





Responses of Soil Organic Carbon from Organic Amendments

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Look at Soil Carbon Accumulation -- 22 years following first application

Biosolids Applied Mg/Ha	Org Carbon Mg/Ha	Soil Carbon		CA Factor		C:N		Production
		Mg/ha 1 Applicat	Mg/ha 2 Applicat	1 Applicat	2 Applicat	1 Applicat	2 Applicat	
0	0.00	23.62	23.62	0.00	0.00	8.70	8.70	
10	3.08	35.23	37.88	3.77X	2.32X	10.6	10.70	
21	6.46	23.10	30.53	-0.08X	0.53X	9.42	9.55	
30	9.23	28.86	33.84	0.57X	0.55X	10.44	9.96	
Biosolids C:N ~8.5								
Carbon Accumulation=== Ratio of Soil (2013) over OC applied (1991/2002)								
Biosolids Applications 1991, 2002								

Soil (5cm) Temperatures within Year by Rate by month

Mean Temperatures (Annual, Monthly as noted)

	Annual	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
-----°C-----												
1991 Biosolids Application												
Rates	9.02	11.48	2.63	-0.50	-1.41	-1.28	4.11	7.28	10.32	18.50	22.13	22.6
	8.76	11.36	2.81	-0.37	-1.40	-1.51	3.69	6.99	9.89	17.6*	21.68	22.4
	8.59	11.37	2.83	-0.37	-1.43	-1.54	3.47*	6.68*	9.52**	17.15***	21.35**	22.2
	8.64	11.44	2.97	-0.19**	-1.32	-1.54	3.49*	6.67*	9.53**	17.2***	21.39**	22.2
1991 and 2002 Biosolids Application												
	9.02	11.48	2.63	-0.50	-1.41	-1.18	4.11	7.28	10.32	18.50	22.13	22.6
	8.37**	11.16	2.83	-0.30	-1.40	-1.60	3.34**	6.59**	9.37**	16.68****	20.64****	21.6
	8.51*	11.53	3.26	0.13****	-1.17	-1.35	3.4**	6.57**	9.25***	16.47****	20.69****	21.7
	8.58	11.82	3.45**	0.22****	-1.13	-1.31	3.37**	6.5**	9.27***	16.55****	20.84****	21.6
2009 Biosolids Application												
	9.22	11.91	3.02	-0.21	-1.22	-1.02	4.15	7.35	10.30	18.57	22.38	22.9
	9.05	11.86	3.28	0.08**	-0.99	-1.01	3.99	7.27	10.06	18.00	21.43****	20.1
	8.69*	11.52	3.19	-0.03	-1.20	-1.37	3.57*	6.83*	9.19**	17.03****	21.14****	22.1
	8.74	11.47	3.05	-0.12	-1.20	-1.29	3.64	6.87	9.76	17.24***	21.30****	22.2

*** Significant at the 0.10 probability level.**

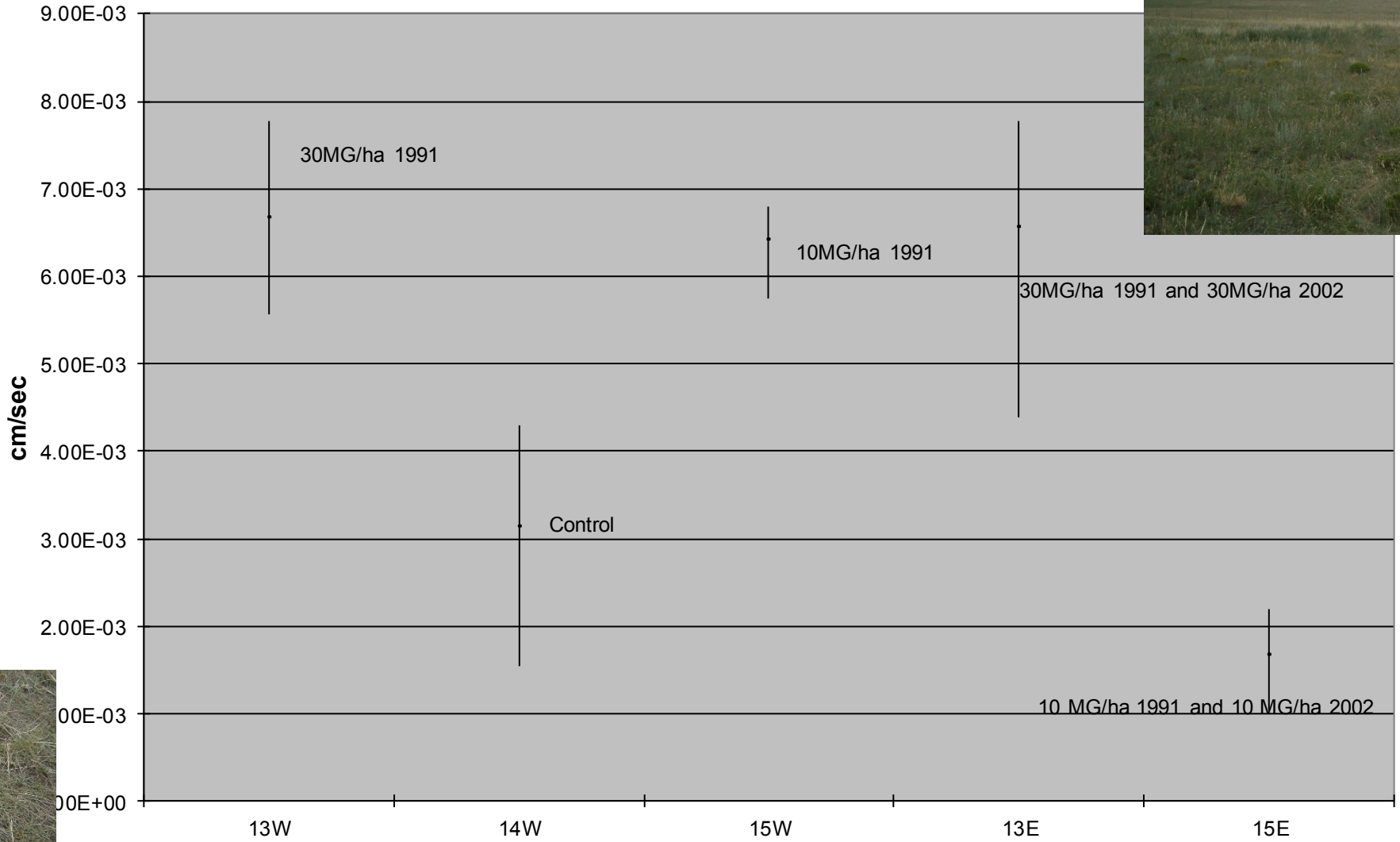
****Significant at the 0.05 probability level.**

*****Significant at the 0.01 probability level.**

******Significant at the 0.001 probability level.**

1 plots and 1991/2002 plots are in the same plot block while 2009 is in a near by but separate plot block design.

Hydraulic Conductivity



Collaborators

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Many many others