



United States Department of Agriculture
National Agricultural Statistics Service

2020 California Raisin Grape Mechanical Harvest Report



Cooperating with the California Department of Food and Agriculture

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RESULTS

Total acreage to be harvested by mechanical means was 42,383, 31 percent of the State's total raisin-type grape acreage, according to the Pacific Region Office of USDA's National Agricultural Statistics Service. The Overhead Trellis System was used on 13,007 acres in 2020, accounting for 9 percent of the total raisin-type grape acreage. Fresno and Madera County growers have 49 and 42 percent of the Overhead Trellis acreage in the State, respectively. Kern and Tulare County growers have 6 and 2 percent of the Overhead Trellis acreage, respectively. Other mechanical harvest systems include Continuous Tray at over 19 percent of the raisin acreage, South Side Trellis with 0.4 percent and Open Gable with 1.3 percent of the raisin-type grape acreage.

Although Fresno County has the most acreage mechanically harvested, at 30,800, that acreage only represents 31 percent of the Fresno County raisin-type grape acreage. Madera County growers harvest 43 percent of their raisin-type grape acreage by mechanical means.

By variety, Thompson Seedless grape acreage harvested mechanically is 29,341 or 26 percent of the total Thompson Seedless grape acreage. Forty-eight percent of the Fiesta grape acreage is harvested mechanically and 64 percent of the Selma Pete acreage is harvested mechanically.

Most California raisins are produced by sun drying after placing bunches on paper trays on terraces between vine rows. The Overhead Trellis System has led to increased production of dried-on-the-vine raisins, increased machine harvesting, and decreased hand labor use.

PROCEDURES

The Pacific Region Office of USDA's National Agricultural Statistics Service, in cooperation with the California Department of Food and Agriculture, conducts an annual grape acreage survey. The 2020 Grape Acreage Report, published in April, summarized the latest survey results. At the request of the raisin industry, an additional question was added to the grape acreage survey to gather information on raisin-type acreage that is harvested mechanically. In addition to the mechanical harvest data, producers were asked to update acreage by variety and year planted. Growers were initially contacted by mail and follow up was done by telephone. This report summarizes data for mechanical harvest methods of raisin-type grapes. The totals included are only for those that voluntarily reported to this survey.

ACKNOWLEDGMENTS

We sincerely thank the many vineyard operators, owners, and management firms for providing the information. Funding for the raisin-type grape acreage report was provided by the Raisin Administrative Committee.

Raisin-Type Grapes: Acreage by County, California, 2020 ^{1/}

County	Total acreage	Mechanical harvest		Type of mechanical harvest			
		Acres	Percent of total acreage	Overhead trellis acres	Continuous tray acres	South side trellis acres	Open gable acres
Fresno	99,336	30,800	31	6,427	22,369	553	1,451
Kern	9,101	1,055	12	809	207	^{2/}	^{2/}
Madera	22,155	9,633	43	5,470	4,057	^{2/}	^{2/}
Tulare	6,323	804	13	299	376	^{2/}	^{2/}
Other Counties	1,776	90	5	2	6	56	301
Total	138,693	42,383	31	13,007	27,015	609	1,752

^{1/} Totals may not add due to rounding.

^{2/} Included in Other Counties to avoid disclosing data for individual operations.

Raisin-Type Grapes: Acreage by Variety, California, 2020 ^{1/}

Variety	Total acreage	Mechanical harvest		Type of mechanical harvest			
		Acres	Percent of total acreage	Overhead trellis acres	Continuous tray acres	South side trellis acres	Open gable acres
Black Corinth	1,324	497	38	239	207	^{2/}	^{2/}
Dovine	460	267	58	149	^{2/}	^{2/}	^{2/}
Fiesta	16,199	7,819	48	5,797	1,953	^{2/}	^{2/}
Selma Pete	6,833	4,377	64	1,992	1,122	^{2/}	^{2/}
Thompson Seedless	113,004	29,341	26	4,756	23,610	563	411
Other Raisin-Type	873	82	9	73	122	46	1,341
Total Raisin-Type	138,693	42,383	31	13,007	27,015	609	1,752

^{1/} Totals may not add due to rounding.

^{2/} Included in Other Raisin-Type varieties to avoid disclosing data for individual operations.

MECHANICAL HARVEST METHODS

OVERHEAD TRELLIS – Grapes are dried directly on the vine, forming a canopy over the rows. It allows the mechanical grape harvester to get underneath and gather the dried fruit.

SOUTH SIDE TRELLIS – In an east-west row orientation vineyard, an angled cross-arm is added to each trellis stake to support two wires on which fruiting canes are tied. The southern exposure of the fruit facilitates drying. The raisins may be harvested mechanically with a south side harvester.

CONTINUOUS TRAY – Grapes are mechanically harvested and laid out on a continuous (rather than individual) thin sheet of paper where they dry in the sun for two to three weeks.

OPEN GABLE – Trellis wires are connected between rows of v-shaped supports. The unique V-shape lets in additional sunlight and traps the heat. This greatly improves ripening and drying. Raisins are harvested mechanically with a harvester that has been modified to place the raisins in bins instead of gondolas.