

Gravimetric soil samples

date	time	site	canister	tare	wet	dry	density (g/cm ³)	moist (%V)	EC-5 reading (%V)	Qualitative Observations
10/2	1150	beans	1	21.2	115.0	99.0	1.17	24.1	22.9	
10/2	1638	corn	2	21.2	135.7	113.3	1.39	33.7	25.2	
10/2	1648	grass	3	21.3	126.2	108.8	1.32	26.2	16.5	
10/7	1605	beans	2	21.3	113.2	89.2	1.34	36.1	38.3 (strange waveform)	
10/7	1525	corn	4	21.3	112.8	88.1	1.33	37.2	39.5	
10/7	1543	grass	3	21.4	109.2	82.4	1.24	40.3	29.8	
10/22	1358	beans	3	13.8	116.5	95.9	1.44	31.0	22.0	Dark, minimal organic, significant clay content
10/22	1451	corn	1	13.5	116.1	92.6	1.39	35.4	24.0	Milk chocolate brown, small pieces of organic material, slightly sandy with large grains, clumpy/significant clay
10/22	1428	grass	2	13.7	106.9	88.5	1.33	27.7	20.5	Balanced brown, thick woody Grass Roots running throughout, clumpy with significant clay

tare = c(21.2, 21.2, 21.3)

wet = c(115.0, 135.7, 126.2) - tare

dry = c(99.0, 113.3, 108.8) - tare

vol = c(3)*pi*(5.31/2)^2 # = 66.44 cm³

moist = 100*(wet-dry)/vol

rho = dry/vol