MUSKMELON (C*ucumis melo* 'Golden Beauty')
Powdery mildew; *Podosphaera xanthii*

T. A. Turini and D. A. Rodriguez
University of California Coop. Ext.
1920 S. Maple Ave, Fresno, CA 93702

Comparison of fungicides for control of powdery mildew on muskmelon, 2012.

The study was conducted at the University of California West Side Research and Extension Center. On 17 Jun, seeds were sown on a Panoche clay loam. The field was furrow irrigated throughout the season. Each plot consisted of one 80-in. bed 50 ft long. Treated beds were separated by one untreated planted row and by 5 ft between plots within a row. The experimental design was a randomized complete block with four replications. Materials were applied in 40 gallons of water per acre with a CO_2 pressurized backpack sprayer at 40 psi. When the first application was made, powdery mildew was present at very low levels, less than 1 lesion per 100 leaves sampled. Application dates were 24 Aug, 6 and 14 Sep. A spray boom with four Teejet 8004 EVS double flat fan nozzles spaced 19-in. apart was used for all applications. On 10, 17 and 24 Sep, powdery mildew severity was rated on upper and lower leaf surfaces on each of ten leaves per plot using a scale of 0 to 10 based on percentage of leaf surface covered with powdery mildew colonies. Leaves rated 0 had no visible powdery mildew; leaves rated 10 were covered. Arcsine transformed data was subjected to Analysis of Variance and means were separated by Student Neuman-Kuel's Multiple Range Test. De-transformed means are presented.

The disease severity was high by the end of the season and most fungicides provided a level of control, but there were differences few statistically significant differences among treatments. No phytotoxic symptoms were observed.

Treatment[z]	Severity rating (0-10)[y]											
	10 Sep[x]				17 Sep				24 Sep			
	upper		lower		upper		lower		upper		lower	
Inspire Super 20 fl oz (1)/ Quintec 6 fl oz (2)/ Luna Sensation 4 oz (3)	0.11	c	0.05	g	0.20	b	0.30	b	0.07	b	0.11	b
Fontelis SC 2 pt	0.07	c	0.1	efg	0.02	b	0.14	b	0.01	b	0.13	b
BAS 700 04F 4.5 fl oz NO SURFACTANT	0.26	bc	0.22	cde	0.31	b	0.20	b	0.20	b	0.21	b
Fontelis SC 1 pt	0.09	c	0.23	cde	0.07	b	0.24	b	0.12	b	0.29	b
Priaxor - 8 fl oz NO SURFACTANT	0.35	bc	0.19	def	0.35	b	0.33	b	0.28	b	0.34	b
Inspire Super 20 fl oz (1,3)/ Quintec 6 fl oz (2)	0.06	c	0.07	fg	0.20	b	0.28	b	0.25	b	0.39	b
Quintec at 6 fl oz	0.37	bc	0.18	def	0.40	b	0.28	b	0.23	b	0.42	b
Fontelis SC 1 pt (1,3)/ Quintec 4 fl oz (2)	0.35	bc	0.37	cd	0.27	b	0.34	b	0.01	b	0.47	b
Rally at 5 oz/ (1,3) Quintec 6 fl oz (2)	1.16	ab	0.58	b	1.33	b	0.86	ab	0.85	b	0.62	b
Rally at 5 oz	0.45	bc	0.22	cde	0.59	b	0.50	b	0.33	b	0.73	b
Lexx-A-Phos 6% (1)/ 5% (2,3) NO SURFACTANT	0.51	bc	0.39	c	0.53	b	0.27	b	0.87	b	0.99	b
Taegro 5.2 oz	1.81	a	0.86	a	2.65	a	1.80	a	3.17	a	2.26	a
Untreated Control	1.74	a	0.86	a	2.55	a	1.09	ab	4.72	a	2.58	a

[z] Rates are expressed in units formulated product per acre; except for Lexx-A-Phos, which is expressed as rate per volume. Unless otherwise specified all materials were applied with Activator (non-ionic surfactant) 0.125%.

[y] Rating averages over 10 leaves per plot rated on a scale of 0 to 10 based on percentage of leaf surface covered with powdery mildew.

[x] Materials listed once were applied on 24 Aug, 6 and 14 Sep. Materials separated by a "/" were alternated. Treatments followed by a (1) were applied on 24 Aug.

[w] Means within a column followed by the same letter do not differ according to Student Neuman-Kuel's Multiple Range Test performed on arcsine transformed data. De-transformed means are presented.