

OSTARA AND TAURUS

Highlights

- Canola
 - Same across treatments
 - Emergence
 - Stand count
 - Test weight
 - Yield
- Oat
 - Same across treatments
 - Emergence
 - Stand count
 - Test weight
 - Yield
- Barley
 - Same across treatments
 - Emergence
 - Stand count
 - Test weight
 - Yield
- Pea
 - Same across treatments
 - Stand count
 - Test weight
 - Yield
 - Emergence
 - Control plots had 13% more individuals than the other treatments

Table A. Treatment applications of Crystal Green formulations in-furrow to canola, field pea, barley, and oat. Values for NPK were as follows: 15/ 85B is 10-48-0-2Mg, 25/75S is 10-46-3Mg, 27/73B is 27% CG 73% MAP, 17/83B is 17% CG and 83% MAP, 38/62S is 12-37-0-5Mg.

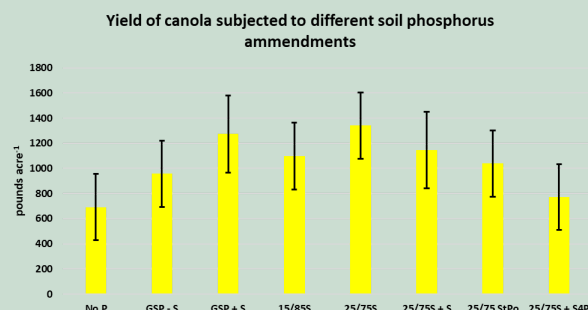
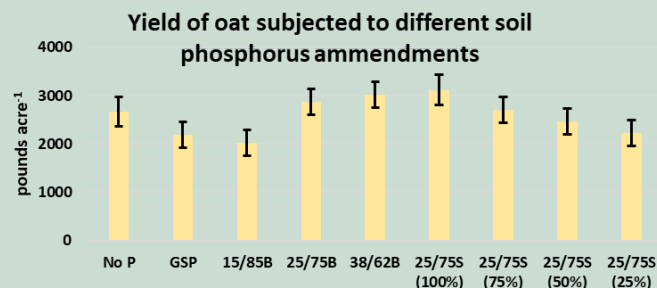
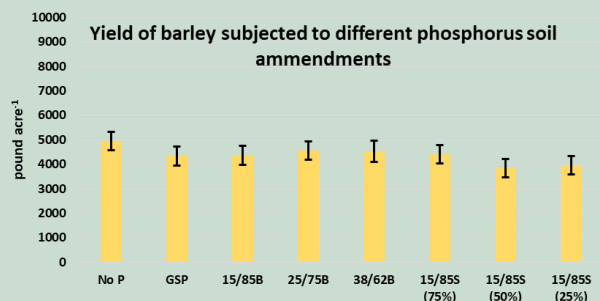
Treatment		Application method	S (%)	P ₂ O ₅ (%)	Product amount lb acre ⁻¹					
-----Canola-----					MAP	15/85S	25/75S	25/75 StPo	Sul4+	T90
1	No P	None	100							38.89
2	GSP -S	Broadcast		100	67.31					
3	GSP + S	Broadcast	100	100	67.31					38.89
4	15/85B	Band		100		72.92				
5	25/75S	Band		100			76.09			
6	25/75S + S4P	Band	100	100			76.09	125.00	71.43	
7	25/75S + S	Band	100	100			76.09	0.00		38.89
8	25/75 + StPo	Band	100	100				125.00		
-----Field pea-----					MAP			CG		
1	No P	None		0%						
2	GSP	Band		100%		115.38				
3	17/83B	Band		100%		95.77			36.43	
4	27/73B	Band		100%		84.23			57.86	
5	38/62B	Band		100%		71.54			81.43	
6	27/73B	Band		75%						
7	27/73B	Band		50%						
8	27/73B	Band		25%						
-----Barley-----					MAP			CG		
1	No P	None		0%						
2	GSP	Band		100%		86.54				
3	15/85B	Band		100%		73.56			24.11	
4	25/75B	Band		100%		64.90			40.18	
5	38/62B	Band		100%		53.65			61.07	
6	15/85B	Band		75%						
7	15/85B	Band		50%						
8	15/85B	Band		25%						
-----Oat-----					MAP		CG		25/75S	
1	No P	None		0%						
2	GSP	Band		100%	86.54					
3	15/85B	Band		100%	73.56		24.11			
4	25/75B	Band		100%	64.90		40.18			
5	38/62B	Band		100%	53.65		61.07			
6	25/75S	Band		100%					97.83	
7	25/75S	Band		75%					73.37	
8	25/75S	Band		50%					48.91	
9	25/75S	Band		25%					24.46	

Crystal Green formulations were applied to improve the yield of canola, barley, field pea and oat. Results indicated that there was no difference in yield among treatments in either crop. Weather conditions may have had an influence in the lack of response from treatment applications in furrow. It is possible that long periods of drought accompanied by high temperatures may have caused stress in plant stands.

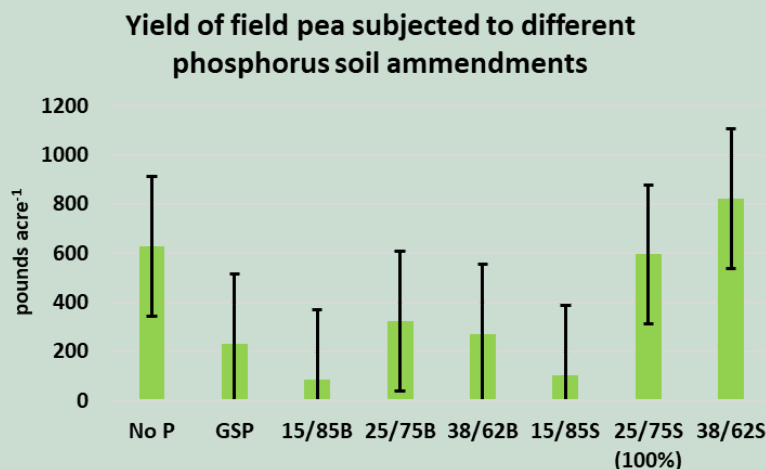
Crystal Green is a fertilizer of continuous release that acts by releasing nitrogen, phosphorus and magnesium upon expel of root exudated citrates. Since it is activated by components released from roots, there is less run-off and leaching. Moreover, Crystal Green reduces the binding of phosphorus to the soil and encourages its plant uptake. The extent of its benefits in different crops is yet unknown. Thus, Crystal Green was tested in oilseed, pulse, and cereal crops in order to observe which formulation improves yield in each of these crop types.

OSTARA AND TAURUS

Barley, Canola and Oat



Pea



Emergence in barley ($P=0.8545$), canola ($P=0.4595$) and oat ($P=0.1304$) was the same across all treatments (Figures 1, 2 and 3). Stand count also seemed unaffected in barley ($P=0.3641$), canola ($P=0.9559$) and oat ($P=0.9025$). Likewise, yield ($P=0.8750$, 0.6808 and 0.0634 for barley, canola, and oat respectively) and test weight ($P=0.3378$, 0.3499 and 0.4044 for barley, canola, and oat respectively) were not impacted by the phosphorus addition in any of the treatment forms tested.

Treatments in pea stands had no effect on yield ($P=0.5138$) or test weight ($P=0.1194$). Emergence on the other hand differed across treatments ($P=0.0313$). Indeed, number of emergent stands in all treatments subjected to phosphorus inoculants were 13% less compared to the control.