Tomato (Solanum lycopersicum) cv. 'H 8004' Western flower thrips (Frankliniella occidentalis) Tomato spotted wilt virus T. Turini, and D. A. Rodriguez
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Evaluation of insecticide/plant activator programs on TSWV occurrence, yield and quality in processing tomato, 2010.

A trial was conducted at UC West Side Research and Extension Center to assess the impact of insecticide programs and Actigard plant activator on TSWV incidence and severity yield, and quality. The processing tomato variety H8004 was transplanted on 30 Apr and irrigated with buried drip (depth of 10 in). The experimental design was a 3 replication split plot with 3 main plot treatments, which were drip injected; and 4 subplot treatments, which were either applied to the transplants as a drench or as foliar sprays after transplant. Specific treatments appear in the table below.

At this site, TSWV incidence was very high in 2010 and there were no differences among treatments. While this is consistent with findings in which there was no observed affect where Platinum/Venom was injected, it is the first season of four in which there was no reduction in TSWV symptoms where foliar applications were made. It is possible that this is due to the relatively small trial area and the overall higher TSWV pressure in the area in 2010 as compared to the previous three years that the trial was likely inundated with thrips carrying the virus acquired outside of the field. Therefore, any spread that occurred, or did not occur, within the 28 bed by 300 ft trial may have masked by the large amount of inoculum from an external source.

Influence of insecticide programs on processing tomato cv. H8004 yield quality and yield at University of California West Side Research and Extension Center, Fresno County, 2010.

Treatment	Yield	Fruit quality (% by weight)						PTAB			
Injections into drip irrigation system buried to 10 in	(tons/	ıs/									
	acre)	red	grn	rot	Sun	ΒE	TSWV	color	solids	pН	
					burn	rot					
Platinum75SG 3.67 oz (25 Jun), Venom 6.0 oz (30 Jul)	34.8	59.2	14.2	2.0	1.2	2.1	21.3	24.5	5.550	4.454	
Actigard (25 May, 8,15,22, 30 Jun, 9, 21 Jul)											
Platinum75SG 3.67 oz (25 Jun), Venom 6.0 oz (30 Jul)	31.8	59.1	15.8	1.8	1.1	5.0	17.7	24.1	5.358	4.407	
Untreated	33.1	57.3	18.9	3.2	0.6	2.4	22.5	24.3	5.383	4.403	
Drip injection, probability	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	

Foliar ap	plications				Yield		Fruit	quality (% by w	eight)			PTAB	
Trans.	9 Jun	23 Jun	7 Jul	16 Jul	(tons/									
drench					acre)							color	solids	pН
29 Apr														
HGW8	Radiant	Dimeth			35.1	61.4	16.4	1.3	1.4	2.8	16.7	23.9	5.400	4.446
6-435	6.0 fl	oate												
	oz	4EL												
		1pt.												
	Radiant	Dimeth			33.6	57.9	15.1	2.1	0.5	3.3	21.1	24.3	5.422	4.432
	6.0 fl	oate												
	oz	4EL												
		1pt.												
	Radiant	Dimeth	Radiant	Dimethoat	34.7	60.3	15.6	3.8	0.9	2.6	16.9	24.3	5.400	4.376
	6.0 fl	oate	6.0 fl	e 4EL 1pt.										
	oz	4EL	oz	•										
		1pt.												
Untreated	d	•			29.6	54.6	11.5	2.3	1.0	3.3	27.4	24.6	5.500	4.432
Foliar ap	plication, pr	robability			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Influence of insecticide programs on processing tomato cv. H8004 yield quality and yield at University of California West Side Research and Extension Center, Fresno County, 2010.

Treatment						Thrips/25	Plants with TSWV symptoms (%)			
Injections into drip irrigation system buried to 10 in					16 J	un	23 .	Jun	23 Jun	15 Jul
					nymph	adult	nymph	adult		
Platinum75SG	2.8	35.5	2.6	32.1	38.1	43.3				
Actigard (25 N	May, 8,15,22,	30 Jun, 9, 21 Jul)								
Platinum75SG 3.67 oz (25 Jun), Venom 6.0 oz (30 Jul)					2.4	28.1	2.3	20.8	29.4	36.9
Untreated					1.7	24.6	1.3	21.8	36.9	44.5
Drip injection,	probability				NS	NS	NS	NS	NS	NS
Foliar applications						Thrips/25	Plants with TSWV			
									sympto	ms (%)
Trans.	9 Jun	23 Jun	7 Jul	16 Jul	23 Jun		15 Jul		23 Jun	15 Jul
drench 29					nymph	adult	nymph	adult		
Apr										
HGW86-435	Radiant	Dimeth4EL			2.8	34.2 a	2.0	29.3	31.5	39.4
	6.0 fl oz	1pt.								
	Radiant	Dimeth4EL			2.1	24.1 b	2.0	24.6	36.6	38.2
	6.0 fl oz	1pt.								
	Radiant	Dimeth4EL	Radiant	Dimethoate	1.2	27.1 b	1.6	22.1	31.4	39.5
	6.0 fl oz	1pt.	6.0 fl	4EL 1pt.						
			OZ							
Untreated					3.1	32.1 a	2.8	23.6	39.4	49.1
Foliar applicat	ion, probabili	itv	·	·	NS	0.0184	NS	NS	NS	NS