

Linear Regression Analysis

Response : **pH (CaCl₂)**

		Coefficient	StErr	p-value	SS
0	Constant	13.9955	6.1788	0.0361	464.2907
1	Wt (mg)	-0.1506	0.1167	0.2133	0.0014
2	%N	-14.648	9.9102	0.1567	0.0065
3	%C	1.093	0.7388	0.1563	0.0092
4	C:N Ratio	-0.6131	0.4029	0.1455	0.0355
5	Ca (meq/100g)	0.3012	0.1712	0.0955	0.141
6	Na (meq/100g)	-1.2364	4.3037	0.7772	0.0003
7	K (meq/100g)	-0.3518	0.3258	0.2944	0.0697
8	Mg (meq/100g)	-392	0.313	0.2265	0.0357
9	%Moisture Loss	0.0121	0.1244	0.9238	0
10	%LOI	-0.0397	0.0372	0.2992	0.0213
11	pH (H₂O)	-0.0355	0.3626	0.923	0.0002

df : 18

RSq : 0.4876 s : 0.1369

RSS : 0.3371

The regression of pH (CaCl₂) on all the other variables accounts for 48.8% of the variability in pH (CaCl₂), with a standard deviation from regression of 0.137.

Linear Regression Analysis

Response : **pH (CaCl₂)**

		Coefficient	StErr	p-value	SS
0	Constant	4.513	0.5038	0	464.2907
4	C:N Ratio	-0.0514	0.0385	0.1935	0.0195
5	Ca (meq/100g)	0.2535	0.1251	0.0532	0.1201
8	Mg (meq/100g)	-0.355	0.2316	0.1374	0.0429

df : 26

RSq : 0.2776 s : 0.1352

RSS : 0.4753

The regression of pH (CaCl₂) on the C:N ratio, Ca (meq/100g) and Mg (meq/100g) accounts for 27.8% of the variability in pH (CaCl₂), with a standard deviation from regression of 0.0135.