

The Chambers of Death

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Recently, the TDDL became the premier testing facility for the evaluation of Pythium blight control products in the midwest with the help of a little technology that I was able to smuggle out of Penn State before I left. I like to call them the Chambers of Death because they are two Gothic arch greenhouses with very low-tech humidity and temperature controls designed for the sole purpose of Pythium development.

During the trial, temperatures were maintained around 100°F during the day and 70°F during the night. With humidity levels approaching 100% and artificial inoculation, these conditions result in the ultimate recipe for Phythium blight development.

This year's trial featured several standard products and some that I am not at liberty to discuss at this time. However, the trail was a success. We were even lucky enough not to have to inoculate the first greenhouse due to a natural outbreak this year.

I have to admit that I received quite a few questions why I left the plastic on the greenhouses for only a week.

But as many of you know, that is all it takes. This year I had three application timings. The first was a preventative application applied to both greenhouses prior to closing up the ends of the first house. The next was done on the day of inoculation. In the first house this was a day after the preventative application, and for the second house about ten days later. The final applications were applied curative, or when one mycelium development was noticed.

The trail is conducted in such a way that length of efficacy data is obtained. The length of the trial is determined by how quickly one of the untreated checks or treatments take to receive almost 100% damage. From this we were able to determine

7-day efficacy and 14-day efficacy. Below are some of the treatments tested this year along with their rates, application timing, and 7-and 14-day efficacy ratings. With data obtained from this trial I hope that you will remain Phythium free in the years to come. Also, with the data that I am unable to print at this time I feel that we will have other chemicals to add to our arsenal in the future battle this dreaded disease.

Treatment Chipco Signature	Form. 80 WDG	Rate 4.0	Rate Unit	' Timing Prev.	² 7 day Rating % Damage		² 14 day Rating % Damage	
					Chipco Signature	80 WDG	4.0	oz/1000 ft2
Subdue Maxx	1.0 EC	1.0	fl oz/1000 ft2	Prev.	15.0	bc	28.3	b-e
Subdue Maxx	1.0 EC	1.0	fl oz/1000 ft2	Day of Inc.	16.7	bc	3.3	h
Terrazole	35 WP	4.25	oz/1000 ft2	Day of Inc.	41.7	ab	20.0	d-g
Terrazole	35 WP	4.25	oz/1000 ft2	Cur.	30.0	bc	21.7	c-f
CGA 279202	50 WDG	0.3	oz/1000 ft2	Prev.	41.7	ab	88.3	а
CGA 279202	50 WDG	0.15	oz/1000 ft2	Prev.	20.0	bc	16.7	d-h
Subdue Maxx	1.0 EC	0.5	fl oz/1000 ft2					
Heritage	50 WDG	0.4	oz/1000 ft2	Prev.	50	С	41.7	b
Heritage	50 WDG	0.4	oz/1000 ft2	Cur.	8.3	с	6.7	fgh
Terraneb	65 WP	4.0	oz/1000 ft2	Prev. GH 1 Cur. GH 2	63.3	а	21.7	c-f
Check					65.0	а	78.3	а

¹Prev. = Preventative treatments, Day of inc = day of inoculations treatments, and Cur = curative applications.

2% damage means followed by the same letter do not significantly differ (LSD 0.05)



Chamber 1



Chamber 2