

PROGRESS REPORT ON EFFECT OF DISULFOTON
ON YIELD OF RUSSET BURBANK POTATO

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From 1963 through 1966, experiments were conducted with disulfoton (Di-Syston) to determine if this systemic insecticide would delay the symptoms of *Verticillium* wilt on Russet Burbank potato and increase the yield. The experiment was located in a field severely infested with *Verticillium albo-atrum* Reinke and Berthold and the rootknot nematode, *Meloidogyne hapla* Chitwood. An insect control program was in operation each year to exclude any possibility that foliar insects would affect the yields.

In 1963, 1964 and 1965, ammonium nitrate was broadcast before plowing at 300, 360 and 285 pounds per acre, respectively. Disulfoton was banded each year at 3 pounds per acre active ingredient at planting April 8. A significant increase in yield was obtained each year (Table 1).

In 1966, 300 pounds per acre ammonium nitrate were banded at planting with disulfoton at 3 pounds per acre active ingredient. The 42 hundredweight increase in yield was not significant (Table 1). When 600 pounds per acre ammonium nitrate were banded at planting with disulfoton at 3 pounds per acre active ingredient, the check yielded 6 hundredweight more than the potatoes treated with disulfoton (Table 1).

Table 1. Effect of 10 per cent granular disulfoton (Di-Syston) on potato yield. Three pounds per acre active ingredient banded at planting.

Year	Pounds ammonium nitrate per acre	Method applying ammonium nitrate	Yield in cwt. per acre	
			Disulfoton treated	Check
1963	300	Broadcast	536	392
1964	360	Broadcast	777	554
1965	285	Broadcast	336	247
1966	300	Banded	411	369
1966	600	Banded	426	432