

Plant Growth Regulators and Pea Productivity

Table 1. Summary of harvest results from the early and late planted pea trials at the Micro Farm site

Treatment	Plant populations (plants/m ²)	Fresh yields (t FW/ha)	Yield components			TR score
			Pods per plant (#/plant)	Peas per pod (#/pod)	Mean individual pea mass (g/pea)	
----- Early planting -----						
Non-treated	67	9.5 b	6	6 ab	0.41 abc	120 b
1x ProGibb® At 10 cm height	81	9.1 b	4	5 b	0.45 ab	138 a
1x Regalis® 10 d pre-flowering	91	11.7 a	5	7 a	0.46 a	134 a
1x Regalis At flowering	110	9.6 b	5	5 b	0.38 c	113 b
1x Exilis® 10 d pre-flowering	88	9.3 b	5	5 b	0.40 bc	113 b
1x ReTain® At flowering	79	9.2 b	5	6 b	0.36 c	120 b
<i>P value</i>	<i>No (P=0.28)</i>	<i>Yes (P=0.01)</i>	<i>No (P=0.59)</i>	<i>Yes (P=0.04)</i>	<i>Yes (P=0.01)</i>	<i>Yes (P<0.01)</i>
<i>Trial average</i>	<i>86</i>	<i>9.7</i>	<i>5</i>	<i>6</i>	<i>0.41</i>	<i>123</i>
----- Late planting -----						
Non-treated	94 abc	7.6 cd	6	5	0.27 bc	96 abc
1x Progibb At 10cm height	76 a	3.6 a	6	4	0.21 a	84 a
2x Progibb At 10cm height	78 ab	3.4 a	4	5	0.23 ab	102 bc
1x Sitofex® At 10 cm height	102 abc	7.2 bcd	5	5	0.25 abc	97 bc
1x Regalis At 10cm height	119 c	7.2 bcd	4	6	0.33 d	107 c
2x Regalis At 10cm height	104 bc	8.1 d	6	6	0.29 cd	99 bc
1x Regalis At flowering	88 ab	6.4 bc	5	6	0.28 bcd	95 abc
2x Regalis At flowering	86 ab	5.7 b	6	5	0.23 ab	94 ab
<i>P value</i>	<i>Weak (P=0.06)</i>	<i>Yes (P<0.01)</i>	<i>No (P=0.16)</i>	<i>No (P=0.18)</i>	<i>Yes (P<0.01)</i>	<i>Weak (P=0.06)</i>
<i>Trial average</i>	<i>92</i>	<i>6.4</i>	<i>5</i>	<i>5</i>	<i>0.26</i>	<i>92</i>

ProGibb® = Gibberellin; Regalis® = anti-gibberellin; Exilis® = cytokinin; Sitofex® = cytokinin; Retain = anti-ethylene.

Application rates (as product, not active ingredient) were: Progibb 1x = 20 g/ha, 2x = 40 g/ha; Regalis 1x = 150 g/ha, 2x=300 g/ha; Exilis 1x = 1.2 L/ha, 2x = 2.4 L/ha;

Sitofex 1x = 100 ml/ha, 2x = 200 ml/ha; Retain 1x = 20 g/ha, 2x = 40 g/ha.

All PGRs were applied in 200 L of water/ha. A non-ionic surfactant was added at 50 ml/200 L of water.

Means in the same column, followed by the same letter, are not significantly different ($\alpha = 0.05$).

Acknowledgements:

The trial was sown by Patrick Nicolle (Nicolle Contracting) using seed supplied by McCain Foods. PGR products were supplied by BASF Crop Protection and Agronica. Tim Robinson (Peracto Ltd) applied the various PGR treatments in both demonstrations. Additional assistance was provided by Issy Sorensen, Nathan Arnold, Matthew Norris, Tony White and Colleen Reid (Plant & Food Research) during the harvests.

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