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Evaluate efficacy of various Syngenta fungicides in commercial type programs for control of *Phytophthora capsici* in squash

Application schedule of various spray programs

Spray schedule	Trt. 1	Trt. 2	Trt. 3	Trt. 4	Trt. 5	Trt. 6
At planting	-	Ridomil Gold @ 2 pt/A	Ridomil Gold @ 2 pt/A	Ridomil Gold @ 2 pt/A	Ridomil Gold @ 2 pt/A	Ridomil Gold @ 2 pt/A
3 rd true leaf	-	Orondis Opti @ 2.5 pt/A	Orondis ultra @ 8 fl oz/A, NIS @ 0.125%	Omega 500F @ 1.5 pt/A	Omega 500F @ 1.5 pt/A	Presidio @ 4 fl oz/A
1 wk after	-	Orondis Opti @ 2.5 pt/A	Orondis ultra @ 8 fl oz/A, NIS @ 0.125%	Ridomil_Gold copper @ 2 lb/A	Ridomil_Gold copper @ 2 lb/A	Revus @ 8 fl oz/A
2 wk after	-	Orondis Opti @ 2.5 pt/A	Orondis ultra @ 8 fl oz/A, NIS @ 0.125%	Presidio @ 4 fl oz /A + Ranman @ 2.75 fl oz/A	Presidio @ 4 fl oz /A + Ranman @ 2.75 fl oz/A	Zing @ 36 fl oz/A
3 wk after	-	Orondis Opti @ 2.5 pt/A	Orondis ultra @ 8 fl oz/A, NIS @ 0.125%	Orondis ultra @ 8 fl oz /A + NIS 2 @ 0.125%	Orondis Opti @ 2.5pt/A	Ridomil Gold @ 0.4 pt/A
4 wk after	-	Orondis Opti @ 2.5 pt/A	Orondis ultra @ 8 fl oz/A, NIS @ 0.125%	Revus @ 8 fl oz /A + Badge SC @ 1 pt/A	Revus @ 8 fl oz /A + Badge SC @ 1 pt/A	Presidio @ 4 fl oz/A
5 wk after	-	Orondis Opti @ 2.5 pt/A	Orondis ultra @ 8 fl oz/A, NIS @ 0.125%	Ranman @ 2.75 fl oz/A	Ranman @ 2.75 fl oz/A	Revus @ 8 fl oz/A
6 wk after	-	Orondis Opti @ 2.5 pt/A	Orondis ultra @ 8 fl oz/A, NIS @ 0.125%	Orondis ultra @ 8 fl oz/A + NIS @ 0.125%	Orondis Opti @ 2.5 pt/A	Zing @ 36 fl oz/A
7 wk after	-	Orondis Opti @ 2.5 pt/A	Orondis ultra @ 8 fl oz/A, NIS @ 0.125%	Zampro @ 14 fl oz /A	Zampro @ 14 fl oz /A	Ridomil Gold @ 0.4 pt/A

RESULTS

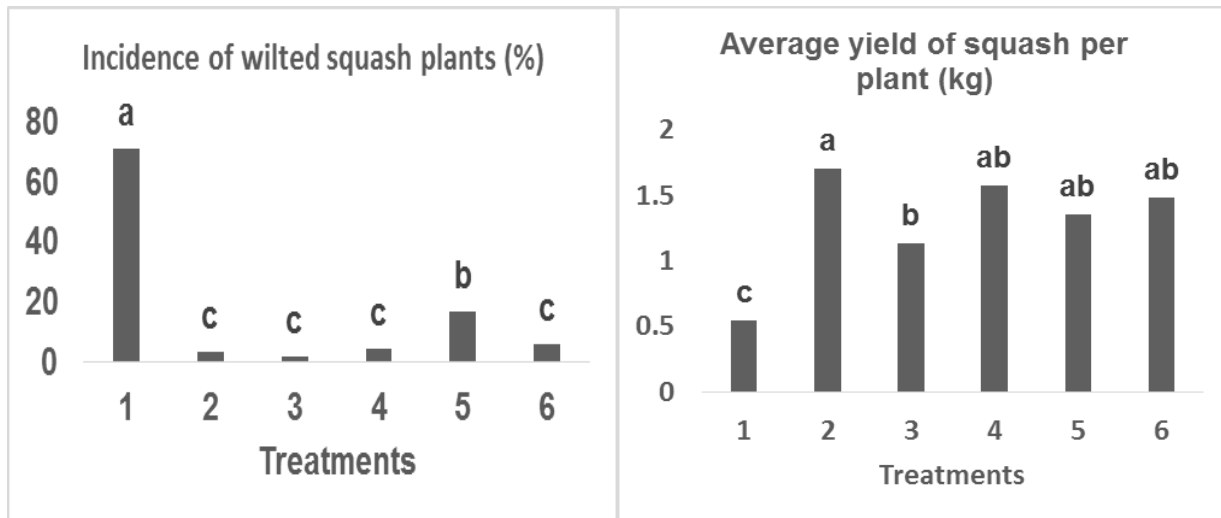
Disease incidence

Incidence of wilted squash plants due to crown rot, caused by *Phytophthora capsici*, was 71.0%, 3.2%, 1.5%, 4.5%, 16.7%, and 6.0% in treatments 1 to 6, respectively. Disease incidence in treatment 1 was the highest among all treatments, followed by treatment 5 which was significantly higher than other four treatments. There was no significant difference among treatments 2, 3, 4, and 6 for disease incidence.

Fruit yield

Squash fruit were harvested for 9 times, from 12/31/2017 to 1/22/2018. Average fruit yield per plant in treatment 1 was 0.564 kg, which was significantly lower than other five treatments. The fruit yield was 1.137 kg per plant in treatment 3, which was significantly lower than other four treatments. The fruit yield were 1.352, 1.482, 1.577, and 1.707 kg per plant for treatments 5, 6, 4, and 2, respectively, which were not significantly different.

In conclusion, all treatments significantly reduced the incidence of crown rot in squash, and protected the plants from significant yield reduction.



Values with same letter were not significantly different at $P = 0.05$.

Note:

Trt. 1 = Inoculated untreated control; Trt. 6 = local standard

Planting date: 11/17/2017; cultivar: Enterprise.

3rd true leaf / foliar spray initiation: 12/1/2017.

Plant inoculation: 12/18/2017, 1 g of 3-week-old infested millet seeds/ plant.