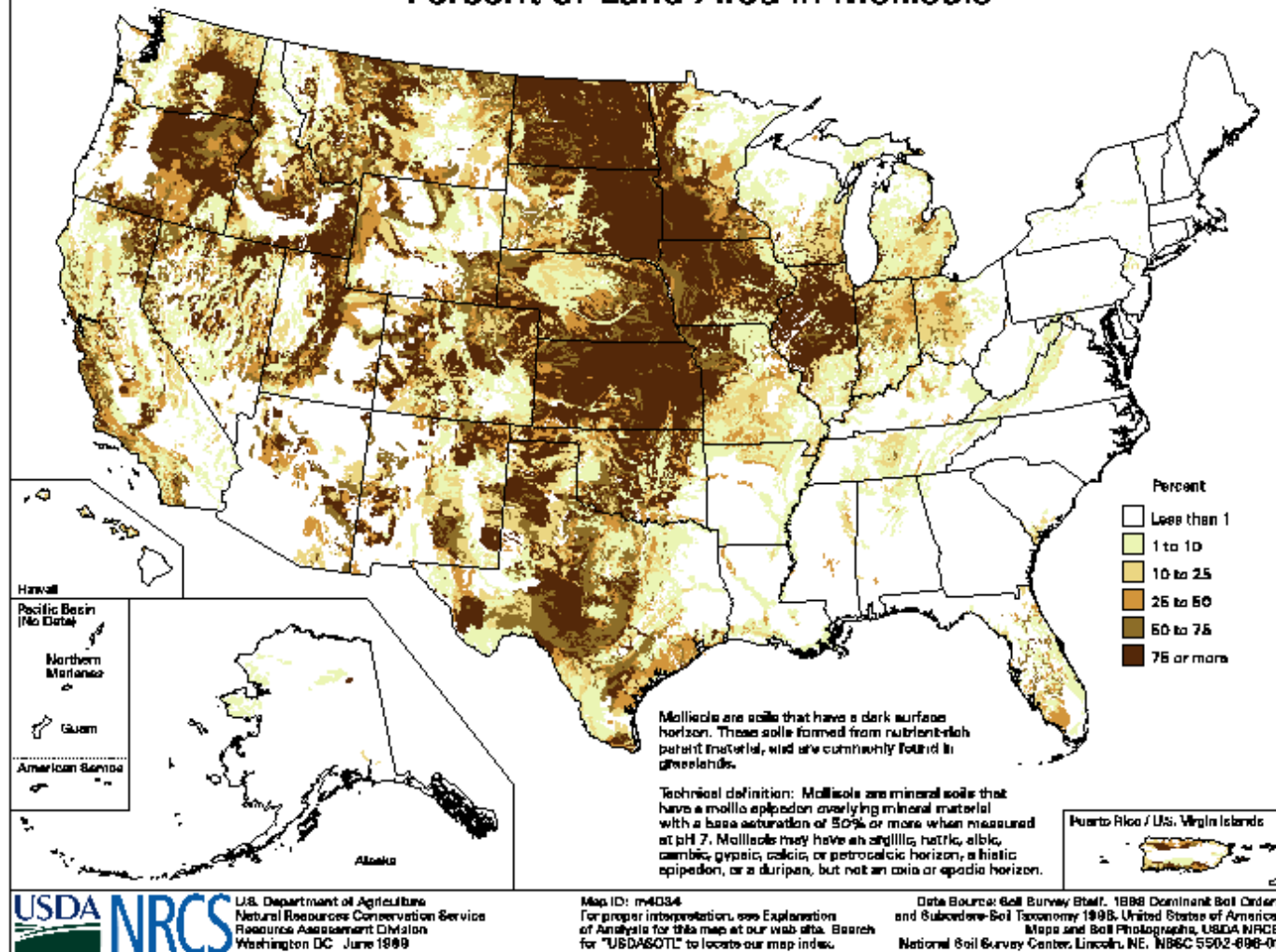
U.S. Dept. of Agriculture  
Natural Resources Conservation Service  
Soil Survey Center  
World Soil Resources

Global Distribution of Mollisols

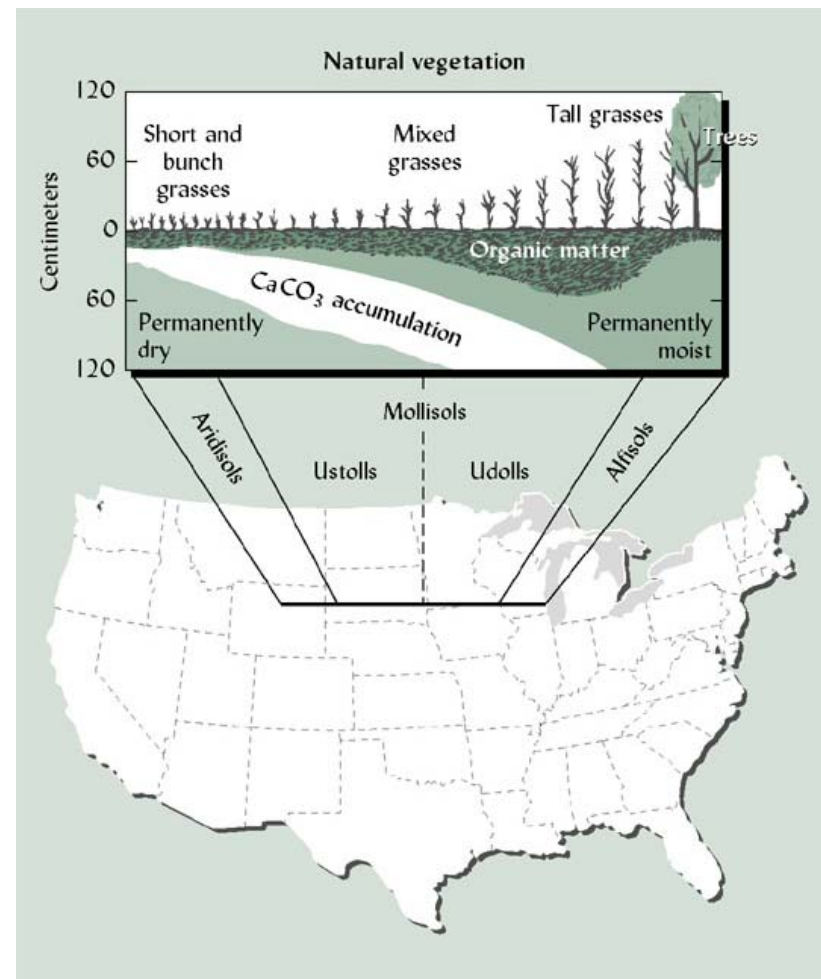
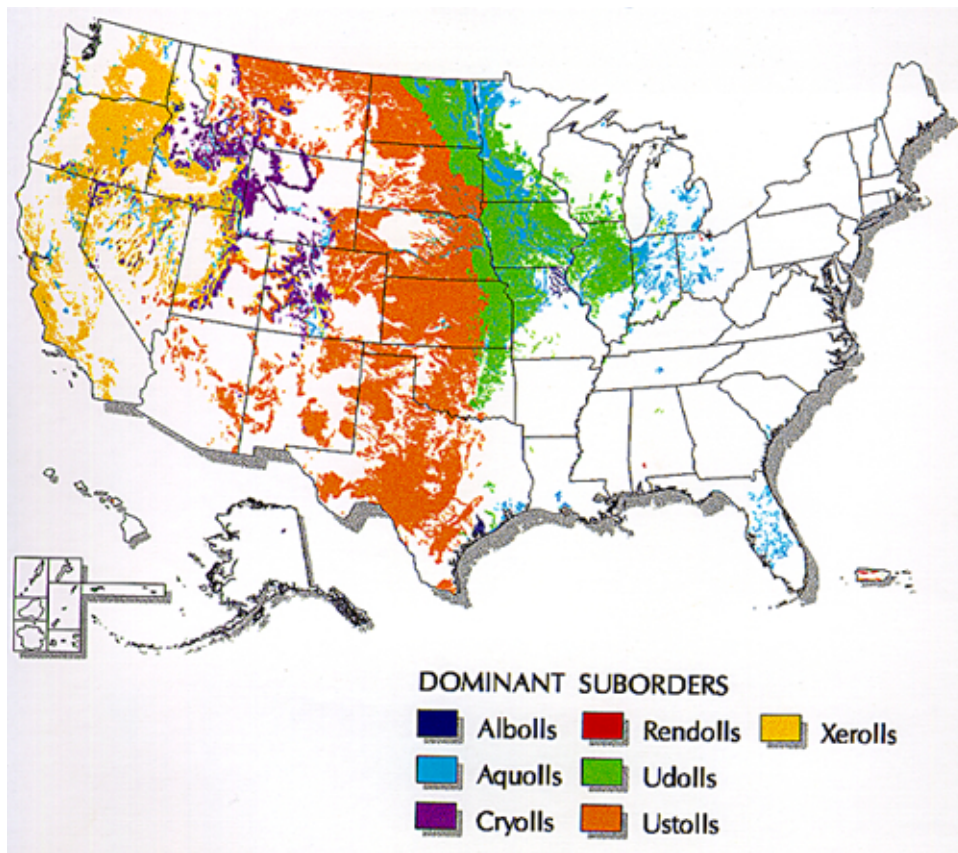




## Percent of Land Area in Mollisols





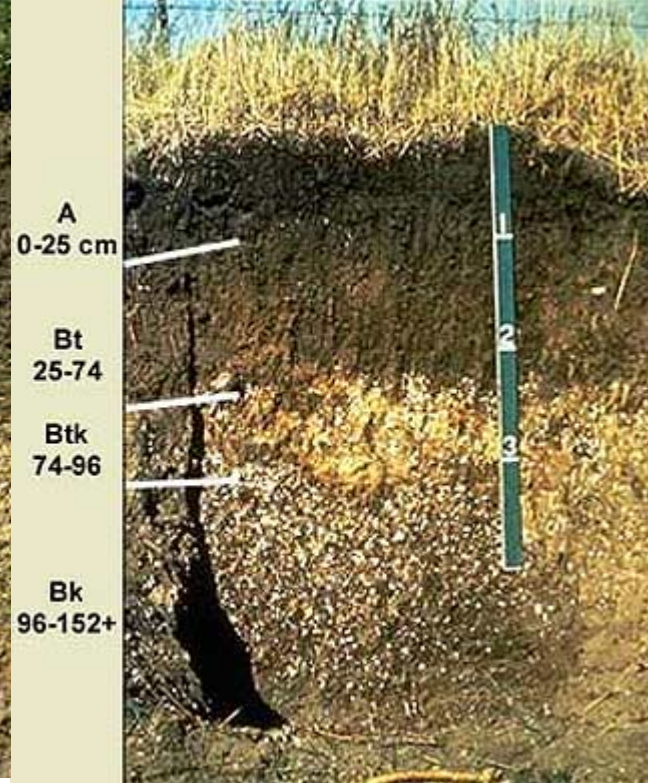
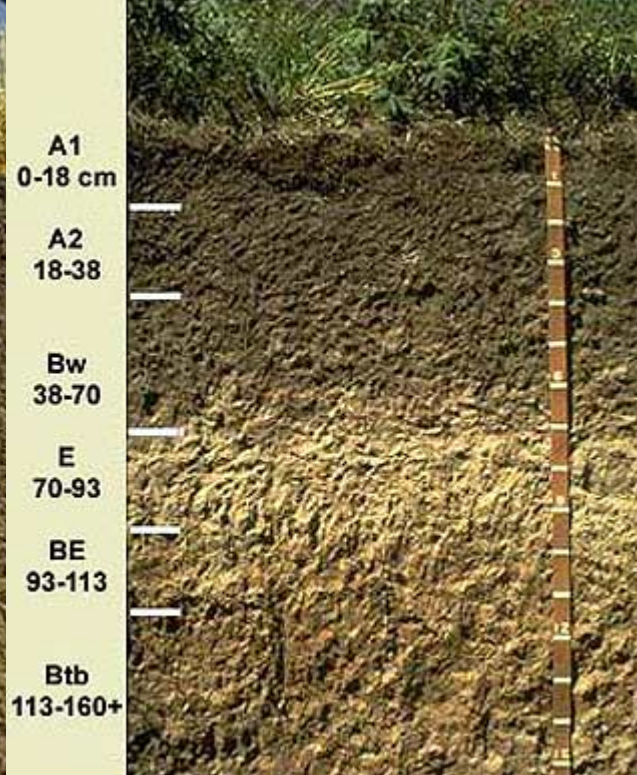
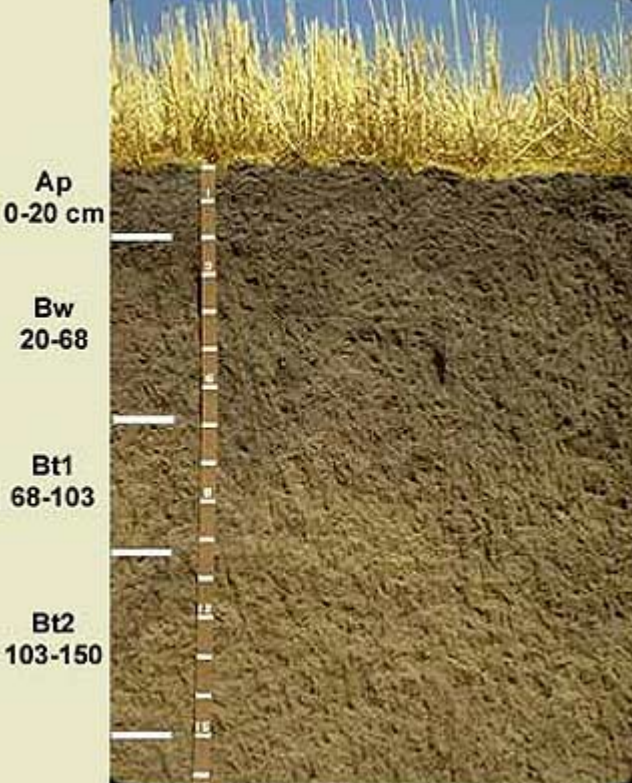














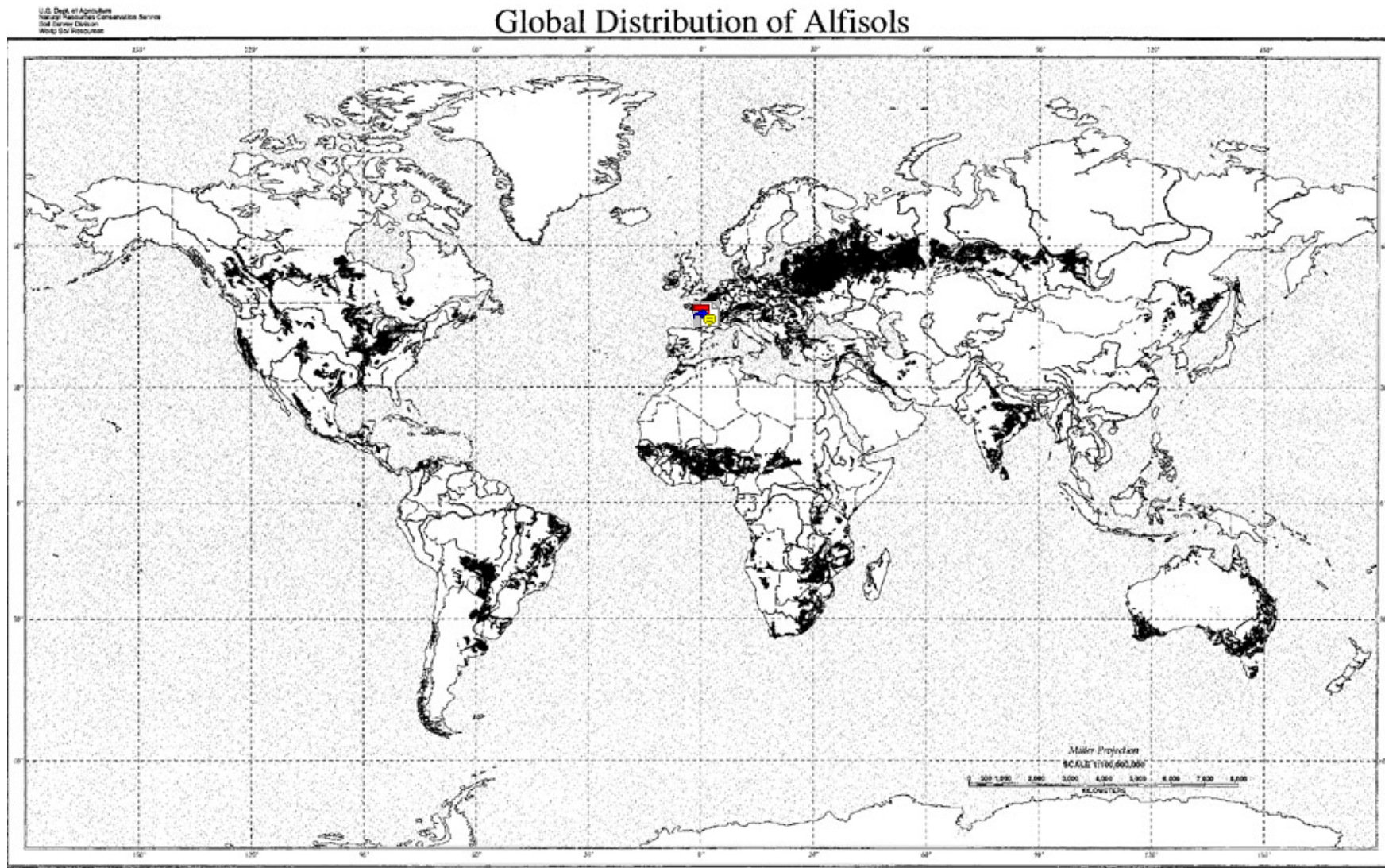
# ALFISOLS

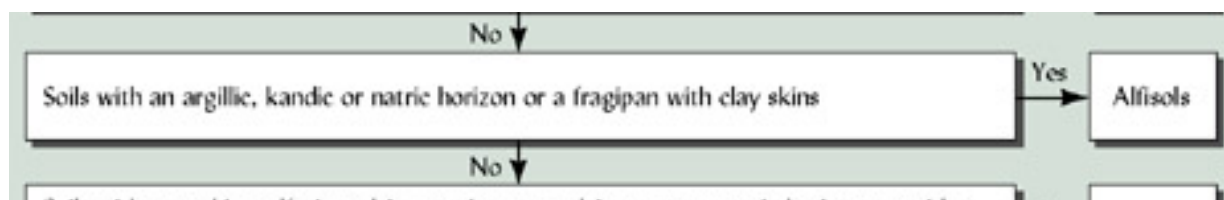
**Accumulations of translocated clay in subsoil  
(B<sub>t</sub>)**

**At least 35% base saturation**

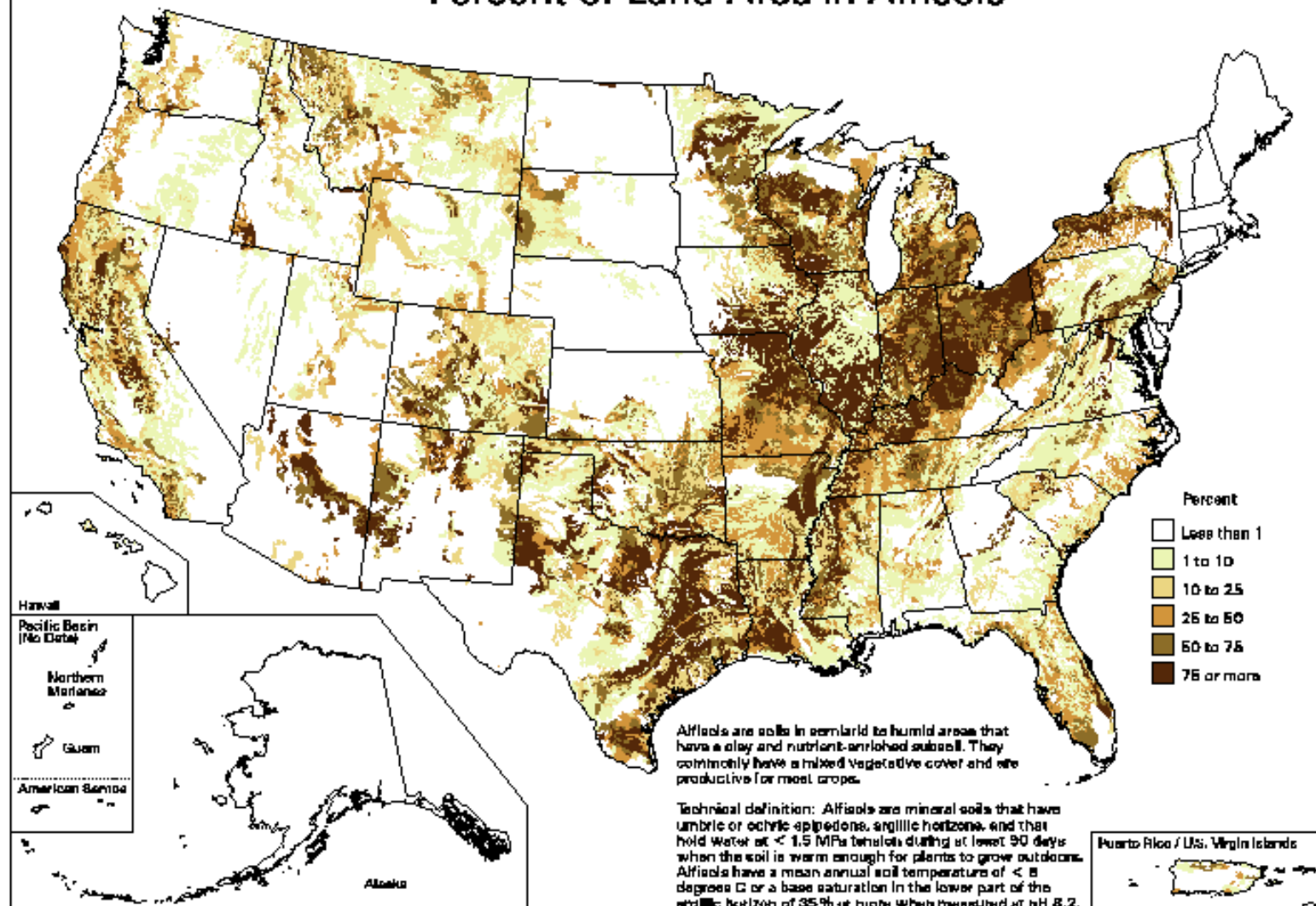
**Little organic matter accumulation in surface**

## Global Distribution of Alfisols





## Percent of Land Area in Alfisols



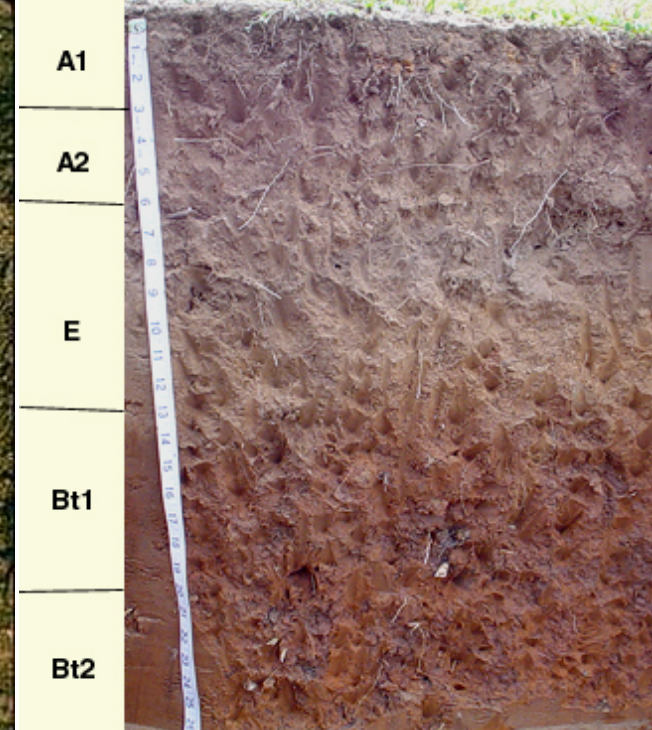
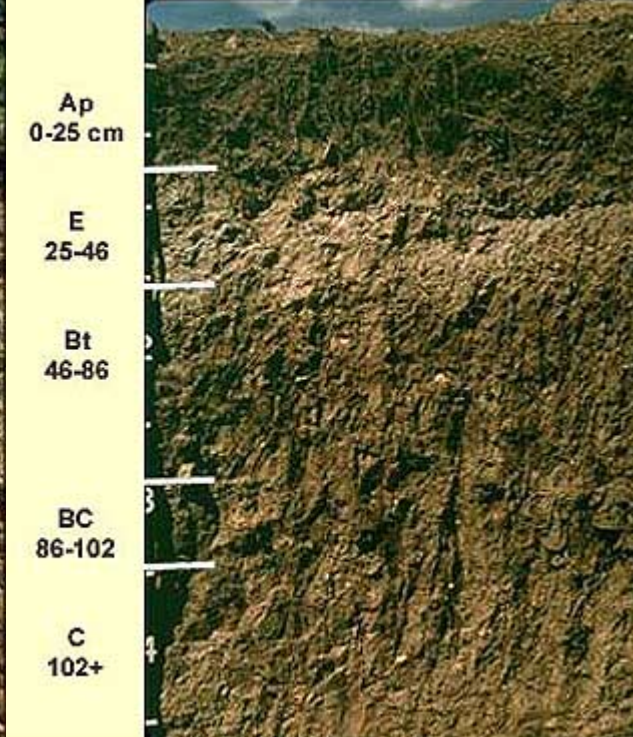
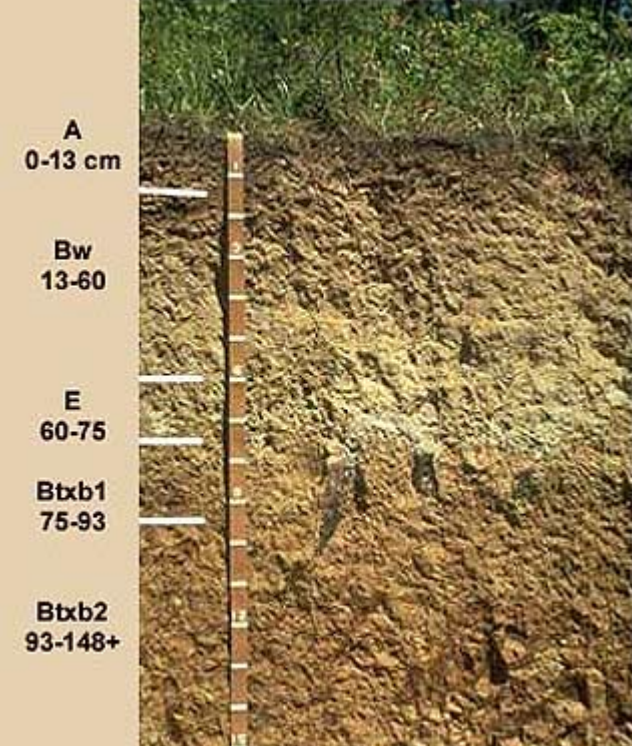














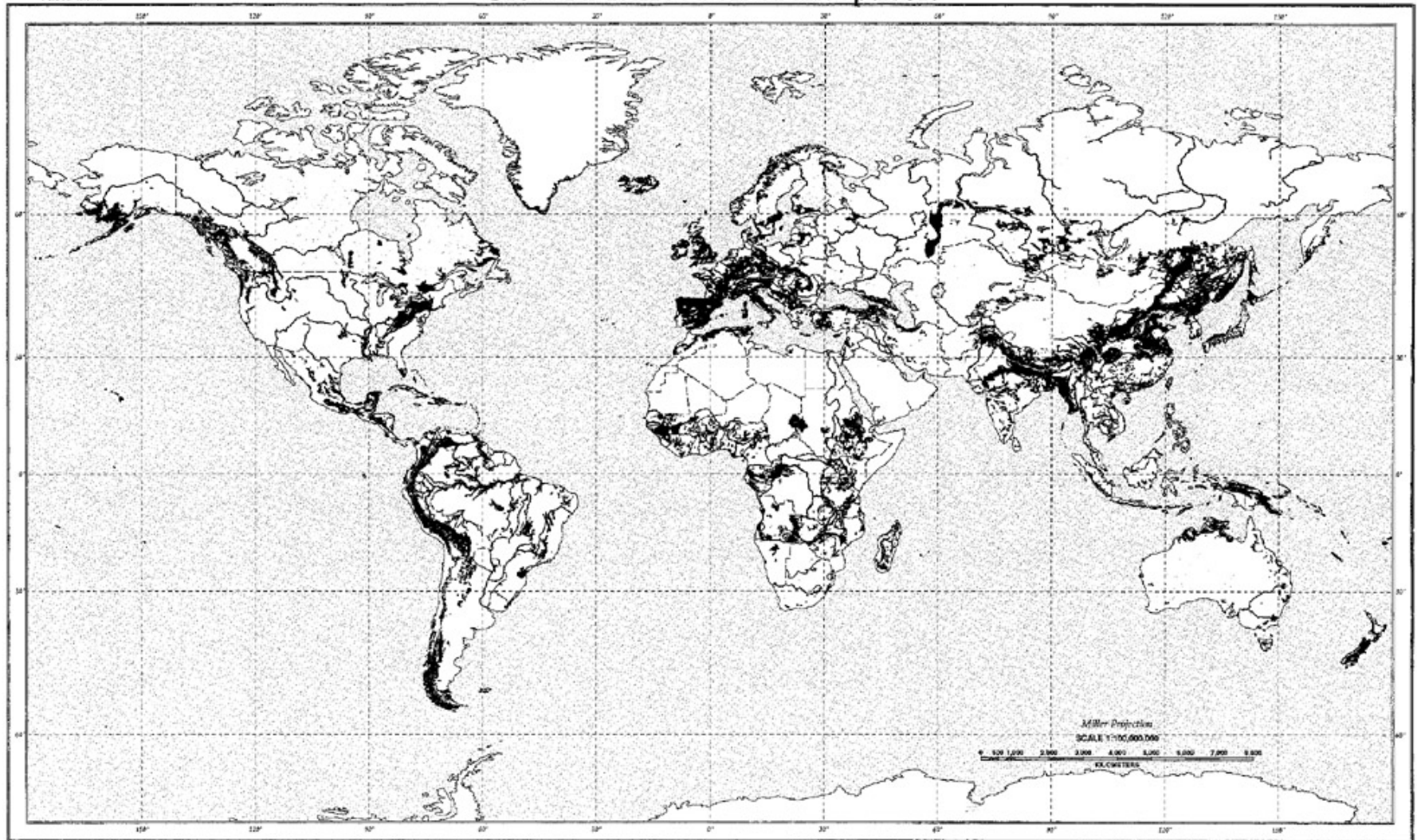
# INCEPTISOLS

**Horizons of alteration (cambic = structure or color)**

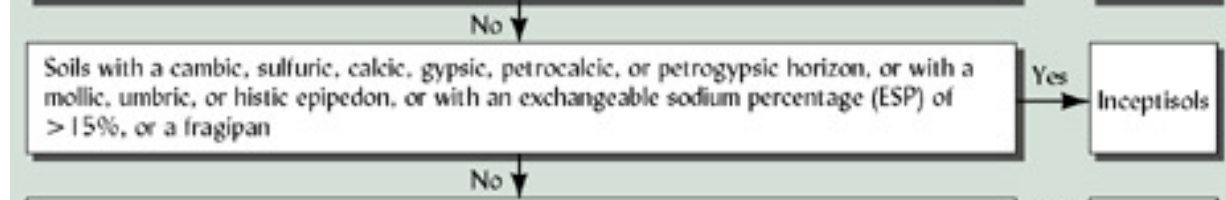
**Insufficient eluviation/illuviation to have an argillic horizon.**

U.S. Dept. of Agriculture  
Natural Resources Conservation Service  
Soil Survey Center  
World Soil Resources

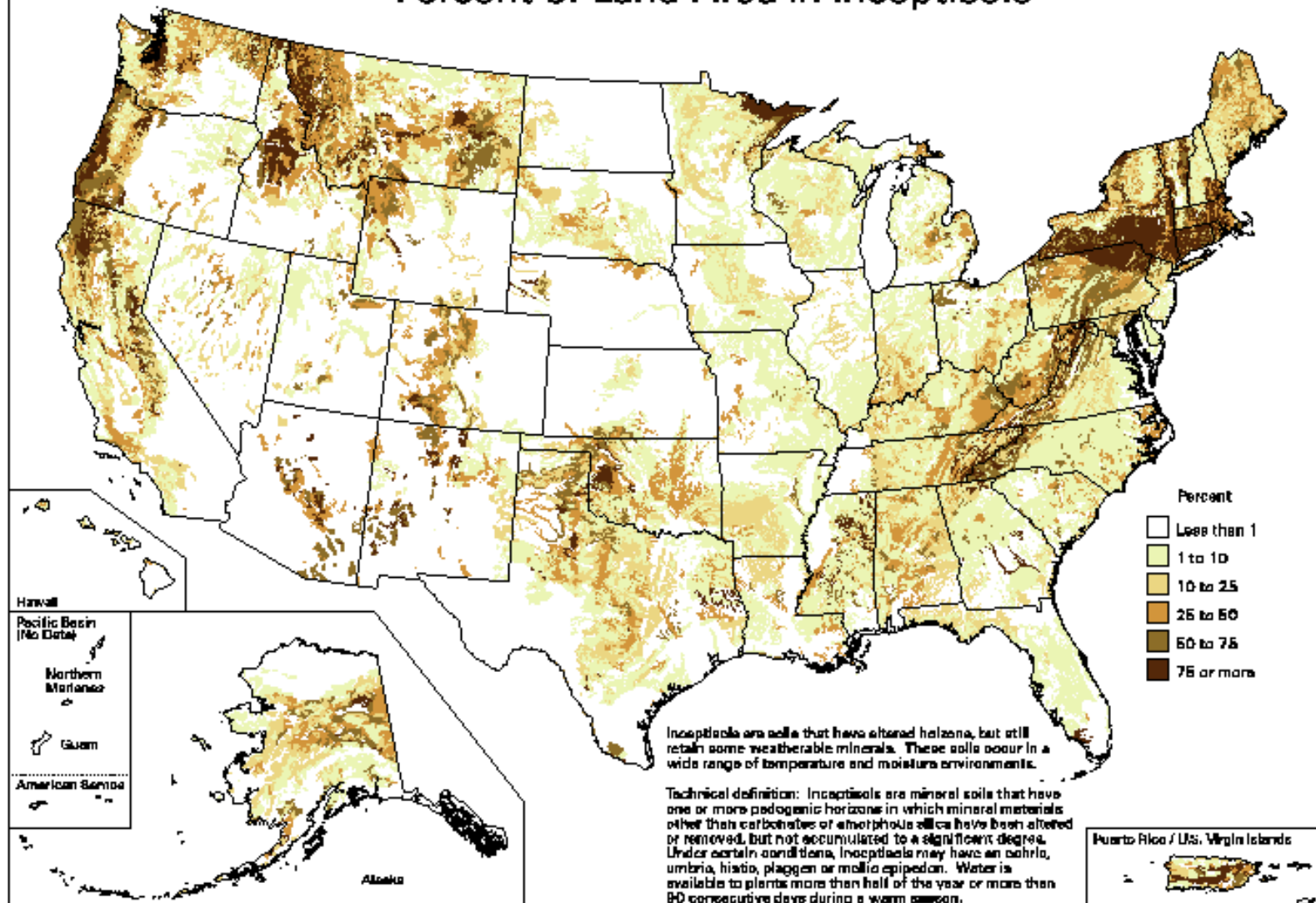
Global Distribution of Inceptisols







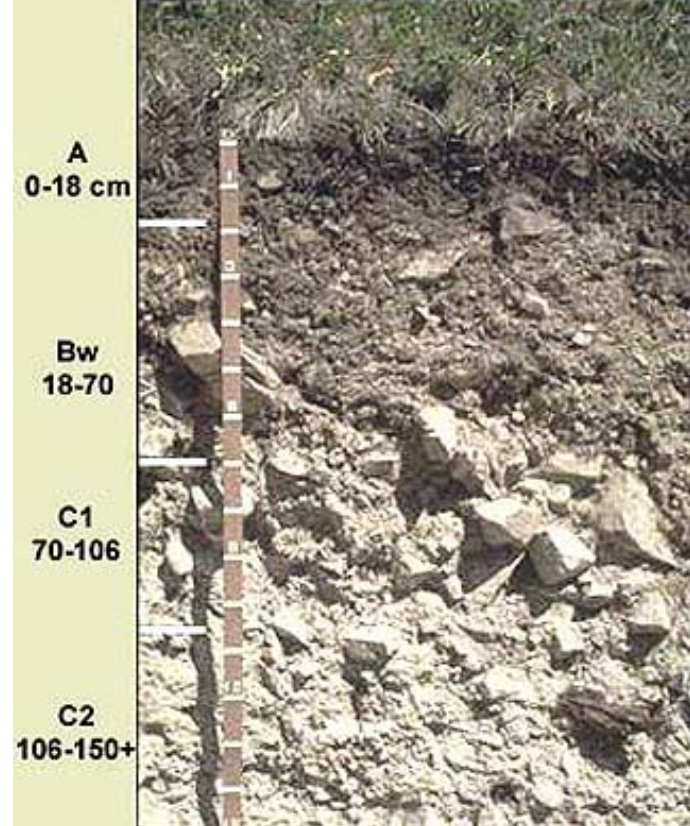
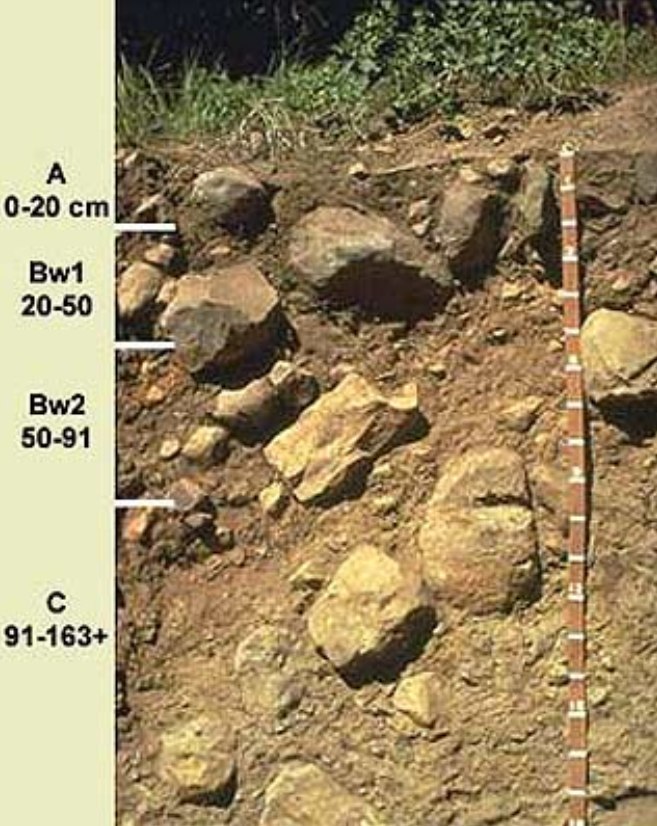
## Percent of Land Area in Inceptisols









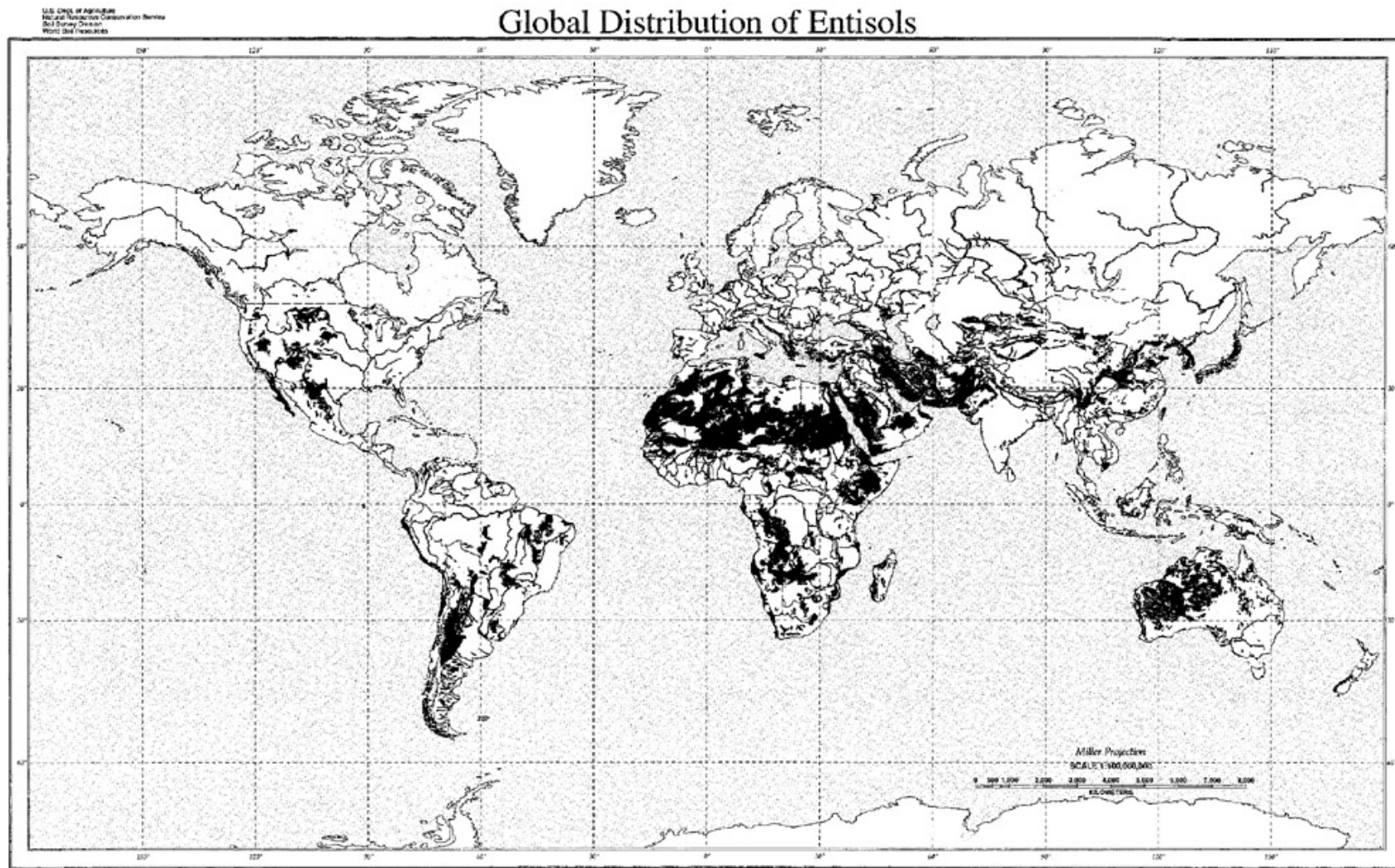




# ENTISOLS

**Do not shrink-swell**  
**Not well-developed, young soils**  
**Found in all climates, vegetation**

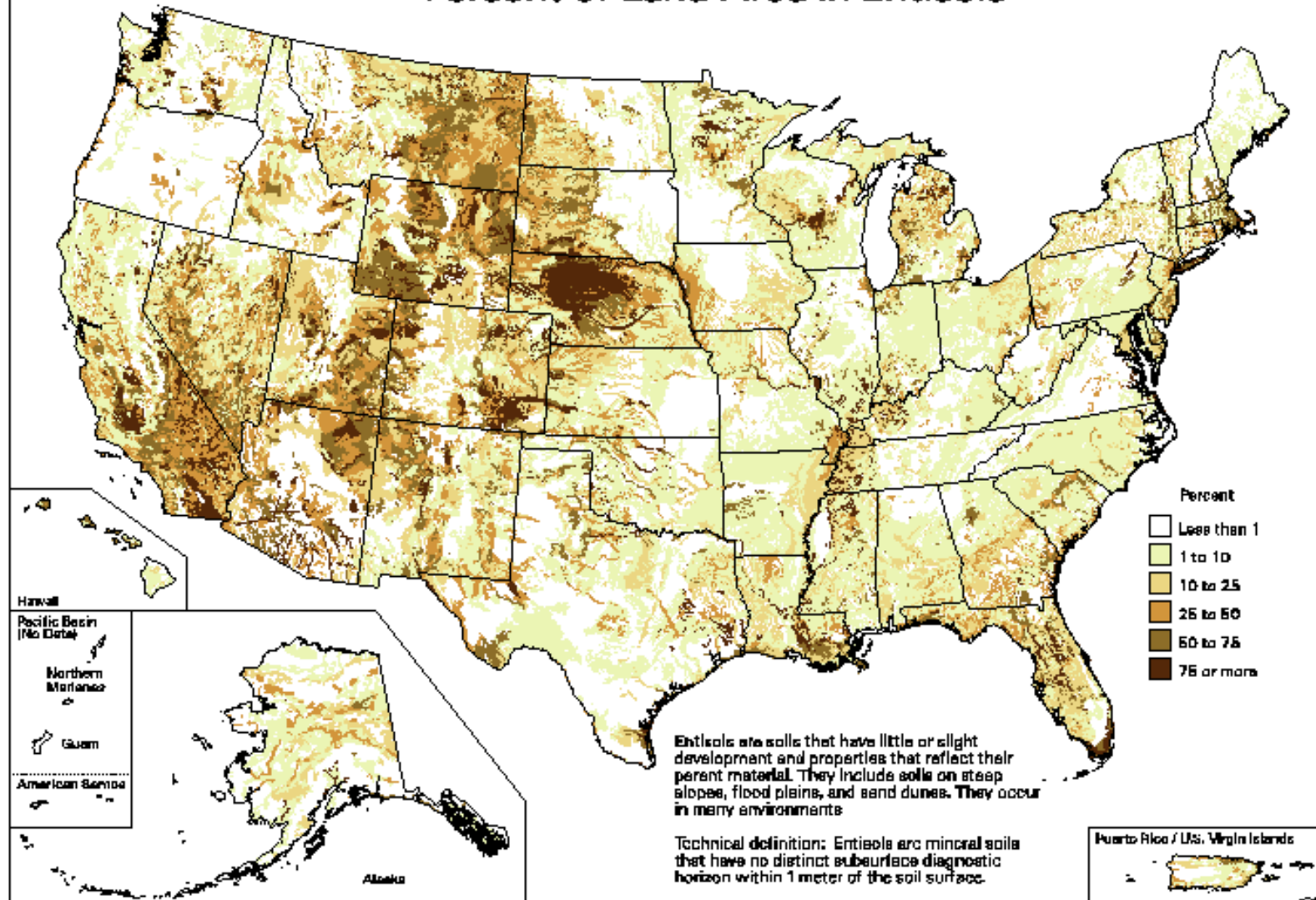
Global Distribution of Entisols





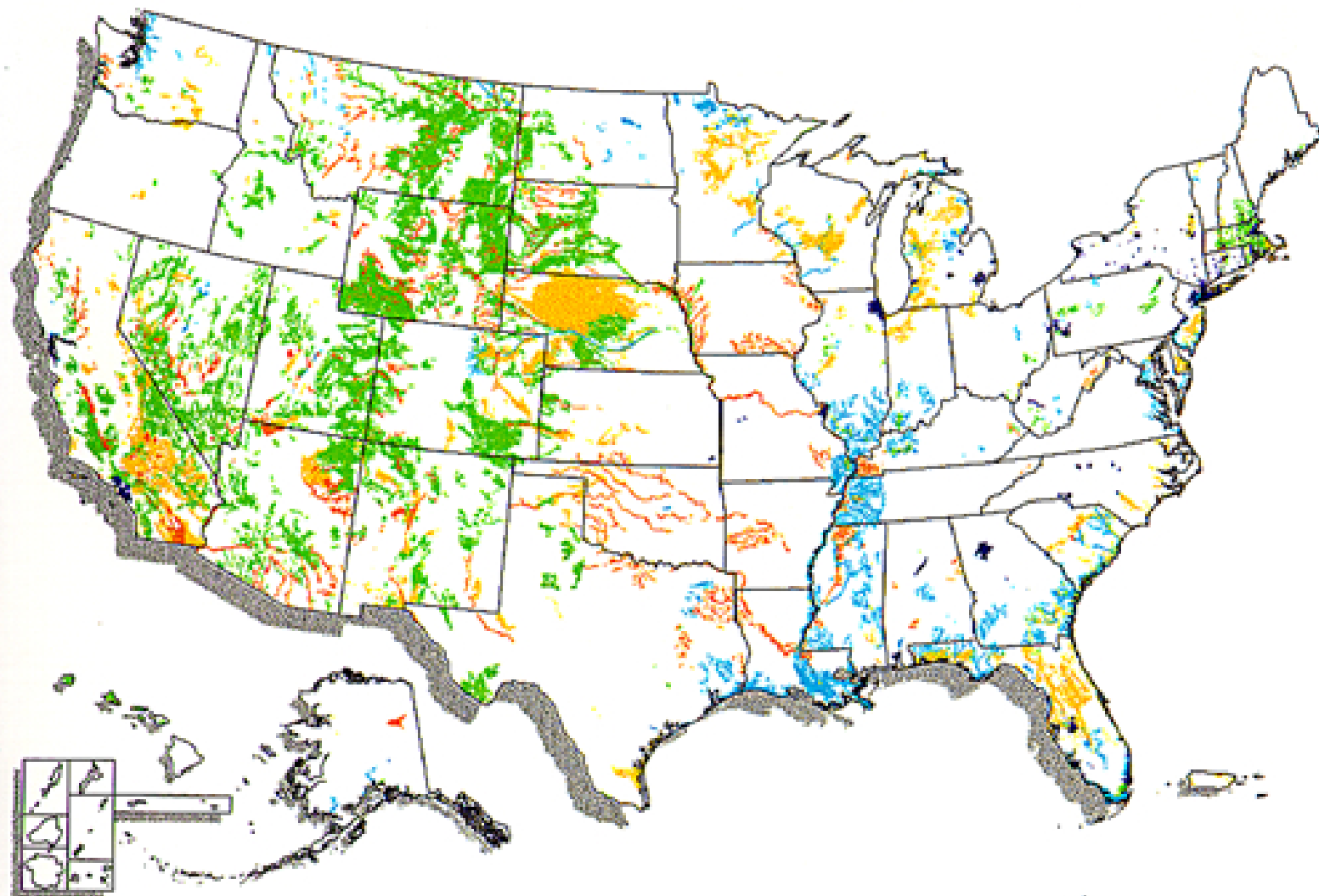


## Percent of Land Area in Entisols









### DOMINANT SUBORDERS

- |  |  |
|--|--|
|  Aquents  |  Orthents   |
|  Arenets  |  Psammments |
|  Fluvents |  |





**A**  
**0-10 cm**

**R**  
**10-86**



**Ap**  
**0-15 cm**

**C1**  
**15-90**

**C2**  
**90-150**





**TABLE 3.4** Approximate Land Areas of Different Soil Orders as Percentages of the Ice-Free Land in the World and in the United States

*The major land use and natural fertility status of these soils are also given.*

Soil order	Percent of ice-free land <sup>a</sup>		Major land uses	Natural fertility
	Global <sup>b</sup>	United States <sup>c</sup>		
Alfisols	9.65	14.51	Crops, forests, range	High
Andisols	0.70	1.74	Tundra, forests, crops	Moderate to high
Aridisols	12.10	8.78	Range, crops	Low to moderate
Entisols	16.29	12.16	Range, forest, crops, wetlands	Low to moderate
Gelisols	8.61	7.50	Tundra, bogs	Moderate
Histosols	1.18	1.28	Wetlands, crops	Moderate to high
Inceptisols	9.91	9.11	Forests, range, crops	Low to High
Mollisols	6.94	22.40	Crops, range, wetlands	High
Oxisols	7.56	<0.01	Forests, crops	Low
Spodosols	2.58	3.27	Forests, crops	Low
Ultisols	8.52	9.61	Forests, crops	Low to moderate
Vertisols	2.44	1.72	Crops, range, wetlands	High
Shifting sands or rock	14.07	7.81		

<sup>a</sup> Total global ice-free land area = 129,788,231 km<sup>2</sup>. Total U.S. land area estimated from STATSGO as 8,739,275 km<sup>2</sup>.

<sup>b</sup> Global areas calculated from FAO world database by USDA/NRCS Soil Survey Division, World Soils Resources, Washington, D.C.

<sup>c</sup> U.S. areas calculated from State Soil Geographic Data Base (STATSGO) taxonomically amended in 1997 by USDA/NRCS Soil Survey Division, National Soil Survey Center, Lincoln, Nebraska.