

## DOMINUS, PALADIN, TRIFECTA, AND PIC-CLOR FOR STRAWBERRY PRODUCTION

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The purpose of this study was to compare several application rates of Pic-Clor 60 EC (60/40, chloropicrin/1,3-dichloropropene), Pic-Clor 80 EC (80/20, chloropicrin/1,3-dichloropropene; a.k.a Tri-Form 80 EC), two formulations of allyl isothiocyanate plus chloropicrin (Dominus), dimethyl disulfide plus chloropicrin (Paladin; 79/21 DMDS/Pic) or dimethyl disulfide plus 1,3-dichloropropene plus chloropicrin (Trifecta ). All fumigants were applied under totally impermeable film (TIF) through two drip tapes in 1.5 inches of irrigation water. The treatments were applied in October, 2014 and strawberry (Albion variety) was transplanted in November, 2013 (at least 4 weeks after fumigation). Each bed treatment was at least 150 feet long. Each treatment was replicated 4 times. Yield data were taken weekly throughout the production season and were graded into marketable and nonmarketable yields.

Table 1 shows marketable and total yields from the various treatments. Yields from the control plots had much lower yields than Pic-Clor 60 EC at 370 lbs/ac (the industry standard). Allyl isothiocyanate plus chloropicrin (Dominus/Pic 67-33 at 370 lbs/acre), Pic-Clor 80 EC at 370 lbs/acre, and allyl isothiocyanate plus PicClor-60 treatments (Dominus-PicClor) at rates greater than 300 lbs/ac had similar yields compared to Pic-Clor 60 EC at 370 lbs/ac. Paladin 79/21 EC at 408 lb/ac, allyl isothiocyanate (Dominus-96%) alone at 359 lb/ac, and allyl isothiocyanate plus PicClor-60 at 207 lb/ac produced the least strawberry yields.

Table 1. Strawberry marketable and total yields in Salinas trials, 2014-2015.

Treatment	Strawberry Yield (g/treatment)			
	Marketable		Total	
	Average	StDev	Average	StDev
Control (not fumigated)	22,093	1,146	26,255	1,316
Trifecta @408 lb/a	28,439	1,329	33,352	1,779
Paladin 79/21 EC @408 lb/a	26,512	4,080	30,531	4,757
Pic-Clor80 EC @370 lb/a	29,677	1,672	34,125	1,501
Pic-Clor60 Atlox @ 250 lb/a	28,638	1,559	33,593	1,760
Pic-Clor60 EC2 @ 250 lb/a	28,085	1,471	33,034	2,375
Dominus-Pic-Clor 60 EC (50-50) @207 lb/a	27,629	1,604	31,984	2,058
Dominus-Pic-Clor 60 EC (50-50) @300 lb/a	29,002	2,282	33,282	2,719
Dominus-Pic-Clor 60 EC (50-50) @403 lb/a	29,579	1,991	34,562	1,876
Dominus-Pic (67-33) EC @ 370 lb/a	29,138	1,517	34,010	1,569
Dominus-96% (IRF) EC @ 359 lb/a	27,138	2,084	31,851	1,112
Pic-Clor60 Atlox @ 370 lb/a	29,810	1,671	34,177	1,964
Pic-Clor60 EC2 @ 370 lb/a	30,317	2,022	34,449	1,796

