

OPTIMUM DOMINUS APPLICATION RATE FOR STRAWBERRY PRODUCTION

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The purpose of this study was to evaluate optimum amount of irrigation water for drip fumigation of a new emulsifiable concentrate formulation of Dominus for strawberry production in California.

A new formulation of Dominus EC was applied by drip fumigation at three rates (200, 270, and 340 lbs/ac) applied in medium (1") amount of irrigation water, and at one rate (270 lbs/ac) applied in low (0.6") and high (1.4") amounts of water. The new emulsifiable concentrate treatments were compared to untreated control, PicClor-60 EC, and drip and shank treatments of the old Dominus formulation. All treatments were applied under totally impermeable film (TIF). The treatments were applied in October, 2015 and strawberry (Monterey variety) was transplanted in November, 2015 (at least 4 weeks after fumigation). Each bed treatment was at least 150 feet long and was replicated 4 times. Yield data were taken weekly throughout the production season and were graded into marketable and nonmarketable yields.

Table 1 presents marketable and total yields collected between May 4 and August 18, 2016. This study found that strawberry yields increased with increasing the amount of water used to apply Dominus. However, maximum yields with Dominus were achieved with the highest application rate (340 lbs/ac), which was not significantly different than PicClor-60 (350 lbs/ac).

Table 1. Strawberry marketable and total yields in Salinas trials, 2015-2016.

Treatment	Strawberry Yield (g/treatment)			
	Marketable		Total	
	Average	StDev	Average	StDev
Control (not fumigated)	33100	3364	39378	3454
DOMINUS EC- Drip at 270 lbs/ac in Low water	39361	5132	43843	5548
DOMINUS EC- Drip at 270 lbs/ac in Med water	37765	3086	42542	4953
DOMINUS EC- Drip at 270 lbs/ac in High water	43222	3130	49651	4220
DOMINUS EC- Drip at 340 lbs/ac in Med water	44514	5463	50353	5719
DOMINUS EC- Drip at 200 lbs/ac in Med water	36045	3166	42205	3778
DOMINUS- Drip at 270 lbs/ac in Med water	41174	4166	46122	2710
DOMINUS- Shank at 270 lbs/ac	35259	1555	37720	1986
DOMINUS- Shank Neat plus Azeo at 270 lbs/ac	35523	3495	39789	3851
Drip PicClor-60 EC at 350 lbs/ac	47840	3335	53372	2229