Black Plastic for Weed Control in Strawberries in Fresno County

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Frigo strawberry crowns are set in the ground between August 15th through September 15th. The plants are mowed back in January to facilitate the application of the clear plastic mulch. The use of clear mulches allows (and promotes) weeds to grow underneath the mulch, requiring at least several hand weedings.

Beginning harvest dates were unaffected, however, the first four pickings were lighter in the black mulch by 14%, which were made up for in later harvests. In the second 1996 study (field #1) the yield in black mulch was significantly higher (p<0.10) than the clear. Beginning harvest dates were unaffected and plants in the black polyethylene actually yielded 27% more than the clear.

In none of the trials was any kind of fruit injury (burning) observed, nor did fruit quality appear affected, even though temperatures exceeded 90 degrees for 11 days in 1997, and 2 days in 1998 during the harvest period.

Conclusions

Black plastic can be applied in January/February in place of clear polyethylene and will provide excellent weed control, especially in 2^{nd} and 3^{rd} years after methyl bromide fumigation. Berries resting on the black plastic in warm temperatures did not appear to suffer from contact burn.

Plot Yields (lbs)

	Field #1 (20 Camarosa plants)	Field #2 (30 Chandler plants)	Field #3 (20 Chandler plants)
Black Plastic (February)	38.5	47.5	32.4
Black Plastic (August)			29.2
Clear Plastic (February)	27.2	48.3	28.4
	Significantly different at p=0.10	Not significantly different	Not significantly different