

## 2006 Canola and Field Pea Response to Avail

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Experiments were conducted at the Carrington Research Extension Center in 2006 to evaluate canola and field pea response to 11-52-0 starter fertilizer treated with Avail. Avail inhibits phosphate fertilizer from becoming fixed in the soil, increasing phosphorus availability to plants. To evaluate the effectiveness of Avail, 11-52-0 and 11-52-0 treated with Avail were applied with the seed at a rate of 22.5 lb phosphate /acre.

**Canola:** Studies were established using conventional tillage practices at two sites. A fall soil test indicated 11 ppm (Olsen) phosphate at Q and 4 ppm at Landon E. 'Invigor 4870' canola was sown April 25 in 14-inch rows at 7 live seeds per square foot. The canola was swathed July 24 and harvested August 3.

Results are averaged across site since there was no statistically significant site by treatment interaction for any of the parameters measured. The use of a starter fertilizer increased the percentage of ground covered by the plants when visually evaluated June 14 and increased the bloom duration when compared to the untreated check (Table 1). 11-52-0 + Avail improved seed yield compared to 11-52-0.

**Table 1. Canola Response to Avail averaged across site.**

Treatment	Ground Cover %	Days to Bloom	Bloom Duration Days	Days to PM	Plant Lodge 0-9	Plant Height inch	1000 kwt gram	Test Weight lb/bu	Oil Content % @ 8.5% M	Seed Yield lb/acre
Untreated Check	61	54	17	88	1	51.3	2.6	53.1	40.4	1336
11-52-0	72	51	20	88	1	51.3	2.5	53.1	42.1	1411
11-52-0 + Avail	75	50	21	88	1	51.5	2.5	53.2	40.5	1611
LSD (P=0.05)	6	1	1	NS	NS	NS	NS	0.1	NS	40

**Field Pea:** Inoculated 'Admiral' field pea was sown at Landon E on April 25 in 7-inch rows at 300,000 pure live seeds/acre. An additional treatment was also included to evaluate the inoculant QuickRoots. The trial was harvested July 19.

Quickroots and 11-52-0 increased seed yield compared to the untreated check (Table 2). 11-52-0 + Avail did not improved seed yield compared to 11-52-0.

**Table 2. Field Pea Response to Avail at Landon E.**

Treatment	1000 KWT gram	Test Weight lb/bu	Seed Protein %	Seed Yield bu/acre
Untreated Check	213	64.9	21.6	9.3
11-52-0	213	65.3	19.8	16.8
11-52-0 + Avail	206	64.9	20.1	21.1
QuickRoots	200	65.2	19.7	19.3
LSD (P=0.05)	NS	NS	1.0	6.0