


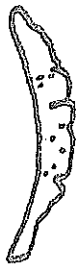

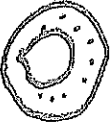


CROP YIELD POTENTIAL
 PRESENTER: MR. M. P. MADAKA
 DATE: 26-08-2021
 VENUE: LEBOTLOANE

Texture

Class	Abbreviation	% clay	Thumb and finger method	Sausage method
Sand	Sa	0 - 6 % clay	* Doesn't makes the hand dirty * Not sticky	No cohesion 
Loamy Sand	Lmsa	6 - 10 % clay	* Start to make the hands dirty * Slightly sticky	No sausage can be roll 
Sandy Loam	Salm	10 - 20 % clay	* Dirty hands * More sticky	Sausage can just be formed but cracks upon bending. 
Sandy clay loam	Saclm	20 - 35 % clay	* Dirty the hands * Form a mouse dropping * When bend brakes up.	Bends readily before cracking 
Sandy clay	Saci	< 35 % clay	* Mouse dropping forms very easy * When push form a shiny surface.	Form a circle, but crack 
Clay	Cl	< 55 % clay	* Mouse dropping forms difficult * Very hard	Form a circle 

YIELD FORMULAS FOR DIFFERENT CROPS IN THE HIGHVELD

Interaction between the different components of yield [Figure 1].

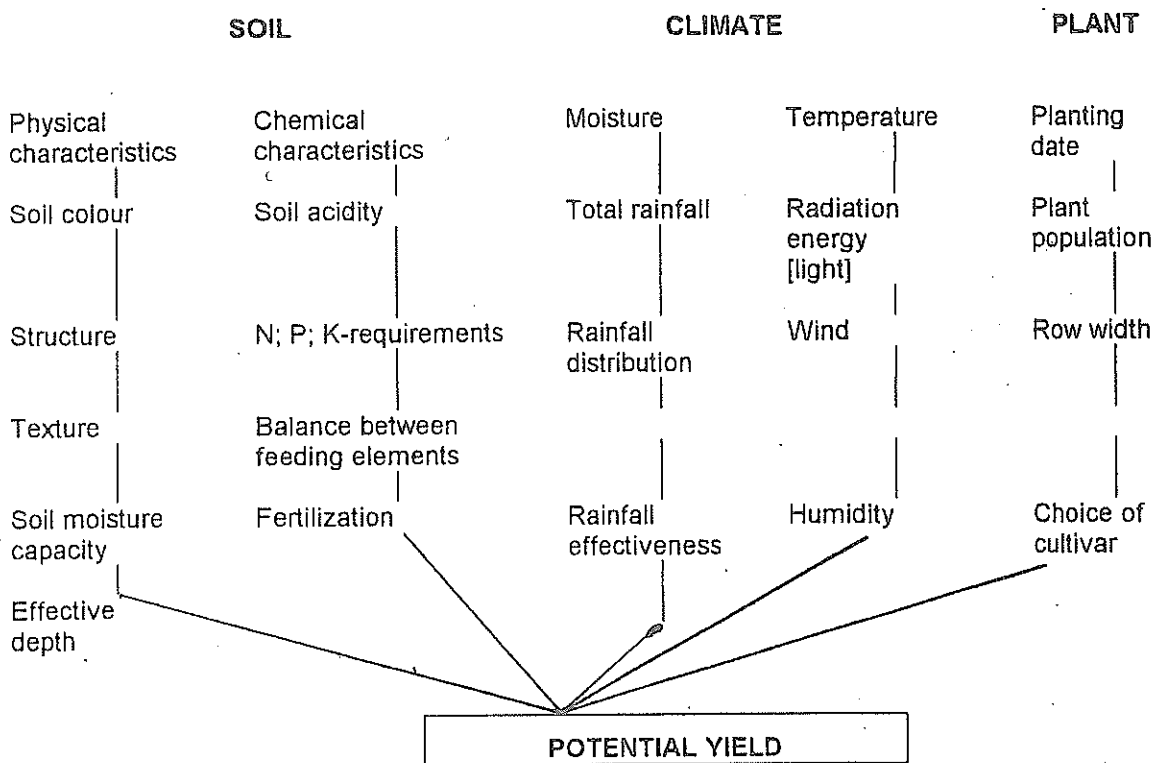


Figure 1 - Interaction between the components of yield

YIELD TABLES 2. MAIZE kg/ha EAST HIGHVELD REGION

Annual rain-fall	Texture of the horizon above effective depth	REALISABLE YIELDS									
		Soil depth in mm									
		400	500	600	700	800	900	1000	1100	1200	
525	Sand	801	1001	1201	1401	1602	1802	2002	2068	2068	2068
	LmSa/SaLm	1314	1642	1970	2298	2586	2586	2586	2586	2586	2586
	SaCILm	1281	1601	1922	2069	2069	2069	2069	2069	2069	2069
	SaCl	1401	1751	1810	1810	1810	1810	1810	1810	1810	1810
	Clay	1552	1552	1552	1552	1552	1552	1552	1552	1552	1552
550	Sand	838	1048	1258	1468	1678	1887	2096	2270	2270	2270
	LmSa/SaLm	1376	1720	2064	2408	2752	2838	2838	2838	2838	2838
	SaCILm	1342	1678	2013	2270	2270	2270	2270	2270	2270	2270
	SaCl	1468	1835	1987	1987	1987	1987	1987	1987	1987	1987
	Clay	1678	1703	1703	1703	1703	1703	1703	1703	1703	1703
575	Sand	876	1096	1315	1534	1754	1973	2192	2412	2412	2483
	LmSa/SaLm	1438	1798	2158	2158	2877	3102	3102	3102	3102	3102
	SaCILm	1403	1754	2105	2455	2481	2481	2481	2481	2481	2481
	SaCl	1534	1918	2171	2171	2171	2171	2171	2171	2171	2171
	Clay	1754	1861	1861	1861	1861	1861	1861	1861	1861	1861
600	Sand	914	1143	1372	1601	1830	2059	2287	2516	2516	2701
	LmSa/SaLm	1501	1876	2251	2626	3378	3800	3378	3378	3378	3378
	SaCILm	1464	1830	2196	2562	2702	2702	2702	2702	2702	2702
	SaCl	1601	2002	2364	2364	2364	2364	2364	2364	2364	2364
	Clay	1830	2026	2026	2026	2026	2026	2026	2026	2026	2026
625	Sand	953	1191	1430	1668	1906	2145	2383	2621	2621	2859
	LmSa/SaLm	1563	1954	2346	2736	3127	3518	3665	3665	3665	3665
	SaCILm	1525	1906	2288	2669	2932	2932	2932	2932	2932	2932
	SaCl	1668	2085	2502	2565	2565	2565	2565	2565	2565	2565
	Clay	1906	2199	2199	2199	2199	2199	2199	2199	2199	2199

YIELD TABLES 2. SUNFLOWER kg/ha HIGHVELD REGION

Annual rain-fall		Texture of the horizon above effective depth		REALISABLE YIELDS										
				Soil depth in mm										
				400	500	600	700	800	900	1000	1100	1200		
575	Sand LmSa/SaLm SaClIm SaCl Melanic + Vertic	601	752	902	962	1023	1150	1278	1321	1555	1555	1555	1321	
		929	1161	1184	1381	1555	1555	1555	1555	1555	1555	1555	1555	1555
		1019	1083	1299	1399	1399	1399	1399	1399	1399	1399	1399	1399	1399
		986	1233	1275	1275	1275	1275	1275	1275	1275	1275	1275	1275	1275
		686	686	686	686	686	686	686	686	686	686	686	686	686
600	Sand LmSa/SaLm SaClIm SaCl Melanic + Vertic	630	788	945	1103	1154	1205	1339	1450	1450	1450	1450	1450	
		973	1216	1241	1448	1654	1706	1706	1706	1706	1706	1706	1706	
		1067	1135	1361	1535	1535	1535	1535	1535	1535	1535	1535	1535	
		1034	1292	1399	1399	1399	1399	1399	1399	1399	1399	1399	1399	
		742	753	753	753	753	753	753	753	753	753	753	753	
625	Sand LmSa/SaLm SaClIm SaCl Melanic + Vertic	659	823	988	1153	1206	1260	1400	1539	1585	1585	1585	1585	
		1017	1271	1297	1513	1729	1865	1865	1865	1865	1865	1865	1865	
		1116	1186	1423	1660	1678	1678	1678	1678	1678	1678	1678	1678	
		1081	1351	1529	1529	1529	1529	1529	1529	1529	1529	1529	1529	
		775	823	823	823	823	823	823	823	823	823	823	823	
650	Sand LmSa/SaLm SaClIm SaCl Melanic + Vertic	687	859	1031	1203	1289	1375	1463	1607	1725	1725	1725	1725	
		1061	1327	1592	1592	1804	2030	2030	2030	2030	2030	2030	2030	
		1165	1238	1485	1732	1827	1827	1827	1827	1827	1827	1827	1827	
		1128	1409	1665	1665	1665	1665	1665	1665	1665	1665	1665	1665	
		809	896	896	896	896	896	896	896	896	896	896	896	
675	Sand LmSa/SaLm SaClIm SaCl Melanic + Vertic	716	895	1074	1253	1423	1472	1522	1674	1826	1826	1826	1826	
		1105	1382	1658	1658	1879	2114	2203	2203	2203	2203	2203	2203	
		1213	1517	1547	1805	1983	1983	1983	1983	1983	1983	1983	1983	
		1381	1468	1761	1807	1807	1807	1807	1807	1807	1807	1807	1807	
		843	972	972	972	972	972	972	972	972	972	972	972	

YIELD TABLES 2. **GRAINSORGHUM** **kg/ha** **HIGHVELD REGION**

Annual rain-fall	Texture of the horizon above effective depth	REALISABLE YIELDS									
		Soil depth in mm									
		400	500	600	700	800	900	1000	1100	1200	
525	Sand	1118	1398	1677	1957	2236	2516	2795	2889	2889	
	LmSa/SaLm	1725	2158	2590	3021	3399	3399	3399	3399	3399	
	SaClIm	1894	2367	2841	3059	3059	3059	3059	3059	3059	
	SaCl Clay	2158 2548	2696 2548	2787 2548	2787 2548	2787 2548	2787 2548	2787 2548	2787 2548	2787 2548	
550	Sand	1171	1464	1757	2050	2342	2635	2928	3170	3170	
	LmSa/SaLm	1808	2261	2713	3165	3617	3730	3730	3730	3730	
	SaClIm	1984	2481	2977	3357	3357	3357	3357	3357	3357	
	SaCl Clay	2260 2756	2825 2797	3059 2797	3059 2797	3059 2797	3059 2797	3059 2797	3059 2797	3059 2797	
575	Sand	1225	1530	1837	2143	2449	2755	3062	3367	3465	
	LmSa/SaLm	1890	2363	2836	3309	3782	4077	4077	4077	4077	
	SaClIm	2074	2594	3112	3630	3669	3669	3669	3669	3669	
	SaCl Clay	2362 2882	2954 3057	3343 3057	3343 3057	3343 3057	3343 3057	3343 3057	3343 3057	3343 3057	
600	Sand	1278	1598	1917	2236	2555	2875	3194	3514	3773	
	LmSa/SaLm	1973	2466	2959	3453	3946	4439	4439	4439	4439	
	SaClIm	2164	2706	3247	3788	3995	3995	3995	3995	3995	
	SaCl Clay	2466 3006	3082 3329	3640 3329	3640 3329	3640 3329	3640 3329	3640 3329	3640 3329	3640 3329	
625	Sand	1331	1664	1997	2330	2662	2994	3327	3660	3993	
	LmSa/SaLm	2055	2569	3082	3596	4110	4624	4816	4816	4816	
	SaClIm	2255	2819	3382	3946	4335	4335	4335	4335	4335	
	SaCl Clay	2568 2132	3210 3612	3852 3612	3950 3612	3950 3612	3950 3612	3950 3612	3950 3612	3950 3612	

YIELD TABLES 1. **DRYBEANS** **kg/ha** **HIGHVELD REGION**

Annual rain- fall	Texture of the horizon above effective depth	REALISABLE YIELDS												
		Soil depth in mm												
		400	500	600	700	800	900	1000	1100	1200				
450	Sand	407	508	609	711	711	711	711	711	711	711	711	711	711
	LmSa/SaLm	667	833	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
	SaCiLm	732	900	900	900	900	900	900	900	900	900	900	900	900
475	Sand	432	540	648	756	864	864	864	864	864	864	864	864	864
	LmSa/SaLm	708	886	1063	1129	1129	1129	1129	1129	1129	1129	1129	1129	1129
	SaCiLm	778	972	1016	1016	1016	1016	1016	1016	1016	1016	1016	1016	1016
500	Sand	457	572	686	800	914	914	914	914	914	914	914	914	914
	LmSa/SaLm	749	938	1125	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266
	SaCiLm	823	1029	1139	1139	1139	1139	1139	1139	1139	1139	1139	1139	1139
525	Sand	482	603	724	844	965	965	965	965	965	965	965	965	965
	LmSa/SaLm	792	990	1188	1386	1410	1410	1410	1410	1410	1410	1410	1410	1410
	SaCiLm	869	1086	1269	1269	1269	1269	1269	1269	1269	1269	1269	1269	1269
550	Sand	509	635	762	889	1016	1016	1016	1016	1016	1016	1016	1016	1016
	LmSa/SaLm	833	1042	1250	1459	1563	1563	1563	1563	1563	1563	1563	1563	1563
	SaCiLm	914	1143	1373	1407	1407	1407	1407	1407	1407	1407	1407	1407	1407