

## 2019 Mid-Season Crop Update Results of Grower and Handler Crop Surveys

**E**ach spring the California Avocado Commission (CAC) conducts a mid-season grower crop survey in which growers provide detailed information regarding their estimated crop volume for the current year. In addition to the grower crop survey, in recent years the Commission also has begun to survey California handlers to gather total industry volume estimates,

however, the grower and handler estimates were at odds. The grower survey came back with a crop size of more than 218 million pounds, while the handler survey reported 170 million pounds – a nearly 50-million-pound difference.

While it may seem that a large discrepancy in crop size estimates would be cause for concern, it happens more often than one may think. In years like

the grower survey responses, combing through mid-season county results to identify regions reporting pounds per acre higher than the industry average — for 2019 that was any county reporting more than 4,640 pounds per acre.

As highlighted in the table to the right, both San Diego and San Luis Obispo counties reported average pounds per acre exceeding the identi-

### 2019 GROWER Crop Survey Results

Hass: 209.4 million pounds  
Lamb-Hass: 7.2 million pounds  
Other: 2.2 million pounds  
Total: 218.8 million pounds  
Estimated Pounds per Acre: 4,640

### 2019 HANDLER Crop Survey Results

Hass: 162 million pounds  
Lamb-Hass: 6 million pounds  
Other: 2 million pounds  
Total: 170 million pounds  
Estimated Pounds per Acre: 3,605

as well as estimated timing of harvest. Together the results of these surveys play an important role in helping CAC adjust crop estimates and predict the flow of avocados to market during the critical mid-season.

Leading up to the 2019 mid-season crop survey, the California avocado crop was estimated to be about 175 million pounds. Due to the much-welcome rain this past winter, the season's harvest kicked off a bit later than projected, but at the time surveys were mailed to growers and handlers in mid-April, all indicators pointed to little variation from the early season estimated volume. When the survey responses were tallied,

this, the key is digging into the data and understanding what the leading cause of the discrepancy could be. To do this, the Commission begins by determining which of the two estimates (grower or handler) should be considered most accurate, and then works to analyze the second set of data to identify logical reasons for the variance.

As previously mentioned, going into the mid-season survey all indications were that the crop volume was not significantly different than the pre-season estimate, therefore CAC determined the handler estimate of 170 million pounds was the most accurate. The Commission then focused on analyzing

fied threshold. At this point in the process, CAC staff made calls to growers, handler field representatives and farm managers to discuss the accuracy of the reported pounds per acre. As a result of those discussions, it was determined that San Diego County was over-estimating their harvest and that while San Luis Obispo County's estimate was high, it should not make a significant impact on the overall crop volume based on the percentage of acres it represents.

Armed with this new information, the Commission set out to revise the estimates utilizing readily available tools — previous mid-season grower crop estimates and actual year-end production

County	Hass Only			All Varieties		
	Producing Acres	Estimated Yield		Producing Acres	Estimated Yield	
		Lbs/ Acre	Lbs (MM)		Lbs/ Acre	Lbs (MM)
San Diego	14,117	5,697	80.43	14,946	5,587	83.50
Riverside	4,006	2,538	10.32	4,134	2,531	10.46
Orange	897	1,895	1.70	935	1,880	1.76
Ventura	16,097	4,113	66.20	17,129	4,166	71.36
Santa Barbara	5,212	3,461	18.04	5,383	3,409	18.35
San Luis Obispo	3,792	7,877	29.87	3,848	7,866	30.27
Minor Counties	686	4,110	2.82	780	3,943	3.08

records. Utilizing four years of historical data sets, CAC developed a mid-season crop survey county-level accuracy factor to examine how each region's mid-season estimates compared to their year-end county production volumes. The analysis indicated that San Diego County historically overestimates its mid-season crop projections by an average of 27 percent, while most of the remaining counties have a tendency to underestimate their volume.

When CAC applied the four-year accuracy factor to the current mid-season grower estimates, the overall volume was reduced by a mere 11.5 million pounds – the resulting mid-season 207.3-million-pound estimate was still significantly greater than the 170-million-pound handler survey. At this point it became clear that revising the pounds per acre volume would not be enough to reduce the total industry volume by 37 million pounds. Thus, CAC turned its attention to the second factor used in crop estimating: the number of producing acres being multiplied by the estimated pounds per acre.

In 2018, the Commission entered into a contract with a new vendor, Land IQ, to complete the annual acreage survey. In just over a year, Land IQ has not only successfully delivered three years of acreage surveys (2016, 2017 and 2018), but done so with a high degree of accuracy, utilizing CAC staff, industry field reps and their own employees to ground truth acreage before finalizing

to determine whether the impact of the July 2018 heat event had been accounted for in the mid-season grower estimates. That event impacted nearly all California avocado growing regions, thus it was reasonable to assume that a significant number of acres identified as “producing” in the 2018 acreage survey may not actually have fruit to harvest in 2019. According to conversations that took place in the summer of 2018, specific areas may have been more greatly impacted by the heat event than others, including those east of the I-15 (in the South), Ojai and areas east of Hwy 150 in Ventura County and a large portion of Goleta. The heat-affected areas totaled more than 14,000 acres identified as “producing” in the 2018 acreage survey.

With that in mind, CAC staff re-examined the acreage base used in the mid-season grower survey, with special attention paid to those counties identified as “severely heat impacted”. While it is impossible to know exactly how many acres experienced loss, and to what extent, for the purposes of this analysis it was assumed that 50 percent of the 14,000 acres was severely impacted and

therefore 7,000 acres were removed from the “producing” acreage total. *It is important to note that it is more likely that a larger number of acres were in fact impacted to a lesser degree, however the 50 percent assumption made for a simplified analysis.* Utilizing the new acreage base, along with the four-year accuracy factor, the Commission recalculated the mid-season grower survey, resulting in a total crop volume of 180 million pounds (details of which can be found in the chart below).

At this point in the season, the Commission typically issues the results of the mid-season grower crop survey

2019 Grower Crop Estimate Survey Results  
Adjusted for Accuracy and 2018 Heat Impact

County	Hass Only			All Varieties			4-Year Accuracy Factor	Revised Estimated Yield Lbs (MM)	Revised Estimated Yield Lbs/ Acre
	Revised Producing Acres	Estimated Yield		Revised Producing Acres	Estimated Yield				
		Lbs/ Acre	Lbs (MM)		Lbs/ Acre	Lbs (MM)			
San Diego	10,777	5,697	61.40	11,606	5,587	64.47	(17.14)	47.33	4,078
Riverside	4,012	2,538	10.18	4,080	2,531	10.33	0.89	11.22	2,750
Orange	897	1,895	1.70	935	1,880	1.76	(0.10)	1.66	1,775
Ventura	13,747	4,113	56.54	14,779	4,166	61.70	5.41	67.11	4,541
Santa Barbara	4,061	3,461	14.06	4,232	3,409	14.37	3.51	17.88	4,225
San Luis Obispo	3,792	7,877	29.87	3,848	7,866	30.27	2.23	32.50	8,446
Minor Counties	509	4,110	2.09	603	3,943	2.34		2.34	3,881

as an official mid-season crop estimate update. However, because of the large discrepancy between the grower and handler mid-season crop estimates, various indicators pointing to a crop volume closer to handler projections and the various factors that may have played a role in the grower estimates being improperly high (at 218.8 million pounds). It is the Commission's position that the 2019 crop size is more closely aligned with the pre-season estimate and mid-season handler survey volume of 170 million pounds. We have provided the context behind this decision in order to help interested parties better understand how the Commission came to this decision. If you would like more information, please contact the Commission at 949.341.1955. 🍌