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FARMLAND VALUES:

The California Report

A transaction-based analysis of California farmland values from 2018 through 2023

APRIL 2024

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Introduction

California stands at the forefront of the global agricultural sector, not just as a powerhouse in the United States but as a pivotal area shaping the landscape of agricultural production worldwide. California's agricultural industry, marked by its diversity and innovation, accounts for approximately two-thirds of the nation's fruit and nut production and a third of its vegetables. California uniquely produces essential crops such as almonds, olives, pistachios, and walnuts, along with a broad array of specialty and truck crops.

Due to its diversity, the valuation of agricultural land in California is multifaceted and deeply intertwined with a host of factors including the raw potential of regional soils, microclimates, access to water, and crop markets. Farmland values are influenced heavily by the suitability and optionality for crops on a given property. It is also critical to understand the value of improvements (i.e. trees, vines, and associated production maturity) on any given parcel, and therefore the importance of accurate data is more evident in California compared to other farmland markets.

Moreover, economic conditions significantly influence farmland values, including supply and demand dynamics for each crop and overarching macroeconomic factors like the recent supply shocks induced by the pandemic. We capture the dynamics of these farmland values throughout this report for pre-pandemic, pandemic, and post-pandemic time periods, but importantly, California land values change continuously and require constant attention by professionals in the industry.

Our report begins with an analysis of the overall trends in farmland sales across California with a focus on the Central Valley. We delve into the dynamic landscape of California land values, focusing on the period from Q1 2018 to Q4 2023.

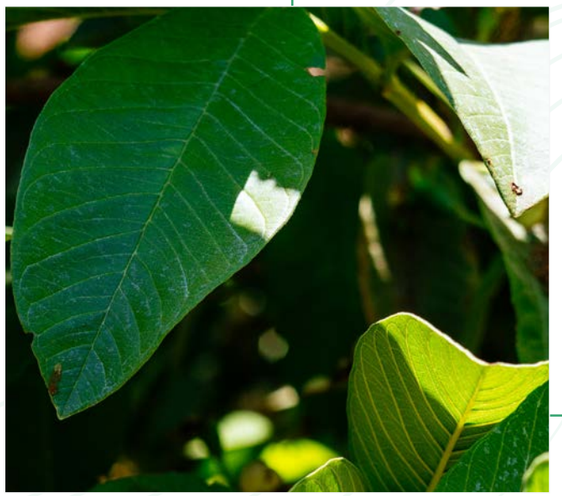
Our analysis is underpinned by information from thousands of proprietary land transactions and offers an in-depth exploration of farmland sales, pricing trends, crop information, and the impact of the pandemic and agricultural surface water districts on land values in the Central Valley.

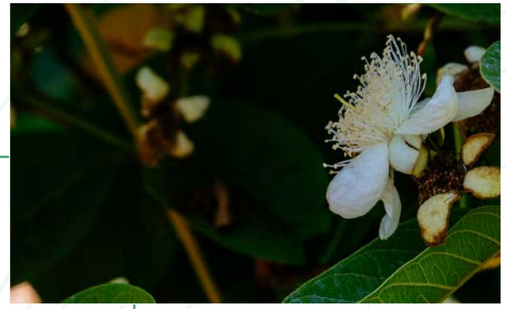
We start with an analysis of the number, acreage, and total dollar volume for transactions throughout the study period. Following this, we provide a deeper set of insights in a series of price per acre trends and water district maps by crop type, available in the full report download. Notably, we scrutinized the individual sales used in the analysis and to generate the figures for discussion.

We do not suggest this report is all-encompassing, but that it uniquely captures the dynamic cropland market across the Central Valley over an extended and somewhat volatile period. Intended for professionals within the land valuation, brokerage, lending, and investment sectors, this report is crafted to serve as a resource for informed decision-making and strategic benchmarking.

The Acres transaction database hosts millions of transactions across the lower 48 states and many of the additional data required for understanding land values. The underlying data that fuels our insights is accessible through acres.com, offering stakeholders a gateway to a deeper understanding of the forces shaping California's farmland values at the field level.

Throughout this report, we reference the Central Valley and various water districts within the region. To support the analytical figures, the following series of reference maps are provided for your convenience.





California land values change continuously and require constant attention by professionals in the industry.

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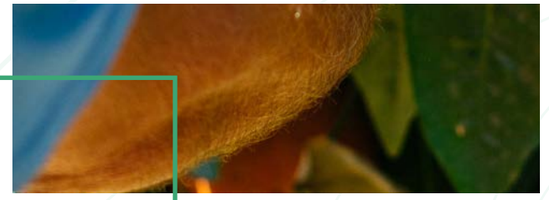

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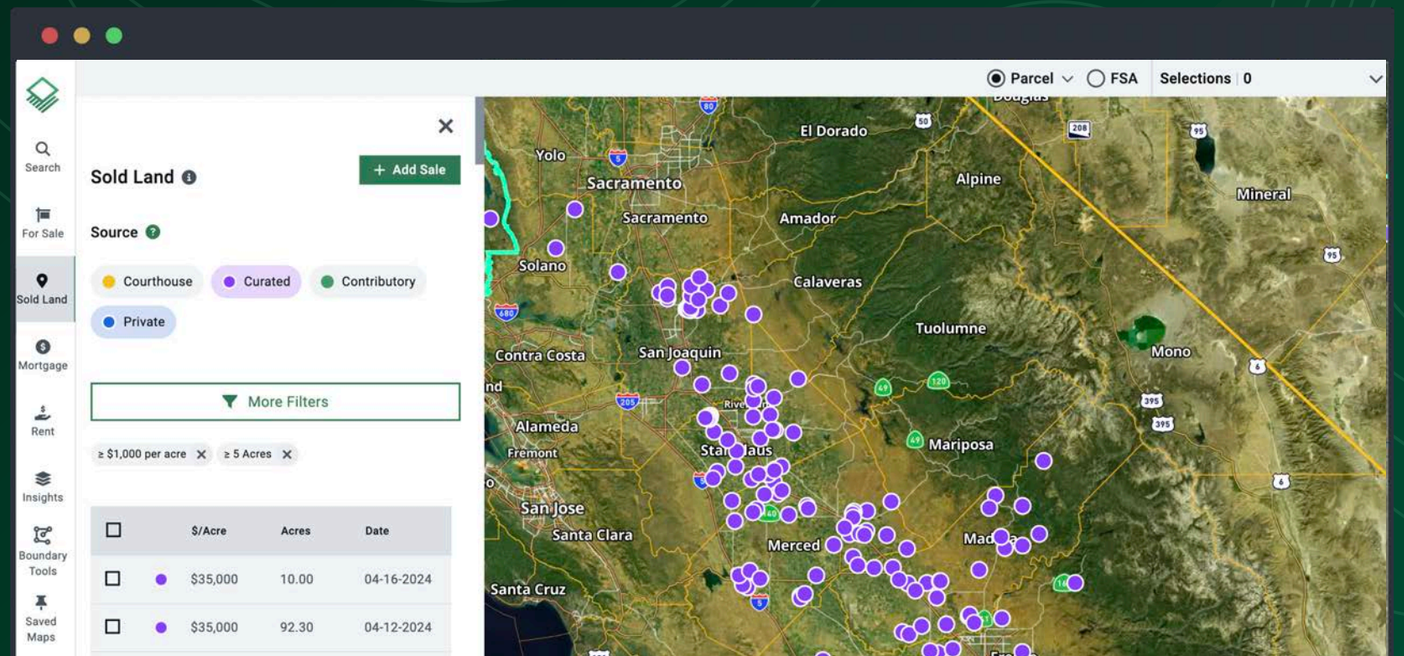
Stay Ahead of the Market

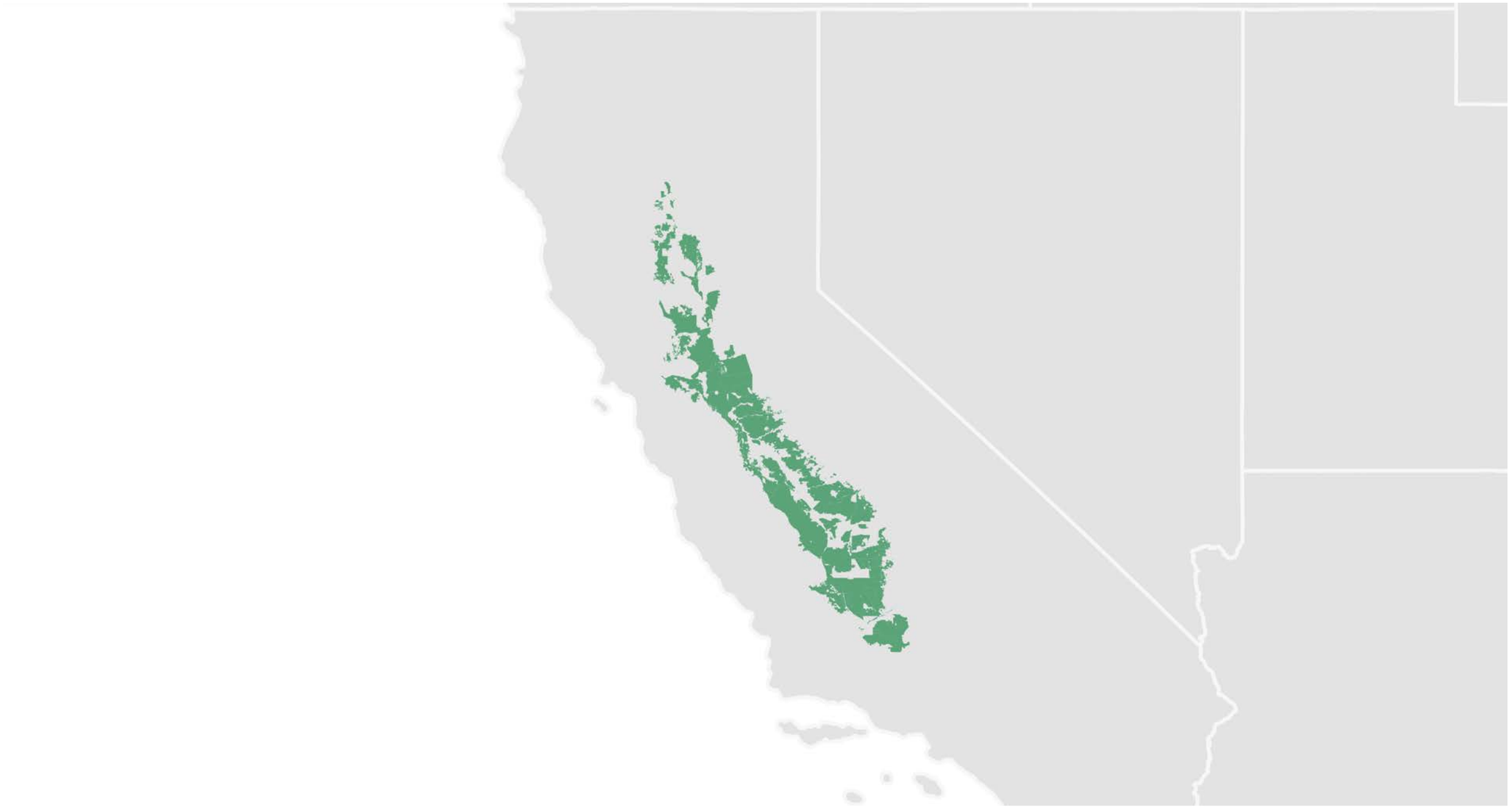
The California report uses over 10,000 recorded land transactions across the Central Valley, which are available with Acres' curated sales database.

To learn how you can access the data used in this report, along with thousands of other farmland transactions across the United States, connect with our team.

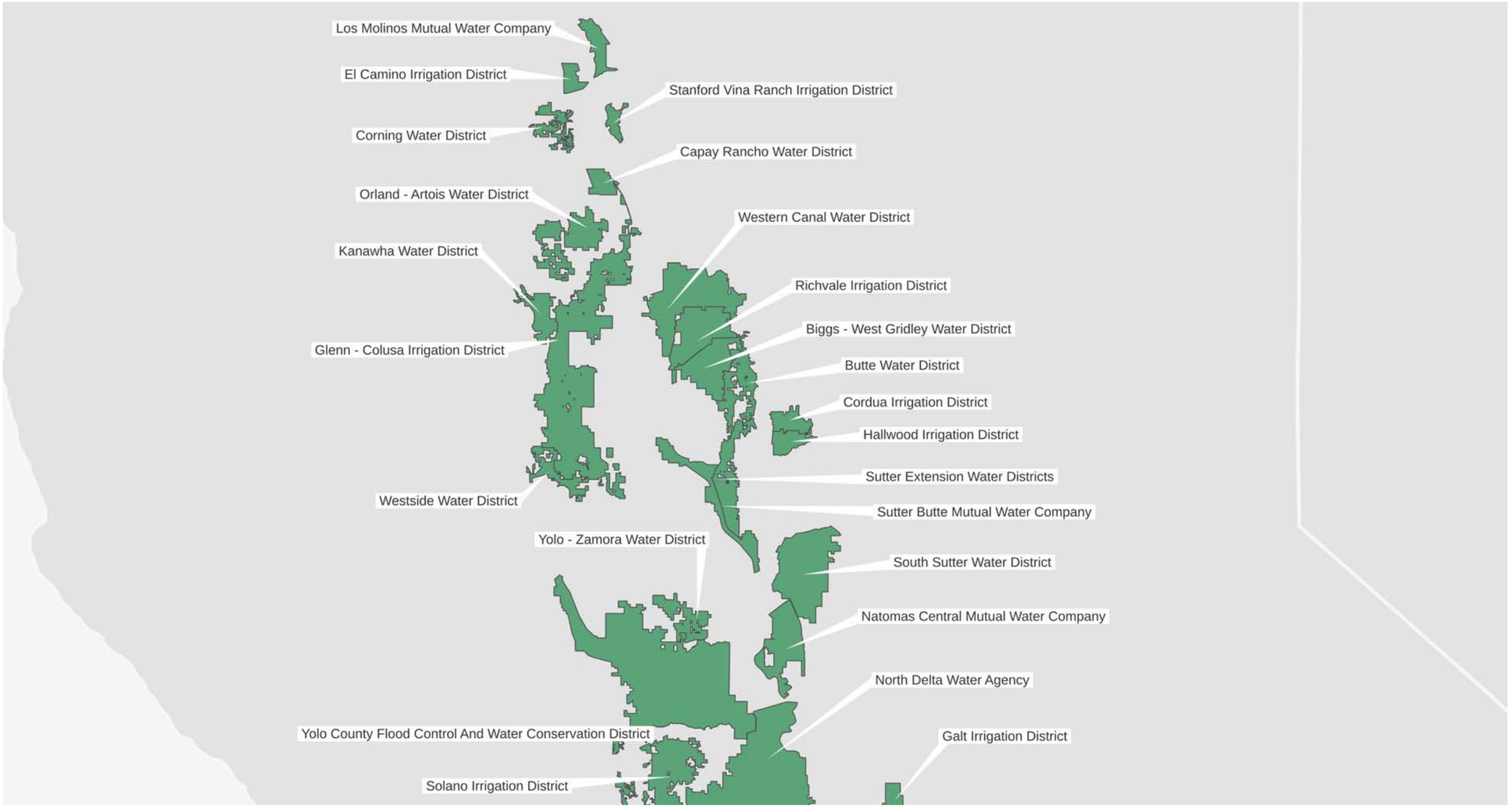
LEARN MORE



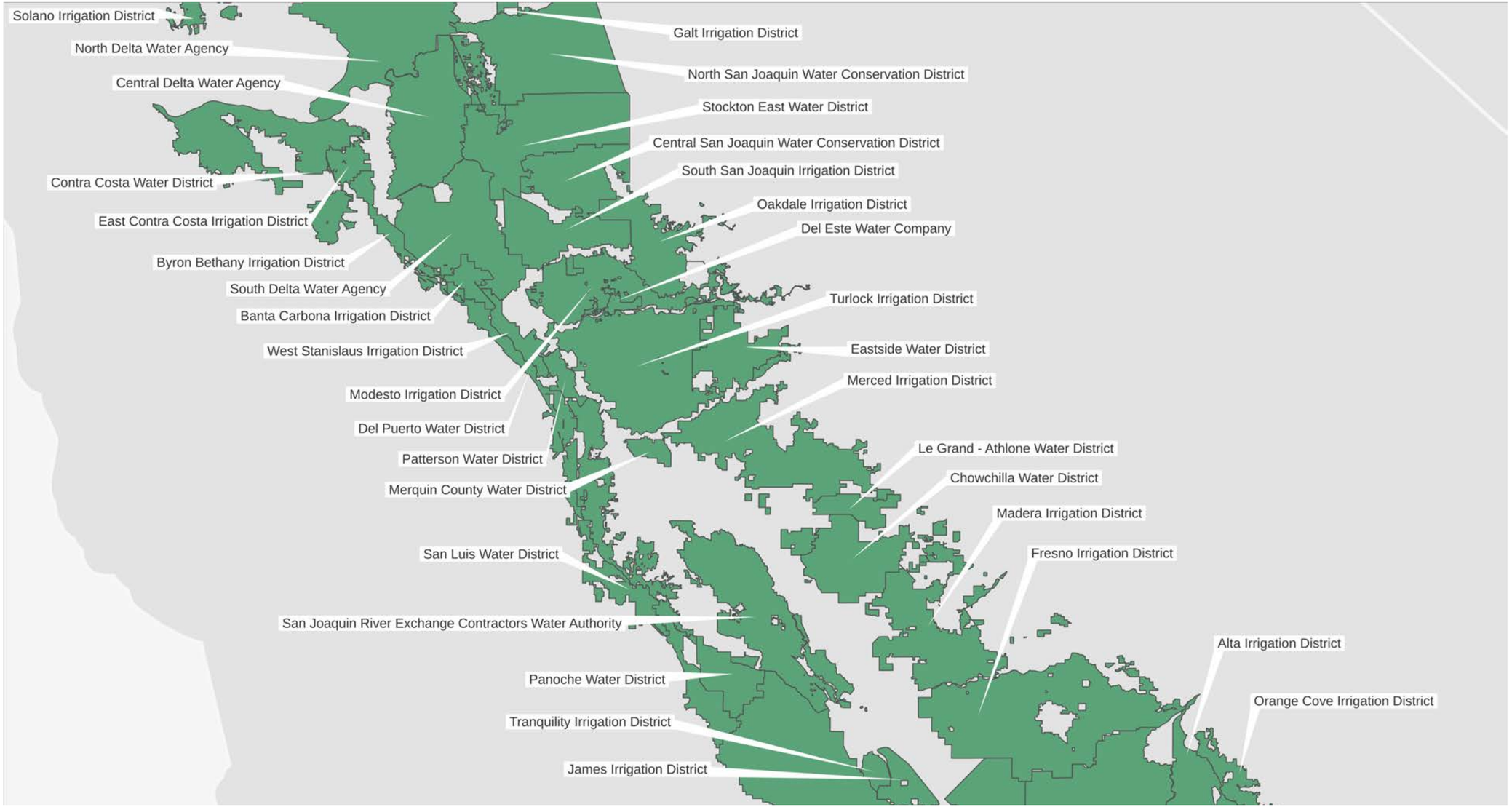
REFERENCE MAP A: *The California Central Valley.*



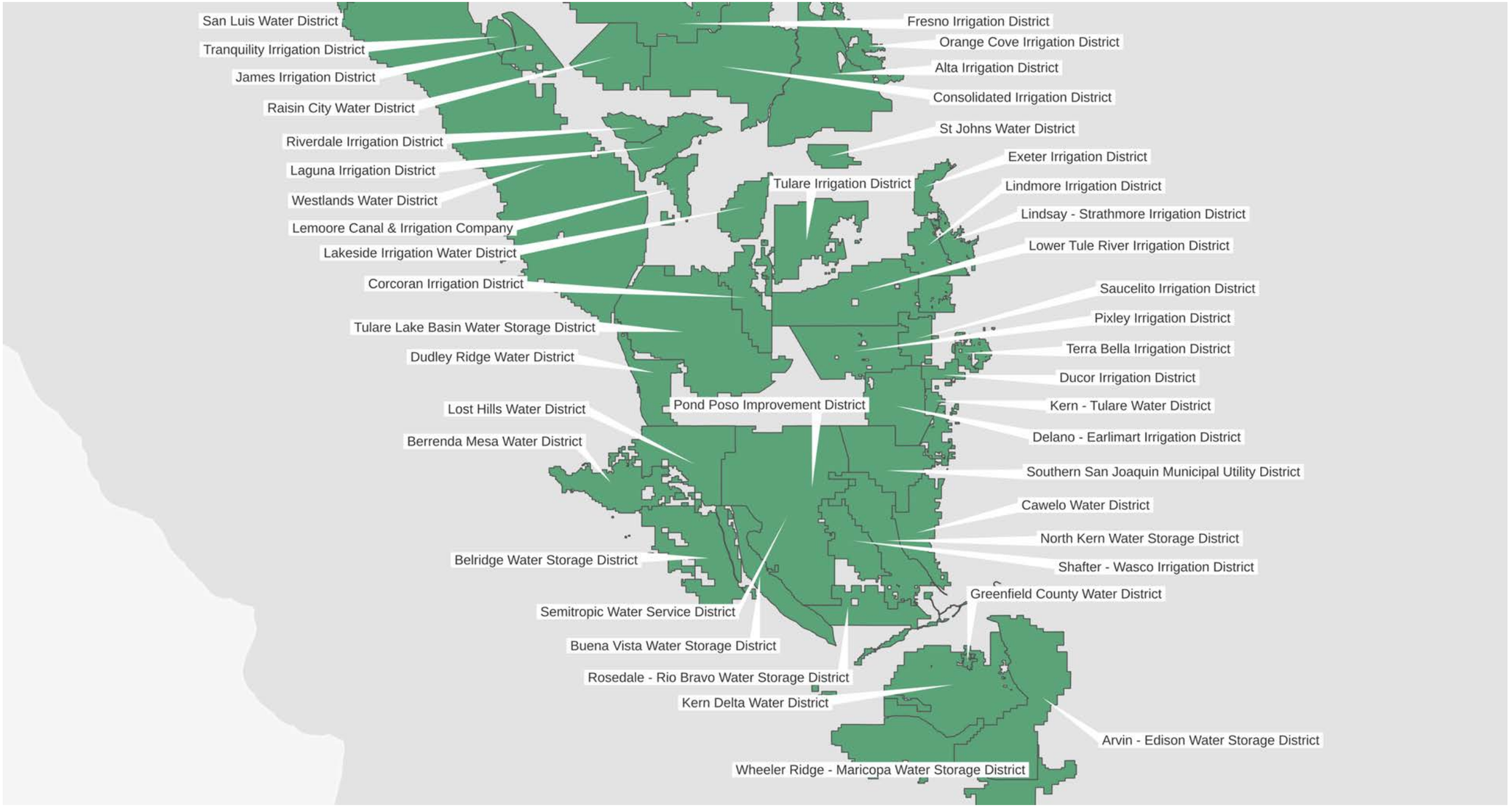
REFERENCE MAP B: *Water Districts in the Northern Central Valley.*



REFERENCE MAP C: *Water Districts in the Middle of the Central Valley.*



REFERENCE MAP D: *Water Districts in the Southern Central Valley.*



Methodology Overview

In our effort to navigate the complexities of California's diverse agricultural landscape, specifically in the Central Valley, we focused our analysis on an in-depth evaluation of farmland sales trends, price per acre over time, and variations across different water districts.

Originating from the Acres transaction database, we narrowed the analysis to include more than 10,000 transactions with crop-specific information in select, important water districts across the Central Valley.

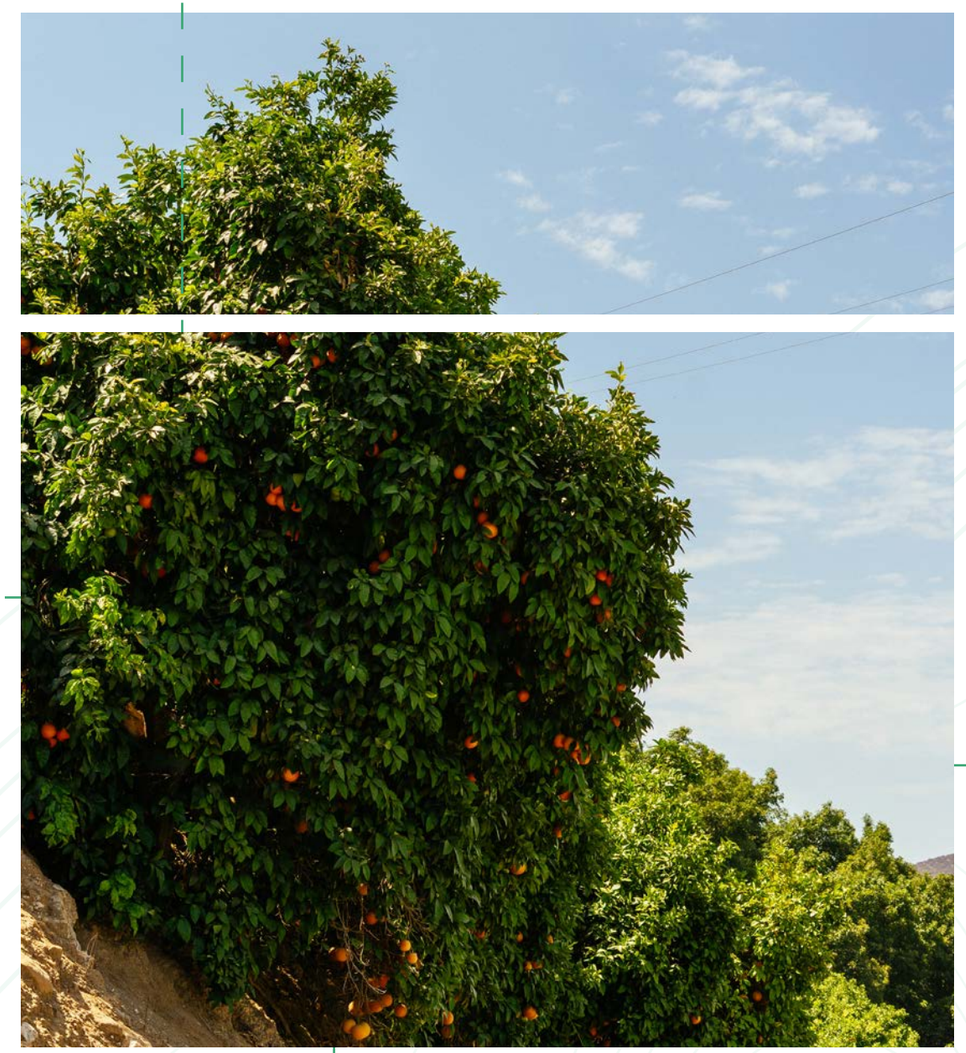
To isolate trends across the region, we removed transactions above $70,000 per acre, below $1,000 per acre, or plots smaller than 10 acres for permanent crops and used the same thresholds for annual crops except that the upper limit was $50,000 per acre. Additionally, water districts with fewer than three farmland sales in any given quarter were omitted from trend charts.

Throughout the report, we did our best to retain as many sales as possible in the analysis, while removing outliers that may abnormally affect the trends due to unobservable factors such as soil quality, salinity, or improvements.

We acknowledge the inherent variability within certain crop categories, especially for tree crops like almonds, stone fruit, and citrus, which can diverge significantly by variety and maturity group. Our primary aim in doing so was to present a clear and actionable analysis for stakeholders in the California agriculture industry. We excluded timeframes and irrigation districts where there were less than three sales observed for a given analysis.

In an effort to show trends over time, we have designated irrigation districts as Tier 1 and Tier 2. Tier 1 districts represent those districts that we believe to have the highest reliability of surface water supply to growers annually. A full list of Tier 1 districts is located below. All other districts are designated as Tier 2. While there is significant variability between the reliability of surface water supply across the Tier 2 districts, we aim to show clear trends over time for each crop type.

Data sources include county assessor records, Acres' curated farmland sales database, the California Natural Resources Agency, and the California State Geoportal to provide a comprehensive evaluation of farmland value drivers and trends.



Total Land Sales From 2018 to 2023 by Quarter

In this section, we present a detailed analysis of total land sales from 2018 to 2023, breaking down the data quarterly to reveal trends in the number of farmland sales transactions, acres sold, and total expenditures on farmland. We analyze both permanent and annual cropland transactions.

In Figures 1-3, we examine the number of transactions, acres sold, and sales volume in millions of dollars for permanent crops above 10 acres. We include Almonds, Citrus, Grapes, Pistachios, Stone Fruit, Walnuts, and Miscellaneous Tree Crops that were between $1,000 and $70,000 per acre. Overall, we observed significant increases in the number and volume of sales during peak pandemic years, especially in Q4 of 2020 and 2021. Notably, the sales in dollar amounts were also much higher in 2020 and 2021 with more than $1.2 billion in sales and another billion dollar quarter in early 2022. We observe spikes in permanent crop acreage sold in 2019, 2020, and 2021. In Q3 2019, there was a large stone fruit sale that shows prominently, and this highlights the challenges associated with analyzing permanent cropland values as a single entity can generate volatility with a single acquisition. Permanent crop sales picked up substantially again in Q4 of 2023, but the sales in dollar amounts remained lower than in recent years, signifying shifts in permanent cropland values.

In Figures 4-6, we illustrate the number and volume of annual crop sales. Importantly, annual cropland has more optionality than permanent crops and the number of sales is much less volatile than for permanent crops. We have observed a reduced number of transactions in the post-pandemic period from 2022 through 2023. Most annual crop sales are fairly stable in terms of sales volume as well. For example, the number and volume of rice, cotton, corn, and alfalfa fluctuates only slightly over the study period, but we see more fluctuations in hay and cereals and in miscellaneous crops. Those fluctuations are particularly noticeable and seemingly correlated with permanent crops in Q4 of 2021, which suggests potential land conversion into permanent crops during the pandemic years.

FIGURE 1. *Number of Quarterly Permanent Crop Transactions*

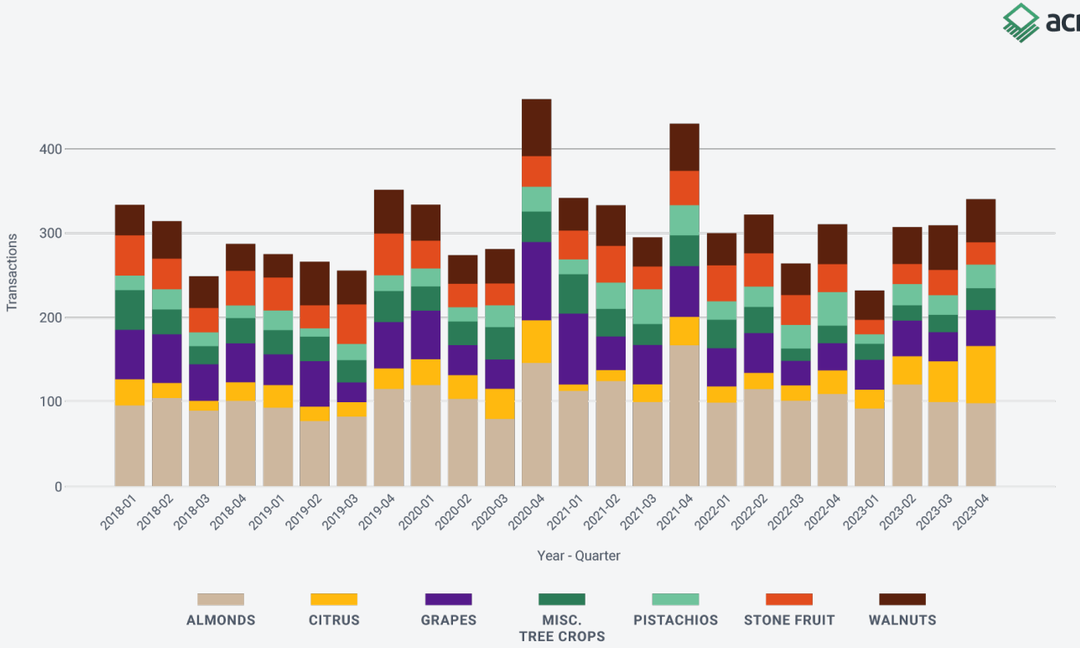


FIGURE 2. *Acres of Permanent Cropland Sold*

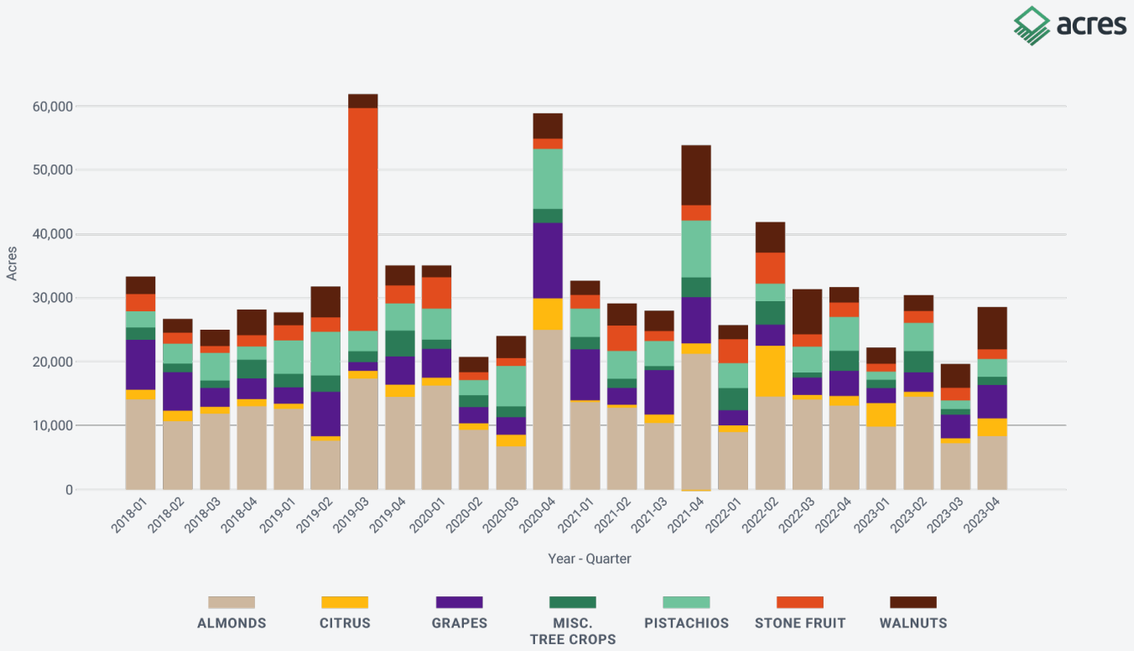


FIGURE 3. *Permanent Crop Sales ($ in Millions)*

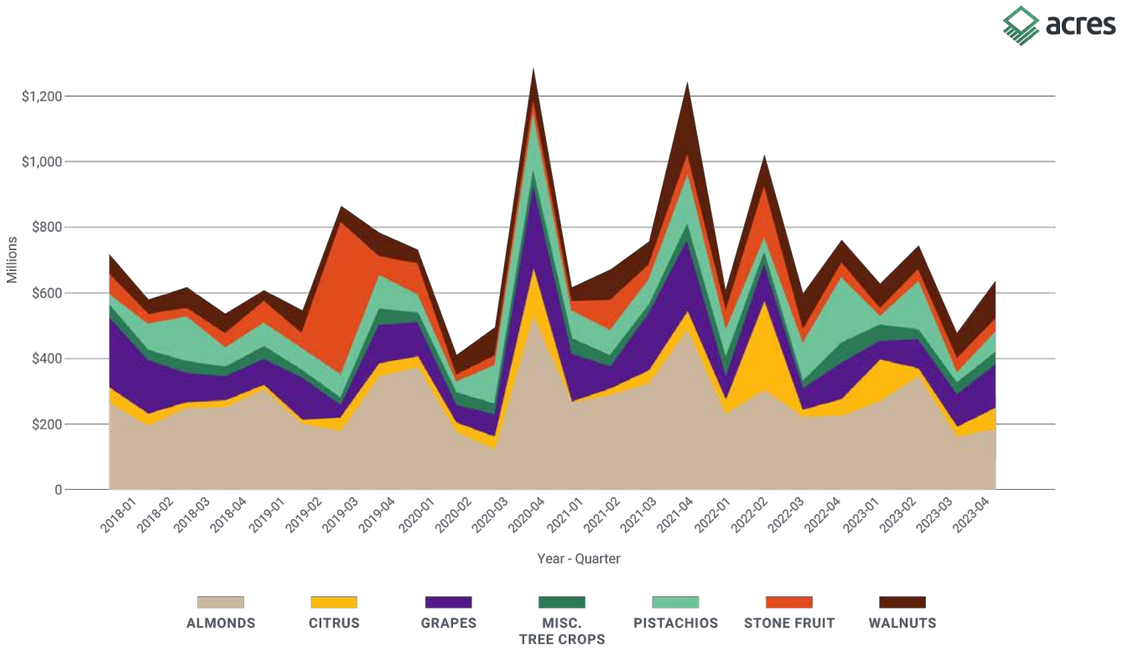


FIGURE 4. *Number of Quarterly Annual Crop Transactions*

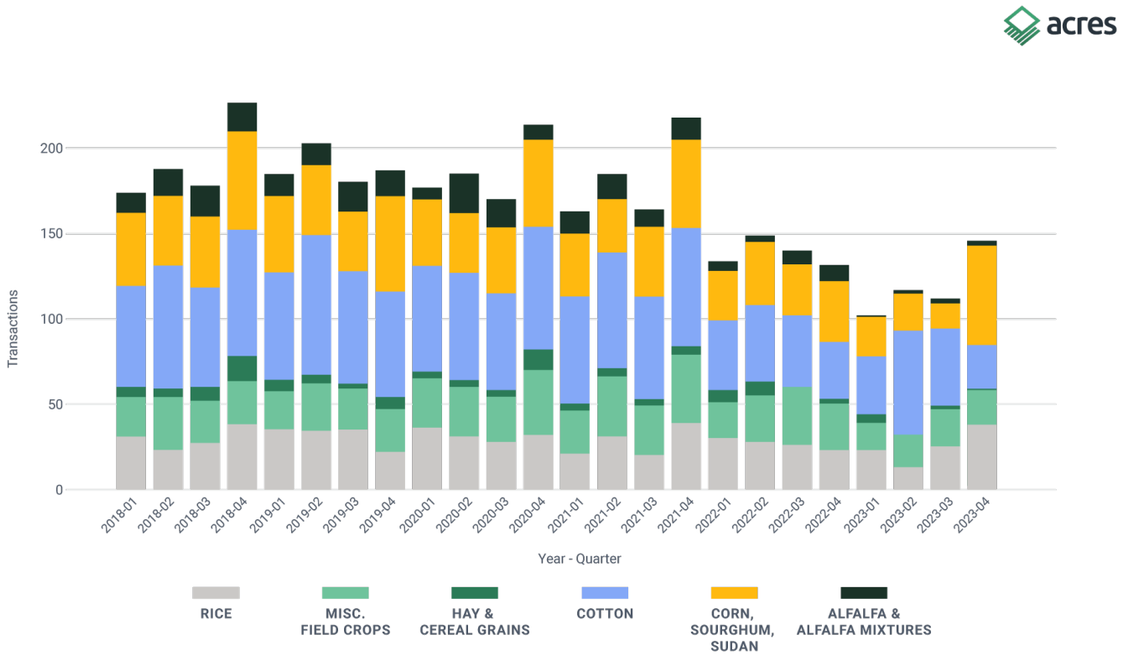


FIGURE 5. *Acres of Annual Cropland Sold*

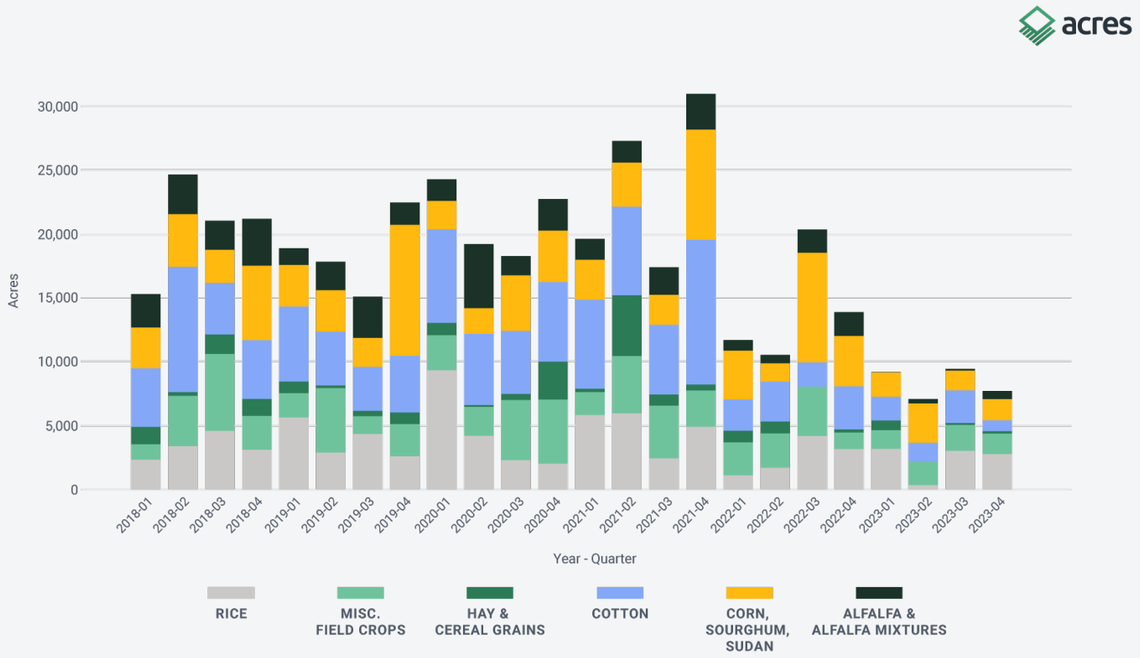
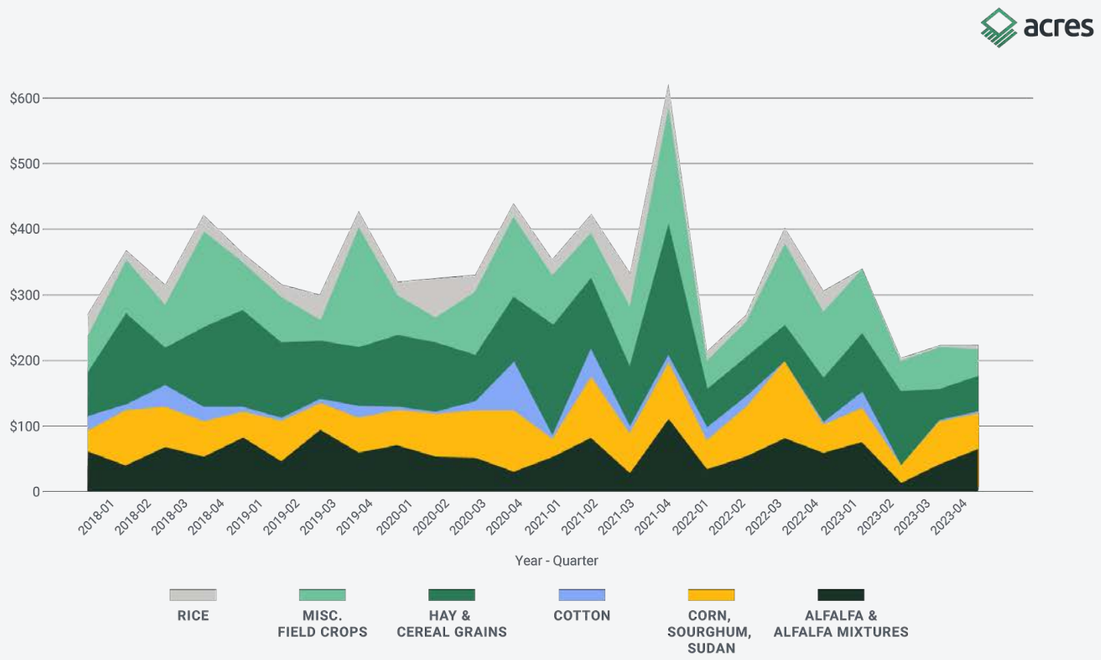


FIGURE 6. *Annual Crop Sales ($ in Millions)*



In Figures 7 and 8, we map the median price per acre for annual crops and permanent crops for select agricultural water districts throughout the Central Valley for pre-pandemic (2018-2019), pandemic (2020-2021), and post-pandemic (2022-2023) time periods. Figure 7 suggests that annual cropland (bareground) values are not substantially lower than those in the pre-pandemic period except for a few key regions, and many water districts present higher on a price per acre basis for the study period.

We observe the general trend that eastern districts have higher prices per acre due to proximity to water resources. There tends to be more variable in price per acre values in the southern and northern areas of the Central Valley, presumably due to additional complexities from development and other important factors that drive demand for bare ground.

Figure 8 showcases the dynamic and evolving market for permanent cropland. Overall, there was an observed increase in price per acre from 2018-2019 to 2020-2021. However, by 2022-2023, prices generally plateaued across many water districts and even decreased noticeably in several areas.

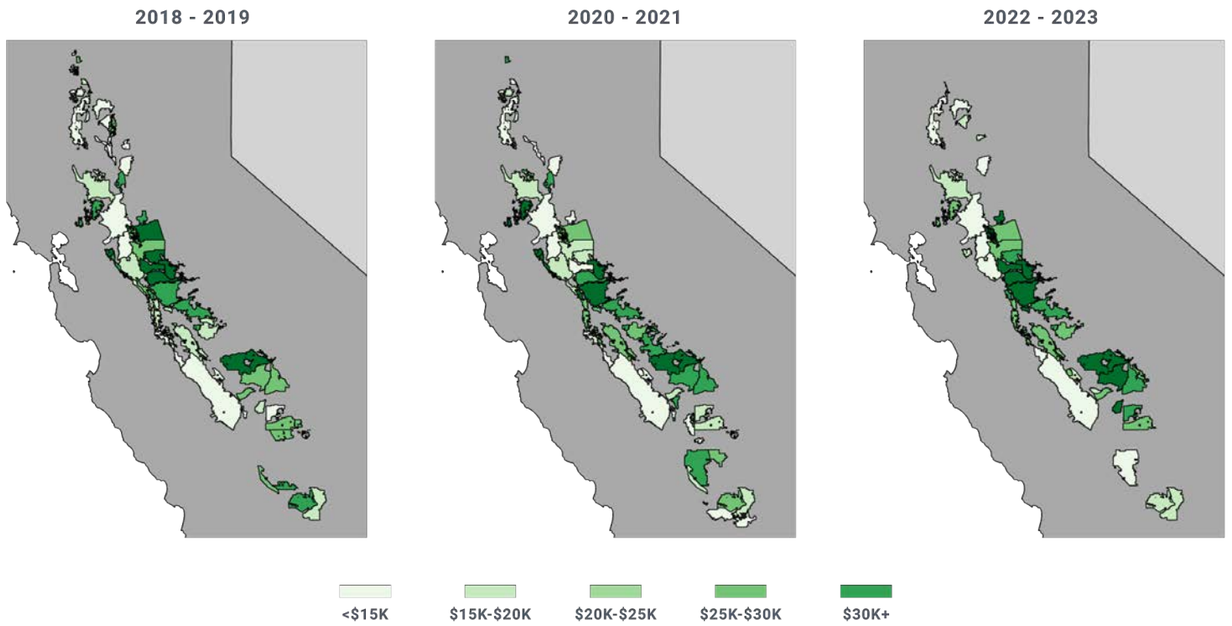
While recent periods show declining values for certain crops, as detailed in subsequent analyses, these trends are often contextualized against the backdrop of the abnormally high prices during the pandemic period. Large-scale aggregations offer insights into broad changes in land values, yet an effective analysis of permanent crops necessitates a more detailed examination on a per-crop basis, which the following section will address.

The analysis of California's agricultural land values reveals significant regional variations, driven primarily by water source and quality, microclimates, soil productivity, and specific crop suitability.

In the San Joaquin Valley, distinctions between the North and South and the East and West highlight the impact of water districts and soil conditions on land prices, with eastern regions generally benefiting from better soil quality and more reliable surface water access. the "Citrus Belt" between Fresno and Bakersfield sees greater crop optionality with water districts of various reliability that can drive higher land values. Furthermore, the exploration into specialized crops like almonds within the Central Valley suggests a unique market influence. Wine regions further complicate the valuation landscape, which we omit for further analysis due to the challenges posed by American Viticultural Areas, improvements, age, and variety. There are also differences between coastal and interior areas such as Paso Robles, where east and west divisions mirror variations in land prices.

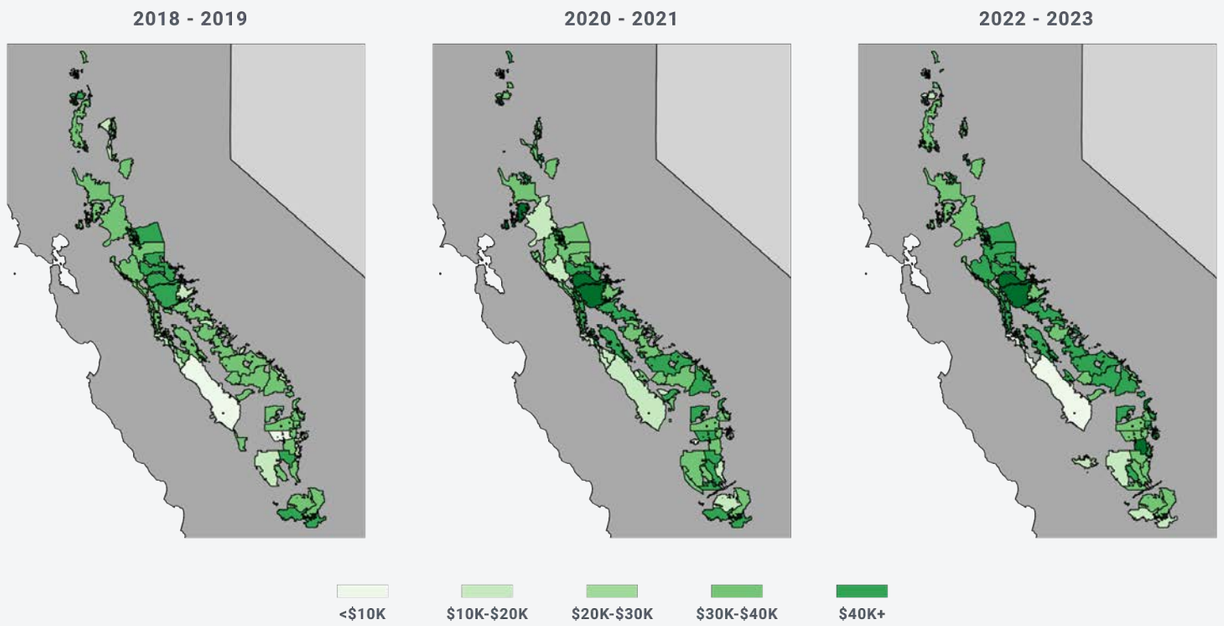
These findings suggest that water availability, soil conditions, and crop type play critical roles in shaping the economic landscape of California's diverse agricultural regions as well as population centers and developing regions. In the more detailed analysis, we focus specifically on permanent tree crops and annual crops in a band of agricultural water districts in the Central Valley to provide insights while acknowledging we won't capture every detail or market influence.

FIGURE 7. *Median Price per Acre for Annual Crops Across Agricultural Water Districts in the Central Valley.*



Note: Water districts with less than 3 observations for the time period were omitted.

FIGURE 8. *Median Price per Acre for Permanent Crops Across Agricultural Water Districts in the Central Valley.*



Note: Water districts with less than 3 observations for the time period were omitted.

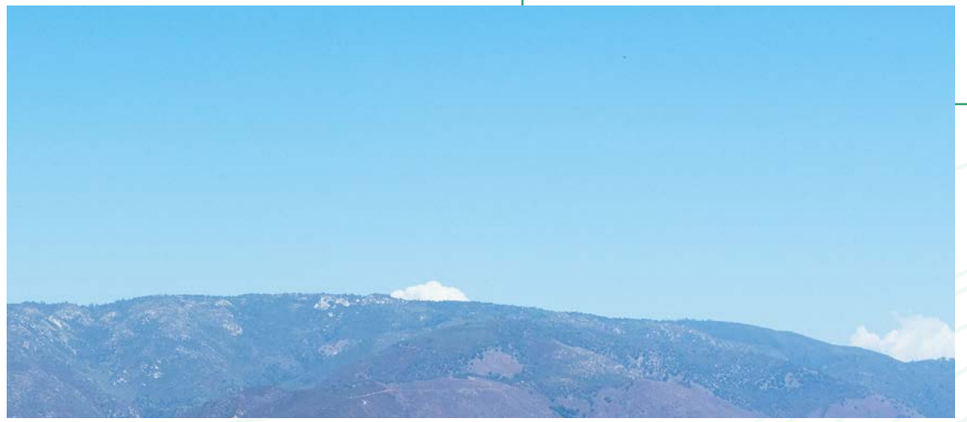
Valuation Dynamics of Permanent Cropland in Central Valley Water Districts

In this section, we delve into the nuanced landscape of crop-specific land values across agricultural water districts in the Central Valley. By focusing on the median price per acre, we provide detailed visual representations and trend analyses tailored to annual crops as well as individual permanent crops, including almonds, pistachios, walnuts, citrus, stone fruit, and grapes. Our aim is to uncover the pricing trends that emerge across districts over time and provide an overview of how surface water accessibility, crop maturity, and other regional factors influence land values. This analysis is supported by a series of maps and charts with discussions that illustrate the distribution of land values and help assess the complexities inherent in the Central Valley of California.

In the San Joaquin Valley, water supply comes in two forms, surface water and groundwater. While the reliability of each of these water sources can vary greatly, there is little argument that following the 2014 passage and current implementation of the Sustainable Groundwater Management Act (SGMA), the future availability of groundwater in much of the San Joaquin Valley will be reduced relative to previous years. This has put a much greater emphasis on the value and reliability of surface water supply.

For the purposes of this exercise, we focus on the value per acre of irrigation districts providing surface water supply and do not take into account values between varying Groundwater Sustainability Agencies and Subbasins. In the crop-specific discussions below, we present price per acre trends in both maps and time series charts that will provide a basis to continue developing and publishing crop and water district insights in the future. To support this analysis throughout the section, we present land values based on Tier 1[§] and Tier 2 surface water designations where Tier 1 districts are represented by the most secure and stable surface water availability and Tier 2 includes sales in all other districts and regions in the Central Valley.

To evaluate the individual sales included in the analysis, please reach out to our team at get.acres.com/nationwide-comps.



[§]Tier 1 water districts include: Alta Irrigation District, Consolidated Irrigation District, Exeter Irrigation District, Fresno Irrigation District, Lindsay-Strathmore Irrigation District, Modesto Irrigation District, Oakdale Irrigation District, Patterson Water District, Pioneer Water Company, San Joaquin River Exchange Contractors Water Authority, South San Joaquin Irrigation District, Turlock Irrigation District, and West Stanislaus Irrigation District.

Annual Crops

In California's Central Valley, the market for annual crops in 2023 showcased declines in some water districts, largely driven by challenging market conditions. Figures 9 and 10 from the report reflect how these market trends are further influenced by water supply variations across different irrigation districts, underscoring the complex interplay between environmental and macroeconomic factors.

Figure 9 illustrates the year-to-year median prices for key districts, with overall declining trends punctuated by moments of stability or slight recovery in areas with better water access. For example, the Fresno Irrigation District, benefiting from relatively stable water supplies, demonstrated resilience with higher prices in 2021 and 2022, before experiencing a decrease in 2023 that still remained above the lowest values in previous years for all other districts.

In contrast, districts reliant on State Water Projects (SWP) for surface water and Westlands Water District, which are more vulnerable to water scarcity, exhibited more pronounced fluctuations and generally lower prices, highlighting sensitivity to both economic and water supply issues.

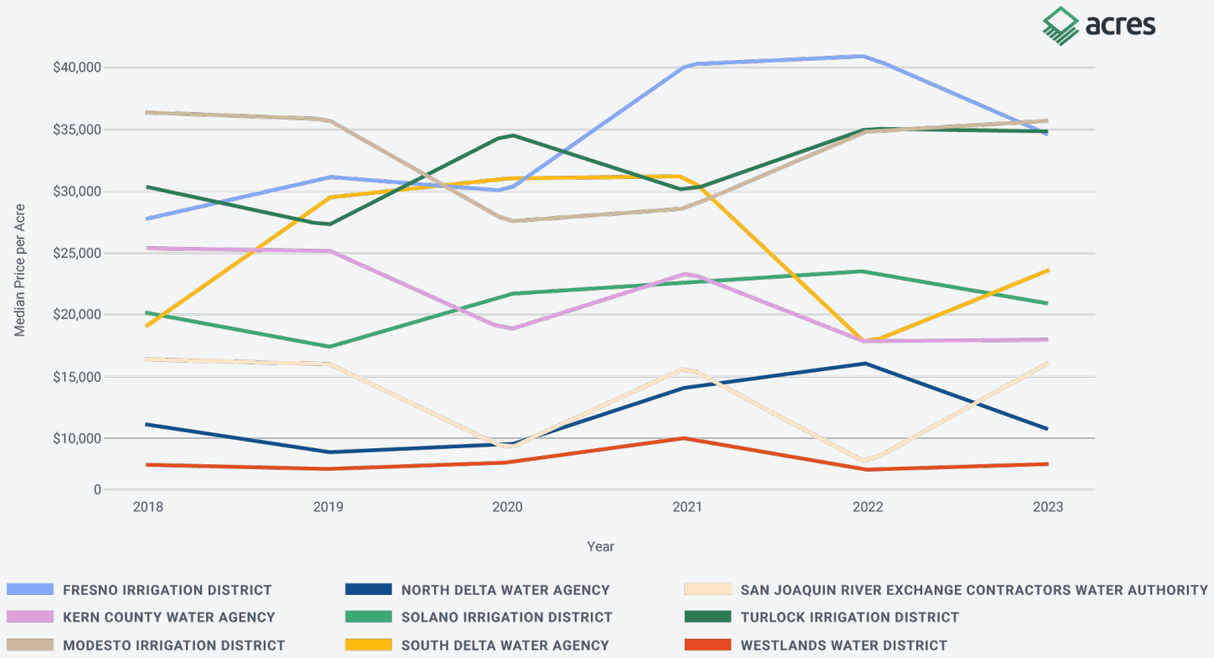
Figure 10 presents the percentage change in land values in 2023 relative to the 2018-2022 average price per acre, contrasting the decreases in districts with water supply challenges against those with more secure access. Some districts saw increases of over 30%, indicating that even amidst a declining overall market, adequate water supply alongside dependable market demand and infrastructure can provide significant protective effects for land values. Meanwhile, other districts exhibited sharp declines of over 30%, emphasizing the impact of regional economic and water security challenges.

This analysis reveals that while the primary market trend for annual crops is downward due to broader economic pressures, the impact is further modulated by water supply conditions. For land professionals, these findings highlight the critical importance of considering water security in valuation and investment strategies, as it remains a pivotal factor that can mitigate or exacerbate market downturns in agricultural land values.

KEY TAKEAWAY

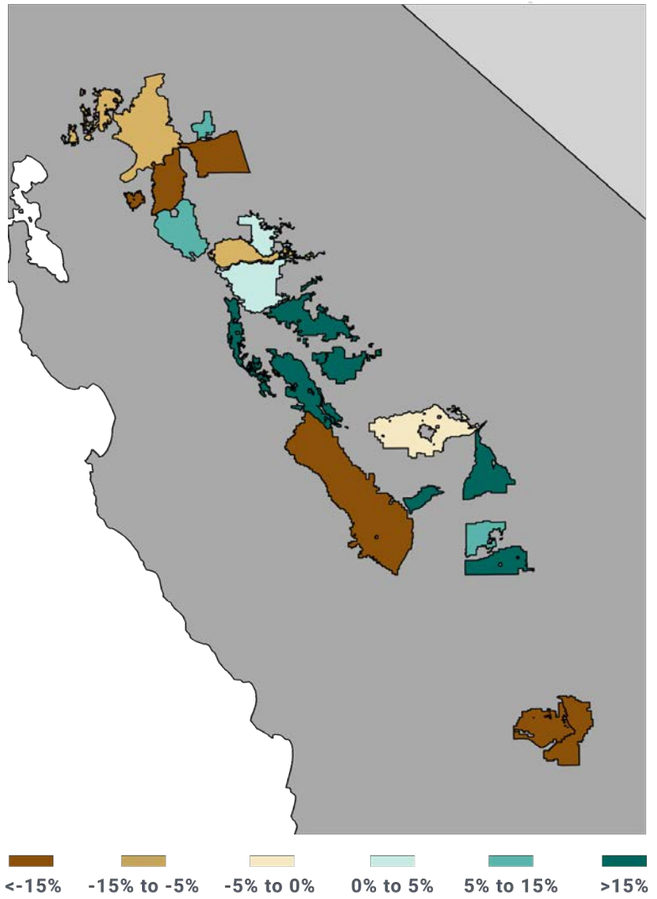
For land professionals, these findings highlight the critical importance of considering water security in valuation and investment strategies, as it remains a pivotal factor that can mitigate or exacerbate market downturns in agricultural land values.

FIGURE 9. *Annual Crop Price per Acre Yearly Trends for Select Water Districts.*



Note: The annual crop categories included are available in Figures 4-6.

FIGURE 10. *Percentage Change in Annual Crop Price per Acre in Select Water Districts for 2023 Relative to the 2018-2022 Baseline.*



Note: Water districts with less than 3 observations for each year analyzed were omitted.

Almonds

Figures 11-15 highlight the dynamic market for almond ground across the Central Valley and in select water districts over the study time period. After filtering outliers in our data based on criteria in the Appendix, almond sales included over $6.5 billion in land transactions between 2018-2023.

We observed consistent growth in annual sales starting at $965 million in 2018, reaching a peak in 2021 at approximately $1.37 billion, followed by a decline in the following years down to $963 million in 2023. The last two quarters of 2023 were some of the lowest for the study period.

Figures 11 through 15 illustrate the fluctuations and recent downturns in almond land values across various irrigation districts within California's Central Valley, revealing how external market pressures and internal management challenges are reshaping the landscape. Tier 1 districts in Figure 11 have shown resilience in almond land values, while Tier 2 districts have experienced declines on an annual basis. However, even the higher transactions in Tier 1 occurred in the first half of 2023, and the district analysis in Figure 12 presents a more nuanced view of almond land value trends.

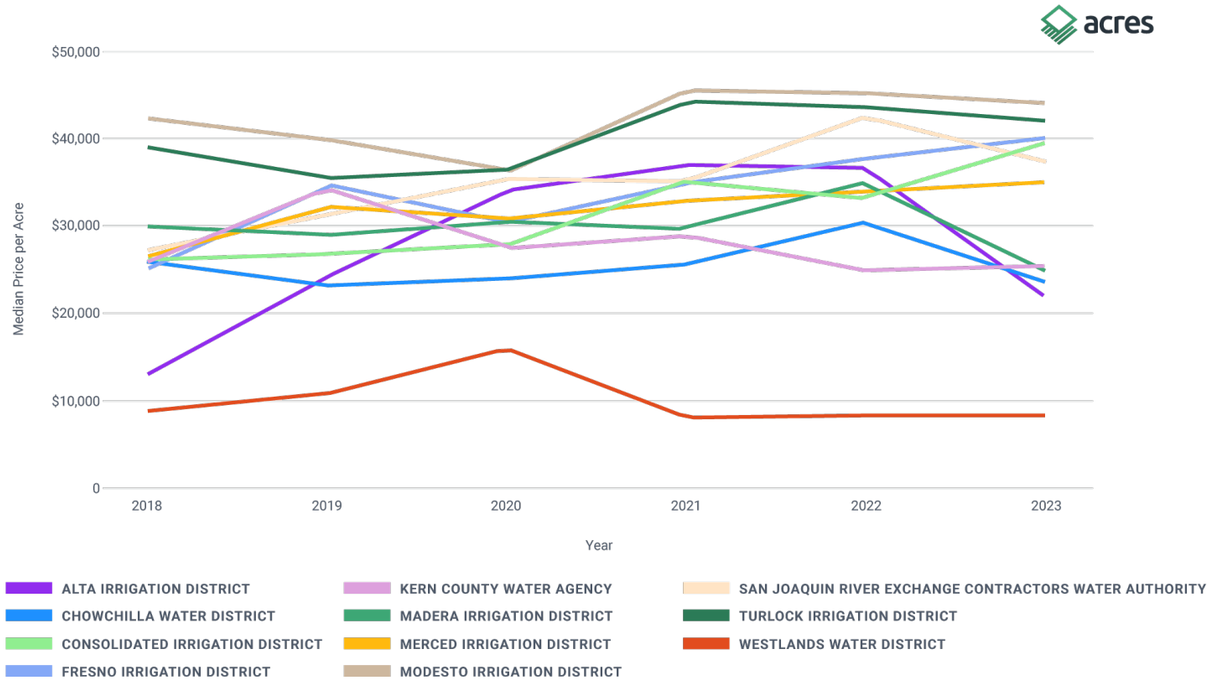
Although earlier years showed variability and growth, recent data suggests a pronounced decline in several key districts, signaling a shift in the economic conditions associated with almond farming and land values in these regions.

In Figure 12, we see the economic impacts in 2023 with several districts declining in almond land values. For instance, Alta, Chowchilla, and Madera Irrigation Districts have seen declines in median land values from earlier peaks, now registering values demonstrably lower by the end of 2023. This downward trend suggests the impacts of aging orchards and possibly less favorable water conditions, which are critical in almond cultivation, but more importantly highlight the recent economic challenges facing the industry.

This decrease may reflect broader market conditions, such as reduced global demand and supply issues stemming from the pandemic period, which are particularly pressing in districts that were previously bolstered by high almond prices. Despite the challenges, Fresno, Modesto, and Turlock Irrigation Districts have maintained strong pricing for almond ground.

FIGURE 11. *Almond Price per Acre 2018-2023 by Water District Tier.*

FIGURE 12. *Almond Price per Acre by Year for Select Water Districts.*



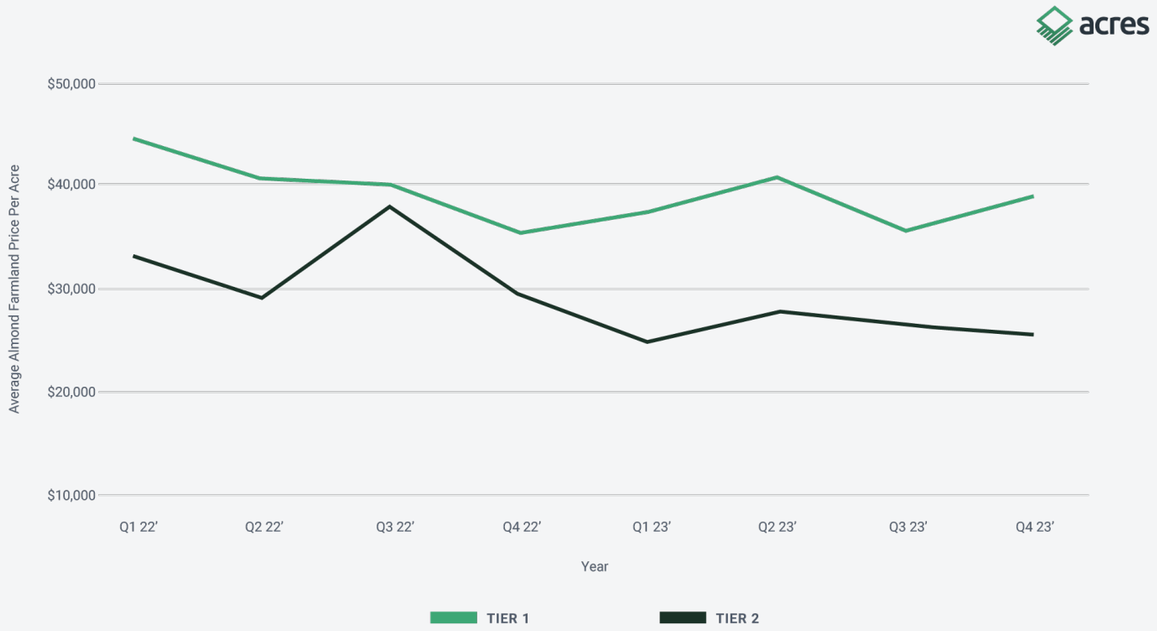
A myriad of factors have negatively impacted almond grower profitability since the pandemic, including lower almond prices as a result of excess domestic inventory, increased cultural costs stemming from inflationary pressures, and higher interest rates negatively impacting operating cash flow. These factors are evident in looking at the quarterly land values for almond orchards since 2022.

Figure 13 shows a detailed quarterly analysis of almonds orchards between 3rd and 15th leaf for Tier 1 and Tier 2 districts. We see significant declines in almond land values for both tiers of water districts, with a little more resilience in Tier 1 districts. For example, Tier 2 districts average price per acre fell 23% from Q1 2022 through Q4 2023. Based on limited data points and anecdotes during the early months of 2024, we expect to see further pressure on almond farmland prices during the first half of this year.

Furthermore, Figures 14-15 underscores these changes, showing that most districts did not experience significant percentage increases in land values. In fact, notable districts like South San Joaquin Irrigation District, and Glenn-Colusa Irrigation District, though managing to maintain or slightly increase values, are exceptions in a general market trend that is seeing significant declines. This trend is worth noting as it suggests a potential long-term downturn for the almond farmland market in the region, influenced by excess supply following the pandemic and subsequent entry of distressed properties into the market.

These insights from Figures 11 to 15 stress the importance for land professionals and stakeholders to utilize robust and up-to-date data platforms like Acres to closely monitor these trends. With the almond market facing a downturn into 2024, comprehensive data analysis becomes crucial in making informed decisions that consider not only the current state but also the potential future trajectories of land values in the Central Valley.

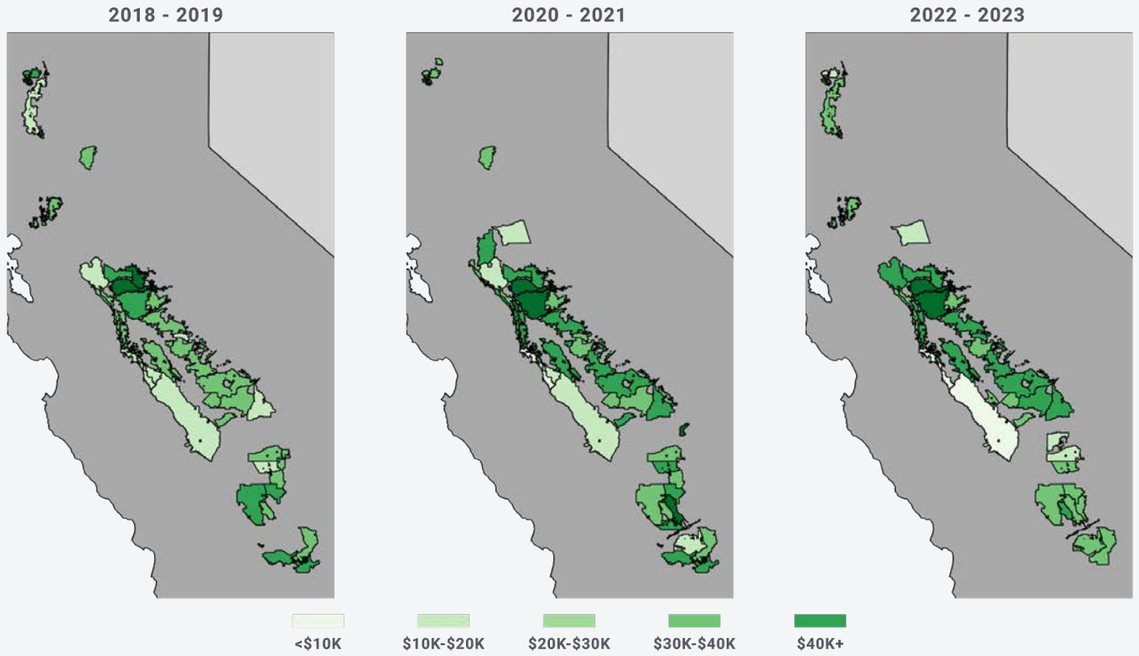
FIGURE 13. *Quarterly Almond Land Price per Acre 2022 - 2023 by Water District Tier.*



KEY TAKEAWAY

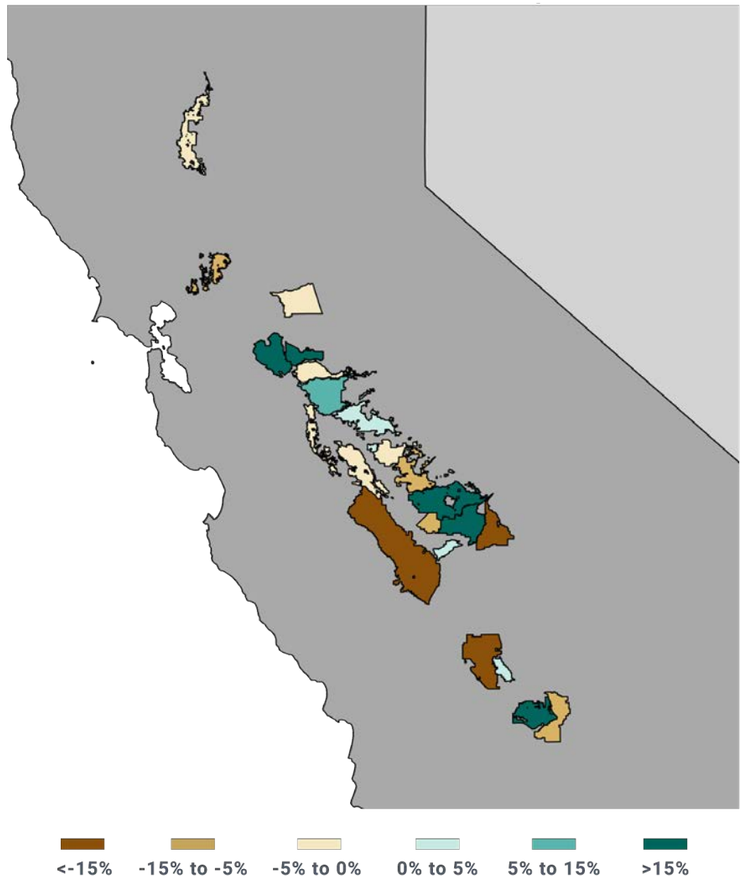
We observed consistent growth in annual sales starting at $965 million in 2018, reaching a peak in 2021 at approximately $1.37 billion, followed by a decline in the following years down to $963 million in 2023. The last two quarters of 2023 were some of the lowest for the study period.

FIGURE 14. *Almond Price per Acre Across Water Districts.*



Note: Water districts with less than 3 observations for the time period were omitted.

FIGURE 15. *Percentage Change in Almond Price per Acre Across Water Districts.*



Note: Water districts with less than 3 observations for each year analyzed were omitted.

Pistachios

Overall, we observed $2.11 billion in pistachio transactions from 2018 to 2023 with a high of nearly $450 million in 2022 and a low of about $270 million in 2023. The variability in pistachio land values across different irrigation districts in California's Central Valley is prominently featured in Figures 16 and 17. These figures depict trends as influenced by factors like orchard maturity, water reliability, and economic conditions.

Important Notes:

- For this analysis of pistachios, we are focused on a select set of irrigation districts, some of which have few sales in certain time periods, especially the latter half of 2023.
- We omit a substantial number of sales that fell outside of water districts, which almost certainly declined in 2023.
- Some of the observed sales in the select districts were mature orchard purchases made by institutions, potentially leading to higher than expected price per acre land values.
- Broader market conditions for pistachios, including all Central Valley sales, almost certainly declined, and moving into 2024 face high volatility and market conditions that haven't been experienced for over a decade.

Figure 16 showcases trend lines for Tier 1 and Tier 2 irrigation districts. We observed growth through 2021 and again in 2023 in Tier 1 districts. The sales in Tier 1 districts included mature orchards in early 2023 and few sales in the latter part of 2023. Tier 2 experienced growth through 2022 followed by a steep decline in 2023, representative of most of the pistachio market ending the study period in the analysis.

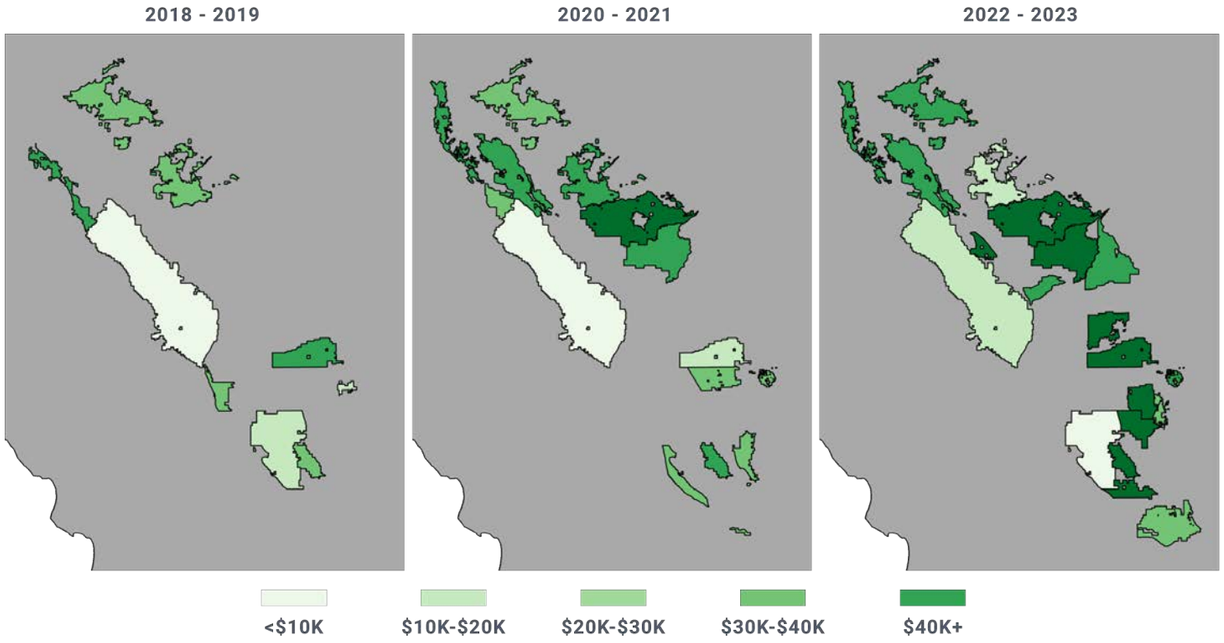
More water secure districts maintained resilience in the market relative to Tier 2 districts. As we follow this study with a series of crop-specific insights, we expect to see more substantial declines across pistachios in Q1 2024.

Figure 17 visualizes the evolution of median prices per acre across various periods: 2018-19, 2020-21, and 2022-23. The variability in price per acre for pistachio ground is substantial due to lighter transactions and orchard age, emphasizing the need for cautious interpretation of data when transactions are sparse.

Importantly, all of the districts with increasing values in 2023 were due to few but high transactions for mature and producing orchards. The market is continuously shifting, and likely would not present this way moving into 2024. There is a need for further investigation to shed light on the dynamic nature of pistachio land values as the market continues to evolve.

FIGURE 16. *Pistachio Price per Acre 2018-2023 by Water District Tier.*

FIGURE 17. *Pistachio Price per Acre Across Water Districts.*



Note: Water districts with less than 3 observations for the time period were omitted.

Walnuts

From 2018 to 2023, the walnut market in California's Central Valley saw transactions amounting to approximately $1.84 billion, with a peak of over $110 million in the second quarter of 2023 and a low of around $34 million in the first quarter of 2019. The variability in walnut land values across different irrigation districts is extensively detailed in Figures 18 through 21.

Figures 18-21 comprehensively outline the shifts in walnut land values across various irrigation districts in California's Central Valley from 2018 to 2023, illuminating the impact of oversupply in the market. Throughout this period, walnut values have demonstrated a general downtrend, notably in districts such as Lower Tule River Irrigation District and North San Joaquin Water Conservation District, with significant year-over-year depreciation.

In contrast, some districts like Oakdale Irrigation District and San Joaquin River Exchange Contractors Water Authority bucked the overall negative trend, but only due to a low number of transactions on producing orchards.

Figures 18 and 19 trace the median price per acre over six years, highlighting the initial high values and subsequent fluctuations that reflect both market and environmental conditions. Even Tier 1 water districts have experienced declines in land values through 2023, with expected continuation of the trend into 2024.

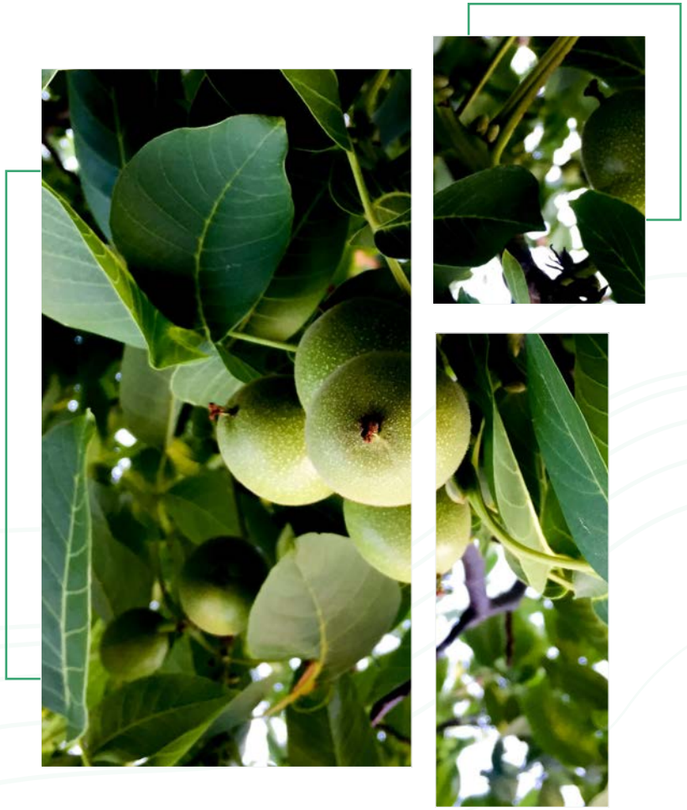
Tier 2 walnut land values saw growth during the pandemic boom in 2021, albeit moderated by the oversupply of walnuts, prior to declining through 2022 and 2023. In Figure 19, we observe walnut farmland values most resilient in Modesto with mature producing orchards changing hands, whereas every other irrigation district has declined in the double-digit percentages.

Figure 20 categorizes data into three distinct periods—pre-pandemic, during the pandemic, and post-pandemic—and Figure 21 shows the price per acre percentage change from 2018-2022 to 2023. These land values maps are designed to show how the value of walnut land has changed over time in key irrigation areas.

We observe decreases across several water districts in California's Central Valley, signaling the challenges faced in the walnut market. Significant declines were observed in areas like the Los Molinos Mutual Water Company and North San Joaquin Water Conservation District, where values declined by approximately 51% and 27% respectively. This downturn reflects issues such as water scarcity and adverse oversupply conditions which directly impact walnut production viability.

Similarly, the South Sutter Water District and Turlock Irrigation District experienced substantial reductions in land values, decreasing by 20% and 39% respectively. These sharp declines highlight systemic challenges that may be undermining crop viability and land attractiveness in these regions.

Although some districts like San Joaquin River Exchange Contractors Water Authority saw an increase, the general trend for walnut land values in 2023 leans towards a downward trajectory, emphasizing the need for careful management and strategy adaptation in response to fluctuating agricultural market conditions.



KEY TAKEAWAY

The general trend for walnut land values in 2023 leans towards a downward trajectory, emphasizing the need for careful management and strategy adaptation in response to fluctuating agricultural market conditions.

FIGURE 18. *Walnut Price per Acre 2018-2023 by Water District Tier.*

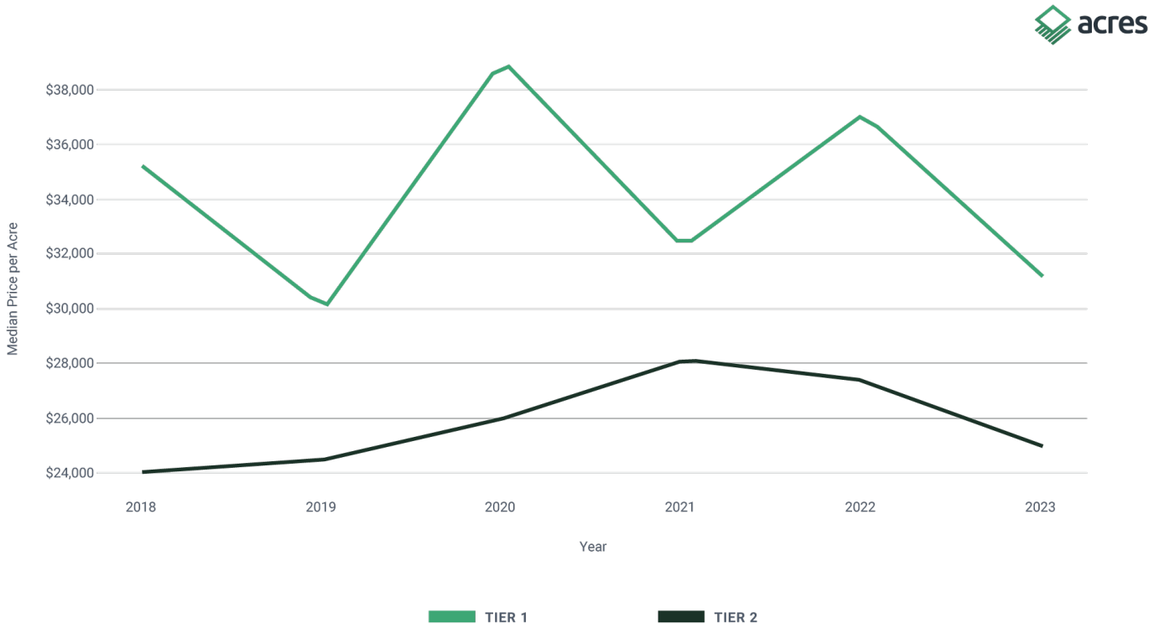


FIGURE 19. *Walnut Price per Acre for Select Water Districts.*

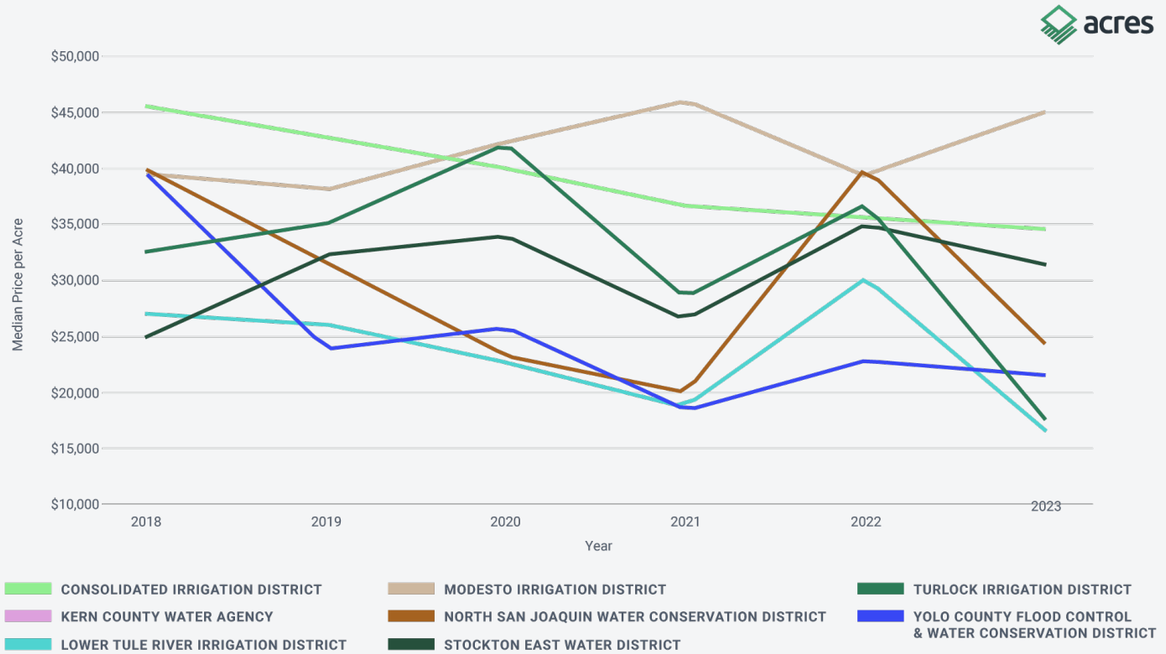
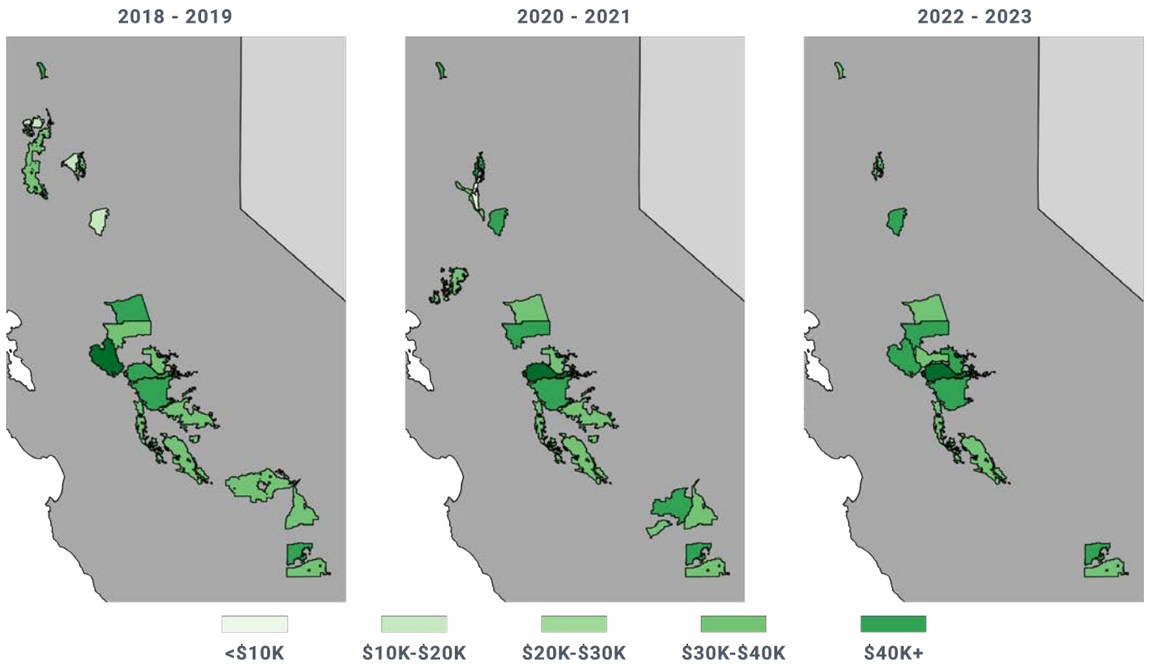
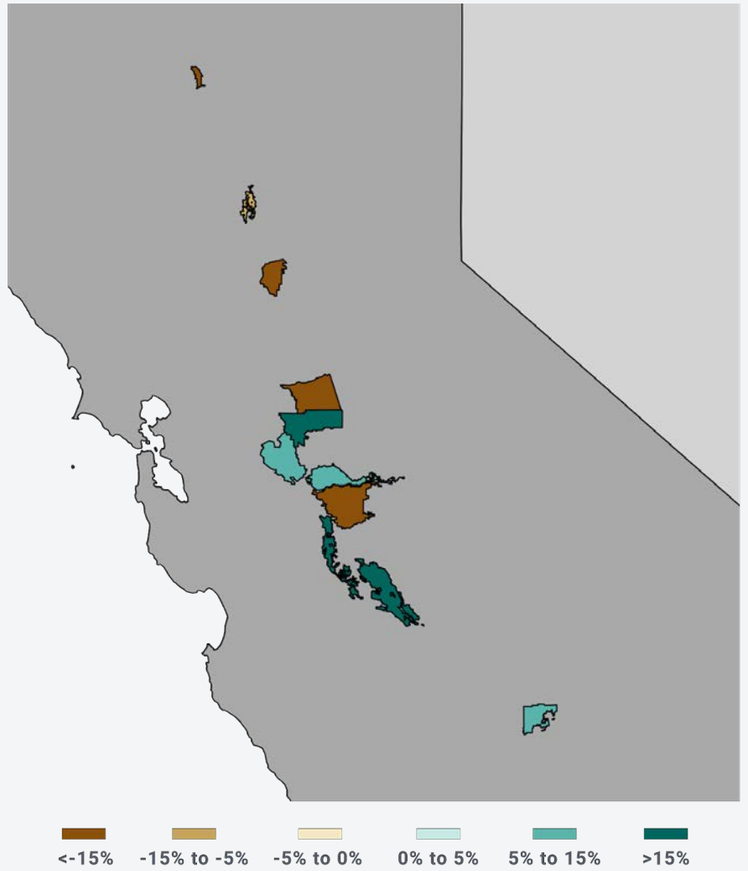


FIGURE 20. *Walnut Price per Acre Across Water Districts.*



Note: Water districts with less than 3 observations for the time period were omitted.

FIGURE 21. *Percentage Change in Walnut Price per Acre Across Water Districts.*



Note: Water districts with less than 3 observations for the time period were omitted.

Citrus

Citrus land values demonstrate a more optimistic but still tempered trend compared to other crops, with several districts showing resilience and even growth in challenging market conditions as outlined in Figures 22 through 24. There is still some observable volatility in citrus land values throughout the figures due to orchard maturity as well as the highly variable water quality in the citrus growing region. In the latter half of 2023, prices began to turn downward following broader challenges across the permanent crop sector throughout the Central Valley. In total, we observed over $1.2 billion in citrus transactions from 2018-2023 with a high of $386 million in 2022 and a low of $108 million in 2019.

Figure 22 demonstrates the price difference between Tier 1 and Tier 2 water districts for citrus. Tier 1 citrus experienced exceptional growth from 2018 and 2019 through 2022. Although prices plateaued in 2022 and declined slightly in 2023, citrus in water secure districts showed exceptional stability and growth. Tier 2 districts also demonstrated growth but with greater volatility, highlighted by the price spike in 2022. Unlike water secure districts, citrus in the broader Central Valley experienced sharp declines in 2023 following the boom of 2022.

The overall trends here suggest that in good market conditions, less water secure regions may see bolstered pricing, but the opposite effect may also be observed where poor market conditions lead to more substantial price deterioration in such regions.

Figure 23 presents a year-by-year median price per acre analysis for citrus across select water districts, revealing an overall upward trajectory in land values despite some fluctuations. For instance, Alta Irrigation District saw median prices climb from around $23,000 in 2018 to approximately $40,000 by 2023, suggesting strong demand.

However, the trend itself needs to be taken with a degree of skepticism given transactions in 2023 were low and there were several early-producing to mature orchard sales included. Similarly, Exeter and Lindsay-Strathmore Irrigation Districts also exhibited steady growth, with values peaking in 2022 before slightly adjusting to downward pressure in 2023.

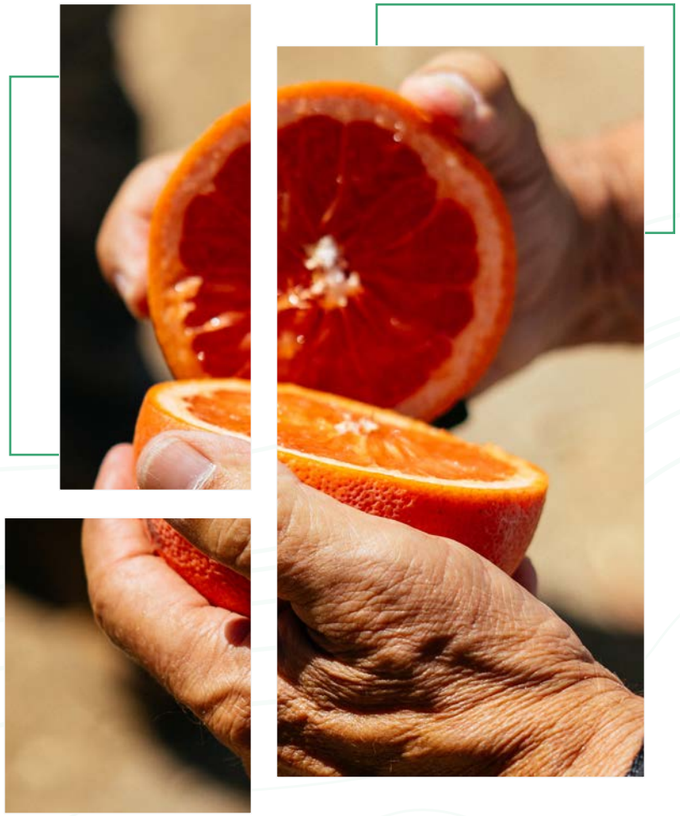
These districts reflect the bright spots in the citrus market, showing adaptability and sustained investor interest despite broader permanent crop market downturns in the region.

Figure 24 illustrates the median price per acre over three periods. Notably, the Consolidated Irrigation District showed a significant increase, with median prices rising to over $50,000 by 2022-23 from earlier figures, reflecting robust market conditions and mature orchard sales. Similarly, the Exeter and Lindsay-Strathmore Irrigation Districts also showed strong growth, with Exeter reaching about $40,000 and Lindsay-Strathmore approaching $38,000 in the latest period.

In contrast, the Fresno Irrigation District experienced a dip to around $25,000 in the latest period after peaking at around $39,000, suggesting potential challenges in market dynamics. Other districts like Alta, Lindmore, and Orange Cove showed steady growth, indicating a resilient citrus market despite broader agricultural pressures.

Overall, the citrus market within the Central Valley exhibits pockets of growth and resilience, marking it as a relatively brighter sector amid market challenges. These trends provide essential insights for land professionals and stakeholders, indicating that despite the downturn, citrus remains a viable crop, driven by strategic management and favorable local conditions.

This analysis underscores the necessity for up-to-date and nuanced market data to navigate these variable and rapidly changing agricultural landscapes effectively, which can be found on Acres, the source for data in this report.



KEY TAKEAWAY

In total, we observed over $1.2 billion in citrus transactions from 2018-2023 with a high of $386 million in 2022 and a low of $108 million in 2019.

FIGURE 22. *Citrus Price per Acre 2018-2023 by Water District Tier.*

FIGURE 23. *Citrus Price per Acre for Select Water Districts.*

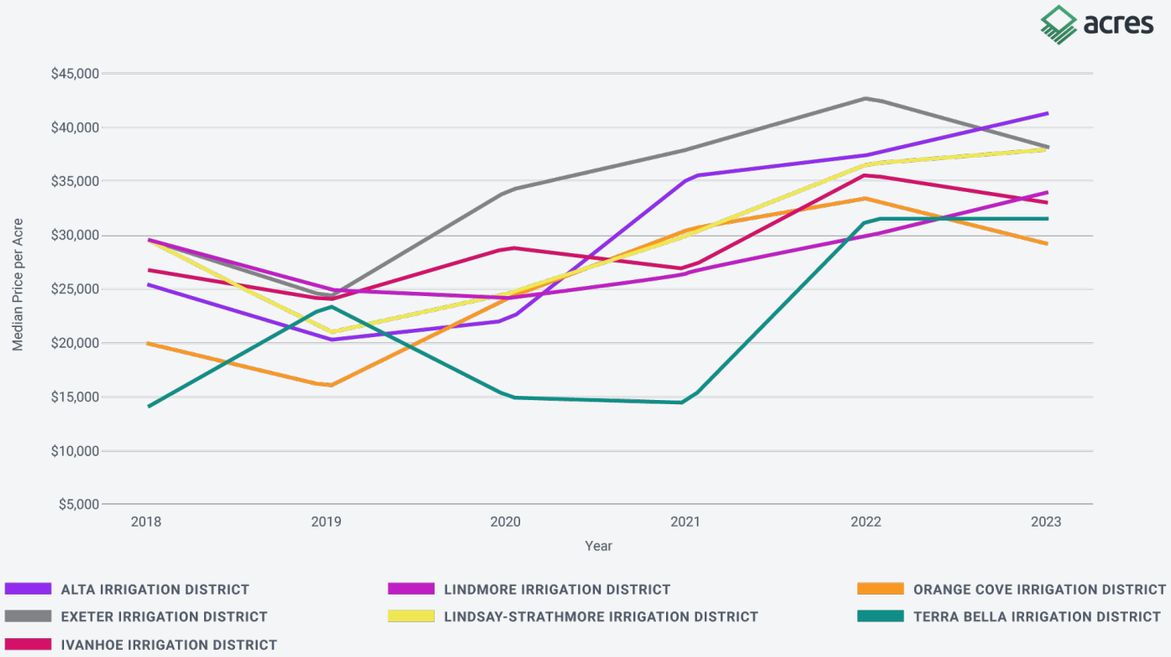
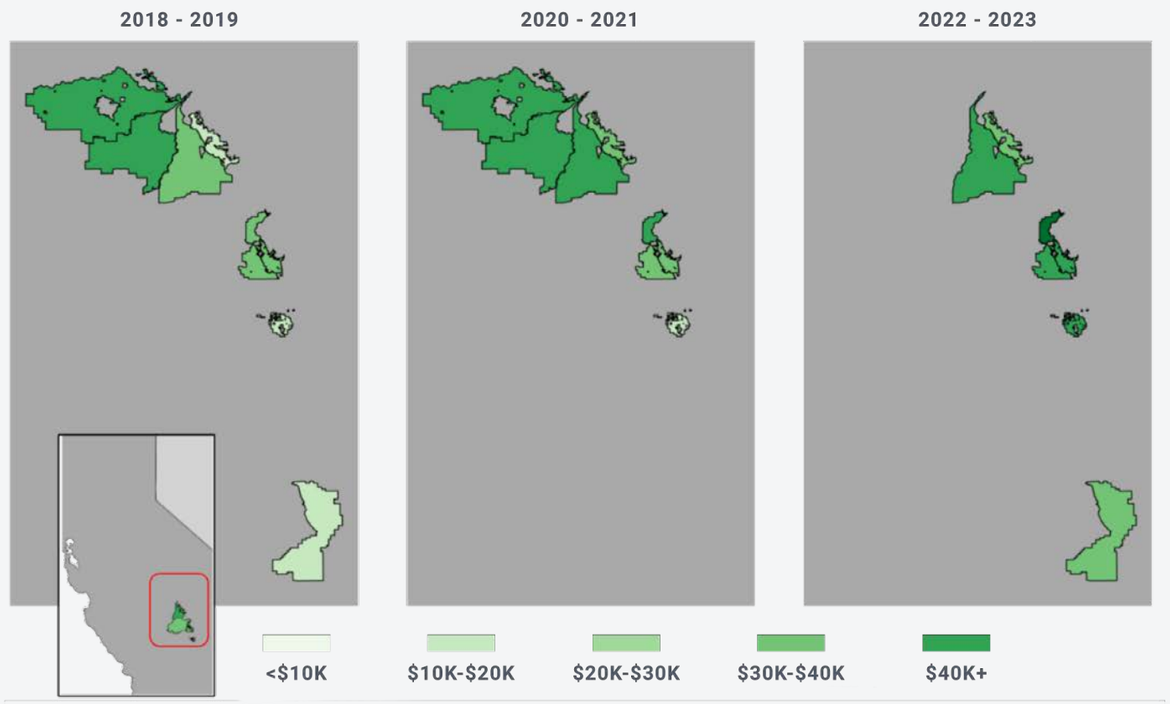
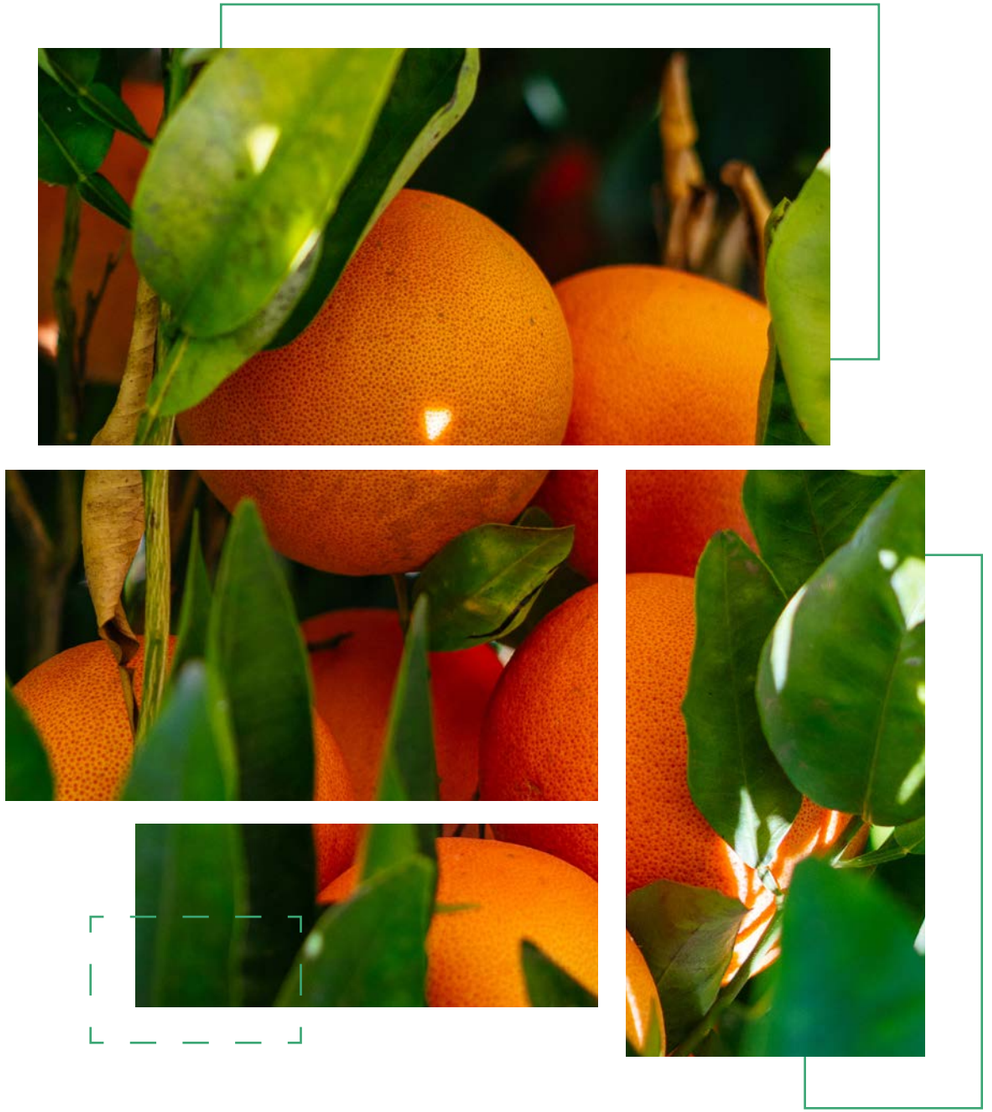


FIGURE 24. *Citrus Price per Acre Across Water Districts.*



Note: Water districts with less than 3 observations for the time period were omitted.



Stone Fruit

Overall, the stone fruit market saw transactions totaling approximately $1.64 billion from 2018 to 2023, with the annual totals peaking at about $464 million in 2019 and reaching a low near $140 million in 2023. Figures 25-27 present a comprehensive look at stone fruit land values across key districts in California's Central Valley, illustrating a mix of upward trends and some declines from 2018 to 2023.

Stone fruits, encompassing a variety of crops like peaches, apricots, cherries, and olives, demonstrate greater variability relative to other permanent crops, largely due to regional differences, water supply conditions, and crop type and maturity influences on market behavior.

Figure 25 illustrates stone fruit land value trends for water security, with Tier 1 districts having exceptional water security and Tier 2 representing the remainder of stone fruit sales in the Central Valley. Tier 1 districts, represented in green, display a consistently positive trend, with median land values for stone fruit climbing steadily over the six-year period. This suggests that these districts likely have favorable conditions for stone fruit cultivation and had sufficient market demand to support growth during the period.

On the other hand, the Tier 2 districts, shown in red, experienced more variability. After an initial rise, there was a slight decline or plateau around 2020, followed by recovery and then a downturn or stabilization from 2022 onwards, reflecting potential challenges these districts face, such as variable water availability and changing market dynamics.

Figure 26 traces the median prices per acre across several districts, indicating general market resilience with some fluctuations tied to specific regional factors. For instance, Alta Irrigation District showed consistent growth from around $25,000 to $35,000 over the six years, despite a dip in 2020, which likely reflects differences in crop type, variety, and maturity.

Stockton East Water District, while showing marked growth in 2022, had more modest figures in 2023, rounding out to $32,000, which signals a stabilizing market condition for stone fruits in this area.

Figure 27 further breaks down the median prices across two-year periods, highlighting regions like Consolidated Irrigation District where median prices rose steadily, reaching around $38,000 in the most recent period. This trend suggests that despite broader market challenges, certain districts are succeeding, possibly due to superior water management or high-quality crop yields.

Conversely, North Delta Water Agency experienced significant market challenges, with a sharp drop in land values, indicating less favorable conditions or perhaps market saturation affecting their outputs.

Lindmore Irrigation District and Stockton East Water District both exhibited positive growth, marking increases over 30% in both districts. This underscores a generally positive outlook for stone fruit land values in these districts, albeit with greater volatility and contrasting sharply with North Delta Water Agency, which saw a decrease of over 30%.

KEY TAKEAWAY

Overall, the stone fruit market saw transactions totaling approximately $1.64 billion from 2018 to 2023, with the annual totals peaking at about $464 million in 2019 and reaching a low near $140 million in 2023.

FIGURE 25. *Stone Fruit Price per Acre 2018-2023 by Water District Tier.*

FIGURE 26. *Stone Fruit Price per Acre for Select Water Districts.*

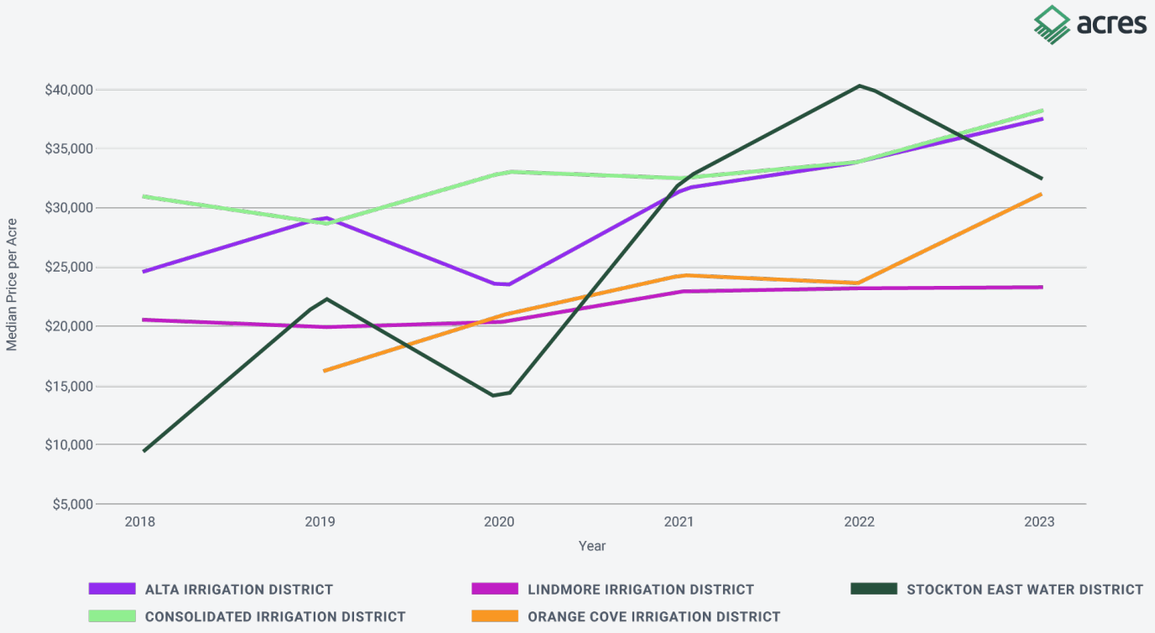
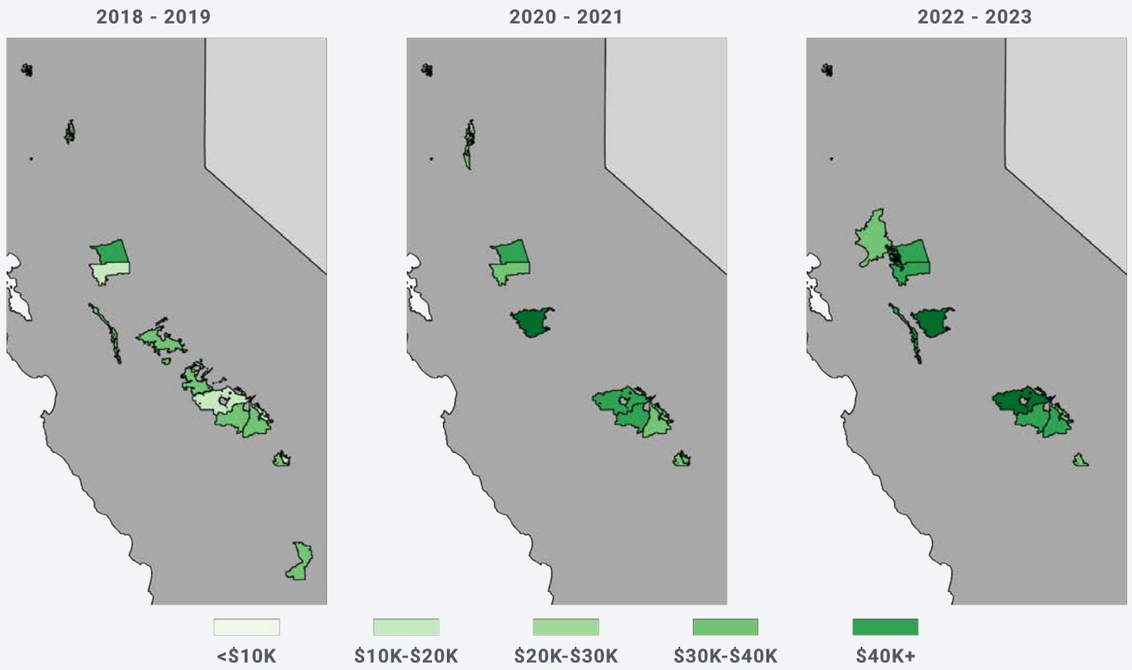


FIGURE 27. *Stone Fruit Price per Acre Across Water Districts.*



Note: Water districts with less than 3 observations for the time period were omitted.

Grapes

The grape market, encompassing both table and wine varieties, has demonstrated considerable variability in transaction volumes and prices from 2018 to 2023. Notably, grapes, which require less water compared to other crops, have seen fluctuations driven largely by differential demand dynamics between table grapes and wine grapes.

The total transaction volume over this period amounted to approximately $2.72 billion, peaking in late 2020. Despite not delving into the specific market nuances that distinguish table grapes from wine grapes, it is evident that the overall market trends reflect a complex interplay of consumer demand, agricultural practices, and broader economic conditions.

This introductory summary of grape land values presented in Figures 28, 29, and 30 provides a comprehensive view across various water districts in California's Central Valley, reflecting the dynamics of a market influenced by both table and wine grape demand.

Figure 28 shows a varied landscape of grape land value trends across different districts. Notably, the Consolidated Irrigation District and Woodbridge Irrigation District depict significant volatility, with peaks and troughs indicating fluctuating market conditions. The Woodbridge Irrigation District, in particular, experiences a steep rise in land values peaking around 2022 before a sharp decline in 2023, suggesting a potentially oversupplied market or shifting demand for grapes.

Conversely, the Fresno Irrigation District and Madera Irrigation District display increases over the five-year period, although they too show signs of volatility with some intermittent dips. The North San Joaquin Water Conservation District also shows an upward trajectory until 2022, followed by a pronounced downturn in 2023.

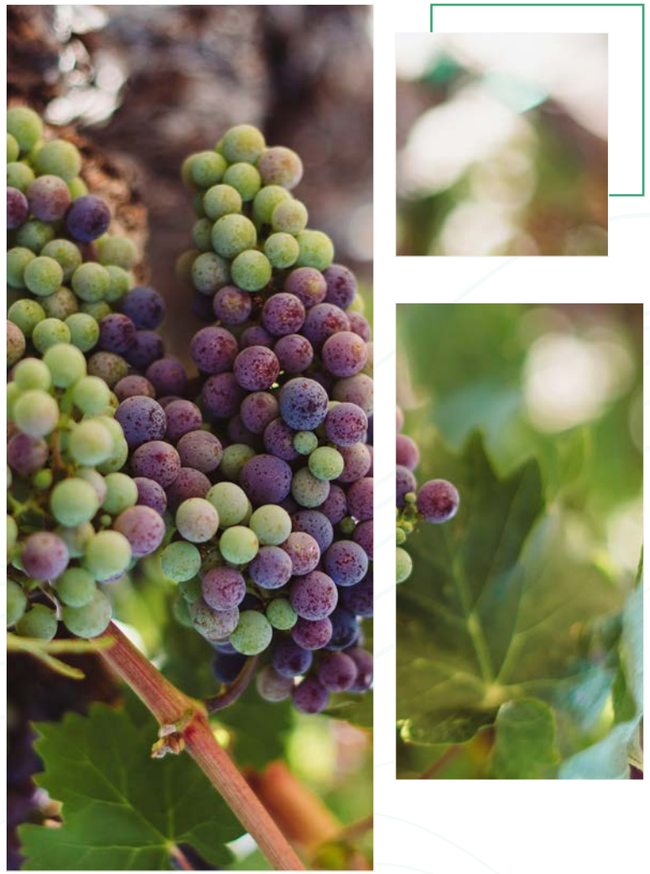
These trends highlight the dynamic nature of grape land values in California's Central Valley, with some districts demonstrating resilience and growth potential while others exhibit signs of market pressure and declining values.

Figure 29 aggregates median prices over three distinct periods: pre-pandemic (2018-19), pandemic (2020-21), and post-pandemic (2022-23), offering insights into longer-term trends.

For instance, Alta Irrigation District saw a peak during the pandemic period, followed by a decline, reflecting the transient impacts of market conditions during these years. In contrast, the Delano-Earlimart Irrigation District shows a recovery in the post-pandemic period, suggesting adaptation or recovery strategies that may have bolstered grape prices.

Figure 30, which outlines the percentage changes in 2023 relative to the average of the previous five years, highlights districts with significant changes. Some districts like the North San Joaquin Water Conservation District and Raisin City Water District show moderate changes, indicating relative stability in grape prices despite broader economic pressures.

Districts such as the Central Delta Water Agency experienced sharp declines, underscoring the challenges faced in certain regions, possibly due to less favorable growing conditions or shifts in the types of grapes produced. This analysis shows the importance of water supply security and strategic management in sustaining grape production viability in the face of fluctuating market demands.



KEY TAKEAWAY

The total transaction volume over this period amounted to approximately $2.72 billion, peaking in late 2020.

FIGURE 28. *Grapes Price per Acre for Select Water Districts.*

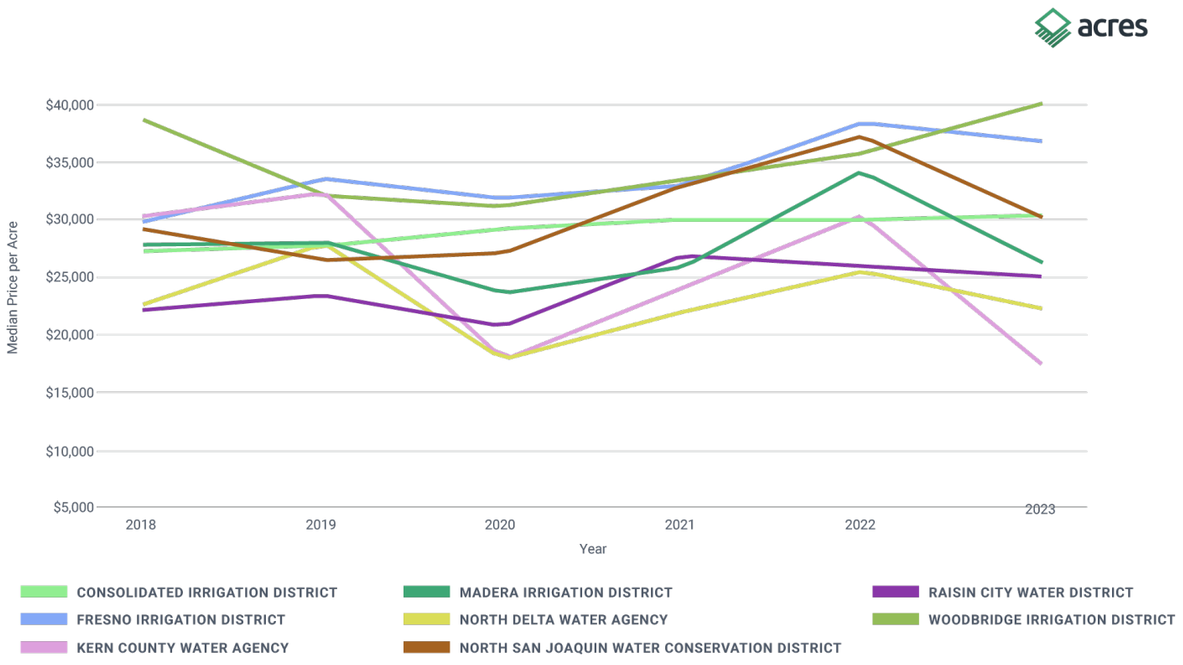
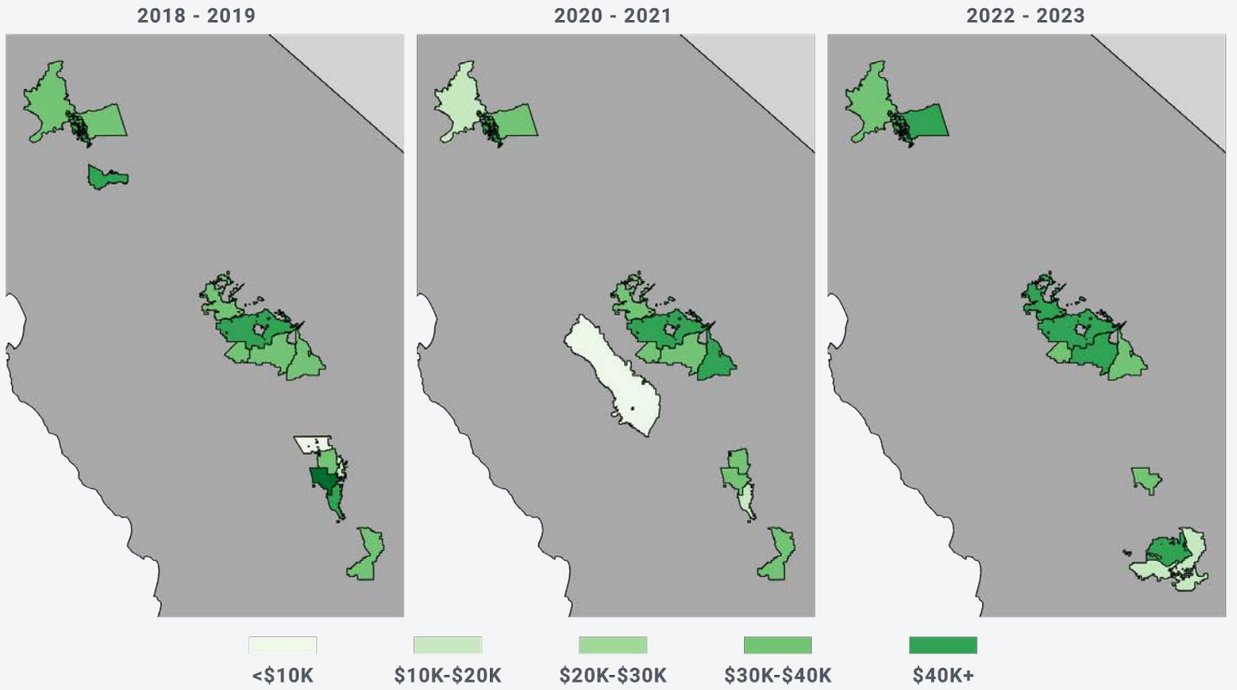
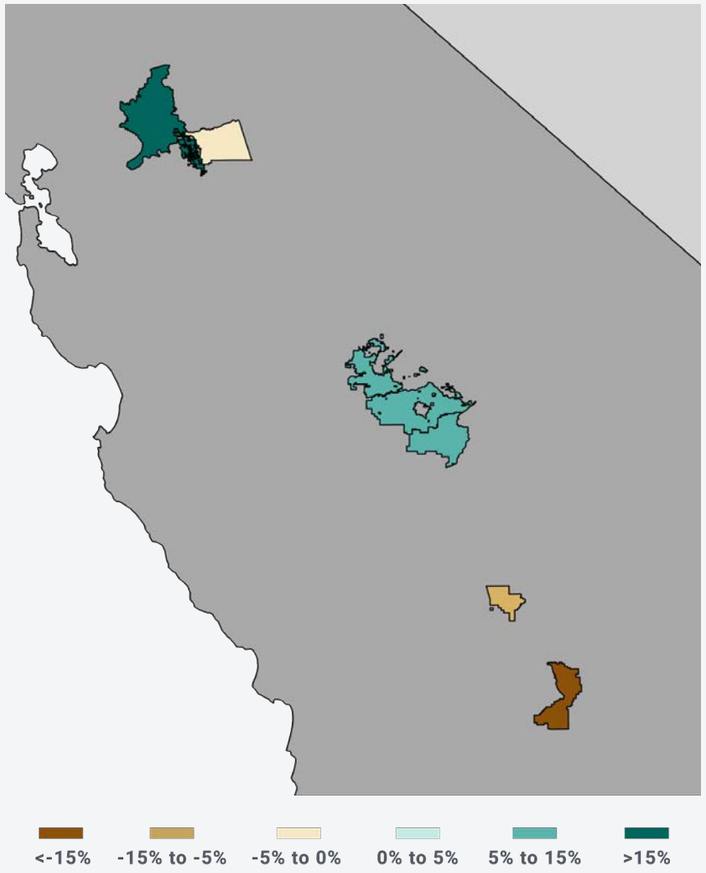


FIGURE 29. *Grapes Price per Acre Across Water Districts.*

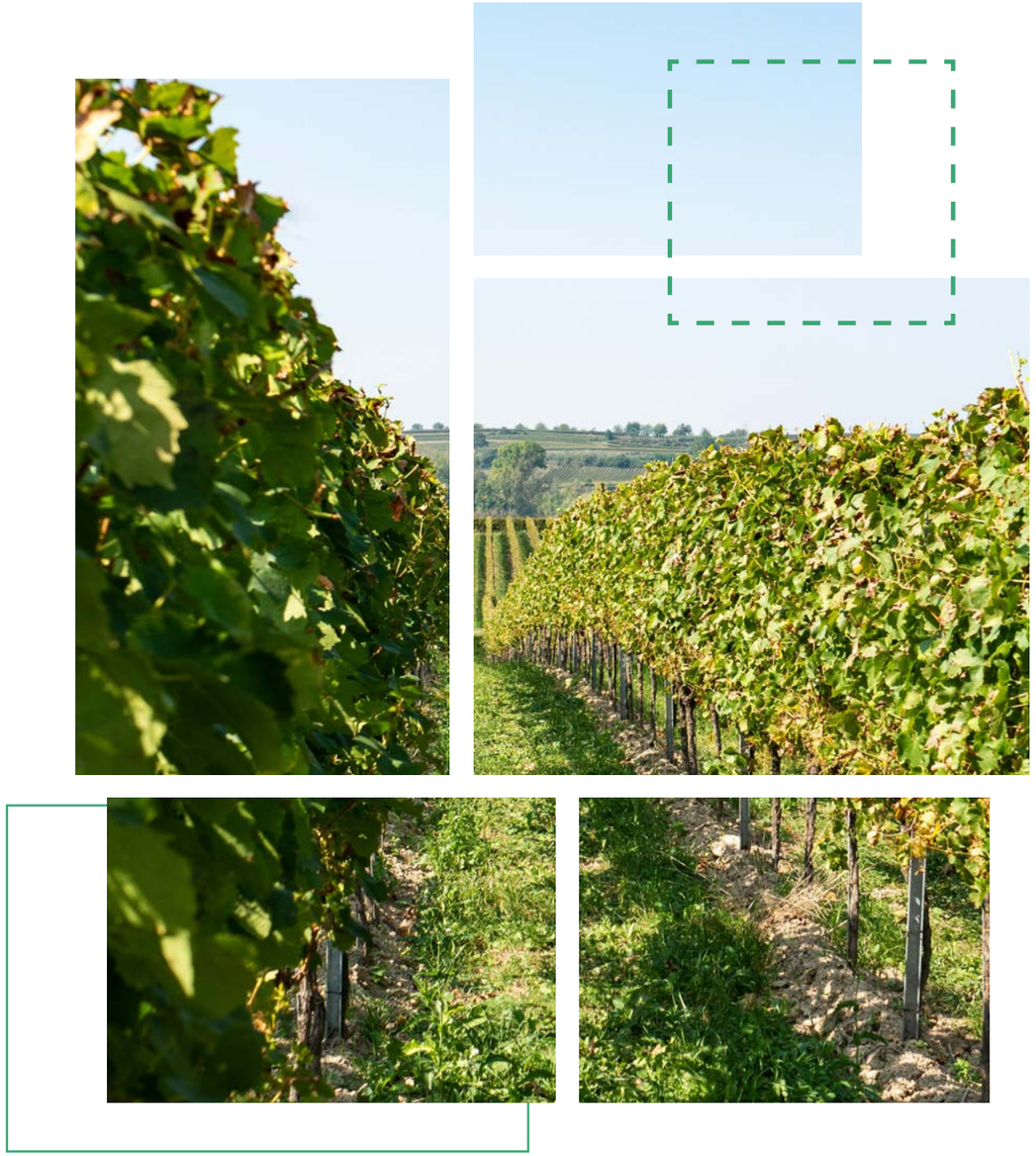


Note: Water districts with less than 3 observations for the time period were omitted.

FIGURE 30. *Percentage Change in Grape Prices Across Water Districts.*



Note: Water districts with less than 3 observations for the time period were omitted.



Summary and Key Takeaways

Concluding our report, we observe marked volatility and downward pressure on the permanent crop market industry throughout 2023, accentuated by high interest rates and ongoing supply disruptions stemming from the pandemic period. As we move into 2024, the outlook suggests continued challenges, particularly affecting crops like almonds, walnuts, and specialty fruits.

Despite these challenges, our analysis suggests the effects of market pressure were dampened though still present in more water secure districts. These trends highlight the pivotal role of water resource management in dictating agricultural outcomes across California's Central Valley.

Water districts with robust and secure water supplies have shown relative resilience amid economic downturns, maintaining more stable land values compared to their counterparts in less secure regions. This disparity is evident in the performance of various crops across different districts; districts with better water security managed to cushion the blow of market fluctuations, whereas those with precarious water access faced sharper declines in land values. This pattern underscores the critical influence of water availability on agricultural viability and the potential for water management strategies to mitigate adverse economic impacts.

Importantly, the study period for this analysis included times of low cost of capital combined with low input costs, which led to a steep increase in cropland investments. The study also includes 2023, which saw an exceptional increase in the cost of capital and increasing cost of inputs ultimately leading to a declining market for permanent crops by the end of 2023.

Because of this, the transactions throughout this analysis show a great deal of volatility based on region, timeframe, and crop type, and should be interpreted with caution. Moreover, the data from later in 2023 is sparse as the market slowed down and there were less transactions overall for certain crops such as pistachios and stone fruit.

Some transactions included in our analysis involve mature orchard purchases by institutional buyers, potentially skewing the observed prices upwards compared to broader land value trends. For almonds and pistachios, and likely other permanent crops, the overall market conditions across all of Central Valley have faced significant downturns, and we anticipate high volatility moving into 2024—a trend not seen to this extent in over a decade.

Looking forward, particularly within the almond and pistachio markets, we note a concerning trend of decreasing values, even in more water secure districts. This suggests that broader economic factors are now overriding the typically protective effect of good water supply.

The situation calls for vigilant monitoring of market conditions and underscores the importance of accessing timely, high-quality sales data. Platforms like Acres.com are essential for providing land professionals with the data needed to navigate these complex changes on a daily basis.

As we continue to track these developments, understanding the interplay between water security, economic conditions, and crop-specific dynamics will be crucial for strategizing future investments and managing risks across the agricultural sector in California's Central Valley and beyond.

KEY TAKEAWAY

Importantly, the study period for this analysis included times of low cost of capital combined with low input costs, which led to a steep increase in cropland investments. The study also includes 2023, which saw an exceptional increase in the cost of capital and increasing cost of inputs ultimately leading to a declining market for permanent crops by the end of 2023.

Appendix

Data sources:

- Acres.com proprietary farmland sales database.
- California water districts pared to important surface water districts we selected from the California State Geoportal for this analysis.
- California field-level crop information from the California Natural Resources Agency.

Data inclusion criteria:

- Permanent crops: maximum of $70,000 per acre, minimum of $1,000 per acre
- Annual crops: maximum of $50,000 per acre, minimum of $1,000 per acre
- Minimum of 10 acres
- Crop information available
- For crop specific trends we limit the analysis to sales that fall within selected water districts in the California Central Valley

Select Agricultural Water Districts in the Central Valley:

Alta Irrigation District

Arvin-Edison Water Storage District

Banta Carbona Irrigation District

Belridge Water Storage District

Berrenda Mesa Water District

Biggs-West Gridley Water District

Buena Vista Water Storage District

Butte Water District

Byron Bethany Irrigation District

Capay Rancho Water District

Cawelo Water District

Central Delta Water Agency

Central San Joaquin Water Conservation District

Chowchilla Water District

Consolidated Irrigation District

Contra Costa Water District

Corcoran Irrigation District

Cordua Irrigation District

Corning Water District

Del Este Water Company

Del Puerto Water District

Delano-Earlimart Irrigation District

Ducor Irrigation District

Dudley Ridge Water District

East Contra Costa Irrigation District

Eastside Water District

El Camino Irrigation District

Exeter Irrigation District

Fresno Irrigation District

Galt Irrigation District

Glenn-Colusa Irrigation District

Greenfield County Water District

Hallwood Irrigation District

James Irrigation District

Kanawha Water District

Kern-Tulare Water District

Kern Delta Water District

Laguna Irrigation District

Lakeside Irrigation Water District

Le Grand-Athlone Water District

Lemoore Canal & Irrigation Company

Lindmore Irrigation District

Lindsay-Strathmore Irrigation District

Los Molinos Mutual Water Company

Lost Hills Water District

Lower Tule River Irrigation District

Madera Irrigation District

Merced Irrigation District

Merquin County Water District

Modesto Irrigation District

Natomas Central Mutual Water Company

North Delta Water Agency

North Kern Water Storage District

North San Joaquin Water Conservation District

Oakdale Irrigation District

Orange Cove Irrigation District

Orland-Artois Water District

Panoche Water District

Patterson Irrigation District

Pixley Irrigation District

Pond Poso Improvement District

Porterville Irrigation District

Raisin City Water District

Richvale Irrigation District

Riverdale Irrigation District

Rosedale-Rio Bravo Water Storage District

San Joaquin River Exchange Contractors Water Authority

San Luis Water District

Saucelito Irrigation District

Semitropic Water Service District

Shafter-Wasco Irrigation District

Solano Irrigation District

South Delta Water Agency

South San Joaquin Irrigation District

South Sutter Water District

Southern San Joaquin Municipal Utility District

St Johns Water District

Stanford Vina Ranch Irrigation District

Stockton East Water District

Sutter Butte Mutual Water Company

Sutter Extension Water Districts

Terra Bella Irrigation District

Tranquility Irrigation District

Tulare Irrigation District

Tulare Lake Basin Water Storage District

Turlock Irrigation District

West Stanislaus Irrigation District

Western Canal Water District

Westlands Water District

Westside Water District

Wheeler Ridge-Maricopa Water Storage District

Woodbridge Irrigation District

Yolo-Zamora Water District

Yolo County Flood Control And Water Conservation District