

Table 1. Flax performance and soil quality by variety, compost, and red clover interaction in the organic flax trial.

Parameters	CDC Bethune variety				Norlin variety				LSD _(0.05)
	Compost		No compost		Compost		No compost		
	No red clover	Red clover	No red clover	Red clover	No red clover	Red clover	No red clover	Red clover	
Population (plants/m ²)	437.75a ^z	373.16bc	383.02abc	414.42ab	337.28c	342.66c	354.33bc	340.87c	54.40
Plant height (cm)	69.42bcd	66.25d	68.42bcd	68.67bcd	71.33abc	73.83a	67.58cd	71.58ab	3.77
Broadleaf weeds/m ²	49.42a	30.42bc	19.75c	20.25c	36.75ab	26.17bc	27.67bc	18.67c	15.58
Grass weeds/m ²	1.83	1.83	0.92	0.58	1.58	2.17	1.92	2.50	NS
Flax dry weight (lb ac ⁻¹)	4529.58	4436.93	4645.40	4984.07	4359.46	4884.22	4069.52	4446.51	NS
Red clover dry weight (lb ac ⁻¹)	0.40b	6.39b	2.80b	6.79b	0.00b	12.38ab	0.00b	25.16a	105.08
Weeds dry weight (lb ac ⁻¹)	779.96ab	1418.54a	199.28b	450.88b	742.02b	670.93b	680.12b	634.19b	639.00
Yield ¹ (lb ac ⁻¹)	508.43	578.39	641.16	546.13	551.57	436.67	363.92	546.42	NS
NO ₃ -N (ppm)	7.63	6.25	7.00	7.75	6.25	8.13	7.25	6.88	NS
NH ₄ -N (ppm)	4.63ab	4.00bc	4.63ab	5.13a	4.13bc	4.63ab	3.63c	4.63ab	0.86
K (ppm)	292.50	288.88	255.50	299.31	268.63	265.00	267.75	287.25	NS
Ca (ppm)	3012.63	3005.63	2979.75	2992.38	3032.75	2935.50	3044.00	2939.25	NS
Mg (ppm)	358.13	353.25	333.38	334.50	355.75	334.00	342.13	334.50	NS
Na (ppm)	22.38	23.75	19.25	19.88	20.25	22.50	20.88	20.13	NS
Total N (%)	0.214	0.208	0.203	0.212	0.210	0.214	0.219	0.206	NS
Bray-P (ppm)	88.63ab	79.94abc	66.56c	97.75a	73.50bc	82.63ab	80.25abc	90.75ab	18.55

^zMeans in the same row followed by different letters are statistically different at $P \leq 0.05$.