

2024 STANDING ACREAGE - INITIAL ESTIMATE

In cooperation with the Almond Board of California

DRAFT for Release: April 24, 2024



RESULTS

Each year Land IQ produces an in-year, statewide almond acreage estimate. The initial bearing acreage estimate is provided in April, with the final estimate, including a non-bearing estimate, provided in November.

The initial bearing acreage estimate is for the 2024 production year (September 1, 2023 - August 31, 2024). Removed orchards have been determined through spatial analysis as of March 31, 2024. Therefore, a numerical estimate of orchards to be removed based on historical analyses and present conditions from April 1, 2024 through August 31, 2024 is also included.

As a result, the 2024 initial estimates are:

- 1,373,740 acres of bearing almonds
- 70,728 acres of removed almonds

Both bearing acreage and removals will be updated for the final 2024 total acreage estimate to be delivered in November 2024. It should be noted that bearing acreage may be adjusted slightly (+/- 1-3%) following summer 2024 ground truthing verification. Any change will mostly likely affect acreage transitioning from non-bearing in 2023 to bearing in 2024, thus the impact on estimates of overall production volume should be considered negligible.

The following table represents removals and bearing acreage by County as of March 31, 2024. Acreage by year planted and removals by year planted are provided on the following pages.

County	Bearing Acreage	Removed Acreage	County	Bearing Acreage	Removed Acreage
Alameda	1,545	0	Placer	4,389	0
Butte	30,078	698	Riverside	6	0
Calaveras	220	0	Sacramento	3,774	0
Colusa	63,017	1,444	San Joaquin	100,206	1,483
Contra Costa	2,289	0	San Luis Obispo	2,230	7
Fresno	250,014	10,126	Solano	23,855	81
Glenn	54,028	920	Stanislaus	179,308	6,609
Kern	177,397	12,329	Sutter	17,796	271
Kings	33,592	2,072	Tehama	21,482	28
Lake	44	0	Tulare	81,534	2,821
Madera	141,261	4,980	Yolo	43,435	853
Merced	145,219	5,207	Yuba	3,822	0

*Reflects standing acreage only, estimates are not included at the county level. Some differences may occur between sheets due to rounding.

INTRODUCTION

Beginning in 2019, the ABC began an annual mapping process with two acreage summaries, one delivered in April and one delivered in November, during the same production year. The Land IQ April delivery informs and aligns with the United States Department of Agriculture (USDA) – National Agricultural Statistics Service (NASS) California Almond Forecast, which is an initial subjective forecast for acreage and yield.

APPROACH

Land IQ draws upon on multiple lines of evidence including agronomic and remote sensing knowledge, unique field boundaries, robust on-the-ground verification, customized image analysis, artificial intelligence and machine learning algorithms to classify almond orchards.

For each mapped year, Land IQ performs the following steps:

1. Imagery Acquisition
2. Irrigated Field Boundary Delineation
3. Ground Truthing
4. Remote Sensing Analysis
5. Change Analysis and Update

For the initial estimate determining removals and bearing acreage, Land IQ utilizes the spatial mapping from 2023, in addition to a change analysis to determine removals.

2024 Initial Bearing and Removed Acreage Estimates by Year Planted

	1984		1985		1986		1987		1988	
	Standing	Removed	Standing	Removed	Standing	Removed	Standing	Removed	Standing	Removed
Alameda	0	0	0	0	0	0	0	0	0	0
Butte	4,670	136	14	0	79	0	246	0	157	0
Calaveras	12	0	0	0	0	0	0	0	0	0
Colusa	628	10	9	0	50	0	24	0	16	0
Contra Costa	3	0	0	0	0	0	0	0	0	0
Fresno	167	0	0	0	0	0	1	0	83	0
Glenn	846	0	47	0	58	0	11	66	6	0
Kern	21	207	2	33	0	0	0	0	36	0
Kings	0	0	0	0	0	0	0	0	0	0
Lake	0	0	0	0	0	0	0	0	0	0
Madera	1,629	100	2	7	83	56	4	0	12	0
Merced	5,770	590	216	0	143	0	317	18	321	66
Placer	0	0	0	0	0	0	0	0	0	0
Riverside	0	0	0	0	0	0	0	0	0	0
Sacramento	8	0	0	0	0	0	0	0	0	0
San Joaquin	3,628	193	213	5	64	0	140	0	154	20
San Luis Obispo	125	0	19	0	21	0	24	0	27	0
Solano	185	0	0	0	0	36	0	0	49	0
Stanislaus	7,530	908	267	3	171	28	264	47	396	94
Sutter	225	40	36	0	2	0	0	51	0	0
Tehama	333	0	7	0	23	0	0	0	0	0
Tulare	187	0	0	0	0	0	0	0	0	0
Yolo	126	0	0	0	1	0	0	0	30	0
Yuba	0	0	0	0	0	0	0	0	0	0
Grand Total	26,092	2,184	832	47	696	119	1,031	182	1,287	180

Source: Land IQ. California Statewide Almond Mapping - 2024. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

2024 Initial Bearing and Removed Acreage Estimates by Year Planted

	1989		1990		1991		1992		1993	
	Standing	Removed	Standing	Removed	Standing	Removed	Standing	Removed	Standing	Removed
Alameda	0	0	0	0	0	0	0	0	0	0
Butte	177	0	328	0	140	0	226	0	297	0
Calaveras	0	0	0	0	0	0	0	0	5	0
Colusa	15	30	289	0	42	36	22	0	232	0
Contra Costa	0	0	0	0	0	0	0	0	0	0
Fresno	99	0	236	0	117	0	128	0	229	20
Glenn	286	0	161	0	62	48	148	71	401	0
Kern	117	19	0	0	46	0	58	0	78	0
Kings	0	0	0	0	0	0	2	0	0	0
Lake	0	0	12	0	0	0	0	0	32	0
Madera	81	0	39	11	105	0	23	36	409	93
Merced	512	20	779	127	456	57	532	28	842	101
Placer	0	0	0	0	0	0	0	0	0	0
Riverside	0	0	0	0	0	0	0	0	0	0
Sacramento	0	0	0	0	0	0	0	0	0	0
San Joaquin	221	0	202	57	95	19	206	0	381	0
San Luis Obispo	31	0	49	0	6	0	45	0	5	7
Solano	3	0	35	0	0	0	53	0	87	0
Stanislaus	187	12	638	77	533	35	527	90	1,132	17
Sutter	36	0	104	25	42	0	16	57	43	0
Tehama	11	0	21	0	0	0	0	0	0	0
Tulare	0	0	3	0	78	0	75	0	169	38
Yolo	20	0	128	0	0	0	3	0	277	0
Yuba	0	0	0	0	0	0	0	0	36	0
Grand Total	1,795	80	3,023	295	1,722	194	2,063	281	4,655	276

Source: Land IQ. California Statewide Almond Mapping - 2024. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

2024 Initial Bearing and Removed Acreage Estimates by Year Planted

	1994		1995		1996		1997		1998	
	Standing	Removed	Standing	Removed	Standing	Removed	Standing	Removed	Standing	Removed
Alameda	0	0	0	0	0	0	0	0	0	0
Butte	182	0	353	0	103	0	255	0	699	106
Calaveras	0	0	0	0	0	0	0	0	0	0
Colusa	323	74	138	5	313	14	1,111	99	356	191
Contra Costa	0	0	0	0	0	0	0	0	6	0
Fresno	209	0	38	0	250	0	1,059	0	757	421
Glenn	357	0	119	0	268	53	358	0	136	17
Kern	142	0	0	68	439	214	535	147	2,234	403
Kings	0	0	0	0	0	0	17	0	556	0
Lake	0	0	0	0	0	0	0	0	0	0
Madera	449	167	383	150	424	250	729	194	918	56
Merced	526	72	634	168	956	349	1,411	414	961	291
Placer	0	0	0	0	0	0	0	0	0	0
Riverside	0	0	0	0	0	0	0	0	0	0
Sacramento	0	0	0	0	0	0	0	0	2	0
San Joaquin	152	4	244	51	853	85	655	64	568	95
San Luis Obispo	1,704	0	122	0	3	0	0	0	0	0
Solano	31	0	64	45	0	0	5	0	159	0
Stanislaus	1,072	465	688	371	902	247	1,320	275	2,281	328
Sutter	104	0	1	0	24	0	603	0	93	8
Tehama	5	0	18	0	89	8	97	0	108	0
Tulare	152	0	106	0	148	0	35	87	32	145
Yolo	42	0	12	0	232	0	79	26	174	0
Yuba	2	0	0	0	0	0	0	0	0	0
Grand Total	5,453	782	2,920	858	5,006	1,221	8,270	1,306	10,040	2,061

Source: Land IQ. California Statewide Almond Mapping - 2024. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

2024 Initial Bearing and Removed Acreage Estimates by Year Planted

	1999		2000		2001		2002		2003	
	Standing	Removed	Standing	Removed	Standing	Removed	Standing	Removed	Standing	Removed
Alameda	0	0	0	0	0	0	0	0	0	0
Butte	385	0	411	120	299	0	423	24	437	61
Calaveras	0	0	0	0	0	0	0	0	0	0
Colusa	1,611	111	1,009	0	1,498	28	914	147	1,707	266
Contra Costa	0	0	0	0	0	0	0	0	0	0
Fresno	1,114	53	1,804	367	1,765	444	3,718	289	3,059	523
Glenn	278	0	314	77	359	32	508	28	1,216	39
Kern	899	178	585	231	349	379	1,415	459	1,766	2,467
Kings	293	24	0	123	95	65	539	495	18	110
Lake	0	0	0	0	0	0	0	0	0	0
Madera	700	95	876	250	860	110	1,387	339	2,836	493
Merced	1,380	234	1,355	603	1,402	236	1,777	142	2,428	360
Placer	0	0	0	0	0	0	0	0	0	0
Riverside	0	0	0	0	0	0	0	0	0	0
Sacramento	0	0	0	0	0	0	0	0	0	0
San Joaquin	1,139	46	809	168	1,096	38	979	71	1,241	33
San Luis Obispo	0	0	0	0	0	0	0	0	9	0
Solano	87	0	112	0	146	0	34	0	148	0
Stanislaus	1,815	145	1,979	178	1,348	127	2,770	152	2,383	415
Sutter	95	29	74	0	103	0	0	0	126	0
Tehama	146	0	346	0	301	0	221	0	239	0
Tulare	540	31	85	0	19	0	261	165	394	221
Yolo	331	0	127	61	236	46	94	11	337	195
Yuba	0	0	47	0	0	0	0	0	0	0
Grand Total	10,812	945	9,934	2,178	9,878	1,506	15,041	2,322	18,343	5,183

Source: Land IQ. California Statewide Almond Mapping - 2024. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

2024 Initial Bearing and Removed Acreage Estimates by Year Planted

	2004		2005		2006		2007		2008	
	Standing	Removed	Standing	Removed	Standing	Removed	Standing	Removed	Standing	Removed
Alameda	0	0	0	0	0	0	0	0	0	0
Butte	815	186	1,109	0	525	0	672	0	3,244	38
Calaveras	0	0	0	0	0	0	0	0	0	0
Colusa	4,978	26	3,603	70	3,279	243	2,084	0	2,897	72
Contra Costa	0	0	0	0	0	0	0	0	0	0
Fresno	6,402	1,877	10,109	1,004	10,765	1,934	8,265	947	5,421	492
Glenn	1,640	84	2,346	109	1,777	0	1,739	0	3,645	264
Kern	4,749	2,282	11,580	2,206	10,254	1,607	5,303	722	4,806	192
Kings	778	44	407	378	790	161	526	0	334	157
Lake	0	0	0	0	0	0	0	0	0	0
Madera	5,014	340	4,580	789	6,649	742	5,979	221	10,706	23
Merced	5,765	331	5,406	498	5,926	37	7,713	173	2,497	92
Placer	0	0	0	0	0	0	0	0	0	0
Riverside	0	0	0	0	6	0	0	0	0	0
Sacramento	0	0	0	0	0	0	0	0	0	0
San Joaquin	2,489	15	2,092	36	1,812	24	1,871	193	1,556	14
San Luis Obispo	0	0	0	0	0	0	5	0	0	0
Solano	152	0	476	0	361	0	112	0	65	0
Stanislaus	9,702	561	6,304	602	5,327	593	6,494	218	5,669	180
Sutter	744	0	201	0	512	48	615	0	207	0
Tehama	564	0	224	0	510	0	1,109	2	1,180	18
Tulare	1,439	216	1,561	403	2,020	243	1,748	220	1,244	303
Yolo	945	268	935	45	1,382	86	1,059	26	1,089	0
Yuba	22	0	47	0	212	0	3	0	9	0
Grand Total	46,199	6,230	50,981	6,142	52,106	5,718	45,296	2,721	44,569	1,846

Source: Land IQ. California Statewide Almond Mapping - 2024. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

2024 Initial Bearing and Removed Acreage Estimates by Year Planted

	2009		2010		2011		2012		2013	
	Standing	Removed	Standing	Removed	Standing	Removed	Standing	Removed	Standing	Removed
Alameda	0	0	0	0	0	0	0	0	0	0
Butte	1,265	3	1,178	0	648	0	331	25	565	0
Calaveras	0	0	0	0	0	0	0	0	0	0
Colusa	2,505	0	2,069	0	2,058	0	1,219	0	1,885	0
Contra Costa	0	0	0	0	0	0	0	0	0	0
Fresno	5,121	115	5,418	120	8,263	79	9,150	66	11,954	52
Glenn	1,136	0	610	0	2,215	0	1,565	32	1,888	0
Kern	5,525	61	4,292	57	8,290	166	6,432	0	7,790	1
Kings	384	67	727	16	337	0	1,314	102	1,969	240
Lake	0	0	0	0	0	0	0	0	0	0
Madera	5,438	27	2,861	46	8,855	166	4,297	87	7,611	77
Merced	2,991	68	2,553	45	3,355	15	3,433	0	4,905	12
Placer	0	0	0	0	0	0	0	0	0	0
Riverside	0	0	0	0	0	0	0	0	0	0
Sacramento	0	0	0	0	0	0	0	0	0	0
San Joaquin	1,173	3	1,266	0	2,993	0	3,015	114	4,031	15
San Luis Obispo	0	0	0	0	0	0	0	0	0	0
Solano	121	0	38	0	128	0	13	0	181	0
Stanislaus	4,308	160	3,467	18	8,421	26	6,478	138	9,767	19
Sutter	414	0	172	0	355	0	60	0	349	0
Tehama	341	0	90	0	298	0	508	0	1,211	0
Tulare	2,135	63	2,231	64	2,850	224	1,910	0	1,081	0
Yolo	1,701	0	397	0	1,773	0	572	0	2,630	27
Yuba	0	0	7	0	31	0	0	0	222	0
Grand Total	34,557	566	27,375	367	50,870	675	40,295	565	58,039	445

Source: Land IQ. California Statewide Almond Mapping - 2024. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

2024 Initial Bearing and Removed Acreage Estimates by Year Planted

	2014		2015		2016		2017		2018	
	Standing	Removed	Standing	Removed	Standing	Removed	Standing	Removed	Standing	Removed
Alameda	146	0	376	0	166	0	0	0	185	0
Butte	726	0	778	0	2,133	0	1,453	0	2,181	0
Calaveras	0	0	99	0	80	0	0	0	0	0
Colusa	1,355	21	2,210	1	5,512	0	3,416	0	3,765	0
Contra Costa	0	0	0	0	55	0	236	0	18	0
Fresno	16,775	62	19,407	610	25,306	7	23,866	324	21,551	286
Glenn	2,432	0	466	0	5,579	0	4,683	0	4,478	0
Kern	9,247	0	10,920	10	19,228	5	12,187	47	18,758	14
Kings	2,339	35	3,671	51	6,792	3	2,331	0	3,238	0
Lake	0	0	0	0	0	0	0	0	0	0
Madera	12,071	20	7,707	15	11,290	9	11,572	1	7,137	0
Merced	10,421	16	7,205	6	10,635	14	8,301	10	13,692	8
Placer	21	0	0	0	1,032	0	0	0	710	0
Riverside	0	0	0	0	0	0	0	0	0	0
Sacramento	68	0	185	0	915	0	202	0	1,434	0
San Joaquin	7,041	17	4,427	0	7,643	49	7,070	4	9,190	51
San Luis Obispo	31	0	0	0	0	0	3	0	0	0
Solano	2,664	0	4,863	0	4,540	0	2,531	0	1,886	0
Stanislaus	12,478	4	8,915	50	12,353	5	9,231	0	13,336	21
Sutter	380	0	449	0	2,571	0	400	0	2,071	0
Tehama	1,437	0	540	0	3,398	0	826	0	2,065	0
Tulare	7,624	44	7,546	20	11,249	279	5,432	0	10,542	55
Yolo	3,948	0	4,141	56	5,483	0	3,926	3	3,253	0
Yuba	164	0	215	0	345	0	55	0	391	0
Grand Total	91,369	218	84,120	819	136,304	372	97,722	389	119,881	436

Source: Land IQ. California Statewide Almond Mapping - 2024. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

2024 Initial Bearing and Removed Acreage Estimates by Year Planted

	2019		2020		2021*		2022 - 2023**		TOTAL	
	Standing	Removed	Standing	Removed	Standing	Removed	Standing	Removed	Bearing	Removed
Alameda	540	0	132	0	0	0			1,545	0
Butte	650	0	1,337	0	589	0			30,078	698
Calaveras	0	0	0	0	23	0			220	0
Colusa	4,077	0	3,694	1	2,104	0			63,017	1,444
Contra Costa	133	0	1,598	0	240	0			2,289	0
Fresno	15,054	2	18,869	17	13,483	14			250,014	10,126
Glenn	2,403	0	5,572	0	3,914	0			54,028	920
Kern	12,296	152	11,082	0	5,940	0			177,397	12,329
Kings	2,637	0	2,491	0	1,007	0			33,592	2,072
Lake	0	0	0	0	0	0			44	0
Madera	7,952	6	6,083	2	3,509	0			141,261	4,980
Merced	12,803	1	11,341	5	3,558	0			145,219	5,207
Placer	325	0	1,978	0	323	0			4,389	0
Riverside	0	0	0	0	0	0			6	0
Sacramento	294	0	597	0	69	0			3,774	0
San Joaquin	8,494	0	15,982	0	5,022	0			100,206	1,483
San Luis Obispo	0	0	0	0	0	0			2,230	7
Solano	2,024	0	1,160	0	1,340	0			23,855	81
Stanislaus	11,718	0	11,438	1	5,699	0			179,308	6,609
Sutter	1,966	14	2,957	0	1,645	0			17,796	271
Tehama	1,176	0	2,926	0	1,111	0			21,482	28
Tulare	3,560	0	10,093	0	4,985	0			81,534	2,821
Yolo	2,191	0	3,860	4	1,904	0			43,435	853
Yuba	771	0	432	0	811	0			3,822	0
Grand Total	91,065	175	113,622	30	71,276	14			1,394,540	49,928

Estimated Removals (4/1/2024-08/31//2024) 20,800 20,800
Total Estimated Acres 1,373,740 70,728

Source: Land IQ. California Statewide Almond Mapping - 2024. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

* 2021 Bearing Acreage will be finalized in November. An estimate of 14,000 acres has been added to the total, but not to each county.

** A non-bearing estimate will be provided in November.