

BAMA

Setting: The Bama soils are mainly on level to gently sloping, high terraces paralleling major river systems and on broad marine terraces. They formed in loamy fluvial or marine sediments. Average annual precipitation ranges from 56 to 64 inches. Average annual air temperature ranges from 60° to 65° F.

Some chemical properties of the Bama soil^{1/}

Horizon	Depth, Inches	pH ^{2/}	Organic ^{3/} Carbon	C.E.C. ^{4/}	----- Extractable Cations -----					Base ^{5/} Sat.
					Ca	Mg	Na	K	Al	
			%	-----milliequivalents per 100 grams soil-----					%	
Ap	0-6	5.6	0.99	5.9	1.4	0.7	0.1	0.2	0.4	52
Bt1	6-14	6.5	0.23	8.2	2.4	1.4	0.1	0.3	0.0	62
Bt2	14-26	5.1	0.17	6.9	1.4	0.7	0.1	0.2	1.3	37
Bt3	26-37	4.7	0.12	6.8	0.3	0.5	0.1	0.1	2.6	17
Bt4	37-54	4.5	0.12	6.6	0.1	0.4	0.1	0.1	2.8	13
Bt5	54-75	4.5	0.12	6.7	0.1	0.3	0.1	0.1	3.1	11

^{1/} From unpublished data, Perry County, Alabama

^{2/} 1:1 water dilution

^{3/} Organic carbon determined by dry combustion. Organic matter can be derived by multiplying % O.C. by 1.724.

^{4/} CEC-7 (NH OAc, pH 7.0)

^{5/} Sum of cations

Some physical properties of the Bama soil

Horizon	Depth, Inches	Sand	Silt	Clay	Textural Class
		%	%	%	
Ap	0-6	63.9	23.6	12.5	Fine sandy loam
Bt1	6-14	43.4	22.7	33.9	Clay loam
Bt2	14-26	46.2	20.6	33.2	Sandy clay loam
Bt3	26-37	49.6	18.8	31.6	Sandy clay loam
Bt4	37-54	52.2	17.4	30.4	Sandy clay loam
Bt5	54-75	52.2	15.1	32.7	Sandy clay loam

Soil Family Classification:

Fine-loamy, siliceous, subactive, thermic Typic Paleudults

Bama soils are in the Ultisols soil Order. Ultisols are old, highly weathered soils developed under woodland vegetation. They are generally low in natural fertility. The term "fine-loamy" indicates that the subsoil has between 18-35 percent clay with more than 15 percent sand. The term "siliceous" means that the sand and silt-size particles in the upper part of the subsoil are more than 90 percent (by weight) silica minerals or other extremely durable minerals that are resistant to weathering. The term "subactive" implies that the clay fraction in the upper part of the subsoil is dominantly low activity clays. "Thermic" refers to an average annual soil temperature of between 15° and 22° C (59° - 72° F).