HUMATERRA

Highlights

- **Same in all treatments**
  - **Yield**
  - **Protein content**
  - **Test weight**
  - **Emergence**
  - **Stands**
  - **Survivorship**
- **Height was greater treatments where dehydrated compost was added at the full rate of application**

Fertilizer rates for Humaterra dehydrated compost

Product	pounds acre $^{-1}$
Humaterra soil enhancer Crop1	55
Humaterra soil enhancer Crop1B	55
Control No ammendment	0
S15 100%	150
S15 70%	105
S15 0%	0
N top up (Urea) 100%	107
N top up (Urea) 70%	70
N top up (Urea) 0%	0

Site was broadcasted with Heat LQ and glyphosate at 0.059 and 1L per acre respectively. On June 2, AAC Brandon wheat was sown at a depth of 1.5 inches in furrow with S15 fertilizer (13-33-0-15 for N-P-K-S respectively) at a 100 pounds per acre. On June 14 Esteem was used as a second round of herbicide application with rates of 0.24, 0.084 and 0.281 L per acre corresponding to fluoxypyr, clopyralid, and MCPA.

There was no difference in weight and hence yield in all treatments tested. Similarly, there was no difference in protein content, test weight, emergence, stands and survivorship (ratio between stands and emergence) counts (Table 1). Height on the other hand was different based on the combined effect of fertilizer type and percentage of application (Table 1).

Table 1. P-values determined on responses obtained in AAC Brandon subjected to S15 at 0, 70 and 100% alone, and at the same rates but complemented with either applications of dehydrated compost or dehydrated compost with an extra booster

	Yield	Protein concentration	Test weight	Water infiltration	Penetrometer		Height	Emergence	Stand	Survivorship
N	36	36	36	36	108		306	72	72	72
Parameter					Pressure	Depth				
Fertilizer	0.5513	0.3996	0.3162	0.2402	0.5890	0.7839	0.0009	0.6497	0.8273	0.479
Percentage of application	0.2624	0.0480	0.3782	0.6226	0.3405	0.9250	0.0001	0.6917	0.3576	0.3684
Fertilizer Percentage of application*	0.6254	0.8988	0.7908	0.6519	0.6036	0.4542	0.0077	0.3615	0.2309	0.2634

Indeed, height was greater in treatments where dehydrated compost (HW) was added at the full rate of application compared to treatments where there was no application of S15 or partial (70%) application of the same treatment (Table 2). Height values were statistically the same between wheat stands subjected to full rates of S15 and dehydrated compost for wheat (HW) and for canola (HWB) at 70 and 0 percent respectively.

Table 2. Mean values determined on responses obtained in AAC Brandon subjected to S15 at 0, 70 and 100% alone, and at the same rates but complemented with either applications of dehydrated compost (HW) for dehydrated compost specialized with an extra booster (HWB)

	Yield lb acre-1	Protein Concentration %	Test Weight Lb bu-1	Water infiltration (minutes)	Penetrometer		Height cm	Emergence Plants acre-1	Stand Plants acre-1	Survivorship
N	36	36	36	36	108		360	72	72	72
Treatment					Pressure (psi)	Depth (Inches)				
Control 0	1095.36	13.67	84.61	5.39	652.75	22.24	21.26E	80509.38	56993.8	0.71
Control 70	1178.33	14.35	89.03	5.93	647.92	21.82	21.26E	75900.00	56603.1	0.77
Control 100	1827.31	15.17	93.961	5.38	605.08	22.30	24.32B	75390.63	61796.9	0.83
HW 0	1197.51	14.25	90.53	4.66	636.25	19.81	22.20DE	75312.50	52890.6	0.72
HW 70	1866.85	14.90	95.64	5.07	584.83	24.93	23.47BCD	87656.25	62150.0	0.74
HW 100	2053.75	15.37	89.47	5.86	604	24.91	26.15A	85546.88	60234.4	0.72
HWB 0	1531.42	14.02	78.62	4.79	626.75	25.09	23.57BCD	87031.25	58631.3	0.71
HWB 70	1193.67	14.62	89.22	4.07	629.67	22.72	22.31CDE	69881.25	56015.6	0.81
HWB 100	1546.72	15.77	83.87	5.11	600.92	21.93	23.76BC	88984.38	56837.5	0.66
Standard error	436.2	0.4	5.7	0.6	26.8	10.4	0.5	8206.3	3490.6	5 x10-3