

North Central Research Extension Center-Minot
Pea Aphid Control and Fungicide Enhancement on Field Pea
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Crop and Variety: Field Pea ‘Majoret’

Insecticides: Baythroid and Movento

Fungicides: Proline, Trilex 2000 (seed treatment for all plots)

Planting: May 18, rate of 150 lbs/acre, 7.5 inch 1560 John Deere no-till drill

Herbicides: Prowl (2 pt/acre) and Spartan (3 oz/acre) applied May 19

Plot size: 7 ft. by 30 ft.

Design: 4 replicates, randomized complete block

Application: July 10 (early pod), hand boom with flat fan nozzles, 10 gallons/acre

Aphid sampling: 15 inch diameter sweep net, 5 sweeps per plot (10 aphids/sweep = threshold)

Harvest: August 17

Results: At 2 days after insecticides were applied, Baythroid, was the most effective insecticide at reducing pea aphid populations (Table 1). At 9 days after insecticides were applied, however, the number of aphids in the Baythroid plots was not significantly different than the untreated check. Movento, on the other hand, did not significantly reduce pea aphids at 2 days after application, but significantly reduced aphids by more than 90% relative to the untreated check 9 days after it was applied. Insecticide treatments significantly improved yield as compared with the untreated check. Approximately half of this yield gain appears to have come from disease control with the fungicide Proline.

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Table 1.

Treatment	Rate/acre	Pea aphids/5 sweeps			Yield bu/acre
		12-Jul	19-Jul	1-Aug	
Baythroid XL 1EC ^a	2.4 fl oz	75.0c	68.5a	1.8a	55.3a
Movento 240 SC ^a	3.0 fl oz	151.3abc	19.5b	1.8a	52.8a
Movento 240 SC ^a	5.0 fl oz	202.5ab	15.3b	4.3a	54.4a
Proline Check	5.7 fl oz	101.5bc	198.0a	0.3a	47.7ab
Untreated Check		217.0a	226.0a	2.0a	40.8b

Means within the same column followed by the same letter are not significantly different, Tukey's HSD (P = 0.05). Data was transformed $\log(x+1)$ prior to analysis when treatment variances were not homogeneous, untransformed means shown.

^aThe fungicide, Proline 480 SC, was tank mixed with the insecticide.