

A report on the surface horizons of US soils

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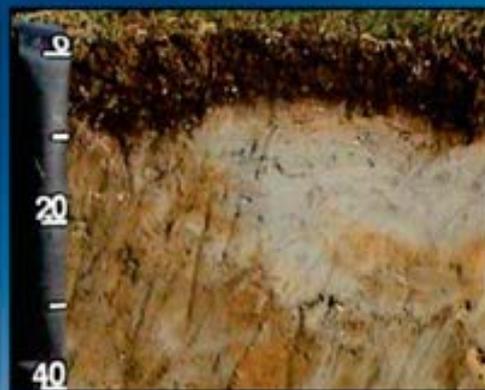
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**Contemporary Soil Classification Systems
(Including Soil Taxonomy)
Are Very Poor For Topsoil Assessments**



Clusters were created from the following properties

- **pH in water**
- **CaCO₃ (if ph < 7.5 =0)**
- **CEC**
- **Munsell colour**
- **Texture, clay, sand and silt**
- **Organic Carbon**

mean values for the clusters identified.

horizon	type	ph_h2o	caco3	cec_nh4	clay	sand	silt	oc	Hue	Value	Chroma
alpha	C	6.0	1.4	10.3	10.4	61.3	28.3	1.5	10.00YR	4	2
beta	C	5.7	1.4	11.0	11.2	64.6	24.2	1.4	7.50YR	4	4
gamma	C	5.6	0.7	13.9	11.3	63.9	24.8	2.4	10.00YR	3	2
delta	C	5.6	0.6	12.9	15.4	16.7	67.9	1.8	10.00YR	4	2
epsilon	C	5.7	0.9	42.3	15.8	39.1	45.1	9.9	7.50YR	3	2
zeta	C	5.8	1.0	15.7	18.6	25.5	55.9	2.2	7.50YR	3	4
eta	C	6.1	2.4	15.1	19.3	48.9	31.8	1.7	5.00YR	3	4
theta	C	7.8	3.1	18.8	20.4	39.1	40.5	1.8	10.00YR	4	2
iota	C	6.7	0.8	20.7	21.2	22.2	56.6	2.8	10.00YR	3	2
kappa	C	5.2	0.8	22.1	24.0	21.6	54.4	2.7	10.00YR	3	2
lambda	C	6.1	1.7	38.0	49.3	12.5	38.2	2.7	10.00YR	3	2
f	E	4.7	0.0	22.7	0.1	0.1	99.8	10.6	.00R	2	0
g	E	4.5	0.1	17.6	1.2	91.9	6.9	6.7	.00R	2	0
h	E	11.8	4.0	4.0	2.6	64.3	33.1	0.2	5.00YR	5	4
i	E	4.9	0.0	2.3	3.2	83.3	13.4	0.6	7.50YR	5	8
j	E	6.9	0.0	12.2	3.6	78.9	17.5	40.0	7.50YR	2	2
k	E	5.7	0.0	53.7	4.7	18.6	76.7	26.8	5.00YR	5	6
l	E	7.4	2.1	0.7	5.7	33.7	60.6	0.3	10.00GY	4	2
m	E	8.4	0.1	10.3	6.1	85.2	8.6	2.3	10.00YR	2	2
n	E	3.9	0.0	11.7	11.4	29.4	59.1	0.9	10.00R	7	2
o	E	5.1	0.0	74.4	14.3	65.7	20.0	1.0	10.00YR	4	2
p	E	6.0	103.0	79.2	19.6	30.8	49.6	22.8	7.50YR	2	2
q	E	7.2	57.0	5.7	22.0	18.6	59.4	1.0	5.00YR	4	6
r	E	10.2	5.0	61.2	27.9	45.0	27.1	0.1	10.00YR	4	4
s	E	5.9	0.0	169.3	29.2	23.9	46.9	44.6	5.00YR	2	2
t	E	6.9	3.0	1.3	51.2	42.2	6.5	0.6	10.00YR	8	4
u	E	4.5	0.0	7.9	74.2	14.6	11.2	2.5	10.00R	4	10
v	E	4.9	53.0	18.8	80.7	0.8	18.5	1.1	10.00YR	6	2
w	E	7.1	0.0	74.6	90.5	0.8	8.7	16.2	7.50YR	2	2