Strawberry Production with Shank and Drip Applied Paladin, Midas, and Pic-Clor 60

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The purpose of this study was to determine the minimum application rate of Pic60, Paladin and Midas under retentive and standard polyethylene films. Each treatment was replicated 4 times. Yield data were taken weekly throughout the production season and were graded into marketable and nonmarketable yields. Minimum and maximum yields per treatment per plant recorded. Weed data were collected three times and combined.

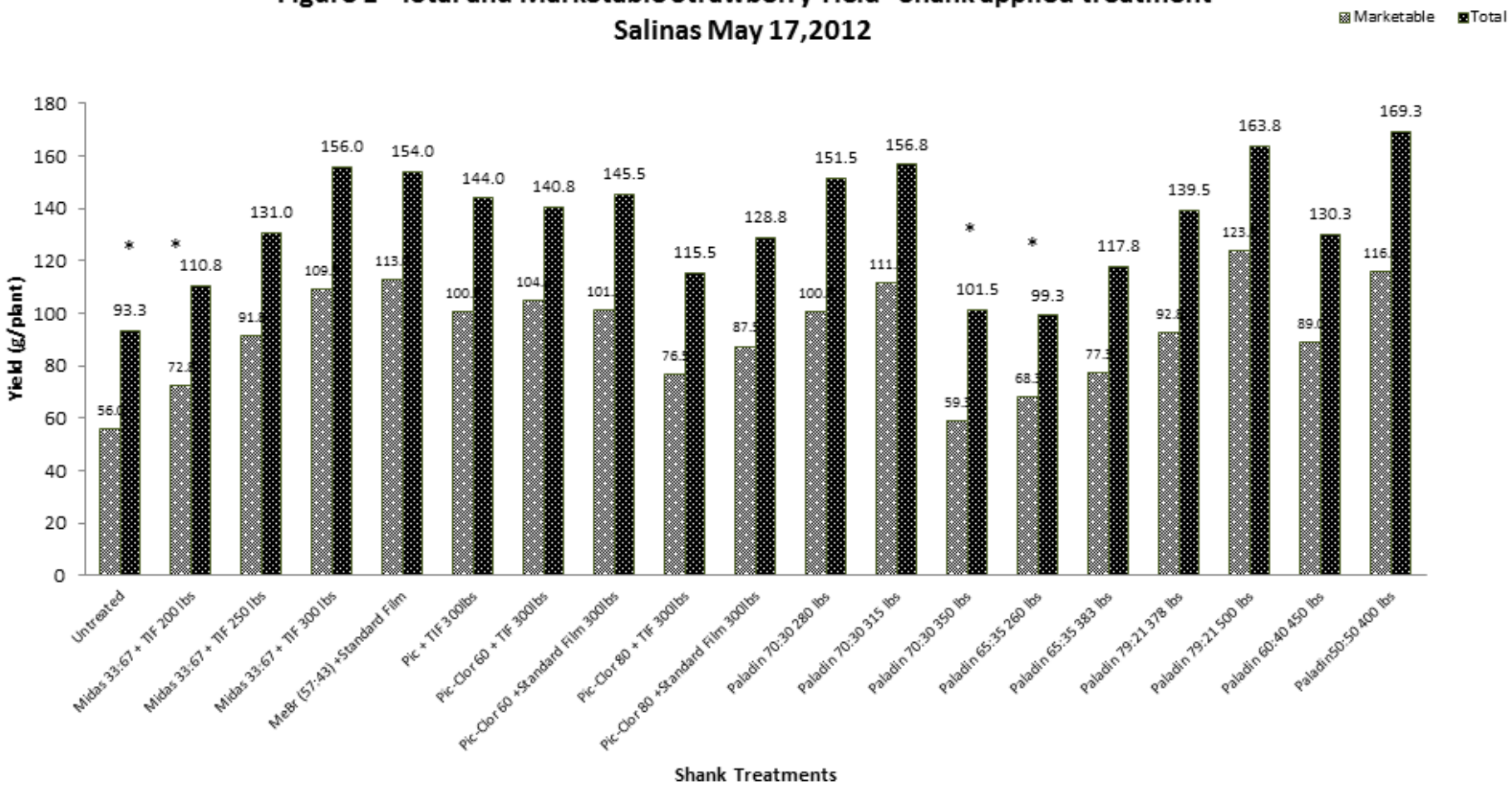
Shank application: Treatments (Table 1) were shank applied on October 15, 2011. Soil was covered with standard film (std) or totally impermeable film (TIF). Midas and Paladin were applied only under TIF, Pic60 treatments were applied under TIF and std film, and MBr/Pic was applied under std film. TIF was cut and removed after 18 days. Strawberry (Albion variety) was transplanted on November 15, 2011. Each treatment was 280 ft long by 22 t wide (2 passes, each pass 11 ft wide).

Table 1- Shank application treatments

Treatment	**Lbs product/A** (broadcast rate)
Untreated	
Midas 33:67 + TIF	200 lbs
Midas 33:67 + TIF	250 lbs
Midas 33:67 + TIF	300 lbs
MeBr (57:43) +Standard Film	350 lbs
Pic + TIF	300 lbs
Pic-Clor 60 + TIF	300 lbs
Pic-Clor 60 +Standard Film	300 lbs
Pic-Clor 80 + TIF	300 lbs
Pic-Clor 80 +Standard Film	300 lbs
Paladin 70:30	280 lbs
Paladin 70:30	315 lbs
Paladin 70:30	350 lbs
Paladin 65:35	260 lbs
Paladin 65:35	383 lbs
Paladin 79:21	378 lbs
Paladin 79:21	500 lbs
Paladin 60:40	450 lbs
Paladin50:50	400 lbs

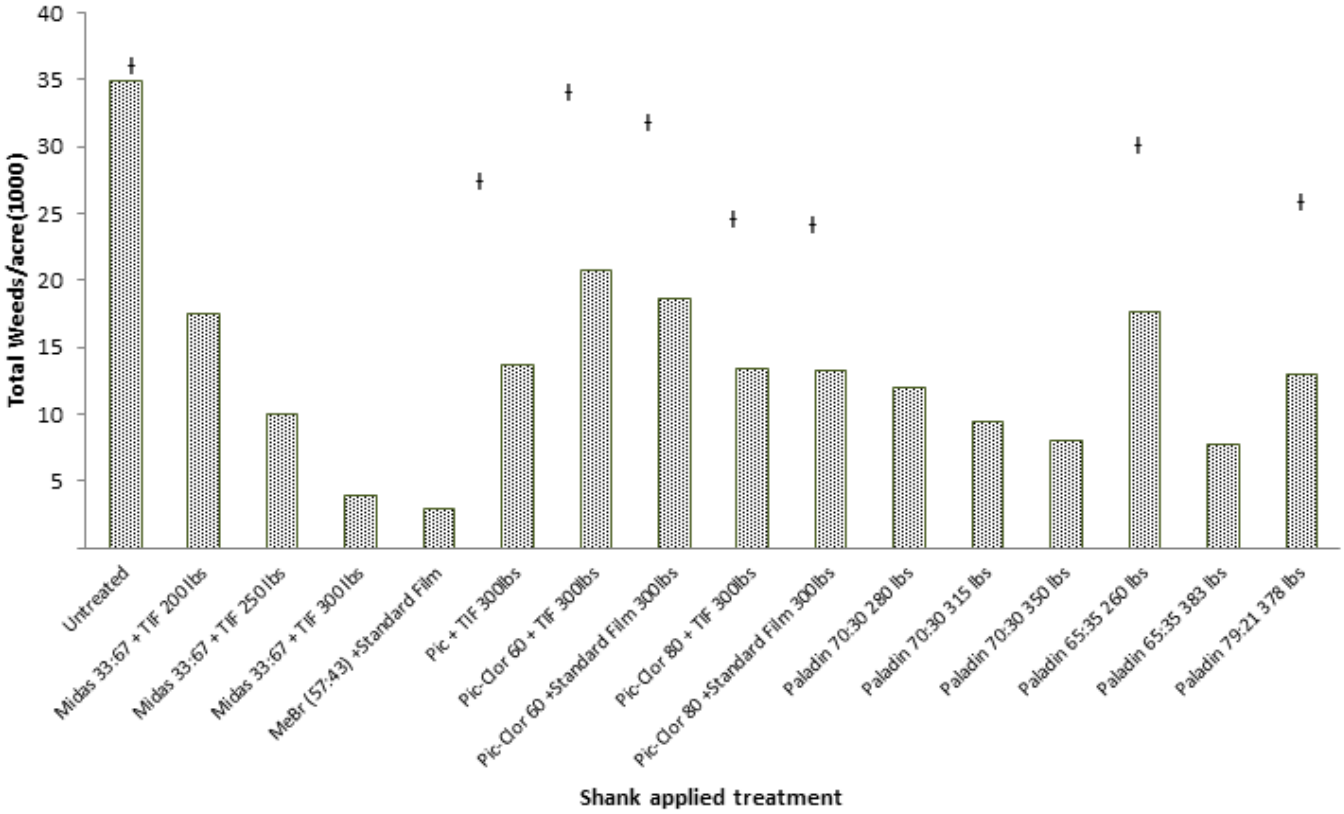
Yield Results: Yields from Midas 33:67 at 300 lbs, Paladin 70:30 at 280 lbs, Paladin 70:30 at 315 lbs, Paladin 79:21 at 500 lbs, and Paladin 50:50 at 400 lbs are significantly higher than yield from the untreated plots. Yields from Midas 33:67 at 200 lbs, Paladin 70:30 at 350 lbs, and Paladin 65:35 at 260 lbs were significantly lower than yield from MB.

Figure 1 - Total and Marketable Strawberry Yield - Shank applied treatment
Salinas May 17,2012



(*) Yields are significantly lower than MB at the .05 level

Figure 2- Total Weed Shank Application - Salinas March 2012



Weed density from all treatments are sig less than control.
(ɬ) Treatments are significantly different from MB.

Drip application: Treatments (Table 2) were drip applied on November 1, 2011, under standard film, TIF, or virtually impermeable film (VIF). Strawberry (Albion variety) was transplanted on November 26, 2011. Each bed was 100 feet long and each treatment was replicated 4 times.

Table 2- Drip Application Treatments

Treatment	Film Type	Lbs/acre (broadcast rate)
Untreated control	VIF and TIF	0
Midas EC Gold	VIF and TIF	250
Midas EC Gold	VIF and TIF	200
Midas EC Gold	VIF and TIF	150
Midas ARY 0425-007 (33% IM)	VIF and TIF	250
Midas ARY 0425-007 (33% IM)	VIF and TIF	200
Midas ARY 0425-007 (33% IM)	VIF and TIF	150
Pic-Clor 60 EC	TIF	200
Pic-Clor 60 EC	STD	300
Pic-Clor 80 EC	TIF	200
Pic-Clor 80 EC	STD	300
Pic-Clor 60 EC	TIF	350
Paladin 70/30 EC	VIF	400
Paladin 70/30 EC	VIF	450
Paladin 70/30 EC	VIF	500
Paladin 65/35 EC	VIF	400
Paladin 65/35 EC	VIF	450
Paladin 79/21 EC	VIF	478
Paladin 65/35 EC	TIF	300
Paladin 65/35 EC	TIF	400
Paladin 60/40 EC	TIF	300
Paladin 60/40 EC	TIF	400
Paladin 50/50 EC	TIF	300
Paladin 79/21 EC	TIF	383
Pic-Clor 60 EC	VIF	350
Pic EC	TIF	250
Pic EC	VIF	250

Yield Results

No significant differences in yield were found among the various treatments. However, significant difference was found among the plastic types. These are early seasons results and yield may change throughout the production season.

Figure 3 - Strawberry Marketable Yield until May 12, 2012 - Salinas

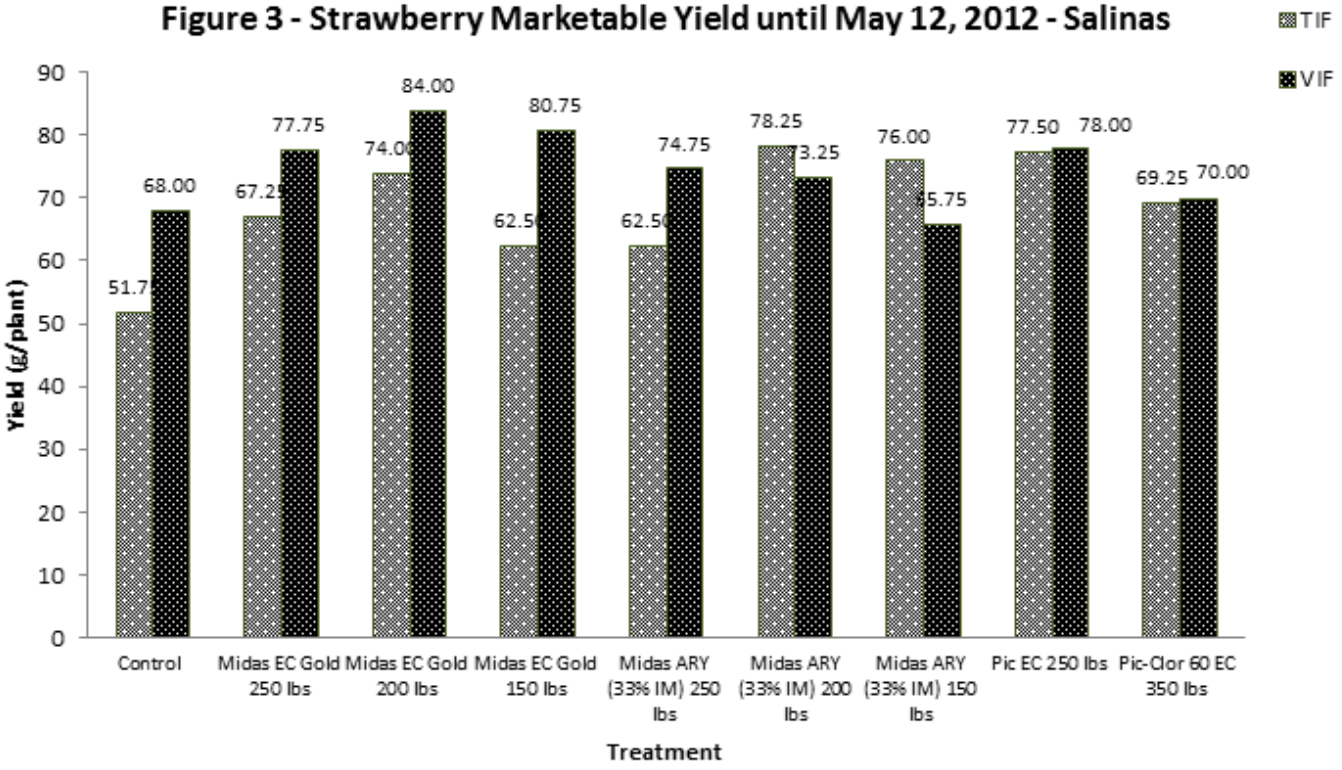


Figure 4 - Strawberry Total Yield until May 12, 2012 - Salinas

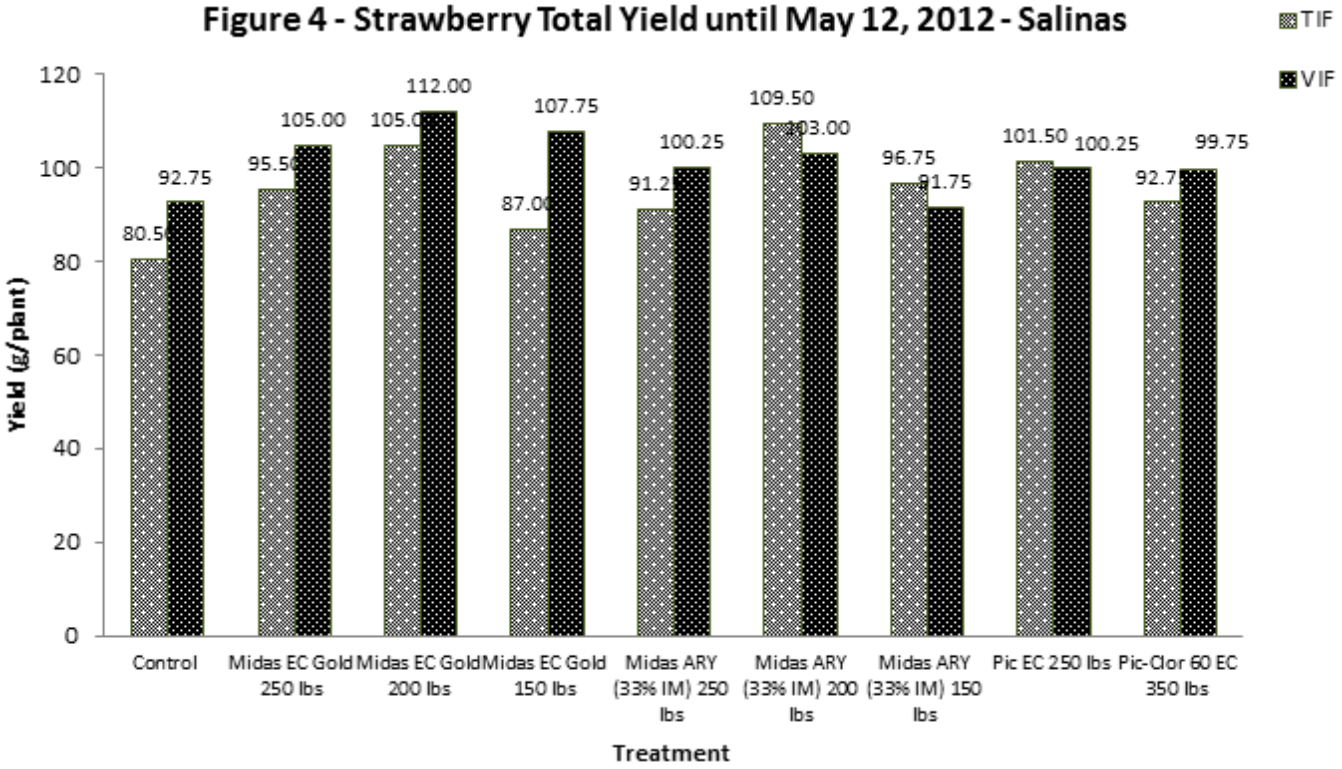


Table 3- Total and Marketable Yield with DMDS in Salinas until May 12, 2012

Treatment/lbs	Plastic	Marketable Yield	Total Yield	Minimum	Maximum
1.Pic-Clor 60 EC 200	TIF	54.00	81.50	41	65
2.Pic-Clor 80 EC 200	TIF	66.75	92.50	58	77
3.Paladin 65/35 EC 400	TIF	82.25	111.75	66	105
4.Paladin 79/21 EC 383	TIF	81.00	109.00	52	122
5.Paladin 60/40 EC 400	TIF	76.50	110.75	51	134
6.Paladin 60/40 EC 300	TIF	74.00	99.00	62	82
7.Paladin 65/35 EC 300	TIF	83.25	108.50	49	107
8.Paladin 50/50 EC 300	TIF	62.00	86.50	52	67
9.Pic-Clor 60 EC 300	Std	57.50	89.50	38	74
10.Pic-Clor 80 EC 300	Std	64.75	96.00	46	78
11.Paladin 65/35 EC 400	VIF	88.75	120.75	68	114
12.Paladin 79/21 EC 478	VIF	90.50	118.00	56	138
13.Paladin 65/35 EC 450	VIF	76.75	114.50	66	84
14.Paladin 70/30 EC 500	VIF	76.75	103.25	67	88
15.Paladin 70/30 EC 450	VIF	87.25	124.25	62	119
16.Paladin 70/30 EC 400	VIF	65.75	94.50	58	82

Weed results

Similar to yields results, weed counts were not significantly different among the treatments. However, weed counts from plots covered with TIF were significantly lower than weed amount from plots covered with VIF and Std.

Table 4 - Total weeds from drip applied treatments in Salinas until March, 2012

Treatment/lbs	Plastic	Total Weed/Acre (1000)
Pic-Clor 60 EC 200	TIF	9.55
Pic-Clor 80 EC 200	TIF	7.54
Paladin 79/21 EC 383	TIF	12.57
Paladin 60/40 EC 400	TIF	8.04
Paladin 60/40 EC 300	TIF	13.57
Paladin 65/35 EC 300	TIF	14.83
Paladin 50/50 EC 300	TIF	15.83
Pic-Clor 60 EC 300	Std	24.38
Pic-Clor 80 EC 300	Std	18.85
Paladin 65/35 EC 400	VIF	11.81
Paladin 79/21 EC 478	VIF	15.08
Paladin 65/35 EC 450	VIF	16.58
Paladin 70/30 EC 500	VIF	18.60
Paladin 70/30 EC 450	VIF	26.64
Paladin 70/30 EC 400	VIF	26.64