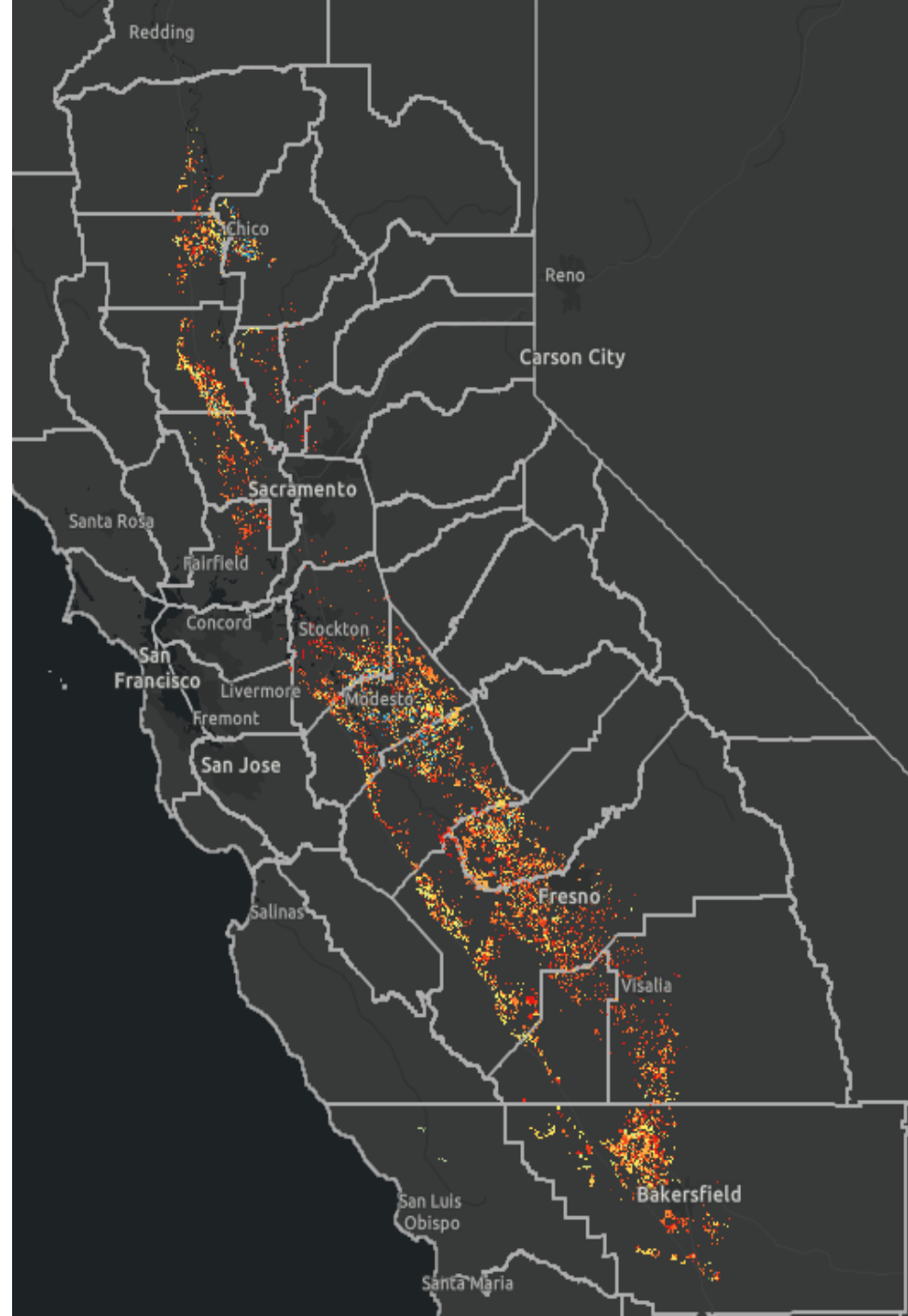


# 2022 State Almond Crop Estimate

Presented by

the Wonderful company



# WP&A/Famoso Nut/Ag-Wise

## 2021 Almond Crop Estimate In Review

With the publication of the March 2022 ABC Position Report, we can now see where the 2021 California almond crop will finalize at with much greater certainty. With USDA receipts totaling 2.9 billion pounds, we now see this crop finalizing around 2.91 billion pounds.

As you can see from the chart below, our estimate for the 2021 State Almond crop was very accurate (within 1.5% of the projected final). We over-estimated the volume from the Northern and Southern regions by 5.1% and 2.0% respectively but we were very accurate in our estimate of the Central Region (Madera county to Sacramento).

It was nice to have the most accurate estimate once again after our big miss for crop year 2020 (which was the result of our inability to visually inspect the Northern & Central regions due to Covid travel restrictions). This most recent performance only further confirms our opinion that to estimate the California Almond crop accurately, you must visually see it on the trees in all areas as well as have accurate data from past crops.

### 2021 WP&A/Famoso/Ag-Wise California Almond Crop Estimate vs. Final Outlook

Growing Region	CY 21 Crop Receipt Outlook Yield/Acre by Region - as of 4/12/22			CY 21 WP&A Estimate Yield/Acre by Region - as of 5/11/21			2021 Estimate vs. 2021 Outlook More/(Less)			
	CY21 Bearing Acreage	Yield/Acre	Receipts based on BOY Assumptions	CY21 Bearing Acreage	Yield/Acre	Receipts based on BOY Assumptions	Acres	Yld/Acre	Total Lbs.	% Total Lbs.
Northern	233,620	1,704	398,036,220	231,620	1,805	418,163,726	(2,000)	102	20,127,506	5.1%
Central	525,026	2,339	1,227,978,517	520,026	2,351	1,222,333,136	(5,000)	12	(5,645,381)	-0.5%
Southern	550,354	2,334	1,284,602,733	548,354	2,388	1,309,655,138	(2,000)	54	25,052,405	2.0%
<b>Total/Average:</b>	<b>1,309,000</b>	<b>2,224</b>	<b>2,910,617,470</b>	<b>1,300,000</b>	<b>2,269</b>	<b>2,950,152,000</b>	<b>(9,000)</b>	<b>46</b>	<b>39,534,530</b>	<b>1.4%</b>

Note: All Acreage & Yield/acre are based on Land IQ Data as of 11/15/21

Red Font = Under-estimated  
Black Font = Over-estimated

# 2022 California Almond Crop Evaluation & Estimate

## – as of 5/11/22

The following pages summarize the results of our 2022 State Almond Crop Estimate. This year we had seventeen people in four vehicles that were able to visually inspect all of the major growing regions in the state. As we have done in the past, we also spoke with local area farmers, handlers and PCA's in each area to obtain first-hand knowledge of what they thought their crops looked like this year vs. the crop they had in 2021. We divided each of the regions (North, Central, South) into four zones with each vehicle spending about 6-8 hours in their assigned zone each day. We started our tour on May 1<sup>st</sup> this year and looked at orchards for 3 full days in all growing regions north of Kern County. Prior to this trip, we had made our own assessments of the Kern county orchards where most of our own orchards are located. The total combined miles covered by our group equated to more than 4,000 road miles (about 1,000 road miles/vehicle).

As we do every year, all members were provided with historical data as to crop receipts by county and region, as well as historical yield/acre estimates based on either Land IQ acreage (2010 to 2021...with the odd years during this period between 2010 - 2017 being extrapolated using the variance seen between Land IQ acreage and NASS acreage for the even year's). All 2022 estimates were based on Land IQ bearing acres of 1,338,496 per their April 28<sup>th</sup> report (we rounded up to 1.34 million to calculate our estimates). The acreage of 3<sup>rd</sup> leaf orchards (2020 plantings) we have estimated at about 83,000 acres and their production is incorporated in our estimates per normal. You can find the latest Land IQ Almond Acreage Report at the link shown below.

[https://live-almonds-next.pantheonsite.io/sites/default/files/2022-05/2022\\_Initial\\_Acreage\\_Estimate\\_Report\\_Revised.pdf](https://live-almonds-next.pantheonsite.io/sites/default/files/2022-05/2022_Initial_Acreage_Estimate_Report_Revised.pdf)

In addition to the data provided above, each team member was given three different models (Excel worksheet tools) in which to develop their individual estimates (by tree age, by region, and by county or any combination of these three tools). As always, we had a 3<sup>rd</sup> Party expert in statistics and regression analysis review the individual estimates and determine the best figure to use for our “official group estimate”. The final “official” estimate is heavily weighted on group members with a consistent record of estimate accuracy.

# 2022 California Almond Crop Evaluation & Estimate

## – as of 5/11/22

### General Observations for the Northern Region (Sacramento to Tehama)

Visual observations for the Northern Region included, Yolo, Colusa, Butte, Tehama, Glenn, Placer, Sutter, and Solano Counties. Everything in terms of bloom conditions and bloom strength was going so well this year up until the 23<sup>rd</sup> of February. Unfortunately, from February 23<sup>rd</sup> – February 26<sup>th</sup>, a historical freeze hit this area along with most of the California growing regions. We knew this Northern region saw the coldest temperatures for the longest durations and that widespread significant damage had occurred before we left for our trip. However, our pre-trip discussions we had with growers and packers in this region could not fully help us comprehend the severity and impact this freeze consistently had throughout this region. As a grower and processor, our stomachs churned, and our hearts broke for the growers in this area as we moved through our assigned zones. A consistent theme from each group/zone was that 4 out of 10 orchards had crop sets not worth harvesting. In some cases (i.e., acreage all around the Sutter-Butte mountain range), we saw orchards where it was hard to find 5 nuts per tree no matter which variety was planted. Many orchards clearly had less than 500 nuts/tree (which equates to less than 300 lbs./acre assuming 141 trees/acre and an average ounce count of 23 nuts/ounce).

Although the orchards and nut-sets we described above were more the “norm”, there were exceptions in each zone where it was clear the grower made full frost mitigation efforts (ran sprinklers and used helicopters for all four nights and mornings) in order to save their crop. However, in most of these instances, they still ended up with nut sets that will yield less than 1,500 lbs./acre . Orchards that could yield above 1,500 lbs./acre were definitely a rare exception. The 2021 crop in this region looks to finalize at around 1,720/bearing acre which is about average for this region since 2015 (excluding the record year of 2020 which was 2,218/bearing acre). The lowest crop yield per acre we have on record for this region was in 2004 (only 1,237 lbs./acre). For this 2022 crop year, unfortunately a new record low will be established based on our group’s observations. As found on page 8 of this report, we see this Northern Region crop averaging just slightly more than 900 lbs./acre (down -46.7% from 2021). Depending on how water supply holds out, further downside is possible.

# 2022 California Almond Crop Evaluation & Estimate

## – as of 5/11/22

### General Observations for the Central Region (San Joaquin County to the North down through Madera County in the South)

What a change only 40 to 50 miles can make when you consider the nut-sets in Solano county vs. San Joaquin county to the south. Although some orchards in the eastern 2/3<sup>rds</sup> of this region showed some obvious damage from the February freeze event (mainly only to the Nonpareil variety), these findings were the exception vs. the rule. In general, almost all the orchards we looked at in San Joaquin and Stanislaus counties (east to west) had very good crop sets (just like last year) with very little noticeable differences from one variety to the next in terms of nut-set strength.

Once we got down to Merced and Madera counties a consistent pattern of crop sets became more noticeable. Orchards within 5 miles west of Hwy 99 and further east all had good to very good nut-sets across all varieties (similar to what we saw last year). However, the further west from this 5-mile mark from Hwy 99 you went, the lighter the nut sets became and the more water stressed orchards we found. Many of the orchards on the west-side of these counties were severely water stressed last summer and it was no surprise to see lighter nut-sets in the stressed orchards from last year. In Madera county, we know there was some freeze impact to Nonpareil as we experienced in our own orchards near Firebaugh in far north-western Fresno county. Overall, for this Central Region, we see the 2022 Almond crop coming in similar in size to the 2021 crop on a yield/acre basis at 2,330 lbs./acre and a small increase in overall crop receipts due to the 3.2% increase in bearing acres (total crop receipts up about 40 million pounds in total vs. 2021).

But much like the Southern Region for this third year of drought, our estimated figure may be too high due to the severity of the drought and the dismal water supply situation vs. last year. How long growers will be able to support their orchards with the required amount of water is unknown. We know some water districts have already told their growers their will be no surface water available to growers after July. These almond crops need water all the way through August and September when temperatures are usually the hottest. Post-bloom surface water supplies will likely be non-existent which won't bode well for the 2023 crop.

# 2022 California Almond Crop Evaluation & Estimate

## – as of 5/11/22

### General Observations for the Southern Region (Fresno South)

Our visual observations for the Southern Region were very similar to what we saw in Madera County. The eastern 2/3<sup>rds</sup> of these counties had consistently good nut sets for all varieties. After a bit of an “off-year” in 2021 on Nonpareil, we see the eastern 2/3<sup>rds</sup> of this region having noticeably stronger nut sets for Nonpareil (although nut sizing is smaller than normal). The exception is the western 1/3<sup>rd</sup> of the orchards in this region which were affected by the February freeze to a small degree and impacted more negatively by the severe drought conditions and reduced water supply last summer. Many orchards standing today in the western region of these counties showed severe drought stress by harvest time last summer and as a result, we saw much lighter nut-sets in these orchards on this year’s tour vs. orchards located further to the east. Based on the water stress we are already seeing in many of these orchards on our tour this year, we believe we will see an even larger number of abandoned or removed standing orchards from this point forward than what occurred last summer. Participants of this year’s tour saw many standing orchards (with nuts) that the grower spent money and effort on this spring that were now in the process of being removed (and a lot of orchards that had obviously not been irrigated for many weeks).

This Southern Region showed the widest spread in terms of crop size estimation by our group members. It is impossible to know just how many of the orchards in this region will have enough water make it to harvest without severely affecting nut size and quality. Like the Northern Region, I will not be surprised if in the end the final crop receipts in this region fall short of our final estimated figure. But others in our group I know believe the number could be higher for this region (local grower bias). The final estimate for this region shows we will be up slightly in yield/acre (+1.8% overall) and produce an additional 49.6 million pounds of almonds vs. last year. This estimate reflects much stronger production for the eastern 2/3<sup>rds</sup> of this region that is strongly off-set by the smaller nut sets we see in the western 1/3<sup>rd</sup> of the region. The expectation is that there will likely be a lot of production totally lost due to the severity of this year’s drought and desperate water supply situation in this region.

# 2022 California Almond Crop Evaluation & Estimate

## – as of 5/11/22

### Other General Observations from our Tour

**Nut Size and Maturity** – Throughout our tour, we of course spent a lot of time in the orchards looking at nut size and nut maturity. In terms of nut maturity, most nuts we cut open (north to south) were still mostly if not completely still in the gel stage. In southern Kern county, we did find a few orchards where the Monterey and Nonpareil nuts were one half to three fourth's solidified, but the majority had no more than 1/4<sup>th</sup> solidification. Thus, we do not expect harvest to be early this year (first week of August timing for the Southern region and more like the second week of August for the Central and Northern regions). As for nut size, overall, the nut sizing looks smaller than average across all varieties except in the Northern region where the nut sets are very light. If you consider the impact that the drought had last year on nut size, we expect a similar situation this year when you consider the water supply and drought conditions are even worse going into the hot summer months.

**Nut Quality & Insect Pressure** - We already knew before our trip that NOW pressure started earlier and heavier this year vs. last year based on trap counts from PCA's reporting from all regions. Plant/Stink bug pressure so far seems lighter, but some growers have already had to do sprays in orchards where this pest is a problem each year. The question of how much damage will be done is going to be determined by the nut load on the tree, and more so the financial strength of the grower. With Almond prices at or below the cost of production for most growers and farming input costs at record highs (water, fertilizer, diesel, labor, and weed & pest control products), growers will be looking to cut costs where they can in order to stay solvent. With NOW pressure already high for this time of year, decisions that are made to cut back on protective treatments to save money could result in much higher overall in-edibles for the 2022 crop. In addition, we know the water supply situation is worse for everyone growing almonds in California and much worse for the Northern region as well as the 1/3<sup>rd</sup> western portion of the San Joaquin Valley than at this time last year. If our summer is once again hotter than normal (which is the prediction from the NOAA at this point), more shriveled smaller nuts will once again be the result as seen last year.

# 2022 California Almond Crop Evaluation & Estimate

## – as of 5/11/22

### Results and Our 2021 Estimate

The worksheet on the following page reflects the average estimated results by region for our group of 17 estimators. Our weighted regression analysis on the estimates given (based on past accuracy of each individual estimator) resulted in a crop size range as low as 2.6 billion to as high as 3.17 billion pounds with a straight average mid-point of 2.85 billion pounds. After factoring in the historical accuracy of the individuals past estimates (estimator's who were within 3% in 2021), our adjusted figure dropped to 2.805 billion. Thus, our final adjusted group estimate for the 2022 crop is:

**2.800 billion pounds based on 1.340 million bearing acres (2,090 lbs./bearing acre).**

This was another hard year to determine a final number as each area was very different from east to west within each region. It is also hard to predict what the final impact will be to this crop with the drought and water supply being so much worse in all areas than we had last year.

In terms of water supply, water costs, and general soil climate (acres in the severe drought category), the California Almond growing landscape of today is very similar to what growers faced in the 2015 crop year. However, there is one major factor that will likely make greater downside final yield impact to the 2022 crop that was not a factor in crop year 2014. What is this major factor? The factor is the difference in the average base industrial bulk price for raw almonds now vs. the levels seen in crop years 2013 and 2014 (and even 2015). The average pricing levels during this period resulted in grower returns well above \$2.50/lb. Over the past 8 months, grower returns based on average wholesale market prices and a 60% pollinator/40% Nonpareil planting mix and CY'21 nut sizing may return \$1.60 - \$1.70/lb. to the grower. With all growing input costs up 2-3 times higher than just a year ago, very hard decisions on how much water, fertilizer, and crop protection applications they can afford to apply will play a big part in the outcome of this crop in terms of total receipts.



# 2022 California Almond Crop Evaluation & Estimate by Region - as of 5/11/22

## 2022 California Crop Estimate - Group Average by Region as of 5-11-22

	Total Crop			Pollinator Crop			Nonpareil Crop		
	Bearing Acreage	Receipts	Yield/Acre	Bearing Acreage	Receipts	Yield/Acre	Bearing Acreage	Receipts	Yield/Acre
<b>2021 CY - Outlook</b>									
Northern Counties	233,909	398,036,220	1,702	142,651	219,031,699	1,535	91,258	179,004,521	1,962
Central Counties	524,578	1,221,978,517	2,329	319,988	777,610,975	2,430	204,590	444,367,542	2,172
Southern Counties	551,270	1,279,602,733	2,321	336,492	779,209,151	2,316	214,778	500,393,582	2,330
<b>Total:</b>	<b>1,309,757</b>	<b>2,899,617,470</b>	<b>2,214</b>	<b>799,131</b>	<b>1,775,851,825</b>	<b>2,222</b>	<b>510,626</b>	<b>1,123,765,645</b>	<b>2,201</b>

### 2022 CY - % up or down vs. 2021 in Yield/Acre

Northern Counties	0.9%	-46.3%	-46.7%	1.2%	-41.7%	-42.4%	0.2%	-51.9%	-52.0%
Central Counties	3.2%	3.3%	0.0%	3.6%	4.0%	0.3%	2.6%	2.0%	-0.6%
Southern Counties	2.0%	3.9%	1.8%	2.4%	3.5%	1.1%	1.5%	4.4%	2.8%

### 2022 Estimate Results

Northern Counties	235,902	213,859,856	907	144,420	127,726,783.48	884	91,482	86,133,072.86	942
Central Counties	541,572	1,261,943,129	2,330	331,626	808,632,810	2,438	209,946	453,310,319	2,159
Southern Counties	562,526	1,329,241,743	2,363	344,459	806,751,509	2,342	218,067	522,490,233	2,396
<b>Total:</b>	<b>1,340,000</b>	<b>2,805,044,728</b>	<b>2,093</b>	<b>820,505</b>	<b>1,743,111,103</b>	<b>2,124</b>	<b>519,495</b>	<b>1,061,933,625</b>	<b>2,044</b>

<b>Total vs. 2021:</b>	<b>2.3%</b>	<b>-3.3%</b>	<b>-5.4%</b>	<b>2.7%</b>	<b>-1.8%</b>	<b>-4.4%</b>	<b>1.7%</b>	<b>-5.5%</b>	<b>-7.1%</b>
------------------------	-------------	--------------	--------------	-------------	--------------	--------------	-------------	--------------	--------------

  = estimate figures for CY'22 (+/- CY21 avg. Yield/Acre in %)

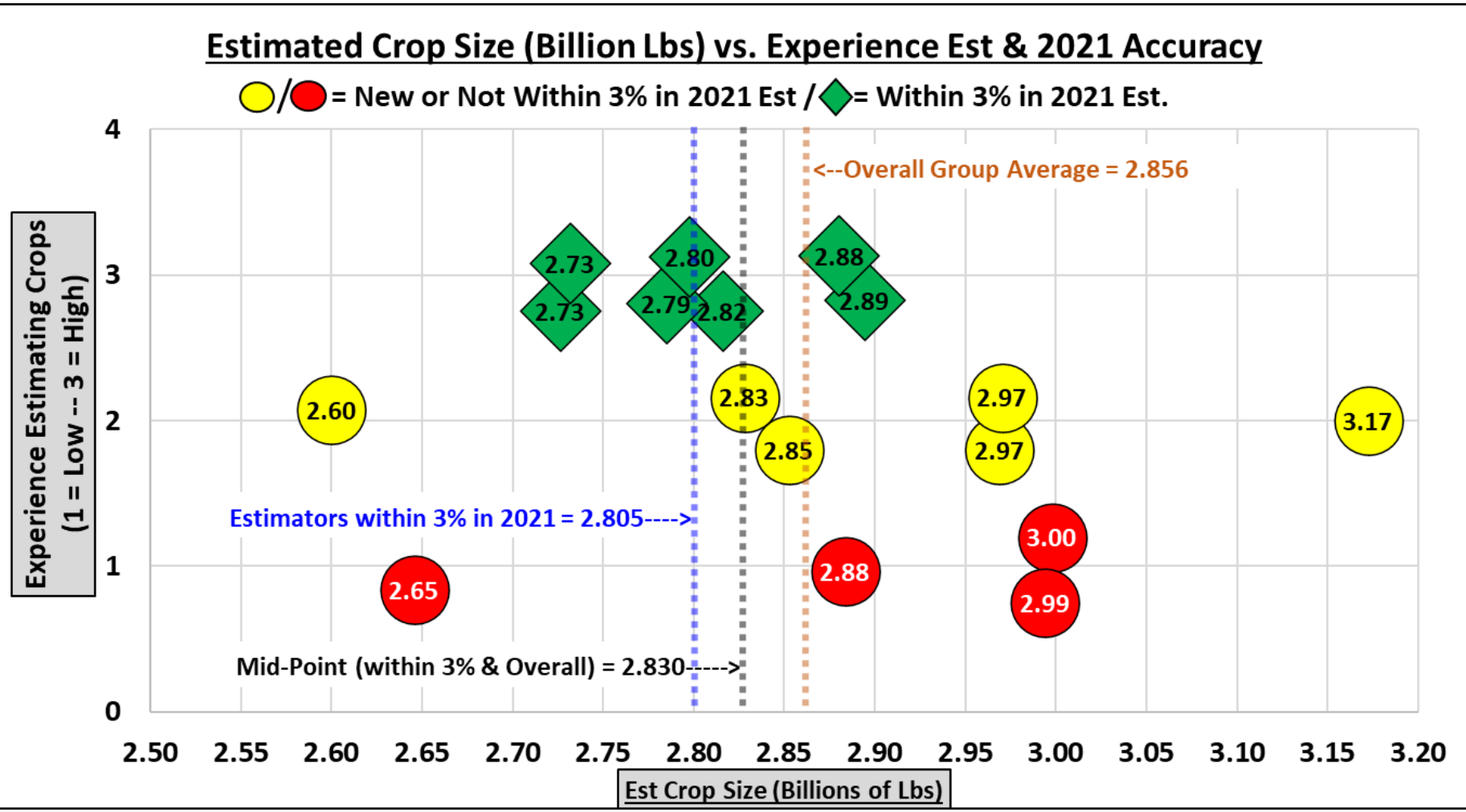
# Land IQ Initial Bearing Acreage Comparison by Region for Crop Year 2022

Total Acres by Tree Age by Region - Based on Land IQ April 2022 Data							
						Totals	
Northern Counties	20 & Older	16th - 19th	6th-15th	4th-5th	3rd leaf	4th Leaf & Older	3rd Leaf & Older
Butte	13,117	3,688	12,871	2,086	WP&A Estimate based on Nurshey Data	31,762	
Colusa/Lake	13,000	14,670	25,403	6,822		59,895	
Glenn	8,443	7,927	25,107	4,998		46,475	
Shasta	5	-	-	-		5	
Solano	1,404	1,101	15,157	2,450		20,112	
Sutter	2,322	2,178	5,351	3,596		13,448	
Tehama	2,399	2,479	10,155	2,104		17,137	
Yolo/Sacramento/Placer	3,629	5,715	28,462	5,544		43,351	
Yuba	137	358	1,035	437		1,967	
<b>Regional Total</b>	<b>44,456</b>	<b>38,117</b>	<b>123,541</b>	<b>28,038</b>		<b>23,000</b>	<b>234,152</b>
<b>% within region of Bearing Acres</b>	<b>19.0%</b>	<b>16.3%</b>	<b>52.8%</b>	<b>12.0%</b>		<b>100%</b>	
<b>Percentile within the State</b>	<b>21.3%</b>	<b>14.8%</b>	<b>18.1%</b>	<b>15.5%</b>	<b>27.7%</b>		<b>70%</b>
Central Counties	20 & Older	16th - 19th	6th-15th	4th-5th	3rd leaf	4th Leaf & Older	3rd Leaf & Older
Merced/Mariposa	31,833	27,181	57,255	23,003	WP&A Estimate based on Nurshey Data	139,272	
Alameda	-	-	688	722		1,410	
Madera	18,252	28,083	84,215	12,676		143,226	
San Joaquin/Contra Costa	16,046	8,862	41,248	12,913		79,069	
Stanislaus	39,050	31,303	82,753	21,946		175,052	
Calaveras	17	-	154	-		172	
<b>Regional Total</b>	<b>105,198</b>	<b>95,429</b>	<b>266,313</b>	<b>71,260</b>		<b>40,000</b>	<b>538,201</b>
<b>% within region of Bearing Acres</b>	<b>19.5%</b>	<b>17.7%</b>	<b>49.5%</b>	<b>13.2%</b>		<b>100%</b>	
<b>Percentile within the State</b>	<b>50.5%</b>	<b>37.0%</b>	<b>38.9%</b>	<b>39.4%</b>	<b>48.2%</b>		
Southern Counties	20 & Older	16th - 19th	6th-15th	4th-5th	3rd leaf	4th Leaf & Older	3rd Leaf & Older
Kern	20,425	56,019	92,325	30,029	WP&A Estimate based on Nurshey Data	198,797	
Kings	2,981	4,389	22,037	5,611		35,019	
Tulare	3,914	9,317	45,146	13,524		71,900	
Fresno	29,226	54,492	134,944	32,434		251,095	
Riverside/San Luis Obispo	2,192	6	34	-		2,232	
<b>Regional Total</b>	<b>58,737</b>	<b>124,223</b>	<b>294,485</b>	<b>81,598</b>	<b>20,000</b>	<b>559,043</b>	<b>579,043</b>
<b>% within region of Bearing Acres</b>	<b>10.5%</b>	<b>22.2%</b>	<b>52.7%</b>	<b>14.6%</b>		<b>100%</b>	
<b>Percentile within the State</b>	<b>28.2%</b>	<b>48.2%</b>	<b>43.0%</b>	<b>45.1%</b>	<b>24.1%</b>		
<b>State Total</b>	<b>208,392</b>	<b>257,768</b>	<b>684,339</b>	<b>205,897</b>	<b>83,000</b>	<b>1,338,496</b>	<b>1,421,496</b>
<b>Percent of State Total</b>	<b>15.4%</b>	<b>19.0%</b>	<b>50.5%</b>	<b>15.2%</b>		<b>100.0%</b>	

= 25,000 acres added to this category to account for Land IQ's non-verified acreage figure  
 = -17,900 acres removed to the total acreage to account for Land IQ's future removal figure.  
 = Land IQ has no specific acreage for 3rd leaf and younger acreage

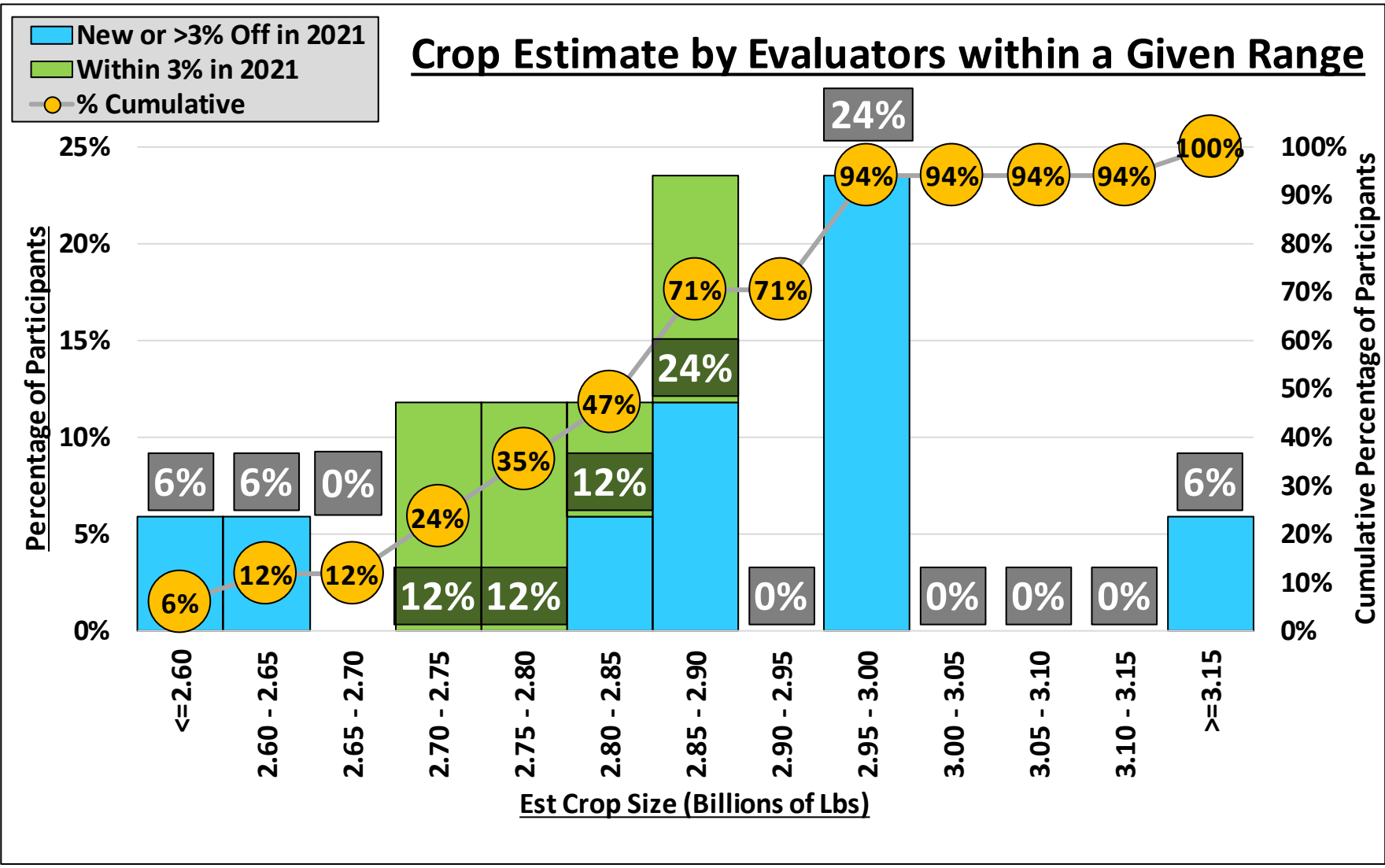
# 2022 California Almond Crop Evaluation & Estimate

## Individual Group Estimates – as of 5/11/22



# 2022 California Almond Crop Evaluation & Estimate

## Distribution of Estimates – as of 5/11/22



# Historical Almond Crop Estimates for California Almond Crop (Gross in Millions/Lbs.) - Updated 5/11/22

Crop Year	TNT		Variance		NASS Objective	Final Crop		Variance		NASS Subjective	Final Crop		Variance		WP&A Group Avg.	Final Crop	Variance		B. Ezell Estimate	Final Crop	Variance	
	Estimate	Crop	in M/Lbs.	in %		in M/Lbs.	in %	in M/Lbs.	in %		in M/Lbs.	in %	in M/Lbs.	in %			in M/Lbs.	in %			in M/Lbs.	in %
1996	558	508	51	10.0%	530	508	23	4.4%	520	508	13	2.5%										
1997	764	757	8	1.0%	680	757	(77)	-10.1%	710	757	(47)	-6.1%										
1998	522	517	5	1.0%	540	517	23	4.4%	550	517	33	6.4%										
1999	863	830	33	4.0%	830	830	0	0.0%	760	830	(70)	-8.4%										
2000	636	698	(63)	-9.0%	640	698	(58)	-8.4%	675	698	(23)	-3.4%										
2001	832	824	8	1.0%	850	824	26	3.2%	875	824	51	6.2%										
2002	961	1,082	(121)	-11.2%	980	1,082	(102)	-9.4%	940	1,082	(142)	-13.1%										
2003	930	1,033	(103)	-10.0%	1,000	1,033	(33)	-3.2%	920	1,033	(113)	-10.9%										
2004	1,140	998	142	14.2%	1,080	998	82	8.2%	1,100	998	102	10.2%										
2005	948	912	36	3.9%	880	912	(32)	-3.5%	850	912	(62)	-6.8%										
2006	970	1,117	(147)	-13.2%	1,050	1,117	(67)	-6.0%	1,020	1,117	(97)	-8.7%										
2007	1,370	1,383	(13)	-0.9%	1,330	1,383	(53)	-3.8%	1,310	1,383	(73)	-5.3%										
2008	1,290	1,614	(324)	-20.1%	1,500	1,614	(114)	-7.1%	1,460	1,614	(154)	-9.5%										
2009	1,300	1,406	(106)	-7.5%	1,350	1,406	(56)	-4.0%	1,450	1,406	44	3.1%										
2010	1,440	1,628	(188)	-11.5%	1,650	1,628	22	1.4%	1,530	1,628	(98)	-6.0%										
2011	1,840	2,020	(180)	-8.9%	1,950	2,020	(70)	-3.5%	1,750	2,020	(270)	-13.4%										
2012	1,830	1,884	(54)	-2.9%	2,100	1,884	216	11.5%	2,000	1,884	116	6.2%	2,099	1,884	215	11.4%	2,070	1,884	186	9.9%		
2013	1,960	2,010	(50)	-2.5%	1,850	2,010	(160)	-8.0%	2,000	2,010	(10)	-0.5%	1,997	2,010	(13)	-0.6%	2,035	2,010	25	1.2%		
2014	2,000	1,870	130	7.0%	2,100	1,870	230	12.3%	1,950	1,870	80	4.3%	1,943	1,870	73	3.9%	1,917	1,870	47	2.5%		
2015	1,880	1,895	(15)	-0.8%	1,800	1,895	(95)	-5.0%	1,850	1,895	(45)	-2.4%	1,831	1,895	(64)	-3.4%	1,862	1,895	(33)	-1.7%		
2016	2,060	2,135	(75)	-3.5%	2,050	2,135	(85)	-4.0%	2,000	2,135	(135)	-6.3%	2,055	2,135	(80)	-3.7%	2,086	2,135	(49)	-2.3%		
2017	2,270	2,260	10	0.4%	2,250	2,260	(10)	-0.4%	2,200	2,260	(60)	-2.7%	2,335	2,260	75	3.3%	2,340	2,260	80	3.5%		
2018	2,510	2,270	240	10.6%	2,450	2,270	180	7.9%	2,300	2,270	30	1.3%	2,200	2,270	(70)	-3.1%	2,223	2,270	(47)	-2.1%		
2019	2,530	2,551	(21)	-0.8%	2,200	2,551	(351)	-13.8%	2,500	2,551	(51)	-2.0%	2,570	2,551	19	0.7%	2,580	2,551	29	1.1%		
2020	2,960	3,107	(147)	-4.7%	3,000	3,107	(107)	-3.4%	3,000	3,107	(107)	-3.4%	2,850	3,107	(257)	-8.3%	2,880	3,107	(227)	-7.3%		
2021	2,800	2,910	(110)	-3.8%	2,800	2,910	(110)	-3.8%	3,200	2,910	290	10.0%	2,950	2,910	40	1.4%	2,943	2,910	33	1.1%		
2022 Est.	2,900												2,800				2,816					
Overall Straight Avg.			(41)	-2.2%			(30)	-1.7%			(31)	-2.3%			(6)	0.2%					4	0.6%
Most Recent 10 Yr Straight Avg.			(9)	-0.1%			(29)	-0.7%			11	0.4%			(6)	0.2%					4	0.6%
Most Recent 5 Yr Straight Avg.			(6)	0.3%			(80)	-2.7%			20	0.6%			(39)	-1.2%					(26)	-0.7%
Most Recent 3 Yr Straight Avg.			(93)	-3.1%			(189)	-7.0%			44	1.5%			(66)	-2.1%					(55)	-1.7%
# of times Over-estimated:		6	23.1%			8	30.8%			9	34.6%			4	40.0%					6	60.0%	
# of times Under-estimated:		13	50.0%			16	61.5%			16	61.5%			4	40.0%					4	40.0%	
# of times within +/- 1%:		7	26.9%			2	7.7%			1	3.8%			2	20.0%					0	0.0%	
Standard Deviation: CY13 - CY21:		121	5.2%			175	7.9%			127	4.8%			104	3.9%					91	3.3%	

= Current Outlook as of 4/12/22