



Imperial County

Agricultural Briefs



Features from your Advisors

June 2017

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STRAWBERRY PRODUCTION IN THE COACHELLA VALLEY

Jose Luis Aguiar, Advisor, UCCE Riverside County

It took awhile for strawberry production to become an important crop in the Coachella Valley (see Table 1.) Weather in the Coachella Valley makes growing strawberries a challenge that few growers want to undertake. The growing season is relatively short compared to other growing regions, thus making the return on investment difficult. Harvest of fruit begins in December and production increases with the cool winter weather. But by March, the weather can begin to reach 100F bringing an end to the harvest if it continues to warm up. Changes in weather, warm days followed by cooler days, make for many sleepless nights (March to May) for the growers.

The fall 2016 to spring 2017 season had more rainfall than usual and with it more gray mold fungus: *Botrytis cinerea* outbreaks. It became a challenge to control gray mold because as soon as treatments began another rainstorm would go through the area. The constant rains and cool weather favored disease development. Gray mold can affect several parts of the plant from leaves, flowers and fruit. The fruit can be covered with mold that will readily infect nearby fruit. (See Figure 1,2) Losses to *Botrytis* can be significant even with fungicide treatments and also go on to cause postharvest losses.

Table 1. Coachella Valley Strawberry Gross Value and Acreage

YEAR	US DOLLARS GROSS VALUE	ACREAGE
2003	4,820,600	287
2002	3,332,000	214
2004	6,327,500	351
2005	5,901,500	319
2006	4,307,000	353
2007	2,329,000	274
2008	2,170,100	271
2009	3,314,200	236
2010	3,832,539	318
2011	11,344,614	363
2012	16,126,662	430
2013	27,528,540	580
2014	26,258,000	619
2015	13,257,000	322
	14 YEAR AVERAGE GROSS VALUE PER ACRE	14 YEAR AVERAGE ACREAGE
	\$26,504	353

Data from Riverside County Agricultural Commissioners' Crop Reports

Figure 1. *Botrytis* infecting mature fruit but will also infect nearby fruit.



Figure 2. Gray mold is a common problem in all strawberry production areas.



When the weather is favoring disease development, growers must review all the treatment options. For a listing of treatment options see **Botrytis Fruit Rot of Strawberry** by Steven T. Koke and Mark Bolda. Here is a link to that publication:

http://ucanr.edu/blogs/strawberries_caneberries/blogfiles/37846.pdf

Good plant coverage of materials is critical. High disease pressure caused local growers to shift from Electrostatic sprayers to more conventional sprayers and to spend more time scouting fields. Organic growers do not have effective fungicides available. Sanitation, such as removing infected fruit from the field, helps but are expensive and not as effective as a fungicide program.

Strawberry production depends on the varieties developed from several University strawberry breeding programs and from proprietary (private) varieties. Not all strawberry varieties have proved adaptable to desert soils and climate. There are currently no varieties resistant to gray mold. Careful use of fungicides with various modes of action is critical to reduce the risk of resistance to these materials. Before using any materials, check labels for the latest information on its use and registration.