

2023 STANDING ACREAGE - FINAL ESTIMATE

In cooperation with the Almond Board of California

Released: November 21, 2023



RESULTS

Each year Land IQ produces an in-year, statewide almond acreage estimate. This estimate is the result of extensive ground truthing and advanced remote sensing analytics, allowing Land IQ to differentiate almond orchards from other tree and annual crops.

The result is a highly accurate mapping of almonds that are a minimum of three years old. Almond orchards that are less than 3 years old cannot be consistently differentiated from other similarly aged tree crops using remotely sensed methods. The ground truthing data, proportionality of almonds to other tree crops, and other lines of evidence are used to numerically estimate acreage for orchards that are one and two years old. Both the remotely sensed and numerical estimates are combined for a total statewide acreage estimate. The 2023 estimate is 98.8% accurate.

As a result, the 2023 acreage estimate is:

- **189,005 non-bearing acres**
(defined as those orchards planted in 2021, 2022, and 2023)
- **1,374,331 bearing acres**
(defined as those orchards planted in 2020 and earlier)
- **1,563,336 total acres**
(defined as total standing acres during the growing season of 2023)

Each mapping year, Land IQ not only maps all almond orchards within the state, but also applies a separate algorithm to quantify the age of each individual orchard. The accuracy of this estimate is greater than 95% at +/- 1 year. Based on that analysis, Land IQ determined that :

- 12 percent of California's almond orchards were 1-3 years old,
- 47 percent were between 4 and 10 years old,
- 30 percent were between 11 and 20 years old,
- 5 percent were between 21 and 25 years old, and
- 5 percent were over 25 years old.

INTRODUCTION

Beginning in 2019, the Almond Board of California (ABC) began an annual mapping process with two acreage summaries, one delivered in April and one delivered in November, of the same production year. Land IQ's April delivery 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 production.

APPROACH

Land IQ draws upon 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, the following steps are taken as the basis for determination of bearing acreage and the numerical estimate of non-bearing acreage.

Imagery Acquisition

Evaluate and acquire imagery from various sources based upon cost and spectral, spatial and temporal resolution suitability. New imagery sources allow for annual mapping of almonds.

Field Boundary Delineation

Utilize imagery and other resources to delineate individual fields defined as a homogenous crop. These boundaries are not legal boundaries of the property and do not include roads, homes or farmsteads. Irrigated field boundary positional accuracies are +/- 6 feet at a 95% confidence interval.

Ground Truthing

Identify and geo-reference crops through thousands of miles of actual verified orchards from Tehama to Kern County. These data provide necessary training data for algorithms as well as validation data for the classification.

Remote Sensing Analysis

Utilize custom image analysis, artificial intelligence, and machine learning algorithms to determine crop type. This allows for the differentiation of almond orchards from other tree and annual crops. Accuracy assessments are performed using statistical probability and validated against ground truth information.

Change Analysis and Update

Determine which orchards have been removed or added using a change analysis as part of the overall remote sensing efforts.

Non-Bearing Estimate

During the second mapping event, an estimate of non-bearing acreage is conducted, taking into account the data collected with ground truthing in the summer months.

2023 Standing Almond Acreage by County, Year Planted

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Alameda	0	0	0	0	0	0	0	0	0	0	0
Butte	4,806	14	79	246	157	177	328	140	226	297	182
Calaveras	12	0	0	0	0	0	0	0	0	5	0
Colusa	637	9	50	24	16	44	289	78	22	232	397
Contra Costa	3	0	0	0	0	0	0	0	0	0	0
Fresno	167	0	0	1	83	100	236	117	128	249	209
Glenn	846	47	58	77	6	286	161	111	219	401	357
Kern	228	35	0	0	36	135	0	46	58	78	142
Kings	0	0	0	0	0	0	0	0	2	0	0
Lake	0	0	0	0	0	0	12	0	0	32	0
Madera	1,729	9	139	4	12	81	50	105	60	502	616
Merced	6,361	216	143	335	387	532	906	513	560	943	598
Placer	0	0	0	0	0	0	0	0	0	0	0
Riverside	0	0	0	0	0	0	0	0	0	0	0
Sacramento	8	0	0	0	0	0	0	0	0	0	0
San Joaquin	3,821	217	64	140	174	221	259	114	206	381	156
San Luis Obispo	125	19	21	24	27	31	49	6	45	12	1,704
Shasta	0	0	0	0	0	0	0	0	0	0	0
Solano	185	0	36	0	49	3	35	0	53	87	31
Stanislaus	8,461	270	198	315	496	199	715	568	616	1,150	1,537
Sutter	265	36	2	51	0	36	129	42	73	43	104
Tehama	333	7	23	0	0	11	21	0	0	0	5
Tulare	187	0	0	0	0	0	3	78	75	208	152
Yolo	126	0	1	0	30	20	128	0	3	277	42
Yuba	0	0	0	0	0	0	0	0	0	36	2
Grand Total	28,300	880	815	1,218	1,473	1,876	3,318	1,917	2,344	4,932	6,235

Source: Land IQ. California Statewide Almond Mapping - 2023. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

*The county level, non-bearing acreages for 2021 are approximately 75% spatially mapped and age-verified orchards. The remaining 2021 acreages are numerically estimated according to the spatially mapped acreage and ground truthing during 2023. While bearing acreage mapping has been validated with an accuracy of 98.8%, non-bearing numerical acreage estimates should be understood to have an estimated +/-10% potential variability.

**The estimated non-bearing acreages for 2022 and 2023 are numeric estimates only and are based on extensive ground truthing, image analysis, and other lines of evidence. While bearing acreage mapping has been validated with an accuracy of 98.8%, non-bearing numerical acreage estimates should be understood to have an estimated +/-10% potential variability.

2023 Standing Almond Acreage by County, Year Planted

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Alameda	0	0	0	0	0	0	0	0	0	0	0
Butte	353	103	255	805	384	531	299	447	497	1,001	1,109
Calaveras	0	0	0	0	0	0	0	0	0	0	0
Colusa	143	327	1,210	547	1,721	1,009	1,526	1,062	1,973	5,004	3,673
Contra Costa	0	0	0	6	0	0	0	0	0	0	0
Fresno	38	250	1,059	1,332	1,167	2,173	2,210	4,009	3,582	8,322	11,123
Glenn	119	321	358	152	278	391	391	536	1,255	1,724	2,456
Kern	68	654	682	2,638	1,077	815	728	1,874	4,233	7,190	13,825
Kings	0	0	17	556	318	123	160	1,034	128	822	785
Lake	0	0	0	0	0	0	0	0	0	0	0
Madera	533	675	923	974	794	1,126	970	1,726	3,329	5,354	5,381
Merced	803	1,305	1,826	1,207	1,614	1,958	1,639	1,919	2,788	6,096	5,905
Placer	0	0	0	0	0	0	0	0	0	0	0
Riverside	0	0	0	0	0	0	0	0	0	0	0
Sacramento	0	0	0	2	0	0	0	0	0	0	0
San Joaquin	295	938	718	663	1,184	978	1,134	1,050	1,274	2,504	2,128
San Luis Obispo	122	3	0	0	0	0	0	0	9	0	0
Shasta	0	0	0	3	0	0	0	0	0	0	0
Solano	110	0	5	159	87	112	146	34	148	152	476
Stanislaus	1,096	1,149	1,598	2,654	1,961	2,158	1,476	2,922	2,797	10,262	6,906
Sutter	1	24	603	101	124	74	103	0	126	744	201
Tehama	18	98	97	108	146	346	301	221	239	564	224
Tulare	106	148	123	177	571	85	19	426	615	1,655	1,965
Yolo	12	232	104	174	331	188	282	106	531	1,213	980
Yuba	0	0	0	0	0	47	0	0	0	22	47
Grand Total	3,817	6,226	9,579	12,259	11,758	12,114	11,384	17,365	23,527	52,629	57,182

Source: Land IQ. California Statewide Almond Mapping - 2023. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

*The county level, non-bearing acreages for 2021 are approximately 75% spatially mapped and age-verified orchards. The remaining 2021 acreages are numerically estimated according to the spatially mapped acreage and ground truthing during 2023. While bearing acreage mapping has been validated with an accuracy of 98.8%, non-bearing numerical acreage estimates should be understood to have an estimated +/-10% potential variability.

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2023 Standing Almond Acreage by County, Year Planted

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Alameda	0	0	0	0	0	0	0	0	146	376	166
Butte	525	672	3,282	1,268	1,178	648	356	565	726	778	2,133
Calaveras	0	0	0	0	0	0	0	0	0	99	80
Colusa	3,522	2,084	2,969	2,505	2,069	2,058	1,219	1,885	1,377	2,211	5,512
Contra Costa	0	0	0	0	0	0	0	0	0	0	55
Fresno	12,722	9,212	5,913	5,236	5,572	8,341	9,216	12,006	16,846	20,023	25,518
Glenn	1,777	1,739	3,908	1,136	610	2,215	1,596	1,888	2,432	466	5,579
Kern	11,861	6,025	4,998	5,586	4,349	8,455	6,432	7,791	9,247	10,930	19,233
Kings	951	526	491	461	744	337	1,416	2,209	2,374	3,724	6,795
Lake	0	0	0	0	0	0	0	0	0	0	0
Madera	7,407	6,200	10,914	5,465	2,907	9,021	4,386	7,688	12,091	7,722	11,299
Merced	5,963	7,886	2,594	3,058	2,598	3,370	3,433	4,918	10,436	7,215	10,650
Placer	0	0	0	0	0	0	0	0	21	0	1,032
Riverside	6	0	0	0	0	0	0	0	0	0	0
Sacramento	0	0	0	0	0	0	0	0	68	185	915
San Joaquin	1,835	2,064	1,570	1,177	1,266	2,993	3,129	4,048	7,058	4,427	7,707
San Luis Obispo	0	5	0	0	0	0	0	0	31	0	0
Shasta	0	0	0	0	0	0	0	0	0	0	0
Solano	361	112	65	121	38	128	13	181	2,664	4,863	4,540
Stanislaus	5,920	6,714	5,850	4,468	3,485	8,447	6,617	9,787	12,482	8,966	12,368
Sutter	560	615	207	414	172	355	60	349	380	449	2,571
Tehama	510	1,110	1,198	341	90	298	508	1,211	1,437	540	3,398
Tulare	2,263	1,968	1,548	2,218	2,294	3,073	1,910	1,081	7,668	7,565	11,528
Yolo	1,468	1,085	1,089	1,701	397	1,774	572	2,657	3,948	4,197	5,483
Yuba	212	3	9	0	7	31	0	222	164	215	345
Grand Total	57,863	48,018	46,605	35,156	27,777	51,546	40,862	58,486	91,596	84,951	136,907

Source: Land IQ. California Statewide Almond Mapping - 2023. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

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2023 Standing Almond Acreage by County, Year Planted

	2017	2018	2019	2020	2021*	2022-2023**	Bearing Grand Total***	Non-Bearing Estimate	Grand Total***
Alameda	0	185	540	132	0		1,545		1,545
Butte	1,453	2,181	650	1,337	589		30,188		30,777
Calaveras	0	0	0	0	23		197		220
Colusa	3,416	3,765	4,077	3,690	2,103		62,353		64,455
Contra Costa	236	18	133	1,598	240		2,050		2,289
Fresno	24,209	21,837	15,057	18,890	13,498		247,150		260,648
Glenn	4,683	4,478	2,403	5,572	3,914		51,034		54,948
Kern	12,242	18,773	12,447	11,081	5,940		183,992		189,932
Kings	2,331	3,238	2,637	2,508	989		34,687		35,677
Lake	0	0	0	0	0		44		44
Madera	11,573	7,137	7,958	6,074	3,509		142,934		146,443
Merced	8,311	13,700	12,804	11,283	3,598		146,773		150,371
Placer	0	710	325	1,978	323		4,065		4,389
Riverside	0	0	0	0	0		6		6
Sacramento	202	1,434	295	597	69		3,705		3,774
San Joaquin	7,191	9,241	8,496	15,984	5,022		96,803		101,825
San Luis Obispo	3	0	0	0	0		2,237		2,237
Shasta	0	0	0	0	0		3		3
Solano	2,531	1,886	2,024	1,160	1,340		22,595		23,936
Stanislaus	9,231	13,357	11,723	11,440	5,681		180,361		186,042
Sutter	400	2,071	1,980	2,955	1,650		16,421		18,071
Tehama	826	2,065	1,176	2,926	1,111		20,399		21,509
Tulare	5,432	10,597	3,560	10,094	4,985		79,392		84,376
Yolo	3,929	3,253	2,191	3,866	1,904		42,388		44,291
Yuba	55	391	771	432	811		3,011		3,822
Grand Total	98,254	120,318	91,247	113,596	57,298		1,374,331	189,005	1,563,336

Source: Land IQ. California Statewide Almond Mapping - 2023. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

*The county level, non-bearing acreages for 2021 are approximately 75% spatially mapped and age-verified orchards. The remaining 2021 acreages are numerically estimated according to the spatially mapped acreage and ground truthing during 2023. While bearing acreage mapping has been validated with an accuracy of 98.8%, non-bearing numerical acreage estimates should be understood to have an estimated +/- 10% potential variability.

**The estimated non-bearing acreages for 2022 and 2023 are numeric estimates only and are based on extensive ground truthing, image analysis, and other lines of evidence. While bearing acreage mapping has been validated with an accuracy of 98.8%, non-bearing numerical acreage estimates should be understood to have an estimated +/-10% potential variability.

*** The Bearing Grand Total and Grand Total include standing acreage that is considered stressed or abandoned and may not be in full production. Please refer to the Removals Report for more information.

2023 REMOVALS UPDATE

In cooperation with the Almond Board of California

Released: November 21, 2023

RESULTS

Each year Land IQ produces an initial bearing acreage estimate in April, which includes a removals analysis as of March 31, 2023. In addition to the spatial analysis, a numerical estimate of orchards to be removed between April 1, 2023 and August 31, 2023 was provided based on actual ground truthing, historical analyses, and current conditions.

Beginning in 2021, due to extreme drought and significant water supply issues, Land IQ began performing an additional analysis to determine how many acres were removed during the crop year or in various degrees of abandonment.

As a result, the 2023 removals estimate was updated:

- 58,314 - Acres removed: September 1, 2022 - March 31, 2023
- 24,644 - Acres removed: April 1, 2023 - August 31, 2023
- 82,958 - Total acres removed in 2023 crop year

The average age of removed orchards in the 2023 crop year was 21.8 years old.

Considering abandoned orchards may have the ability to recover dependent on conditions, the number of acres in various degrees of abandonment was also analyzed. These orchards are included in the standing acreage numbers provided, as they have not been removed.

- 21,411 acres - Stressed in Crop Year (CY) 2023 or 2022
- 11,523 acres - Potentially Abandoned in CY 2023 or 2022
- 7,986 acres - Long Term Abandoned

Table 1. Removed and Potentially Abandoned Acreage by County

County	Removed Acreage	Potentially Abandoned Acreage	County	Removed Acreage	Potentially Abandoned Acreage
Alameda	0	0	Riverside	0	6
Butte	2,864	236	Sacramento	0	4
Calaveras	0	41	San Joaquin	2,227	1,425
Colusa	1,723	425	San Luis Obispo	16	2,237
Contra Costa	0	9	Shasta	0	3
Fresno	22,313	8,349	Solano	22	505
Glenn	1,901	273	Stanislaus	7,436	4,871
Kern	20,893	8,217	Sutter	423	156
Kings	2,779	2,675	Tehama	348	277
Lake	0	44	Tulare	2,967	1,672
Madera	7,853	2,041	Yolo	2,276	1,514
Merced	6,793	5,826	Yuba	125	110
Placer	0	0			



DEFINITIONS

The spatial analyses of removed and abandoned orchards resulted in varied conditions among orchards. As a result, Land IQ has defined the following conditions:

Removed Orchards

Orchards that were removed between September 1, 2022 and August 31, 2023.

Potentially Abandoned Orchards

Orchards that were in various levels of abandonment:

- **Stressed - CY 2023 or 2022** - These orchards show visual stress, but do not appear fully abandoned. Many orchards have shown a drop in Normalized Difference Vegetative Index (NDVI) in the late summer or early fall, but have likely been irrigated for some of the year. This also includes relatively young orchards that have shown a drop in vigor, but do not have high enough canopy coverage to clearly identify abandonment. Although not always true, it is assumed that most of these orchards will produce in future years. Condition of these orchards will continue to be monitored.
- **Potentially Abandoned - CY 2023** - These orchards were potentially abandoned within the 2022 or 2023 crop year and appear not to have been irrigated for most or all of the year.
- **Long Term Abandoned** - These orchards have been abandoned prior to the 2022 or 2023 crop year, but have not yet been removed.

2023 Removed and Abandoned Acreage Estimates by Year Planted

	1984				1985				1986			
	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term
Alameda	0	0	0	0	0	0	0	0	0	0	0	0
Butte	868	32	0	83	38	0	0	0	123	7	0	0
Calaveras	0	0	0	12	0	0	0	0	0	0	0	0
Colusa	1	16	0	0	0	3	0	0	0	0	0	0
Contra Costa	0	0	0	3	0	0	0	0	0	0	0	0
Fresno	39	24	0	49	74	0	0	0	0	0	0	0
Glenn	118	0	0	11	0	0	0	0	0	0	0	0
Kern	43	153	0	0	0	0	0	0	0	0	0	0
Kings	0	0	0	0	0	0	0	0	0	0	0	0
Lake	0	0	0	0	0	0	0	0	0	0	0	0
Madera	45	11	0	19	0	0	0	0	0	33	0	0
Merced	895	364	0	13	0	40	0	0	0	14	0	0
Placer	0	0	0	0	0	0	0	0	0	0	0	0
Riverside	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	0	0	0	4	0	0	0	0	0	0	0	0
San Joaquin	574	89	26	42	2	0	0	0	19	0	0	0
San Luis Obispo	0	33	0	93	0	0	0	19	0	0	0	21
Shasta	0	0	0	0	0	0	0	0	0	0	0	0
Solano	5	0	0	18	0	0	0	0	0	0	0	0
Stanislaus	1,128	772	91	32	9	19	36	2	113	28	0	6
Sutter	157	0	16	0	0	0	0	0	0	0	0	0
Tehama	31	0	0	0	0	0	0	0	0	0	0	0
Tulare	0	0	0	0	0	0	0	0	0	0	0	0
Yolo	0	18	0	61	0	0	0	0	0	0	0	1
Yuba	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	3,903	1,514	133	438	124	62	36	21	256	81	0	28

Source: Land IQ, California Statewide Almond Mapping - 2023. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

Stressed Crop Year (CY) 2023 or 2022: These orchards show visual stress, but do not appear fully abandoned. Many orchards have shown a drop in NDVI in the late summer or early fall, but have been watered for most of the year. This also includes relatively young orchards that have shown a drop in vigor, but do not have high enough canopy coverage to clearly identify abandonment.

Potentially Abandoned Crop Year (CY) 2023 or 2022: These orchards were potentially abandoned and not appear to have been watered for most of the 2023 and 2022 crop year.

Abandoned Long Term: These orchards look to have been abandoned prior to the 2022 and 2023 crop years but have not yet been removed.

2023 Removed and Abandoned Acreage Estimates by Year Planted

	1987				1988				1989			
	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term
Alameda	0	0	0	0	0	0	0	0	0	0	0	0
Butte	0	0	0	0	23	0	0	0	0	0	0	0
Calaveras	0	0	0	0	0	0	0	0	0	0	0	0
Colusa	0	0	0	0	0	0	0	0	3	0	0	5
Contra Costa	0	0	0	0	0	0	0	0	0	0	0	0
Fresno	0	0	0	0	0	5	0	65	6	2	0	0
Glenn	0	0	0	0	0	0	0	6	0	0	0	0
Kern	0	0	0	0	0	0	0	0	37	0	0	0
Kings	0	0	0	0	0	0	0	0	0	0	0	0
Lake	0	0	0	0	0	0	0	0	0	0	0	0
Madera	61	0	0	0	0	0	0	0	36	0	0	0
Merced	6	6	0	0	36	38	0	0	37	0	0	0
Placer	0	0	0	0	0	0	0	0	0	0	0	0
Riverside	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	0	0	0	0	0	0	0	0	0	0	0	0
San Joaquin	2	19	0	0	87	0	0	0	24	0	0	0
San Luis Obispo	0	0	0	24	0	0	0	27	0	0	0	31
Shasta	0	0	0	0	0	0	0	0	0	0	0	0
Solano	0	0	0	0	0	0	0	11	0	0	0	0
Stanislaus	162	0	0	2	56	38	122	35	58	22	0	1
Sutter	0	0	0	0	0	0	0	0	0	0	22	0
Tehama	0	0	0	0	0	0	0	0	0	0	0	0
Tulare	0	0	0	0	0	0	0	0	0	0	0	0
Yolo	0	0	0	0	0	0	0	3	0	0	0	0
Yuba	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	231	25	0	26	203	81	122	148	201	24	22	36

Source: Land IQ, California Statewide Almond Mapping - 2023. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

Stressed Crop Year (CY) 2023 or 2022: These orchards show visual stress, but do not appear fully abandoned. Many orchards have shown a drop in NDVI in the late summer or early fall, but have been watered for most of the year. This also includes relatively young orchards that have shown a drop in vigor, but do not have high enough canopy coverage to clearly identify abandonment.

Potentially Abandoned Crop Year (CY) 2023 or 2022: These orchards were potentially abandoned and not appear to have been watered for most of the 2023 and 2022 crop year.

Abandoned Long Term: These orchards look to have been abandoned prior to the 2022 and 2023 crop years but have not yet been removed.

2023 Removed and Abandoned Acreage Estimates by Year Planted

	1990				1991				1992			
	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term
Alameda	0	0	0	0	0	0	0	0	0	0	0	0
Butte	17	3	0	1	47	0	0	0	197	0	0	0
Calaveras	0	0	0	0	0	0	0	0	0	0	0	0
Colusa	42	65	0	12	0	0	0	0	79	0	0	0
Contra Costa	0	0	0	0	0	0	0	0	0	0	0	0
Fresno	336	21	0	20	46	0	0	0	262	0	0	3
Glenn	0	0	0	4	48	0	0	0	33	0	18	1
Kern	57	0	0	0	0	0	0	0	0	0	0	2
Kings	0	0	0	0	0	0	0	0	0	0	0	0
Lake	0	0	0	12	0	0	0	0	0	0	0	0
Madera	50	0	0	4	0	0	0	0	52	0	0	0
Merced	35	144	0	0	30	7	0	0	241	25	0	0
Placer	0	0	0	0	0	0	0	0	0	0	0	0
Riverside	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	0	0	0	0	0	0	0	0	0	0	0	0
San Joaquin	58	0	0	1	8	0	0	2	18	0	0	0
San Luis Obispo	0	0	0	49	0	0	0	6	0	0	0	45
Shasta	0	0	0	0	0	0	0	0	0	0	0	0
Solano	8	0	0	35	0	0	0	0	0	0	0	0
Stanislaus	44	53	5	2	85	0	0	4	44	63	0	0
Sutter	9	13	0	0	13	2	0	0	0	0	0	0
Tehama	0	4	0	0	0	0	0	0	0	0	0	0
Tulare	0	1	0	0	0	0	0	0	0	0	0	0
Yolo	2	85	0	11	0	0	0	0	0	0	0	0
Yuba	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	656	388	5	153	277	9	0	12	927	89	18	50

Source: Land IQ. California Statewide Almond Mapping - 2023. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

Stressed Crop Year (CY) 2023 or 2022: These orchards show visual stress, but do not appear fully abandoned. Many orchards have shown a drop in NDVI in the late summer or early fall, but have been watered for most of the year. This also includes relatively young orchards that have shown a drop in vigor, but do not have high enough canopy coverage to clearly identify abandonment.

Potentially Abandoned Crop Year (CY) 2023 or 2022: These orchards were potentially abandoned and not appear to have been watered for most of the 2023 and 2022 crop year.

Abandoned Long Term: These orchards look to have been abandoned prior to the 2022 and 2023 crop years but have not yet been removed.

2023 Removed and Abandoned Acreage Estimates by Year Planted

	1993				1994				1995			
	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term
Alameda	0	0	0	0	0	0	0	0	0	0	0	0
Butte	193	0	0	0	0	0	0	0	0	0	0	0
Calaveras	0	0	0	5	0	0	0	0	0	0	0	0
Colusa	54	0	0	0	105	58	0	0	78	0	0	0
Contra Costa	0	0	0	0	0	0	0	0	0	0	0	0
Fresno	0	3	0	0	0	111	0	0	0	0	0	0
Glenn	47	0	0	0	63	0	0	0	129	0	0	0
Kern	41	0	0	0	151	2	0	3	110	0	0	0
Kings	0	0	0	0	0	0	0	0	0	0	0	0
Lake	0	0	0	32	0	0	0	0	0	0	0	0
Madera	208	53	0	0	186	4	0	0	48	20	0	0
Merced	394	121	0	0	300	18	36	0	154	19	0	0
Placer	0	0	0	0	0	0	0	0	0	0	0	0
Riverside	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	0	0	0	0	0	0	0	0	0	0	0	0
San Joaquin	57	56	12	0	24	39	0	0	67	0	8	2
San Luis Obispo	0	0	0	12	0	25	0	1,679	16	0	0	122
Shasta	0	0	0	0	0	0	0	0	0	0	0	0
Solano	0	0	0	0	0	0	0	0	8	0	41	0
Stanislaus	147	303	0	27	148	25	8	0	196	41	79	3
Sutter	0	0	0	0	21	0	0	0	0	0	0	0
Tehama	0	0	0	0	0	0	0	0	41	0	0	0
Tulare	0	0	0	0	0	0	0	0	0	27	0	0
Yolo	68	7	0	270	0	0	0	0	161	0	0	1
Yuba	0	36	0	0	0	2	0	0	0	0	0	0
Grand Total	1,208	578	12	346	997	285	45	1,683	1,008	107	129	128

Source: Land IQ. California Statewide Almond Mapping - 2023. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

Stressed Crop Year (CY) 2023 or 2022: These orchards show visual stress, but do not appear fully abandoned. Many orchards have shown a drop in NDVI in the late summer or early fall, but have been watered for most of the year. This also includes relatively young orchards that have shown a drop in vigor, but do not have high enough canopy coverage to clearly identify abandonment.

Potentially Abandoned Crop Year (CY) 2023 or 2022: These orchards were potentially abandoned and not appear to have been watered for most of the 2023 and 2022 crop year.

Abandoned Long Term: These orchards look to have been abandoned prior to the 2022 and 2023 crop years but have not yet been removed.

2023 Removed and Abandoned Acreage Estimates by Year Planted

	1996				1997				1998			
	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term
Alameda	0	0	0	0	0	0	0	0	0	0	0	0
Butte	0	0	0	0	134	0	0	2	97	0	0	0
Calaveras	0	0	0	0	0	0	0	0	0	0	0	0
Colusa	18	0	0	0	80	7	0	0	88	0	0	0
Contra Costa	0	0	0	0	0	0	0	0	0	0	0	6
Fresno	48	9	0	33	722	274	0	0	683	145	150	161
Glenn	114	0	0	0	248	0	0	0	32	0	0	0
Kern	396	223	0	0	323	0	0	0	453	71	58	157
Kings	0	0	0	0	87	1	0	0	14	11	15	529
Lake	0	0	0	0	0	0	0	0	0	0	0	0
Madera	39	34	0	24	631	79	0	43	190	33	0	0
Merced	611	135	139	0	503	263	317	0	223	37	0	1
Placer	0	0	0	0	0	0	0	0	0	0	0	0
Riverside	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	0	0	0	0	0	0	0	0	0	0	0	0
San Joaquin	116	27	24	0	40	0	20	0	201	0	15	0
San Luis Obispo	0	0	0	3	0	0	0	0	0	0	0	0
Shasta	0	0	0	0	0	0	0	0	0	3	0	0
Solano	0	0	0	0	0	0	0	0	0	0	0	0
Stanislaus	387	204	30	0	444	67	59	9	546	51	0	0
Sutter	22	0	0	0	0	0	0	0	70	25	0	0
Tehama	0	0	0	7	166	0	0	0	0	0	0	0
Tulare	0	54	0	0	53	87	0	0	76	9	0	0
Yolo	11	102	0	0	342	2	0	0	26	16	0	0
Yuba	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	1,762	787	193	67	3,771	781	397	54	2,701	402	239	855

Source: Land IQ. California Statewide Almond Mapping - 2023. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

Stressed Crop Year (CY) 2023 or 2022: These orchards show visual stress, but do not appear fully abandoned. Many orchards have shown a drop in NDVI in the late summer or early fall, but have been watered for most of the year. This also includes relatively young orchards that have shown a drop in vigor, but do not have high enough canopy coverage to clearly identify abandonment.

Potentially Abandoned Crop Year (CY) 2023 or 2022: These orchards were potentially abandoned and not appear to have been watered for most of the 2023 and 2022 crop year.

Abandoned Long Term: These orchards look to have been abandoned prior to the 2022 and 2023 crop years but have not yet been removed.

2023 Removed and Abandoned Acreage Estimates by Year Planted

	1999				2000				2001			
	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term
Alameda	0	0	0	0	0	0	0	0	0	0	0	0
Butte	79	0	0	0	93	0	0	0	65	0	0	0
Calaveras	0	0	0	0	0	0	0	0	0	0	0	0
Colusa	235	36	0	3	267	8	0	0	43	1	0	0
Contra Costa	0	0	0	0	0	0	0	0	0	0	0	0
Fresno	1,037	158	160	0	1,962	223	315	19	1,507	161	0	0
Glenn	0	0	0	0	0	0	0	0	74	0	0	0
Kern	1,340	75	0	0	865	33	51	0	499	76	0	0
Kings	75	24	0	293	165	123	0	0	78	95	0	47
Lake	0	0	0	0	0	0	0	0	0	0	0	0
Madera	186	0	0	0	617	24	0	127	425	0	0	0
Merced	270	99	0	0	150	472	76	0	582	273	0	0
Placer	0	0	0	0	0	0	0	0	0	0	0	0
Riverside	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	0	0	0	0	0	0	0	0	0	0	0	0
San Joaquin	148	0	0	15	105	0	0	0	120	40	0	0
San Luis Obispo	0	0	0	0	0	0	0	0	0	0	0	0
Shasta	0	0	0	0	0	0	0	0	0	0	0	0
Solano	0	36	0	0	0	0	0	0	0	0	0	0
Stanislaus	585	16	100	0	692	391	0	0	142	25	0	0
Sutter	16	0	0	0	0	0	0	0	11	0	0	0
Tehama	0	0	0	0	0	0	0	0	0	0	0	0
Tulare	43	0	0	0	37	0	0	0	101	0	0	0
Yolo	46	0	0	0	5	19	0	12	0	28	0	0
Yuba	48	0	0	0	0	0	0	0	0	0	0	0
Grand Total	4,108	446	260	311	4,957	1,292	442	158	3,647	700	0	47

Source: Land IQ, California Statewide Almond Mapping - 2023. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

Stressed Crop Year (CY) 2023 or 2022: These orchards show visual stress, but do not appear fully abandoned. Many orchards have shown a drop in NDVI in the late summer or early fall, but have been watered for most of the year. This also includes relatively young orchards that have shown a drop in vigor, but do not have high enough canopy coverage to clearly identify abandonment.

Potentially Abandoned Crop Year (CY) 2023 or 2022: These orchards were potentially abandoned and not appear to have been watered for most of the 2023 and 2022 crop year.

Abandoned Long Term: These orchards look to have been abandoned prior to the 2022 and 2023 crop years but have not yet been removed.

2023 Removed and Abandoned Acreage Estimates by Year Planted

	2002				2003				2004			
	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term
Alameda	0	0	0	0	0	0	0	0	0	0	0	0
Butte	165	0	0	0	57	0	0	0	305	0	0	0
Calaveras	0	0	0	0	0	0	0	0	0	0	0	0
Colusa	78	9	0	0	95	0	0	0	249	9	0	0
Contra Costa	0	0	0	0	0	0	0	0	0	0	0	0
Fresno	1,385	246	29	153	1,611	195	0	0	2,164	592	28	3
Glenn	0	0	0	0	289	0	0	0	87	0	0	0
Kern	651	35	160	0	1,427	91	409	0	5,414	302	639	157
Kings	17	453	83	456	7	73	0	0	29	18	0	0
Lake	0	0	0	0	0	0	0	0	0	0	0	0
Madera	452	11	0	0	313	37	0	0	384	20	0	0
Merced	71	0	0	2	232	0	0	0	396	400	2	38
Placer	0	0	0	0	0	0	0	0	0	0	0	0
Riverside	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	0	0	0	0	0	0	0	0	0	0	0	0
San Joaquin	51	0	0	5	75	3	4	2	99	8	0	2
San Luis Obispo	0	0	0	0	0	0	0	9	0	0	0	0
Shasta	0	0	0	0	0	0	0	0	0	0	0	0
Solano	0	0	0	0	0	52	0	0	0	49	28	0
Stanislaus	276	103	0	17	247	141	0	0	115	160	27	0
Sutter	0	0	0	0	0	0	0	0	0	23	0	0
Tehama	0	0	0	0	0	0	0	8	25	0	0	0
Tulare	107	81	0	0	431	0	0	0	544	0	0	0
Yolo	63	1	0	23	78	195	0	0	97	15	0	25
Yuba	0	0	0	0	0	0	0	0	64	0	0	0
Grand Total	3,318	937	272	656	4,860	787	413	20	9,972	1,597	724	224

Source: Land IQ. California Statewide Almond Mapping - 2023. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

Stressed Crop Year (CY) 2023 or 2022: These orchards show visual stress, but do not appear fully abandoned. Many orchards have shown a drop in NDVI in the late summer or early fall, but have been watered for most of the year. This also includes relatively young orchards that have shown a drop in vigor, but do not have high enough canopy coverage to clearly identify abandonment.

Potentially Abandoned Crop Year (CY) 2023 or 2022: These orchards were potentially abandoned and not appear to have been watered for most of the 2023 and 2022 crop year.

Abandoned Long Term: These orchards look to have been abandoned prior to the 2022 and 2023 crop years but have not yet been removed.

2023 Removed and Abandoned Acreage Estimates by Year Planted

	2005				2006				2007			
	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term
Alameda	0	0	0	0	0	0	0	0	0	0	0	0
Butte	0	0	0	0	72	32	0	0	80	0	0	0
Calaveras	0	0	0	0	0	0	0	0	0	0	0	0
Colusa	26	0	0	0	35	0	0	0	0	31	0	0
Contra Costa	0	0	17	0	0	0	0	0	0	0	0	0
Fresno	3,863	165	404	36	2,837	622	992	377	1,778	257	152	1
Glenn	0	0	0	0	0	0	0	0	0	0	0	0
Kern	2,973	1,228	2,047	252	2,850	315	468	165	787	13	376	0
Kings	438	0	0	0	269	38	0	115	473	0	0	0
Lake	0	0	0	0	0	0	0	0	0	0	0	0
Madera	929	392	0	0	672	389	0	88	1,279	0	0	67
Merced	644	23	1,498	0	197	82	476	36	69	283	0	6
Placer	0	0	0	0	0	0	0	0	0	0	0	0
Riverside	0	0	0	0	0	0	6	0	0	0	0	0
Sacramento	0	0	0	0	0	0	0	0	0	0	0	0
San Joaquin	108	148	0	0	36	0	0	6	46	16	0	0
San Luis Obispo	0	0	0	0	0	0	0	0	0	5	0	0
Shasta	0	0	0	0	0	0	0	0	0	0	0	0
Solano	0	87	0	0	0	0	0	0	0	0	0	32
Stanislaus	524	54	29	5	428	174	47	74	128	86	59	10
Sutter	0	0	0	0	52	0	0	0	0	0	0	0
Tehama	44	0	0	0	0	0	0	0	0	0	0	4
Tulare	301	151	0	67	172	143	0	15	337	241	0	40
Yolo	537	39	0	4	220	16	0	0	93	52	0	2
Yuba	0	0	0	0	0	0	0	0	12	0	0	0
Grand Total	10,388	2,287	3,994	364	7,840	1,812	1,989	875	5,082	984	587	162

Source: Land IQ, California Statewide Almond Mapping - 2023. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

Stressed Crop Year (CY) 2023 or 2022: These orchards show visual stress, but do not appear fully abandoned. Many orchards have shown a drop in NDVI in the late summer or early fall, but have been watered for most of the year. This also includes relatively young orchards that have shown a drop in vigor, but do not have high enough canopy coverage to clearly identify abandonment.

Potentially Abandoned Crop Year (CY) 2023 or 2022: These orchards were potentially abandoned and not appear to have been watered for most of the 2023 and 2022 crop year.

Abandoned Long Term: These orchards look to have been abandoned prior to the 2022 and 2023 crop years but have not yet been removed.

2023 Removed and Abandoned Acreage Estimates by Year Planted

	2008				2009				2010			
	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term
Alameda	0	0	0	0	0	0	0	0	0	0	0	0
Butte	132	22	0	44	0	0	0	0	0	0	0	0
Calaveras	0	0	0	0	0	0	0	0	0	0	0	0
Colusa	68	8	0	18	0	0	0	7	3	0	0	0
Contra Costa	0	0	0	0	0	0	0	0	0	0	0	0
Fresno	286	30	0	1	278	172	0	0	48	23	0	0
Glenn	351	156	0	0	1	0	0	0	0	1	0	0
Kern	360	0	257	0	8	56	0	0	63	0	0	0
Kings	265	28	0	0	362	0	55	11	24	52	0	0
Lake	0	0	0	0	0	0	0	0	0	0	0	0
Madera	625	0	184	0	280	54	0	0	36	0	0	0
Merced	52	33	0	0	81	0	0	0	1	0	0	12
Placer	0	0	0	0	0	0	0	0	0	0	0	0
Riverside	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	0	0	0	0	0	0	0	0	0	0	0	0
San Joaquin	43	55	0	0	1	3	1	0	36	0	0	0
San Luis Obispo	0	0	0	0	0	0	0	0	0	0	0	0
Shasta	0	0	0	0	0	0	0	0	0	0	0	0
Solano	0	40	0	0	0	0	0	0	0	0	0	0
Stanislaus	45	60	175	19	413	6	0	6	34	18	0	0
Sutter	11	5	0	0	0	46	0	0	0	0	0	0
Tehama	38	18	0	5	0	0	0	0	0	0	0	0
Tulare	120	37	1	0	130	40	0	114	66	182	0	0
Yolo	133	59	0	250	260	16	0	3	78	5	0	18
Yuba	0	0	0	0	0	0	0	0	0	3	0	0
Grand Total	2,530	551	616	337	1,814	393	56	142	389	283	0	30

Source: Land IQ, California Statewide Almond Mapping - 2023. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

Stressed Crop Year (CY) 2023 or 2022: These orchards show visual stress, but do not appear fully abandoned. Many orchards have shown a drop in NDVI in the late summer or early fall, but have been watered for most of the year. This also includes relatively young orchards that have shown a drop in vigor, but do not have high enough canopy coverage to clearly identify abandonment.

Potentially Abandoned Crop Year (CY) 2023 or 2022: These orchards were potentially abandoned and not appear to have been watered for most of the 2023 and 2022 crop year.

Abandoned Long Term: These orchards look to have been abandoned prior to the 2022 and 2023 crop years but have not yet been removed.

2023 Removed and Abandoned Acreage Estimates by Year Planted

	2011				2012				2013			
	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term
Alameda	0	0	0	0	0	0	0	0	0	0	0	0
Butte	0	0	0	0	0	0	0	0	0	0	0	0
Calaveras	0	0	0	0	0	0	0	0	0	0	0	0
Colusa	0	0	0	0	0	0	0	0	0	31	0	0
Contra Costa	0	0	0	0	0	0	0	0	0	0	0	0
Fresno	124	43	78	20	53	83	0	0	269	331	0	3
Glenn	0	0	0	0	0	0	0	0	0	0	0	0
Kern	229	0	18	296	0	0	0	0	1,009	0	0	0
Kings	67	0	0	0	9	0	0	0	0	0	0	0
Lake	0	0	0	0	0	0	0	0	0	0	0	0
Madera	15	35	0	0	3	0	0	0	36	0	0	0
Merced	12	60	0	4	54	26	0	0	7	89	0	0
Placer	0	0	0	0	0	0	0	0	0	0	0	0
Riverside	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	0	0	0	0	0	0	0	0	0	0	0	0
San Joaquin	0	83	0	0	0	90	0	0	0	0	0	66
San Luis Obispo	0	0	0	0	0	0	0	0	0	0	0	0
Shasta	0	0	0	0	0	0	0	0	0	0	0	0
Solano	0	0	0	0	0	0	0	0	0	0	0	0
Stanislaus	7	25	0	0	3	40	23	0	73	147	0	0
Sutter	17	0	0	0	0	0	0	0	17	3	0	0
Tehama	0	0	0	0	0	0	0	0	0	0	0	0
Tulare	0	74	0	66	54	0	21	0	0	0	0	0
Yolo	12	22	0	46	0	0	0	0	0	0	0	0
Yuba	0	0	0	0	0	0	0	0	1	69	0	0
Grand Total	484	342	96	433	177	238	45	0	1,412	672	0	69

Source: Land IQ, California Statewide Almond Mapping - 2023. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

Stressed Crop Year (CY) 2023 or 2022: These orchards show visual stress, but do not appear fully abandoned. Many orchards have shown a drop in NDVI in the late summer or early fall, but have been watered for most of the year. This also includes relatively young orchards that have shown a drop in vigor, but do not have high enough canopy coverage to clearly identify abandonment.

Potentially Abandoned Crop Year (CY) 2023 or 2022: These orchards were potentially abandoned and not appear to have been watered for most of the 2023 and 2022 crop year.

Abandoned Long Term: These orchards look to have been abandoned prior to the 2022 and 2023 crop years but have not yet been removed.

2023 Removed and Abandoned Acreage Estimates by Year Planted

	2014				2015				2016			
	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term
Alameda	0	0	0	0	0	0	0	0	0	0	0	0
Butte	0	0	0	1	34	0	0	0	0	0	0	0
Calaveras	0	0	0	0	0	0	0	0	0	24	0	0
Colusa	70	71	0	0	7	0	0	0	1	0	0	0
Contra Costa	0	0	0	0	0	0	0	0	0	0	0	0
Fresno	201	180	0	40	226	320	0	0	163	62	188	5
Glenn	2	0	0	0	0	0	0	0	0	0	0	0
Kern	309	0	0	0	492	0	0	0	1	29	0	0
Kings	120	80	0	0	0	54	0	0	142	18	0	0
Lake	0	0	0	0	0	0	0	0	0	0	0	0
Madera	0	158	0	0	0	0	0	0	11	34	0	0
Merced	27	0	0	0	60	0	0	0	259	0	22	1
Placer	0	0	0	0	0	0	0	0	0	0	0	0
Riverside	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	0	0	0	0	0	0	0	0	0	0	0	0
San Joaquin	28	212	1	0	1	130	0	0	24	54	79	0
San Luis Obispo	0	0	0	31	0	0	0	0	0	0	0	0
Shasta	0	0	0	0	0	0	0	0	0	0	0	0
Solano	0	75	0	0	0	0	0	0	0	0	0	0
Stanislaus	24	186	2	5	38	99	0	0	39	174	89	0
Sutter	0	0	0	0	0	0	0	0	0	0	0	0
Tehama	0	0	0	0	0	73	0	0	1	150	0	0
Tulare	200	0	0	0	47	0	20	0	138	0	6	0
Yolo	42	31	0	0	0	56	0	0	3	0	0	0
Yuba	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	1,023	993	3	76	904	732	20	0	782	545	385	7

Source: Land IQ. California Statewide Almond Mapping - 2023. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

Stressed Crop Year (CY) 2023 or 2022: These orchards show visual stress, but do not appear fully abandoned. Many orchards have shown a drop in NDVI in the late summer or early fall, but have been watered for most of the year. This also includes relatively young orchards that have shown a drop in vigor, but do not have high enough canopy coverage to clearly identify abandonment.

Potentially Abandoned Crop Year (CY) 2023 or 2022: These orchards were potentially abandoned and not appear to have been watered for most of the 2023 and 2022 crop year.

Abandoned Long Term: These orchards look to have been abandoned prior to the 2022 and 2023 crop years but have not yet been removed.

2023 Removed and Abandoned Acreage Estimates by Year Planted

	2017				2018				2019			
	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term
Alameda	0	0	0	0	0	0	0	0	0	0	0	0
Butte	4	0	0	2	4	4	0	0	0	0	0	0
Calaveras	0	0	0	0	0	0	0	0	0	0	0	0
Colusa	0	11	0	0	0	0	0	0	0	0	0	0
Contra Costa	0	0	0	0	0	0	0	0	0	0	0	0
Fresno	64	90	0	0	222	314	0	0	14	0	0	0
Glenn	0	0	59	17	34	0	0	0	0	0	0	0
Kern	1	0	0	0	4	0	0	0	2	0	0	0
Kings	121	0	0	0	0	0	0	0	0	0	0	0
Lake	0	0	0	0	0	0	0	0	0	0	0	0
Madera	44	29	16	0	0	19	0	0	2	0	0	0
Merced	15	0	0	0	45	0	0	0	43	72	0	3
Placer	0	0	0	0	0	0	0	0	0	0	0	0
Riverside	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	0	0	0	0	0	0	0	0	0	0	0	0
San Joaquin	3	0	0	0	2	19	0	1	3	0	0	0
San Luis Obispo	0	0	0	3	0	0	0	0	0	0	0	0
Shasta	0	0	0	0	0	0	0	0	0	0	0	0
Solano	1	0	0	0	0	0	0	0	0	0	0	0
Stanislaus	11	9	0	0	5	16	0	3	30	13	0	0
Sutter	0	0	0	0	0	0	0	0	1	0	0	0
Tehama	0	8	0	0	0	0	0	0	0	0	0	0
Tulare	0	0	27	0	8	0	168	0	0	0	0	0
Yolo	0	0	0	0	0	0	0	0	0	0	0	0
Yuba	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	264	147	102	22	325	373	168	5	95	84	0	3

Source: Land IQ, California Statewide Almond Mapping - 2023. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

Stressed Crop Year (CY) 2023 or 2022: These orchards show visual stress, but do not appear fully abandoned. Many orchards have shown a drop in NDVI in the late summer or early fall, but have been watered for most of the year. This also includes relatively young orchards that have shown a drop in vigor, but do not have high enough canopy coverage to clearly identify abandonment.

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2023 Removed and Abandoned Acreage Estimates by Year Planted

	2020				2021				Total			
	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term	Removed	Stressed CY 2023	Potentially Abandoned CY 2023	Abandoned Long Term
Alameda	0	0	0	0	0	0	0	0	0	0	0	0
Butte	36	3	0	0	0	0	0	0	2,864	104	0	132
Calaveras	0	0	0	0	0	0	0	0	0	24	0	17
Colusa	0	0	0	0	0	0	0	0	1,723	364	0	45
Contra Costa	0	0	0	0	0	0	0	0	0	0	17	9
Fresno	0	0	0	0	5	0	0	0	22,313	4,861	2,498	990
Glenn	29	0	0	0	202	0	0	0	1,901	158	76	39
Kern	0	0	0	0	0	0	0	0	20,893	2,702	4,483	1,032
Kings	0	0	0	0	14	0	0	0	2,779	1,069	154	1,452
Lake	0	0	0	0	0	0	0	0	0	0	0	44
Madera	0	0	0	0	0	0	0	0	7,853	1,468	200	372
Merced	2	0	0	0	58	0	0	0	6,793	3,144	2,566	115
Placer	0	0	0	0	0	0	0	0	0	0	0	0
Riverside	0	0	0	0	0	0	0	0	0	0	6	0
Sacramento	0	0	0	0	0	0	0	0	0	0	0	4
San Joaquin	1	0	0	0	0	0	0	0	2,227	1,091	190	144
San Luis Obispo	0	0	0	0	0	0	0	0	16	63	0	2,175
Shasta	0	0	0	0	0	0	0	0	0	3	0	0
Solano	0	0	0	0	0	0	0	0	22	340	69	96
Stanislaus	8	0	0	0	0	0	0	0	7,436	3,630	982	260
Sutter	7	0	0	0	0	0	0	0	423	118	38	0
Tehama	0	0	0	0	0	0	0	0	348	252	0	25
Tulare	0	0	0	0	0	0	0	0	2,967	1,127	243	302
Yolo	0	0	0	0	0	0	0	0	2,276	784	0	730
Yuba	0	0	0	0	0	0	0	0	125	110	0	0
Grand Total	84	3	0	0	279	0	0	0	82,958	21,411	11,523	7,986

Source: Land IQ. California Statewide Almond Mapping - 2023. Based on data from USDA National Agricultural Imaging Program (NAIP), USGS Landsat, and other private imagery resources.

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