

Title: Evaluation of Green & Grow Seed Treatment Rates on Canola – 2016

Objective: To evaluate different rates of Green & Grow Agriplier seed treatment on canola development and yield.

Results:

“Agriplier is derived from naturally occurring soil bacteria that produce exudates with beneficial plant growth and enhancement properties such as increased yields, early vigor, and more uniform stands”. Agriplier treatments were applied to HyClass 930 and seeded as a randomized complete block with four replications. Seeding rate was calculated using the following equation:

$$(10 \text{ plants/sqft} \times 9.6 \times \text{thousand kernel weight}) / 80\% \text{ survival rate.}$$

Treatments were evaluated for plant stand, flowering date, height, lodging, shattering, yield, oil content and test weight. No significant differences were observed for any of the response variables (table 2).

Table 1. Materials and Methods.

Seeding Date:	5/3/2016	Harvest Date:	9/14/2016
	Julian Date: 134		Julian Date: 258
Seeding Rate:	10 plnt/sqft 6" rows	Soil Type:	Creston SiL
Previous Crop:	Barley	Soil Test:	116-22-250-46
Tillage:	Conventional	Fertilizer:	125-30-30-20
Herbicide:	PPI: Trust 2 pt/A	Insecticide:	Warrior II 1.92f/oz/A
Herbicide:	Stinger 1/3pt/A	Fungicide:	Endura 6 oz/A

Table 2. Agronomic data from the statewide Green and Grow seed Treatment Trial, Kalispell, MT - 2016.

Treatment	PLNT sqft	FLWR Julian	HT in	LOD %	SHTTR %	YLD <sup>1</sup> bu/A	OIL <sup>1</sup> %	TWT <sup>1</sup> lb/bu
G & G 200	13.3	178	46.7	33.8	1.3	34.6	52.2	48.7
G & G 201	12.5	179	46.1	35.0	1.3	35.0	52.2	48.9
G & G 202	13.9	178	46.5	37.5	1.3	38.0	52.3	48.7
Mean	13.2	178	46.4	35.4	1.3	35.9	52.3	48.8
CV	21.1	0.5	2.8	13.5	0	8.3	0.7	0.8
LSD	ns	ns	ns	ns	ns	ns	ns	ns
Pr>F	0.7796	0.2160	0.7974	0.5615	1.0	0.2914	0.9137	0.8104

PLNT: plant, FLWR: 50% flowering, HT: height, LOD: lodging, SHTR: shatter, YLD: yield, TWT: test weight.

<sup>1</sup> adjusted to 8% moisture.