

Plot 49 Lumumba Avenue

P. O Box 23281, Kampala

Tel: +256392000374

MAKERERE

P. O .Box 7062 Kampala- Uganda

Cables: "MAKUNIKA"

E-mail:ap@caes.mak.ac.ug



UNIVERSITY

Fax: +256-414-531641

Phone: +256-414-533580

COLLEGE OF AGRICULTURAL AND ENVIROMENTAL SCIENCES

SCHOOL OF AGRICULTURAL SCIENCES

Department of Agricultural Production

**SOIL ANALYSIS RESULTS
SOIL SAMPLES FROM ANAKA**

Laboratory analysis

The air-dried soil samples were pounded, sieved through 2 mm to remove any debris then subjected to physical chemical analysis following standard methods described by Okalebo *et al.* (1993)'. Soil pH was measured in a soil water solution ratio of 1:2.5; Organic matter by potassium dichromate wet acid oxidation method; total N determined by Kjeldhal digestion; extractable P by Bray P1 method; exchangeable bases from an ammonium acetate extract by flame photometry (K⁺, Na⁺) and atomic absorption spectrophotometer (Ca²⁺, Mg²⁺); and particle size distribution (texture) using the Bouyoucos (hydrometer) method.

SAMPLES FROM ANAKA

Lab No.	Sample No.	pH	OM	N	P	K	Na	Ca	Mg	%Sand	%Clay	%Silt
			%age		ppm						Texture	
9	Sample 1	5.2	4.66	0.21	16.5	0.59	0.11	4.9	1.22	80.0	10.0	10.0
7	Sample 2	5.0	3.15	0.18	22.6	0.60	0.09	5.2	1.02	81.0	5.0	14.0
8	Sample 3	5.0	2.90	0.14	18.8	0.44	0.12	4.9	0.95	75.0	16.0	9.0
13	Sample 4	4.9	3.15	0.18	2.5	0.41	0.08	3.2	2.02	71.0	20.0	9.0
14	Sample 5	5.3	2.77	0.15	5.4	0.50	0.11	4.9	1.02	81.0	9.0	10.0
11	Sample 6	4.6	4.28	0.24	32.7	0.85	0.09	5.2	2.02	70.0	19.0	11.0
10	Sample 7	4.6	3.65	0.21	31.9	0.74	0.11	3.8	1.24	68.0	20.0	13.0
6	Sample 8	4.5	4.66	0.25	12.8	0.62	0.12	4.2	2.54	74.0	15.0	11.0
3	Sample 9	5.4	3.78	0.22	40.5	0.95	0.14	5.6	1.03	79.0	14.0	8.0
12	Sample 10	5.3	3.40	0.20	3.2	0.45	0.14	5.5	1.85	70.0	21.0	9.0
5	Sample 11	4.9	2.77	0.17	10.3	0.60	0.10	4.0	1.65	73.0	19.0	9.0
15	Sample 12	5.8	2.64	0.16	10.2	0.59	0.15	5.8	2.45	70.0	21.0	9.0
1	Sample13	5.7	3.90	0.20	42.5	0.75	0.08	5.5	1.08	60.0	28.0	13.0
4	Sample 14	5.6	4.03	0.25	3.6	0.42	0.13	5.4	1.42	60.0	28.0	13.0
2	Sample 15	5.1	3.53	0.20	8.2	0.52	0.14	4.8	1.36	61.0	29.0	10.0

REMARKS;

- Soil pH for sample 4, 6, 7, 8 and 11 is low and strongly acid and the rest of the samples are medium acid
- Organic matter (OM) is moderately good except for sample 5, 11 & 12 which are low.
- Nitrogen and phosphorous are low but potassium is moderately available hence there will need to supplement with artificial fertilizer NPK
- Soil drainage is good.

NB. Soil pH affects the availability of plant nutrients in the soil and uptake of nutrients by plants and availability of water. Therefore, plant crops that can thrive in available pH. However, few crops can thrive in 5.6 pH but many crops perform best in soil pH between 6.2-7.3 especially annual crops/short term crops.