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TRENDS 2019

IN AGRICULTURAL LAND & LEASE VALUES

California & Nevada

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2019 TRENDS® IN AGRICULTURAL LAND & LEASE VALUES

ABOUT ASFMRA

The American Society of Farm Managers and Rural Appraisers® (ASFMRA®) is the largest professional society for rural property land experts in the United States. ASFMRA represents *The Most Trusted Rural Property Professionals* and is the organization for individuals who provide management, consultation, and valuation services, as well as real estate services on rural and agricultural assets. The land experts who hold membership in ASFMRA work under a professional code of ethics, which includes continuing education requirements. You can rest assured that if you are working with someone who is an accredited member of the Society, you are truly working with a competent land expert and agricultural professional who can assist you with all of your land asset needs.

ASFMRA, founded in 1929, provides members with the resources, information, and leadership that enable them to provide valuable services to the agricultural community. The focus of ASFMRA is providing education, accreditation and networking opportunities for members who offer farm and ranch management, rural and real property appraising, review appraisal, and agricultural consulting services to the private and public sectors and to the governmental and lending communities.

ACCREDITED DESIGNATIONS / ASFMRA

AAC	Accredited Agricultural Consultant
AFM	Accredited Farm Manager
ARA	Accredited Rural Appraiser
RPRA	Real Property Review Appraiser

CALIFORNIA CHAPTER ASFMRA – CELEBRATING 70 YEARS!

The California Chapter of the American Society of Farm Managers and Rural Appraisers was chartered in 1949 as an affiliate of the national organization. It is a non-profit mutual benefit corporation under California law and supports the educational, ethical and professional standards of ASFMRA. The California Chapter is the second largest ASFMRA Chapter in the country and takes pride in being an innovator for Western Ag Professionals. Through the annual *Trends® in Agricultural Land & Lease Values* report, Outlook Agribusiness Conference, Fall Meeting, FARMit® Education Program, California Water Maps and numerous classes, seminars and tours, the Chapter is a reliable resource for agribusiness in the west. The members of the California Chapter are dedicated to their profession and relied upon as being the best in the business.

Mission of the California Chapter, ASFMRA Empowering agricultural property professionals with education and expertise to provide premier valuation, management and consulting services.

Friends of the Chapter The California Chapter, ASFMRA provides an important link for professionals through an affiliate membership category – *Friends of the Chapter. Friends* is intended for those individuals who do not qualify for membership in the ASFMRA as a rural appraiser, review appraiser, farm manager or agricultural consultant but wish to be affiliated with the California organization.

For more information on membership or Chapter activities, please call (209) 368-3672 or email info@calasfmra.com

MESSAGE FROM THE PRESIDENT

The California Chapter of the American Society of Farm Managers and Rural Appraisers is excited to present to you the 2019 issue of *Trends® in Agricultural Land and Lease Values*. The California Chapter is celebrating its 70-year anniversary this year which is a tremendous testament to our past and continued applicability in rural valuation and management services. Like previous years, this publication is well-respected, well-researched, and highly anticipated in its debut. In a market where uncertain real estate trends and economics appear on the horizon, the Trends® publication is an ever more valuable resource that members, the public, and stakeholders can use to assist them in navigating these choppy waters. Since its inception 29 years ago, Trends® has become an invaluable resource to agriculturalists, appraisers, farm managers, investors, lenders, real estate professionals, and agribusiness throughout the State of California and beyond.

The Trends® publication is a true reflection of the caliber of appraisal work product our members routinely produce, as well as, the strength and quality of the data summarized. It could not happen without the hard work of the committee chairs, Tiffany Holmes, ARA and Janie Gatzman, ARA. These ladies do a tremendous job compiling the data with an extended thank you to the regional chairs and their respective teams who work hard to ensure the information is accurate and timely.

Like our volunteers, our sponsors play an integral role in the success of Trends®. Without their participation, it would be impossible to offer such a high caliber and industry respected publication and we would not be able to offer the very successful companion event, the Outlook Agribusiness Conference. Please take a moment to thank them personally if you should see them at the conference or throughout the year in your professional interactions.

On behalf of the entire California Chapter Board of Directors of the ASFMRA, thank you for your continued support of this endeavor and our organization. When this chapter was formed 70 years ago, our chapter dues were $5 per person. This means today's membership cost of $50 is a very reasonable return on investment reflecting our continued commitment to offer top-notch education and services for a price that professionals can afford. If you are not a member, please consider joining. I'm confident you'll find there is something within our organization that adds value to your credibility and professional endeavors. In 1949, our purpose was "to promote closer relationships with members." This purpose has not changed in 70 years, only expanded.

We welcome your comments and questions! Be sure to check our website at www.calasfmra.com for more information about the Trends® publication as well as upcoming education offerings. Additional copies of Trends® are available in both printed and electronic formats from our website, or call Suzie Roget, Executive Vice President of the California Chapter of ASFMRA at 209-368-3672.

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continued on page 118

Welcome to the 2019 Trends® In Agricultural Land and Lease Values, the 29th year of this publication. We are so pleased to continue to "man the helm" of the California Chapter's flagship journal, and we thank you for your interest in the premier publication of annual agricultural land and lease value trends in California and Nevada.

This publication is the product of countless hours of effort from volunteers throughout California and Nevada. We would like to thank our regional chairman; Kyle Dalrymple, Hal Forcey, ARA, Kary Teagle, ARA, Jamie Bigham, ARA, Kristen Massetti, ARA, Michael Ming, ARA, Allison Clark, ARA, Curtis Buono, ARA, Michael Merkley, ARA, and David Bell, ARA. The regional chairs along with their committees provide the raw value data and analysis that form the backbone of this publication. These professionals and their committee members deserve our collective gratitude.

We strongly recommend you obtain the assistance of a trained professional in your area to determine the value or lease rate of a specific property. You will find contact information for many seasoned professionals in this publication. Accredited members of the ASFMRA have completed a rigorous training program in the valuation and management of agricultural properties. The ASFMRA is the only appraisal and management organization that offers a curriculum specifically based on agricultural real estate.

Finally, the views and opinions expressed in the articles throughout this publication are those of the authors and do not necessarily reflect the views of the California Chapter of the ASFMRA or its members. This entire publication is copyrighted by California Chapter. All rights reserved. Do no reproduce without the expressed written consent of the California Chapter.

WELCOME

We would also like to thank our sponsors. Their support enables us to create a sleek, professional, and truly beautiful publication to share with you. Without them you'd be holding a stapled-together packet of photocopied text pages right now—useful to be sure, but much less visually pleasing! We are grateful for their participation over the years and hope they continue to be partners in our Trends® publication. Suzie Roget and Liz McAfee deserve recognition as well for all of their work and dedication to this publication, as do the teams who preceded us in heading up the momentous task that is assembling Trends® each and every year. This publication would not be what it is today without the years of hard work that preceded our own.

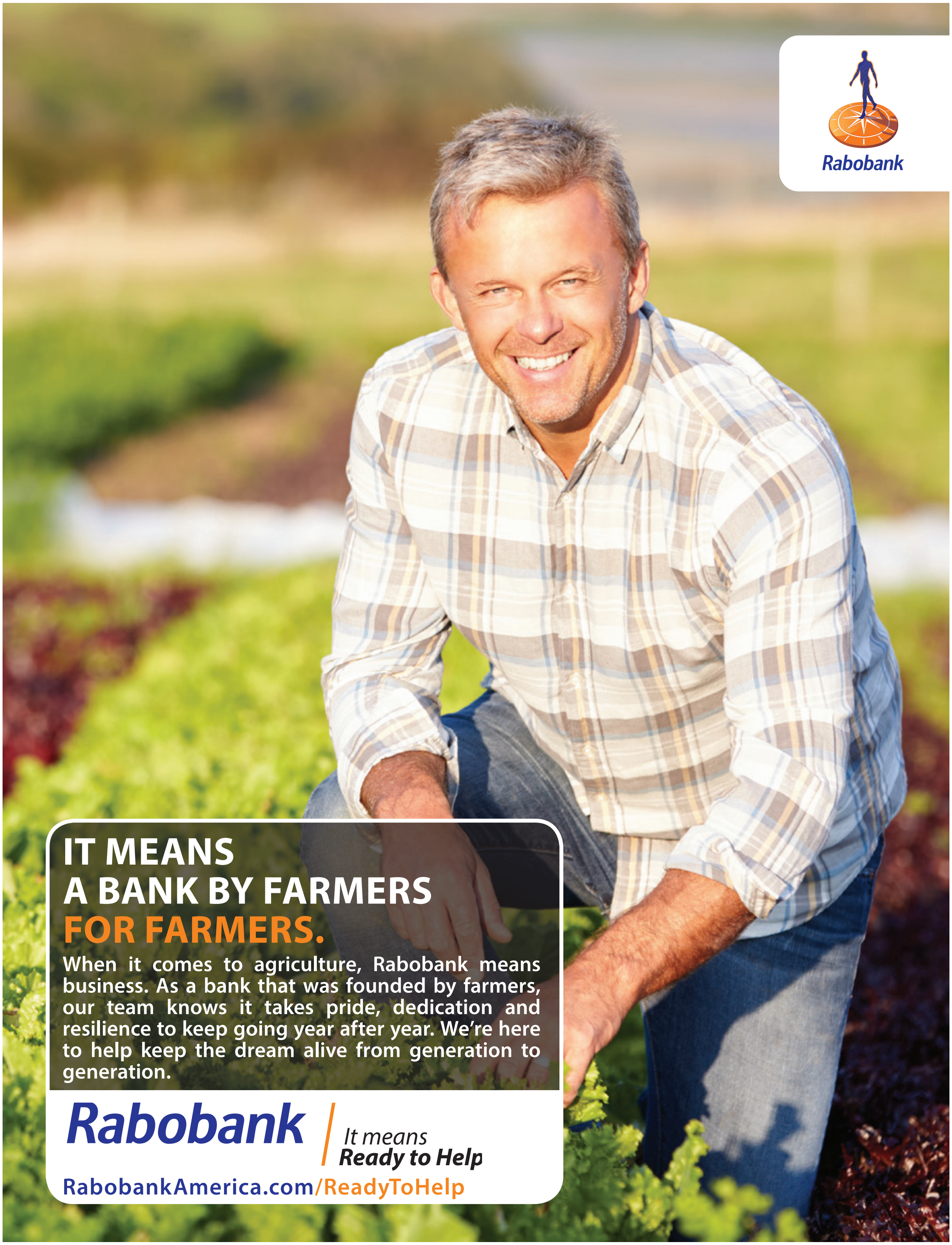
The value and lease data presented represents a general range of data for each state market. Specific sales or leases may be present in the market that are higher or lower than the ranges noted but were considered "outliers" by the committee compiling the data. Due to the many factors that characterize agricultural properties in California and Nevada, one should not assume that all of the farms or ranches within a certain area, or of a particular crop, will fall within the ranges shown. The market is simply too dynamic to make such assumptions.

Thank you again for your interest and support, we hope you enjoy the 2019 issue of Trends®!

Sincerely,

Janie Gatzman, ARA (left)   Tiffany Holmes, ARA (right)

2019 Trends® in Agricultural Land & Lease Values
Co-Chairs



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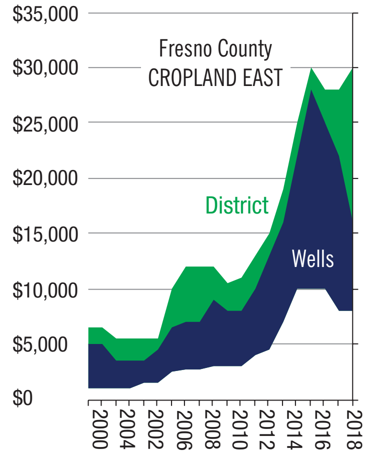
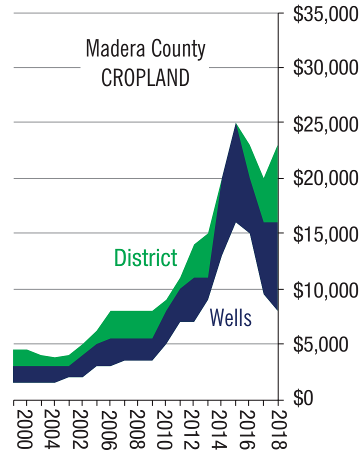
STATEWIDE PERSPECTIVE

2018: STABILITY REIGNS, BUT SGMA IS COMING…

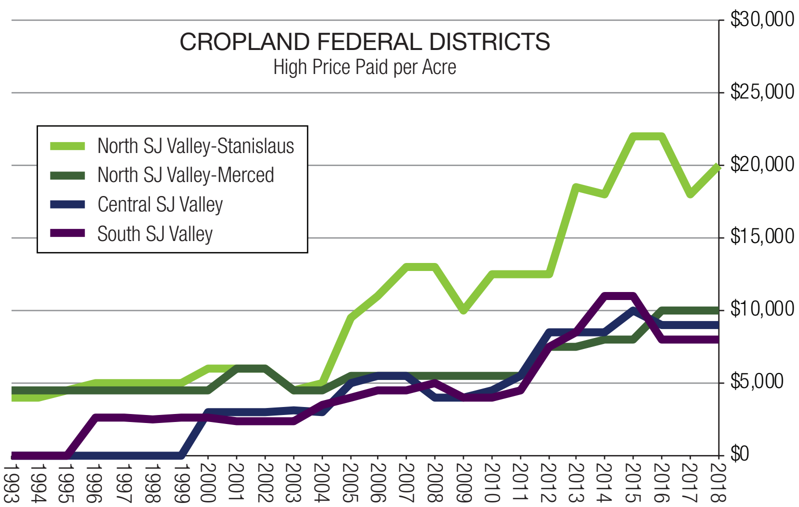
California again made national headlines in 2018 for devastating wildfires, including several monster blazes notable for shutting down Yosemite Valley, setting a record for largest size by acreage burned in the state, and one of which ranked as the deadliest in state history. Yet despite these disasters, the agriculture industry rolled on steadily in 2018. In fact, "steady" "stable" and "limited" were the most-reported trends in nearly all land classes from every region this year. I was beginning to wonder what our story lines would be in this year's installment, until I looked deeper into the data and found:





The White Areas: *Here be Dragons…*

Harkening back to medieval times, when map makers marked dangerous or unexplored territories with drawings of dragons or sea monsters, seems apt in describing the current market for land without surface water rights of any kind in the central and southern San Joaquin Valley. Buyers are aware of SGMA (Sustainable Groundwater Management Act) and the water source uncertainties it poses to these areas. In the Fresno-Madera region of Trends®, farmland with only well water resources is tracked separately from those with surface water resources, and they show a stark trend: in Fresno County, sale prices of farmland with only well water fell by a mean of 20% in the past year, and by 37% overall since the value peak in 2015. In Madera, the mean decrease was 6% in the past year, and 41% overall since the value peak in 2015. In contrast, sale prices of farmland with surface water in eastern Fresno County increased by a mean of 8% in the past year, and overall showed a mean 5% strengthening since 2015. In Madera, district ground rose by a mean of 8% in the past year, though showed an overall softening of 9% since the 2015 value peak.



It was more difficult to track the value impact of SGMA implementation in other areas of the Central Valley. In the South San Joaquin Valley region land sales in Kings and Kern Counties have slowed overall, with plenty of listings but almost no buyer interest in white areas or districts with less reliable deliveries, and plenty of buyer interest but very few listings of land in good-quality districts. In contrast, interest and sales surged in good-quality Tulare County districts, with the value range narrowing but showing stable values overall. West-side and federal districts showed stable value trends with very little demand or market activity.

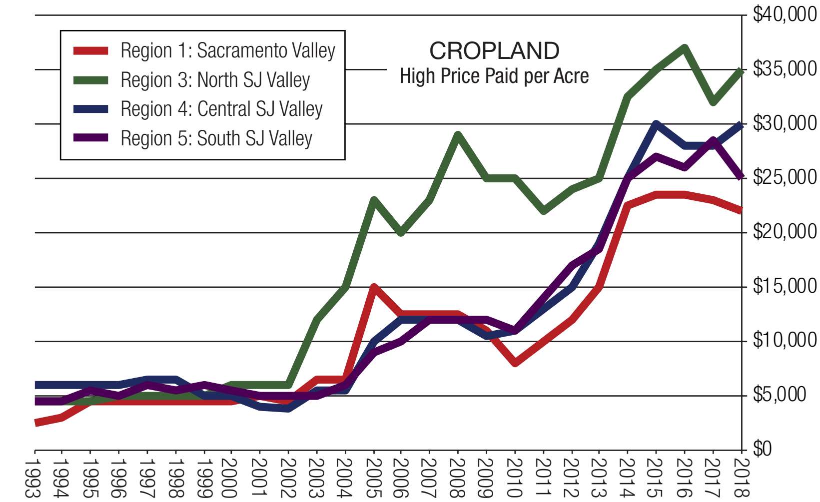
The northern San Joaquin Valley region posted increasing land values in all of its good-quality east-side districts, with stable land values in less desirable districts and in white areas overlying basins not designated as critically overdrafted. Land values in the Delta showed a slight softening from the prior year, mainly due to fewer fringe Delta Upland properties with the best drainage and highest values being available for sale, and more sales occurring in the interior Delta Lowland areas where more expensive drainage systems are required for permanent planting development. Similarly, the Solano/Yolo markets in the southwestern Sacramento Valley showed a slight softening that was also due to surging demand but almost no offerings of land in the prime districts, with most sales occurring in secondary water areas with slightly less desirable soils. Land sales continued to show strength in the north-western counties, and remained stable on the east side, as again land in prime districts was rarely offered on the market.

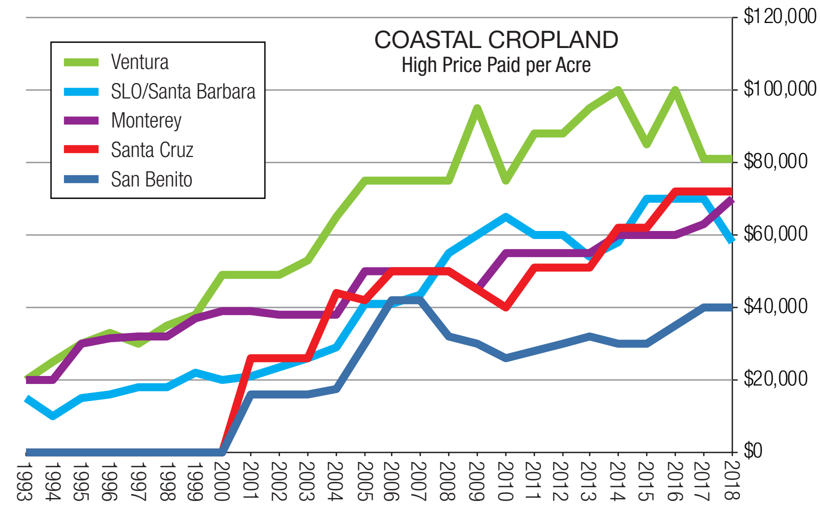
Moving to the Central Coast, overall row crop land values were stable to slightly increasing due to expansion pressure by local growers. In contrast, in the Paso Robles Groundwater Basin, where new vineyard plantings with additional groundwater usage are restricted by the county without an off-set, demand has increased for vested plantable land with mean sale prices increasing by 17% over the prior year, while sale prices for non-vested land (requiring off-sets) have fallen, and average about 40% of the vested land value.

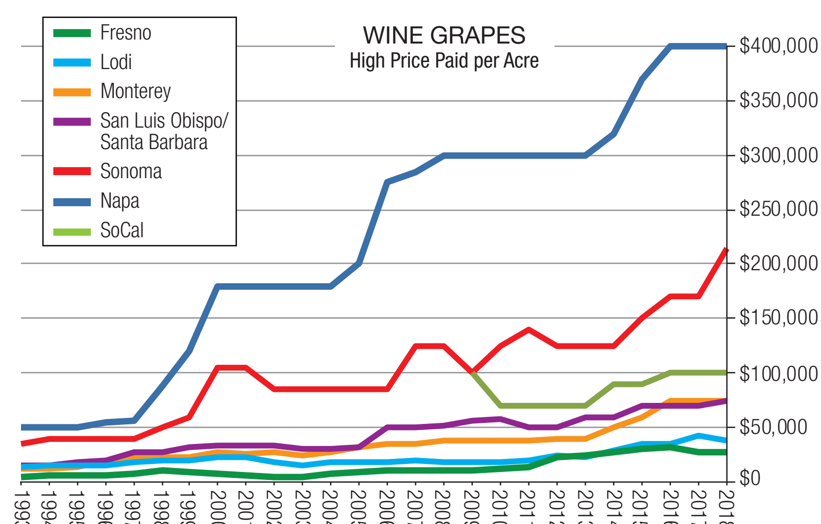
WINEGRAPES

Wine grape vineyards continue to show stable values in the prime areas of the premium markets of the state, while values continue to increase in secondary areas of the premium markets, and values are declining in the non-premium markets.

Napa is the undisputed champ of the premium vineyard locations in California, with other premium areas such as Sonoma, SoCal and the Central Coast considered secondary to Napa. Napa Valley vineyard prices in prime locations have shown stable prices over the







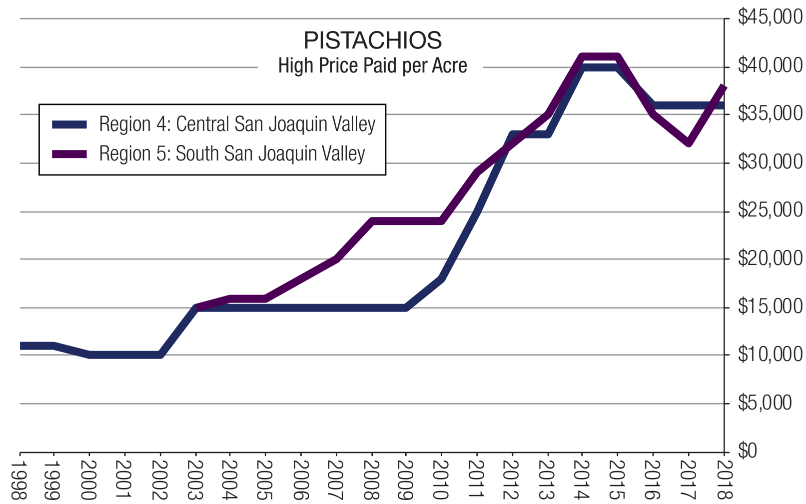
last three years, but values for vineyards in secondary Napa locations posted a 10% mean value increase over the past year. In Sonoma County, prime vineyard values increased by a mean of 17% over the prior year, while prime plantable land increased by a mean of 12%, as Napa wineries search for ever more ground to grow grapes for premium labels. Similarly, premium Central Coast vineyards showed mean value increases of 5-10% depending on location, while Southern California vineyards remained stable for the third year running.

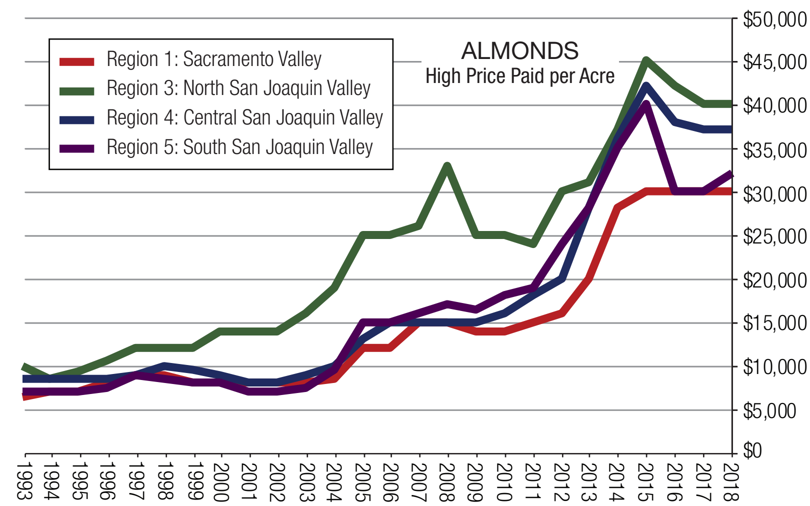
In contrast, Central Valley wine grape vineyard values showed continued softening in 2018, slipping by a mean of 4% over the past year and falling 12% from their value peak in 2016. The Central Valley pain spread to the higher-value Lodi area in 2018, with Lodi area vineyards falling by a mean of 14% from their value peak in 2017.

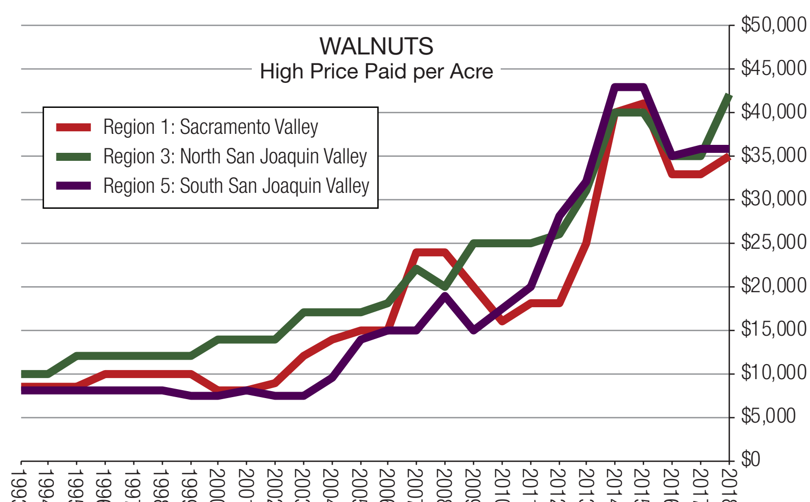
NUT CROPS

Overall nut crop orchard values were stable to increasing in 2018, though storm clouds were gathering for walnuts by the end of the year. Prices paid for almond orchards were stable in 2018 in all markets of the Sacramento and San Joaquin Valleys, with slight softening noted on the low end of the value range in the San Joaquin Valley markets, and a slight uptick on the high end of the range in Fresno and Tulare Counties. 2018 saw more prime orchards change hands in Fresno and Tulare, having a positive impact on the high end of the value range, while orchard sales continued to represent either immature or older, less desirable orchards in other areas. Fairly stable commodity prices are fueling the continued marketability of almond orchards of all ages and quality, and planting expansion has continued into non-traditional areas such as the Sacramento-San Joaquin Delta. However, market activity from ag "flippers" who buy low-cost land, develop almond orchards and sell the immature orchard, usually to institutional buyers, slowed considerably in 2018. Similarly, pistachio orchard values were stable in the central and southern San Joaquin Valley, with an increase in the high end of the range in the south valley attributed to better-quality orchards being offered for sale in 2018.

Walnut orchard prices in the Sacramento Valley were stable in the southwest areas of Solano and Yolo Counties, increased slightly in the prime Feather River and Sutter Basins to the east, and fell slightly in the northwestern counties. Overall the orchards offered on the market in early 2018 were of better quality





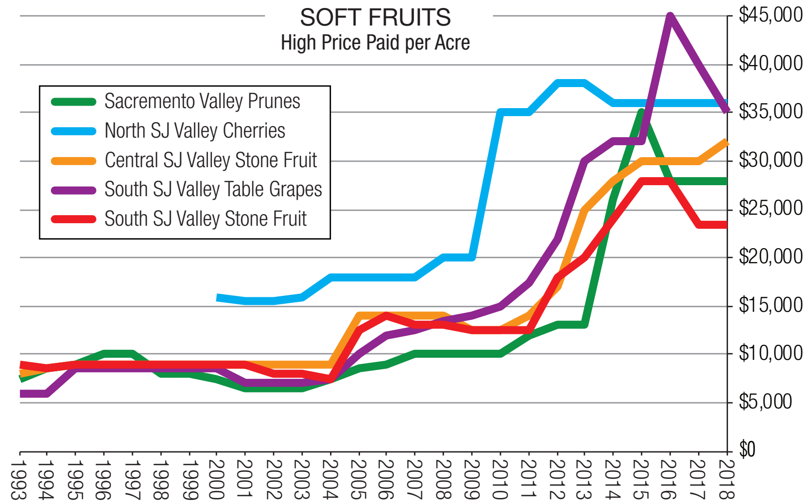


than the prior year, but marketing times lengthened after walnut commodity prices fell in mid-2018 due primarily to tariff pressures, with few orchard sales closing later in the year. In the northern San Joaquin Valley mean walnut orchard prices jumped 22% from 2017 values, mainly due to good-quality orchards in good water areas being offered for sale in the first half of 2018. However, sale activity fell off after the summer months, and orchard prices are expected to soften in 2019. Walnut orchard prices remained stable in the southern San Joaquin Valley.

TREE FRUIT, CITRUS & TABLE GRAPES

Tree fruit orchard values remained near land value in most central and southern San Joaquin Valley markets, showing a modest 13% mean value increase in the central San Joaquin Valley and stable values in the South Valley. Citrus groves showed stable values in the South Valley, Central Coast and Southern California markets, with strengthening on the low end of the range in the Fresno-area market. Table grapes posted a modest mean 2% value increase in the central San Joaquin Valley, but a 13% mean value decrease in the South Valley. However, this brought the two ranges significantly closer at $18,000-$33,000 per acre in the former and $26,000-$35,000 per acre in the latter, showing general stability in this market at prices at or just above underlying land values. The high end of the range continues to be defined by modern plantings with in-demand varieties, while the low end is often older or abandoned vineyards.

Sale prices for cherries, prunes and peaches in the northern San Joaquin and Sacramento Valleys were stable from 2017-2018, though



sales of olive groves increased by a mean of 10% from the prior year. In particular, high-density olive groves planted for the production of olive oil showed strengthening values from the prior several years, as oil mills have begun to offer attractive long-term contracts once again.

RANGELAND & DAIRIES

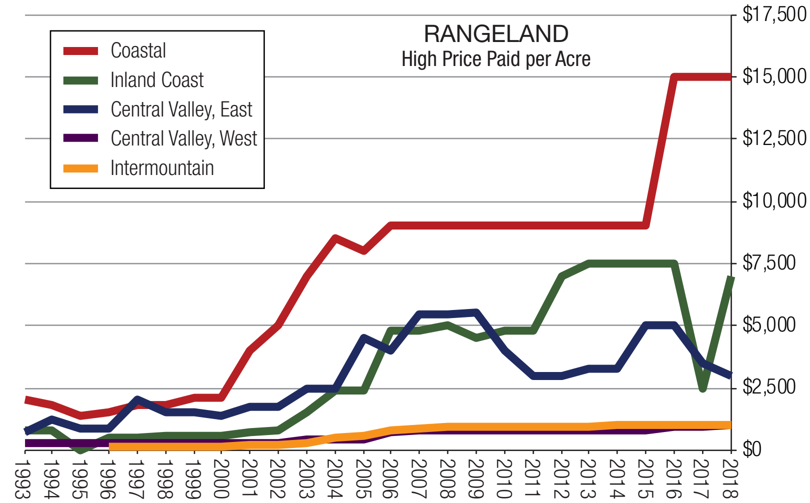
Rangeland values in all markets were stable in 2018, with an increase in transaction volume in Northern California as institutional buyers re-entered the market. Dairy values continued to show stable though historically depressed prices in the southern San Joaquin Valley, and softened by a mean value of 20% over the prior year in the northern San Joaquin Valley. Mean dairy values in this area were down an overall 48% from the value peak in 2008, and typically are purchased for conversion to permanent plantings or consolidation of permit capacity with a larger dairy, with the sale facility converting to a heifer ranch. A notable change in this market has been the market recognition of the increasing costs related to dairy facility closure; some buyers purchasing facilities and their associated land for permanent planting development are seeking to rent the facility site for continued feedlot use, rather than bear the cost of closure and redevelopment to a different use.

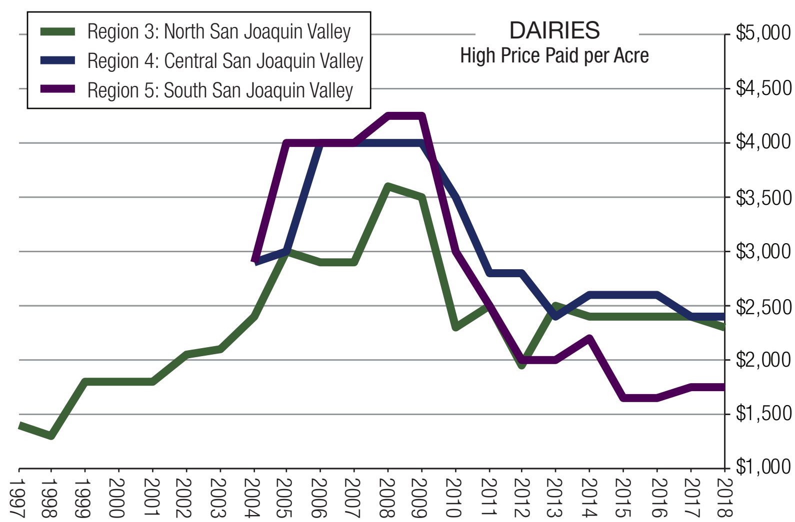
Overall, most agricultural land classes in California showed stable values in 2018. The continuing impact of SGMA implementation, particularly on land with no surface water rights or poor deliveries, bears watching in the coming years. Look for economic changes in the walnut, non-premium wine grape and table grape markets to impact orchard and vineyard prices throughout the state, potentially pushing more investment dollars into expansion of the almond orchard market in the Central Valley, and premium wine grape vineyard market in the Coastal areas of the state. And always look to the trusted real property professionals of the California Chapter, ASFMRA to guide you through the market challenges and opportunities to come!

Janie Gatzman, ARA

Gatzman Appraisal

Co-Chair of Trends® in Agricultural Land & Lease Values





Over the past decade, we have seen numerous shifts in the management of California water. However, none of those shifts have been as significant to California agriculture as we will see in the next few years. Policy, weather, the Sustainable Groundwater Management Act (SGMA), and data management will forever change the risk profile of the agricultural economy in California. To effectively manage in this new paradigm, there are four steps considered best practice when analyzing water risk in California's agricultural economy:

1. **IDENTIFY**
2. **UNDERSTAND**
3. **MONITOR** *and*
4. **MITIGATE**

fallowing, mitigation measures and augmented water supplies must be identified and implemented prior to potential reductions in groundwater pumping. Indeed, as dryer than average conditions continue through 2019,[3] a solid awareness and plan for monitoring and mitigating water risk is crucial for successful agricultural lending and operations.

California faces a harsh new reality of precipitation booms and busts that rival the gold rush days. Much of the state's water storage infrastructure is ill-adapted to capture the rapid run off and flood events that accompany boom phases. Increased uncertainty surrounding the quantity and quality of water is a certain risk, especially when groundwater makes up to 40% of agricultural and domestic water supplies in the U.S.[4] The intensity of groundwater reliance causes

season. For example, after surviving an intense drought for several years, 2017 saw an extremely wet year, followed by 2018 which was a drier than average year.[7] Figure 1 depicts the up and down nature of drought severity in California since 2000.

The inability to rely on a secure water supply will continue to impact the agricultural sector in California. Surface water supplies are increasingly variable and groundwater, absent significant recharge to aquifers, is not a long-term solution due to both regulation and damage to the ecosystem. For example, there was more than an acre-foot per acre swing in available water for Westlands Water District between 2016 and 2017, followed by a slightly less dry 2018.[8] This pattern of a one or more acre-foot per acre swing in surface water supply of agricul-

ANALYZING WATER RISKS

IDENTIFYING WATER RISK

The frequency of multi-billion-dollar climatic disaster events in the U.S. has been on an upward trend since the 1990s.[1] The largest impacts to water are felt in the agricultural sector.

The 2019 California Economic Summit reported that due to a combination of climate change and population growth an additional one-million acre-feet of water is needed each year for the next 10 years.[2]

The potential for increased land fallowing in the next few years from climatic and regulatory changes made 2018 the year of water risk awareness. Areas with higher groundwater reliance, a large number of permanent crops, and increased water demand inside of a SGMA designated high priority basin are likely to see increased rates of fallowing. To reduce major disruption to the surrounding ecosystem when decreased water quality and quantity lead to ground subsidence and interference in the natural hydrological cycle.

High uncertainty, high risk scenario planning is becoming a necessity throughout the U.S. According to the *Fourth National Climate Assessment*, "There is high uncertainty associated with projected scenarios, as they include many future decisions and actions that remain unknown."[5] In the West, the Colorado River, once the artery of modern expansion to the Pacific, is experiencing unprecedented water stress. The Colorado River's flow "has declined by nearly 20% in the last 15 years alone and could plummet another 55% before 2100."[6]

California's agricultural sector is no stranger to dealing with the swings in water quantity from season to tural land is common among the Central Valley water districts and their southern counterparts. In the past the variability was expected but changes were less extreme. The ongoing overdraft conditions in many basins results in a dwindling groundwater supply and an increase in groundwater quality issues.

Water supplies and quality are further impacted by atmospheric rivers: large storm events that dump extremely large amounts of precipitation in short time-frames. The resulting impact is higher rates of flooding at such an intensity that reservoirs must release more water to prevent large-scale flooding (meaning that the water is lost out to sea), and also reduced available supplies for dry months. Thirteen Atmospheric Rivers pounded the U.S. west coast from October 2017 to November 2018.[9]

UNDERSTANDING WATER RISK

2018 was a busy year for California and the Federal government. Issues related to water supply impacted water risk management the most in 2018 and continue into the foreseeable future. Understanding the climatic water risk must be done so in the context of policy and regulation. The SGMA and other water regulation are key aspects of water risk in California.

SGMA

The SGMA's first major deadline looms for Groundwater Sustainability Agencies (GSA) in critically overdrafted groundwater basins on January 31, 2020. Entering the final phases of Groundwater Sustainability Plan (GSP) drafting, 2018 saw the finalization of most GSA boundaries and an intensive focus on groundwater modeling, budgets, sustainable yields and allocation criteria. Expect draft GSPs to appear and circulate for comment in the summer of 2019. The impact to water risk will not be felt immediately in 2019, but indications of how the GSP will impact each lender and farmer will become clearer. 2019 will also feature increased activity by organizations as they either support or reject the draft GSPs. Additionally, the option to initiate a groundwater adjudication may be exercised in GSAs that are unable to strike a balance between the various stakeholders within their boundary.

One can expect SGMA to drive an increase in groundwater banking, both to improve thresholds for sustainable yields and simply because banked water can be sold at a later date for profit. Understanding how GSAs are regulating groundwater, and who is banking what, where, and how much will inform water risk decisions and shine a light on the problem of long-term overdraft in some of the highest value agricultural regions in the country. Careful planning on augmenting surface water supplies while either drawing very lightly upon, or even replenishing, groundwater is a best practice as we move further into 2019.

OTHER REGULATORY TRENDS

One of the largest impacts to water supply for agricultural use is the Bay Delta Plan, together formerly called the Bay Delta Conservation Plan. The State Water Resources Control Board (SWRCB) adopted the plan and accompanying environmental documents on December 12, 2018. This means more water must be used for inflows to support fish and the Delta ecosystem. While there is agreement that the ecosystem needs improvement, the science and calculations are typical targets of dispute. There is "wiggle room" built into the requirements that will allow a science-data driven case for reducing or raising the percentage of flows dedicated to the environment highlighting the importance of monitoring, data collection, and actionable analysis.

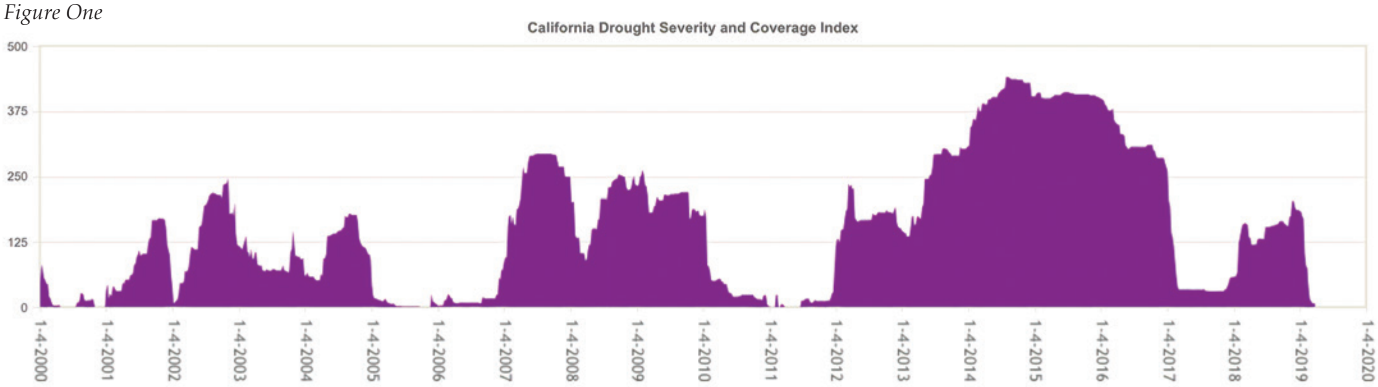
The CalWaterFix and California EcoRestore projects increase uncertainty for the future of agricultural water supplies in the Central Valley. This past year saw a multitude of hearings at the SWRCB as interests from farming, industry, public agencies, and environmental groups testified to the impact these projects would have on their respective constituencies. Recent changes in leadership at the SWRCB continue the trend of uncertain policy enforcement from the State. Legal challenges and regulatory changes will continue to increase risks for future investment in water infrastructure.

MONITORING WATER RISK

Analyzing the heap of data now becoming available produces valuable insights. Data analysis can result in a general high-level risk assessment using environmental indicators to get a snapshot of the ongoing risk associated with a water district or groundwater basin. It can also enable "drill-downs" to individual ranches or land parcels. Data supplied through public sources, collaborative exchanges, and private databases, combined with steady improvements in the precision, range and accuracy of weather forecasts, can assist with tackling a problem that impacts the entire agricultural industry.

We enter unprecedented times; it is no longer the case that a lender or farmer can rely purely on a historical understanding of water supplies in a district. Changes related to climate change, population and regulation require a modern approach utilizing advanced technologies. Trusted partnerships to monitor water risk to lenders and farmers throughout

Figure One



California are essential. The truth is 2019 will require collaboration among diverse parties as we enter our new water reality that encounters high water risks at an alarming rate.

MITIGATING WATER RISK

AQUAOSO Technologies recently partnered with the California Chapter, ASFMRA to provide a free water map to assist the community in identifying, understanding, and monitoring water risk. When analysis indicates water supplies are low, and poor conditions are likely to occur, a mitigation strategy is needed. One interesting development linked to the implementation of the SGMA is the power of a GSA to facilitate groundwater transfers within its boundaries, such as conjunctive use programs that utilize the exchange of water between surface and groundwater supplies to balance agricultural need and groundwater basin health. We may also see groundwater credits and surface water markets take hold in California allowing flexibility in water management as swings in climate continue to disrupt water management strategies.

Advanced technologies allow for the increased collection and analysis of data that is required for flexible water management solutions such as conjunctive use programs and water markets. Under California Water Code Section 1011.5(a), the state declares, "policy of this state to encourage conjunctive use of surface water and groundwater supplies and to make surface water available for other beneficial uses." Conjunctive use contemplates using water supplies only when needed, which made water right holders uneasy due to concerns over forfeiture or diminishment of their water rights for nonuse. However, the legislature ensures participants in conjunctive use programs would not forfeit or diminish their surface water rights by relying on stored groundwater.

The legislature allows water that is saved as a result of conjunctive use programs to be "sold, leased, exchanged, or otherwise transferred" if it complies with laws governing transfers. As a management tool, it allows flexibility in utilizing surface and groundwater to meet users' needs and is an inexpensive way to store groundwater or reserve surface water in a stream for various beneficial uses.

A better picture of water risk and the ability to move water between surface and ground will allow water markets to base their operations on solid data. Water markets offer a flexible water management solution for water districts, GSAs, and water right holders to move water when needed and provide an economic incentive for doing so. Having the programs and agreements in place prior to major swings in precipitation can effectively mitigate many risks that continue to threaten California Agriculture.

FOUR STEPS AWAY

Looking at our ever-evolving water landscape can be overwhelming as regulatory requirements and natural conditions are always on the move. AQUAOSO's four-step framework uses sound data and advanced technology to increase your knowledge and give you the tools to make better informed water management decisions. Implementing the four steps, building relationships, and working with your community on mitigation measures is a recipe for success.

AQUAOSO Technologies, PBC is a Public Benefit Corporation with a mission to build a water resilient future. AQUAOSO provides advanced water risk management and mitigation tools for the agricultural economy. Farmers, brokers, appraisers, lenders, insurers and water managers use our tools daily to identify, understand and mitigate water related risks.

Blake Atkerson, Water Data Strategist

Christopher Peacock, CEO

AQUAOSO Technologies, PBC

www.AQUAOSO.com

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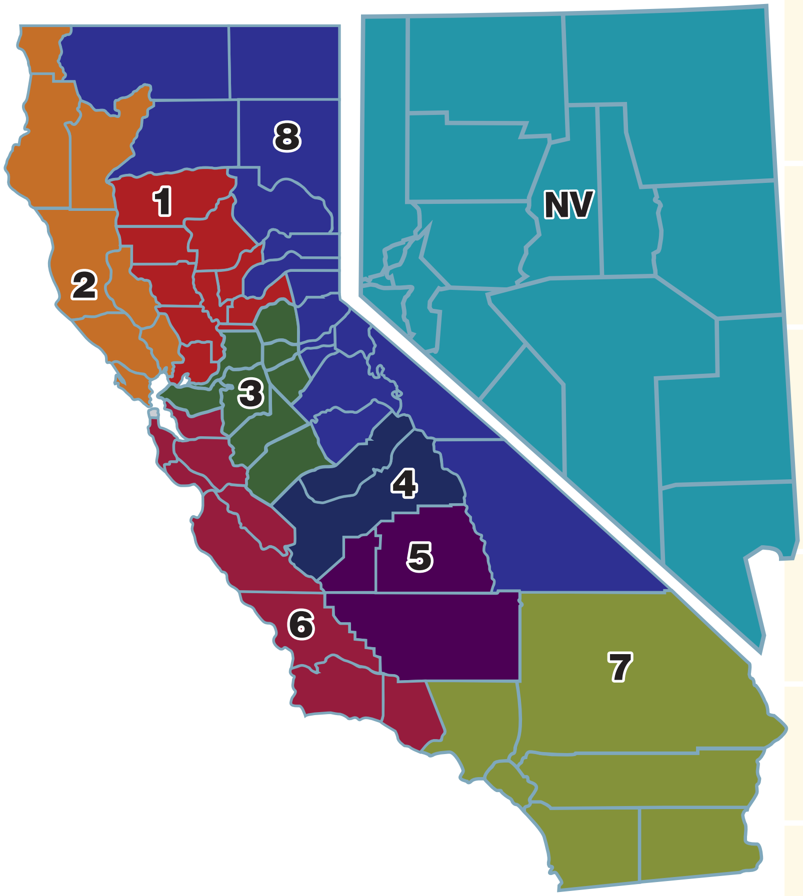

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Butte, Colusa, Glenn, Placer (West), Sacramento (North), Solano, Sutter, Tehama, Yuba, and Yolo

REGION TWO NORTH COAST

Del Norte, Humboldt, Lake, Marin, Mendocino, Napa, Sonoma and Trinity

REGION THREE NORTHERN SAN JOAQUIN

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REGION FOUR CENTRAL SAN JOAQUIN

Fresno and Madera

REGION FIVE SOUTHERN SAN JOAQUIN

Kern, Kings, and Tulare

REGION SIX CENTRAL COAST

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1 REGION

SACRAMENTO VALLEY

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SUTTER | TEHAMA | YUBA | YOLO

SACRAMENTO VALLEY

GENERAL COMMENTS

The Sacramento Valley region experienced moderate sale activity in 2018, largely being reverberations of the 2016/2017 transaction surge. A majority of the observed sales involved modest-sized acquisitions by well-established orchardists looking for continual expansion as well as a fair number of small (<40 ac) purchases for orchard development by new/beginning farmers; there were few large or earth-shaking sales. Almond growers continue to enjoy comfortable profit margins while walnut growers began feeling the squeeze in September. Prune and peach growers appear to be in a holding pattern with historically strong prices which have not kept pace with labor costs. The vast majority of recent orchard developments on the east side of the valley (Hwy 99 corridor) involved redevelopment of old orchards as virtually all orchard-suitable land had been developed by ±2016. The west side of the valley continues to show the greatest number and scale of new orchard developments (Glenn, Colusa and Yolo Counties) which are predominantly comprised of almonds. Activity of "Ag Flippers" or investors purchasing land for orchard development only to turn right around and sell (often to institutional investors) appears to have stalled in 2018, due to all-time high land values coupled with flat or softening commodity values.

Irrigated field/row crop land (soil class 1-3) values remain high, strengthened by permanent planting pressures as well as solid commodity prices for the majority of area row/field crops in 2018. Rice growers experienced a well-received rebound in paddy rice prices in 2017 which continued into 2018. Dry pasture/rangeland ranches continue to illustrate stable land values and significant institutional or private equity investment due to its historical stability.

Overall, nearly all types of agricultural properties have illustrated stable/strong values during 2018, continuing to be primarily driven by permanent planting development. However, this market, primarily on the east side of the valley, has demonstrated signs of pushback to the recently normalized ±$20,000-$25,000/acre open land values due to flattening or softening commodity prices. Land suitable for permanent plantings in this region is expected to remain at elevated levels for the foreseeable future due to the limited supply of suitable land being offered for sale, paired with good demand from well-capitalized, existing operators/buyers as well as institutional investment firms flush with cash from wary investors active in the market. This market is hopeful for stabilized commodity prices at economic levels, as well as optimistic for an end to international trade disputes and tariffs.

WATER

The availability of inexpensive and dependable irrigation water has always been a significant factor affecting land values for the majority of the Sacramento Valley. The above average precipitation realized during the 2016/2017 rain season (4th highest total annual rainfall since 1877) provided added reassurance after widespread allotment reductions experienced in 2015, with 2016 and 2017 providing full allotments in most areas. Receiving near normal rainfall again in the 2017/2018 rain season, most area surface water suppliers were able to deliver full grower allotments in 2018. Despite the Sacramento Valley's historically strong surface irrigation water reliability, the 2013-2016 severe drought proved a sobering test to the reliability of North State water supplies. With the transition of substantial acreage converted from irrigated cropland to permanent plantings and increasingly unreliable surface water supplies (exacerbated by environmental/regulatory concerns), growers are increasingly relying on pumped groundwater to supplement high cost and less reliable surface water, particularly on the west side of the valley. As a result, several areas which have seen significant development to permanent plantings and had historically limited groundwater supplies experienced groundwater depletion leading to the failure of some wells. Many of these areas have reported slowly recovering groundwater levels since the drought ended. The normal precipitation of 2017/2018 has continued to provide reassurance to North State growers, however pending Sustainable Groundwater Management Act (SGMA) implementation adds a new layer of uncertainty for the agricultural industry.

IRRIGATED CROPLAND

Strong demand for nearly all types of irrigated cropland properties in the Northern Sacramento Valley area continued in 2018 with values remaining stable. The supply of properties for sale in prime surface irrigation districts has remained very limited. Most market participant interest was for irrigated cropland that was adaptable to permanent planting development, namely almonds and walnuts. The depressed walnut and moderate almond prices caused by international trade and tariff issues had a significant downward effect on the volume of consummated sales, although no value declines have been demonstrated as of December 2018. Properties with quality irrigation sources remain in high demand.

As SGMA implementation deadlines grow nearer, the quality and reliability of water supplies have been

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garnering more attention than ever by potential buyers. Non-local buyers are increasingly common, particularly existing agricultural operators from areas with more challenging water situations (i.e. San Joaquin Valley) looking to diversify their water portfolio in a more stable area. The most desirable properties for such buyers have dual water supplies, typically a combination of groundwater wells and local district delivery.

ALMONDS

Almond production has been growing rapidly in Northern California, which represents approximately 17% of total almond acreage in the state. Rising production and favorable prices have fueled a surge in new plantings, though the trend has tapered off in the past year. Industry promotional efforts have been successful. A combination of good health news for nuts, export expansion, and modest crops in competing production regions have supported market growth. Although almond grower prices declined from a peak of $4.00 per pound in 2014/15, grower prices stabilized from $2.39 to $2.53 per pound during 2016/17 and 2017/18. The top five almond producing counties in the Sacramento Valley are Colusa, Glenn, Butte, Yolo, and Tehama counties. Leading varieties for existing Sacramento Valley almond acreage include Nonpareil, Monterey, Butte, Padre, Carmel, Wood Colony, and Fritz. Many of the new almond orchards are planted to Independence, a self-pollinating variety. Favorable nut prices and grower returns have encouraged development of row crop and field crop land to almond orchards. Approximately 63% of the Sacramento Valley's non-bearing almond acreage is located in Colusa, Glenn, and Yolo counties.

The demand for almond orchards is strong in the Sacramento Valley area. With favorable economic conditions, relatively few almond properties are marketed resulting in a limited number of consummated sales. Prime orchards are seldom listed and sell quickly when they become available. Limited sale activity indicates stable pricing with market weakness observed for older orchards with below average production. Sales of young orchards dominate the market at profitable price levels. Expansion of San Joaquin Valley growers into the Sacramento Valley intensified during the recent drought, which focused attention on the reliability and cost of irrigation water, especially for permanent crops like nut orchards that can be significantly impacted by deficit irrigation conditions. The Sacramento Valley offers greater water supply reliability compared to other areas of the state, which has attracted additional buyers from outside the local area.

PRUNES

The California prune market experienced strong commodity prices in 2017 with an average price of $1,984 per ton. Prices for 2018 have yet to be settled but are expected to be at least at the same level as 2017 and probably higher. Bearing prune acreage in the state has been declining since reaching a high of 86,000 acres in 2001, and at its current estimated 44,000+/- acres is at the lowest level in over 45 years. The non-bearing acreage is estimated at 5,000 to 6,000 acres. Over the last ten years, state prune production has ranged from a low of 52,851 dry tons in 2016 to a high of 166,000 dry tons in 2009. Most modern plantings have tighter tree spacing resulting in vastly higher production per acre capabilities. Demand for California prunes has been fairly stable. Marketing efforts have increased, particularly with new studies showing greater health benefits from prune consumption. The 2016 prune crop represented the smallest on record due to regional, weather-related crop failure. The 2017 crop came in at 104,083 dry tons, while the 2018 crop is estimated at 80,000 dry tons.

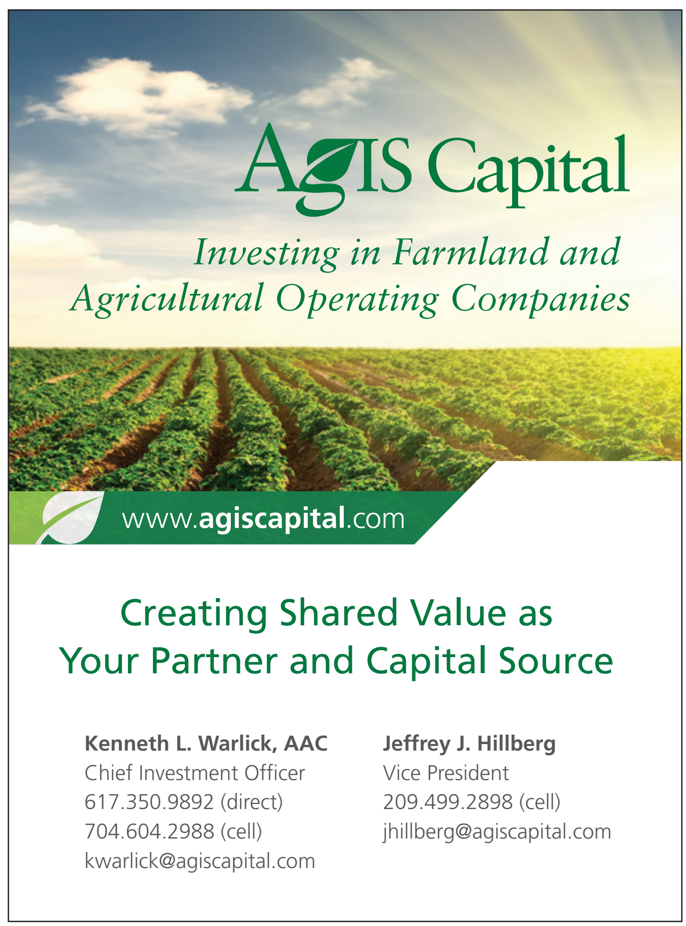
Demand for prune orchards in the region strengthened slightly within the past five years due to substantially improved commodity prices and reduced orchard supply due to conversion to other permanent plantings with higher economic returns. Few prune orchards have sold or been offered for sale recently in the region. Of the sales that did occur, most were older orchards ultimately purchased for redevelopment to almonds or walnuts. The 2015/16 season resulted in substantial downward commodity price adjustments in the walnut and almond markets, increasing the relative attractiveness of prunes. Overall, the current real estate market for prune orchards is stable to strong with good buyer demand and a few listings.

PEACHES (CLINGSTONE)

In the northern portion of the state, peaches are largely concentrated in Yuba, Sutter and southern Butte Counties. The California clingstone peach industry is currently unbalanced. Due to the popularity of more profitable crops (mostly almonds and walnuts), planted acreage declined prior to 2012. Canneries anticipated insufficient product supply and responded by offering growers long-term contracts with favorable terms, even offering cash incentives to help encourage new orchard development. These incentives, coupled with a lack of demand for canned fruit, created an imbalance in supply and demand. Two main processors (Del Monte Foods and PCP) ended their incentive programs in 2016, and did not renew or sign new production contracts in 2016, 2017, or 2018. The 2017 and 2018 cling peach crops were the smallest in modern history, with deliveries in 2018 totaling 256,178 tons, down 13% from the already low 2017 crop. Grower returns rebounded somewhat in 2018 with an average price per ton of $488, up from $455 in 2017, and almost to the record high of $490 in 2016. While still higher than the historical average ($303 per ton between 2007 and 2012), new labor laws and an increased minimum wage in California increased the cost of production to $535 per ton (per U.C. Cooperative Extension). The California Cling Peach Association estimated in 2017 that approximately 3,000 bearing acres must be removed in order for the market to find balance and for growers to see profits. Furthermore, no new plantings should be developed until market balance is established (4,230 acres of new orchards were planted in 2016 and 2017). 2017 saw 1,719 acres removed, and after the 2018 harvest an additional 1,255 acres were removed. The California Canning Peach Association is urging growers to remove orchards without contracts. With the market in its current state of imbalance, there have been very few sales in recent years. Prior to 2018, those limited sales showed a strong market with sale prices around $30,000 per acre. The single sale in 2018 (in southern Butte County) was a young orchard that sold for $25,000 per acre. The seller was motivated, and the lack of additional sales makes it impossible to discern a trend from this single data point. For the most part, growers are not illustrating a willingness to sell high quality peach orchards during this uncertain time.

OLIVES

The current market for commercial-sized olive orchards (table and oil) is stable to increasing. Strong import pressures coupled with rising harvest costs have dampened profitability for most traditional table olive growers, which are concentrated between Glenn and Tehama Counties. The limited amount of traditional table olive orchard sales observed over the last year were purchased for re-development to walnuts, almonds or pistachios. Orchards purchased for ongoing olive production sold at prices near that of open land. Only one transaction involving a super-high-density (oil olive) orchard took place in the region from 2016-2018. As with table olives, increased European import pressures have limited grower returns in recent years. Demand for land in which to develop high-density-olive orchards



for oil is virtually non-existent, as major processors backed off new orchard development and contract offerings over the last several years. However, the domestic market and increasing consumer awareness of California's superior quality have led to strengthening commodity prices from late-2016 through 2018. The future for California olive oil production remains optimistic as consumer preference for higher quality product continues to increase, and demand for high-density olive orchards or land suitable for high-density orchard development is expected to rise.

VINEYARD

Sale transactions of established vineyard properties were limited in Region 1 during 2018, concentrated within the Sacramento-San Joaquin Delta region. One notable large vineyard sale between a major industry operator and a pension investor occurred in the Dunnigan Hills in 2018, indicating an increasing vineyard price trend. The few known sales illustrated good demand and strong but largely stable values for most types of young, quality vineyard properties developed to favorable varietals. The current outlook for the California wine industry is stable with profitable planting contracts occurring over the last several years. This region has seen some very large, vertically integrated grape growers/vintners enter the Sacramento Valley market (primarily Yolo and Solano Counties) for new vineyard development, largely due to location accessibility, land cost and perception of reliable irrigation supplies.

WINTER RANGE / DRY PASTURE

After years of stable conditions, 2017 and 2018 sales are indicating values for medium to large size dry pasture rangeland ranches increasing from 2013-2016 values. Consummated sale levels remain fairly steady with sale counts similar to 2014, 2015, & 2017 levels, but slightly below the recent high 2016 transaction count. The drop in transactions is due in part to limited listings and rising interest rates.

The market has broken loose from the 2017 doldrums, with strong buyer interest and slightly higher sale prices. The most recently sold properties all received multiple offers at or very near asking price. While rising interest rates are causing concern, brokers indicate ranches will move readily if properly priced, as very few properties are on the market.

All of the 2018 sales of larger (>500 acre) rangeland/dry pasture tracts were purchased for continued cattle grazing. While many dry pasture tracts were purchased from 2013-2015 for permanent planting development (mostly on lower-elevation Yolo County properties), only one such sale occurred in 2016, and there have been none since.

The cattle commodity market conditions changed substantially in 2015 from record high prices in 2013-14. Prices continued to be very challenging throughout the 2016 season, although 2017 brought some slight improvement. The 2018 pricing is slightly ahead of 2017; however, this is in light of a record high national beef herd size estimated for October 2018 at 103,200,000 head which bodes ill for the future. Pricing concerns are exacerbated by international trade and tariff issues.

VALUES: LAND AND LEASE

LAND USE	VALUE PER ACRE	ACTIVITY / TREND	RENT RANGE	ACTIVITY / TREND
COLUSA, GLENN, BUTTE & TEHAMA (NORTHWESTERN COUNTIES)				
Rice	$10,000 - $12,000	Moderate/Stable	$275 - $450/ac – 20% - 30%	Limited/Stable
Irrigated Cropland	$12,000 - $21,000	Moderate/Stable	$200 - $350/ac – 12% - 25%	Moderate/Stable
Winter Range / Dry Pasture	$650 - $2,500	Moderate/Sl. Increasing	$10 - $45/ac or $30 - $45/AUM	Moderate/Increasing
Almonds	$20,000 - $30,000	Limited/Stable	25% - 35%	Moderate/Stable
Walnuts	$18,000 - $28,000	Limited/Stable	25% - 35%	Limited/Stable
Prunes	$19,000 - $28,000	Very Limited/Stable	15% - 25%	Very Limited/Stable
Olives	$12,000 - $20,000	Very Limited/Stable	10% - 20%	Very Limited/Stable
YUBA SUTTER AREA (FEATHER RIVER BASIN & SUTTER BASIN)				
Rice	$9,500 - $12,500	Limited/Stable	$250 - $400/ac	Moderate/Stable
Irrigated Cropland	$12,000 - $22,000	Limited/Stable	$200 - $300 – 12% to 25%	Moderate/Stable
Walnuts	$18,000 - $35,000	Limited/Stable	20% - 30%	Very Limited/Stable
Prunes	$20,000 - $28,000	Very Limited/Stable	15% - 25%	Very Limited/Stable
Peaches	$25,000 - $30,000	Very Limited/Stable	12% - 25%	Very Limited/Stable
SOUTH SUTTER, WESTERN PLACER, NORTH SACRAMENTO, SOLANO & YOLO COUNTIES				
Rice	$9,000 - $13,000	Moderate/Increasing	$200 - $350	Moderate/Stable
Vegetable Crops: Class 1-2 Soil	$14,000 - $22,000	Moderate/Stable	12% - 30%	Limited/Stable
Irrigated Cropland: Class 3-4 Soil	$10,000 - $15,000	Moderate/Stable	12% - 30%	Limited/Stable
Winter Range / Dry Pasture	$750 - $3,500	Limited/Stable	$10 - $45/ac or $30 - $45/aum	Moderate/Stable
Walnuts	$16,000 - $25,000	Limited/Stable	20% - 25%	Limited/Stable
Vineyards	$15,000 - $30,000	Limited/Stable	20% - 25%	Very Limited/Stable

Despite this uncertainty, purchase and lease demand is reasonably strong for rangeland grazing units. The recent drought is fresh in producers' minds, and although most regional ranches received enough rain to have nearly average feed conditions in the 2016 and 2017 seasons, the late season 2018 rains have been light, causing much concern. Adequate water supplies are a substantial concern for prospective buyers, and ranches with good water supplies move the best when put on the market.

For the past several years, the buyer community has consisted nearly entirely of owner operator cattle producers. In 2017 local brokers reported renewed interest by investment buyers despite prices that generate extremely low rates of return. In 2018 there was only one known purchase by an investment buyer, with the majority of the market being dominated by owner-users competing for a dwindling supply of quality rangeland tracts.

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HISTORICAL VALUE RANGE PER ACRE

COLUSA, GLENN, BUTTE and TEHAMA COUNTIES (NORTHWESTERN COUNTIES)

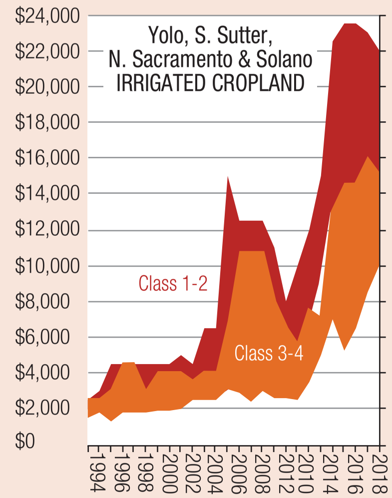
LAND USE	IRRIGATED CROPLAND	RICE	RANGELAND	WALNUTS	PRUNES	OLIVES	ALMONDS
2018	$12,000 - $21,000	$10,000 - $12,000	$650 - $2,500	$18,000 - $28,000	$19,000 - $28,000	$12,000 - $20,000	$20,000 - $30,000
2017	$10,000 - $20,000	$10,000 - $13,000	$650 - $2,500	$20,000 - $30,000	$19,000 - $28,000	$10,000 - $19,000	$20,000 - $30,000
2016	$10,000 - $22,000	$8,000 - $12,000	$600 - $1,700	$20,000 - $30,000	$18,000 - $25,000	$10,000 - $19,000	$18,000 - $30,000
2015	$7,000 - $22,000	$8,000 - $10,500	$600 - $1,500	$17,000 - $33,000	$22,000 - $31,000	$10,000 - $19,500	$14,000 - $30,000
2014	$6,800 - $20,000	$8,000 - $10,500	$1,000 - $1,500	$25,000 - $40,000	$9,500 - $24,000	$3,500 - $12,000	$13,000 - $28,000
2013	$6,000 - $15,000	$6,000 - $10,000	$600 - $1,500	$12,000 - $25,000	$6,000 - $12,000	$3,500 - $10,000	$12,000 - $20,000
2012	$3,500 - $12,000	$5,000 - $9,000	$600 - $1,250	$8,000 - $18,000	$5,000 - $10,000	$3,500 - $11,000	$6,000 - $16,000

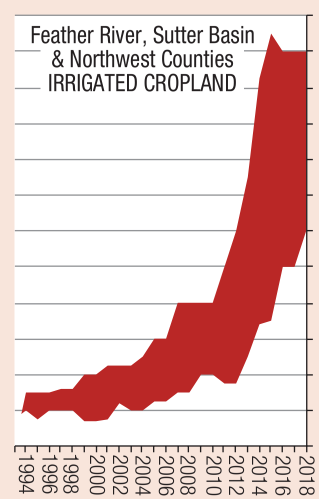
YUBA SUTTER AREA (FEATHER RIVER BASIN and SUTTER BASIN)

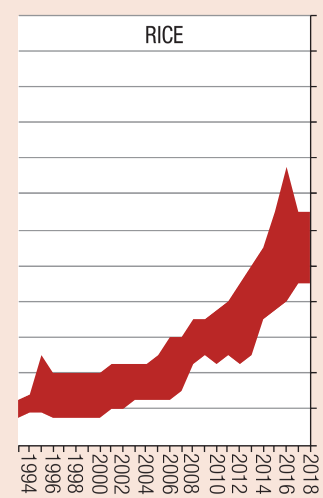
LAND USE	IRRIGATED CROPLAND	RICE	WALNUTS	PRUNES	PEACHES
2018	$12,000 - $22,000	$9,500 - $12,500	$18,000 - $35,000	$20,000 - $28,000	$25,000 - $30,000
2017	$12,000 - $22,000	$9,500 - $12,500	$18,000 - $33,000	$20,000 - $28,000	$27,000 - $30,000
2016	$18,000 - $22,000	$8,000 - $11,000	$18,000 - $33,000	$20,000 - $28,000	$27,000 - $30,000
2015	$15,300 - $23,000	$7,750 - $10,000	$32,000 - $41,000	$20,600 - $35,000	$30,000 - $35,000
2014	$7,900 - $20,500	$8,500 - $11,000	$23,000 - $30,000	$15,500 - $26,000	$20,000 - $28,000
2013	$5,000 - $15,000	$6,000 - $8,000	$12,000 - $25,000	$8,000 - $13,000	$10,875 - $19,500
2012	$5,000 - $12,000	$6,000 - $8,000	$12,000 - $17,500	$8,000 - $13,000	$10,875 - $19,500

SOUTH SUTTER, WESTERN PLACER, NORTH SACRAMENTO, SOLANO and YOLO COUNTIES

LAND USE	VEGETABLE CROPS Class 1-2 Soils	IRRIGATED CROPLAND Class 3-4 Soils	RICE	RANGELAND	WALNUTS	VINEYARDS
2018	$14,000 - $22,000	$10,000 - $15,000	$9,000 - $13,000	$750 - $3,500	$16,000 - $25,000	$15,000 - $30,000
2017	$15,000 - $23,000	$8,500 - $16,000	$9,000 - $13,000	$750 - $3,500	$16,000 - $25,000	$15,000 - $30,000
2016	$11,700 - $23,500	$6,500 - $14,500	$9,500 - $15,500	$750 - $5,000	$15,000 - $30,000	$13,500 - $33,500
2015	$13,000 - $23,500	$5,250 - $14,500	$7,500 - $13,000	$750 - $5,000	$18,000 - $35,000	$13,000 - $30,000
2014	$13,000 - $22,500	$7,000 - $13,000	$7,000 - $10,000	$1,000 - $5,000	$18,000 - $30,000	$13,000 - $25,000
2013	$9,000 - $15,000	$5,000 - $7,000	$5,000 - $9,000	$500 - $2,000	$12,000 - $25,000	$10,000 - $25,000
2012	$6,500 - $12,000	$3,500 - $7,500	$4,500 - $9,000	$500 - $2,000	$9,000 - $18,000	$8,000 - $18,000


Yolo, S. Sutter,
N. Sacramento & Solano
IRRIGATED CROPLAND
Class 1-2
Class 3-4


Feather River, Sutter Basin
& Northwest Counties
IRRIGATED CROPLAND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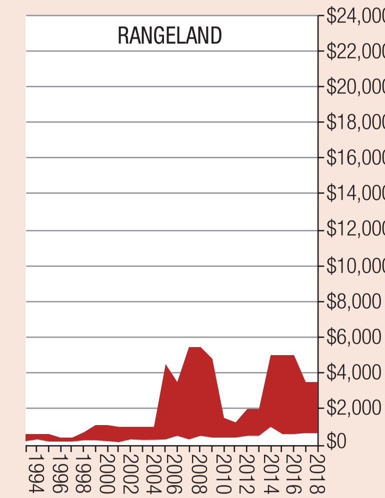
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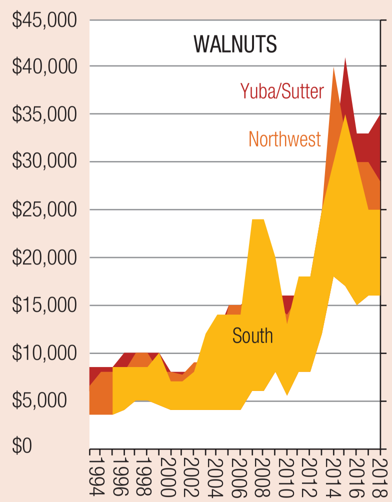
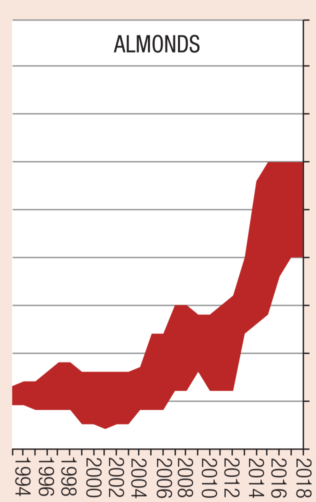

WALNUTS
Yuba/Sutter
Northwest
South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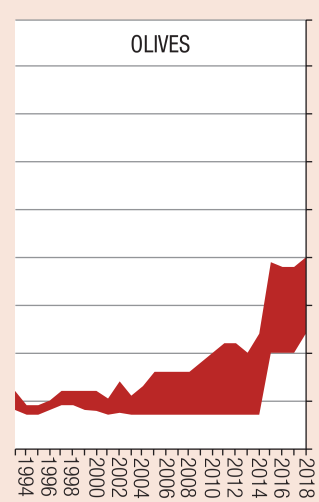
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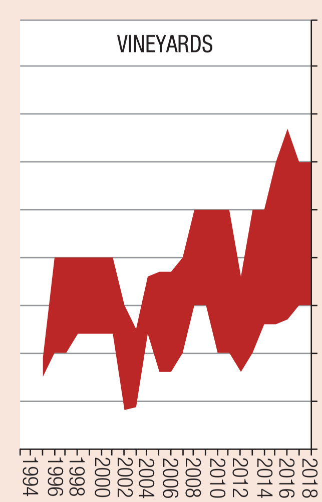
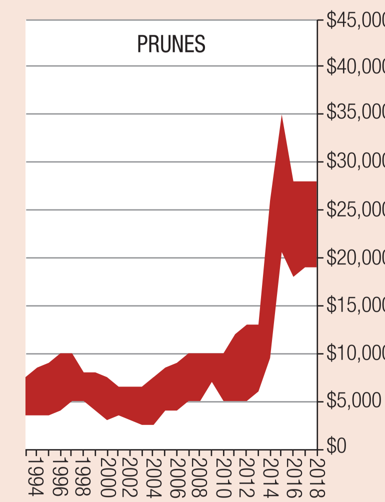

VINEYARDS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2 REGION

NORTH COAST

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NORTH COAST

OVERVIEW

As with 2017, we can't discuss the North Coast without again addressing wildfires. Lake and portions of Mendocino County were significantly impacted by the Ranch Fire that started eight miles northeast of Ukiah and the River Fire that started six miles north of Hopland. The Ranch Fire was first reported on July 27, and merged with the smaller River Fire, to form the Mendocino Complex Fire. This fire burned over 459,123 acres, becoming the single largest wildfire in California history, before being officially contained on September 18. While few vineyards were burned, the smoke had a significant impact on the Lake County grape crop, in addition to limited impact on Mendocino's inland valley crop. Fortunately, wind patterns were such, that Napa and Sonoma County were mostly unaffected by the smoke from the Mendocino Complex Fire, as well as the Carr Fire, which burned another 229,641 acres, further to the north in Shasta and Trinity Counties. Smoke from the Camp Fire in Butte County drifted into the North Coast wine region, for about a week in late November, however, most of the crop had been harvested, with no smoke taint issues openly reported.

Although the 2018 fires had a significant impact on Lake County's 2018 grape crop, there was nominal physical damage to the rest of the North Coast wine industry. That said, the 2017 wild fires occurred at the height of the wine tourist season, sending many tourists scrambling out of harm's way. The 2018 wildfires, smoke, and news coverage kept tourism at bay, with the most significant impact of these fires, being a slowdown in tourism across the region. Local vineyard and winery groups are teaming up to encourage tourism back to the area, but the process is slow and wildfires have become an unwelcome but all too common occurrence throughout California.

The North Coast (Region 2), runs from San Francisco to the Oregon border, bounded by the Pacific Ocean and the Central Valley. Geographically and economically, the North Coast can be divided into the southern and northern regions. The southern region overlies Napa, Sonoma, Mendocino, Lake, and Marin County, with the key economic drivers for this area being vineyards and wineries, although specialty dairy and poultry production remain active in southern Sonoma and northern Marin County. The northern region includes Humboldt, Del Norte, and Trinity County, which is less agriculturally diverse, consisting mostly of forest products, specialty dairy, and cattle.

The North Coast's diversity is attributed to the mild coastal climate, good water resources, and proximity to urban population and wealth (southern portion). Animal husbandry industries (dairy, beef, poultry, and eggs) continue to move to organic or other specialty production, as the higher returns from specialty products are necessary to offset the higher underlying land prices in the region. The region's mild climate and agricultural atmosphere make it a highly desirable rural residential area, with much of the southern area impacted by strong rural residential demand and strong residential entitlement values.

The vineyard and wine industries are mostly in the south, within California's North Coast American Viticultural Area (AVA). This AVA extends about 100 miles north from the San Francisco Bay, and about 50 miles inland from the Pacific Ocean. The North Coast has been recognized as a prime vineyard and winery area since the mid 1900s, and includes Napa, Sonoma, Mendocino, and Lake Counties, plus portions of northern Marin and southwestern Solano Counties.

The Wine Institute reported that there are 4,653 bonded wineries in California. They also indicate that bonded winery premises include every licensed production facility of single firms or individuals, licensed warehouses, experimental wineries, and wineries with no case goods, production or fermentation capacity (virtual wineries). Based on this definition, it needs to be pointed out that a bonded winery does not necessarily equal a physical winery. The Wine Institute's last study of actual brick and mortar wineries was completed in 2015, where they reported about 2,000 physical wineries in California. Personal research of county records, tourism sites, and local Winery Associations indicate that there are approximately 1,005 physical wineries operating in the North Coast: Napa County has about 415 wineries, with 425 in Sonoma, 104 in Mendocino, 35 in Lake, 12 in Solano (Suisun and Green Valley AVA), and 12 in Marin County.

The 2017 California Grape Acreage Report, published by the California Department of Food and Agriculture and released in April, reflected a slight decline in wine grape acreage in California, from 602,000 to 599,000 acres, with 19,277 acres (3%) reported as non-bearing. The North Coast accounts for 22% of state's wine grape acreage, with total acres declining slightly from 133,694 to 133,111 acres over the past year, with only 5,238 acres (4%) reported as non-bearing. Napa includes 45,402 acres (34%), with Sonoma at 59,054 (44%), Mendocino at 17,142 (13%), Lake at 9,513 (7%), Solano at 3,000 (2%) (Suisun & Green Valley AVA), and Marin at 163 acres (nominal).

WINE INDUSTRY

While the final numbers have yet to be tallied, the outlook for 2018 is positive and it should go on record as the twenty third consecutive year of positive growth for the US wine industry, and the US will maintain its position as the world's largest wine market. As reported last year, the growth rate is continuing to decline as boomers are being replaced by more cost conscious millennials who have less brand loyalty, and lots of choices (wine, beer, spirits, cannabis).

The positive wine trend continues to benefit from the strong US economy, strong employment figures, and a strong interest in drinking diversity. As such, consumers continue to embrace Premiumization, and are willing to pay for premium wines, craft beers, spirits, and legal marijuana. As long as the economy continues to hold, the premium wine markets, which the North Coast supplies, should perform well.

As reported in prior years, the industry trend of consolidation in traditional distribution channels, and retail shelf space is becoming tighter, with nearly all wineries looking to expand direct to consumer wine programs (tasting rooms, wine clubs, and other web-based programs). Direct/retail sales generate significantly higher returns than traditional wholesale distribution channels. This is critical for small and mid-sized wineries (<10,000 cases) who no longer have access to traditional wholesale distribution channels. While direct sales are critical to the smaller producers, large producers are actively working to expand their direct or retail sales, since returns are significantly greater than distributor or brokered wine sales. A fact that is often overlooked when addressing grape pricing, is that the vast majority of the wine being sold, is still being sold through distributor channels.

Wineries and growers are continuing their move to maximize vineyard yields by redeveloping vineyards with declining production with modern, higher density and higher producing vineyards. Additionally, as demand for Cabernet Sauvignon has continued to soar, we have seen a significant expansion of Cabernet Sauvignon being planted in areas previously considered too hot or cold for prime Cabernet production.

Growers have benefited from above average yields and the fact that wineries have been able to take all production, generally at prices at or above County Average pricing. Aside from limited smoke damage over the past two years, most of the region has benefited from nearly eight years with uncharacteristically good growing conditions. These growing conditions have allowed for above average fruit quality from most areas, with the fruit suitable for many mid and premium priced wine programs.

The most recent possible new trend being reported by industry experts is a result of the very large 2018 grape crop, not only here but in most wine producing countries around the globe. High yields were seen for almost all varieties in almost all regions of California, with many growers struggling to sell grapes in excess of their contracted amounts. Many growers reported that their excess fruit was either steeply discounted and sold, or went unharvested.

This large crop comes at a time when finished wine sales are sluggish, or even slowing, for many vintners. Several speakers at the 7th Annual North Coast Wine Industry Expo & Conference in Santa Rosa on December 6, 2018 addressed the issues of the large crop in the face of softening wine sales and a burgeoning bulk wine market. Representatives from the Turrentine Wine and Grape Brokerage firm suggested the industry has hit a plateau. Bill Swindell reported in the Santa Rosa Press Democrat that "…wineries will have to grapple with flat sales and a consolidated marketplace making their business much more difficult as they head into 2019."

CANNABIS INDUSTRY

California voters approved Proposition 64, the California Marijuana Legalization Initiative in 2016, which took effect January 1, 2018. However, the Federal Government still considers cannabis illegal (growing, processing, selling and use), which has significantly slowed the progression of the industry. As of January 2019, there are only five states that consider cannabis illegal on all levels (five prohibit cannabis, one decriminalized, 36 allow various forms of medicinal, eight are legal for recreational use). In December of 2018 the Farm Bill legalized hemp at the federal level. Hemp, a form of cannabis, is now legal to grow and process according to Federal law and can be used to produce many products. The Farm Bill defines legal hemp as containing no more than 0.3% THC. Hemp will likely be grown in areas other than Northern California. This low THC product will no doubt become more popular in the health supplement industry, producing high CBD low THC products, but will not be in direct competition with cannabis (with unlimited THC).

The impact of the legalization of cannabis for recreational use in California is slowly showing itself in the North Coast real estate markets. The cannabis industry and permitting processes are in their infancy and are proving to be on a slow and arduous path that will take several years to sort out. Cannabis growing operations have been historically located in the North Coast region of California largely searching for privacy of the previously illegal grows; not necessarily because of the ease of growing, or because of a conducive climate. While there is some movement out of the hills and into the more open market, competition and values for agricultural land are mostly unaffected, as most jurisdictions have placed significant limitations on the size of outdoor grows and who can enter the market.

At the local level, California allows the growing, processing, selling, distribution and use of marijuana for medicinal or recreational purposes. While legalization of cannabis on the local level opens the door to a new possible highest and best use, it creates a legal challenge for the industry and those affected by it. As most banks are federally regulated, financial resources for cannabis (with THC) related properties are still unavailable. As long as cannabis is federally illegal, cannabis growing and processing facilities cannot be considered as a potential highest and best use; however, cannabis certainly has a sizable impact on the North Coast economy. Meanwhile, most market participants in cannabis from venture capital entities to small growers are overlooking the federal restrictions and are moving into or continuing in the market.

Currently, there is not sufficient market data available to address valuation issues or to clearly track any trends relative to this new and evolving market. Recreational cannabis, as legalized in California and the seven other states with legal use, will not be a substitute for the premium wines of the North Coast. However, it may prove to be a substitute for other lower value agricultural uses going forward.

NAPA COUNTY

Napa remains at the top of the premium wine market, and over the years this region has become synonymous with world-class Cabernet Sauvignon. Wine, wine grapes, and tourism remain the primary economic drivers for Napa, with no other agricultural uses of note. Napa produces a wide variety of high-quality wines aside from Cabernet Sauvignon, including Chardonnay, Pinot Noir, Sauvignon Blanc, Merlot, and Zinfandel, to name a few. However, the region is still best known for its high-quality red wines, which command some of the highest wine and wine-grape prices in the state.

The key market participants include wineries, growers, financial investors, and lifestyle buyers. The market continued to be the benefactor of a robust economy, and a diverse group of lenders, offering loans at historically low interest rates, with equally historically high loan to value ratios. This appears to be necessary for lenders to compete with an excessive amount of cash that seems to be sitting idle in the market today.

Premiumization has been a prevalent theme in Napa for several years, as Napa leads all other wine regions. In recent years consumers have continued to trade up to higher-priced premium wines, which has worked well for Napa as well as the rest of the North Coast Wine Region. Strong wine prices continue to drive strong grape prices, which in turn drive strong vineyard and land prices, with upward trends reported in 2018 for vineyards, plantable land, and grape prices. Premiumization, coupled with the intense demand for Cabernet, and simple economics have been at the forefront of a trend to redevelop much of the Napa Valley to Cabernet. While Napa continues to reign supreme in the Cabernet market, the resulting escalating Cabernet vineyard and grape prices has benefited other grape growing regions in the state that also produce high quality Cabernet Sauvignon, but at significantly lower price points.

Heavy winter rains benefited the region's vineyards, filled reservoirs and replenished groundwater reserves depleted by the extended drought. The vines also responded well to moderate temperatures throughout the 2018 spring and summer growing season allowing the fruit to mature and ripen slowly. While the Mendocino Complex, Carr, and Camp Fires devastated much of the state, Napa County reportedly suffered minimal smoke damage, with the 2018 harvest reporting above average yields and exceptional fruit quality. The large 2018 crop was a concern, and while wineries honored their contracts, most were full and unwilling or unable to take excess production this year. Growers with uncontracted or excess production found 2018 to be very challenging with soft demand and lower prices. Regardless of the 2018 crop size, market demand and prices for the best Cabernet Sauvignon from the best locations were still strong.

Grape prices are typically tied to supply and demand, and Napa is no exception. As demand for premium quality wines continued, growers were unable to keep up with supply. Production and demand were generally in balance between 2004 and 2010, with the weighted average Cabernet Sauvignon prices steadily increasing about 2.1% per year over the period ($3,948 to $4,480/ton), as reported in the USDA Grape Crush Report for District 4, Table 6. Between 2010 and 2017, premiumization and market demand for premium Cabernet Sauvignon saw grape prices escalate around 9.6% per year ($4,480 to $7,498/ton). While this has benefited growers and landowner's alike, there is growing concern as to just how high prices can go.

As grape prices continued to escalate, growers took note, redeveloping many valley floor Sauvignon Blanc, Chardonnay, Merlot and Zinfandel vineyards to Cabernet Sauvignon. These new vines are coming into production with above average yields (>5 tons/acre) and fruit quality resulting from above average

growing conditions in recent years. Since wine prices drive the market, it is important to note that wine grape and vineyard prices, in recent years, have been increasing faster than wine prices. Additionally, the 2018 crop is the first harvest in recent history where wineries were unable or unwilling to take everything growers could produce. As a result, any grape price increase for 2018 is expected to be less than seen in recent years.

A key factor driving Napa's market is that the County is effectively planted out, with no significant acreage available for future vineyard development or expansion. Most of the valley floor and readily developable hillsides are planted, with nominal land available for development. Over the past twenty years, increasing environmental regulations, urbanization, and governmental regulations have greatly curtailed the ability to expand vineyard development. Tough erosion control, view-shed, and stream setback ordinances coupled with growing resistance from voters and environmental groups are making vineyard development time consuming, expensive, and highly speculative. This has greatly increased demand for existing properties, forcing grape, vineyard and plantable land prices to increase at somewhat unprecedented levels.

Winery development continues to be heavily scrutinized with local government and voters working to revise the Winery Definition Ordinance. This has resulted in a record number of new winery permit applications being filed in recent years; and increasing values for existing permitted sites. Traffic throughout much of the Napa Valley has reached critical mass. Over the past 10 years, housing prices and availability has displaced much of the workforce serving the vineyard, wine, and related tourist trades. With much of the workforce now commuting into the Napa Valley, coupled with the growing wine tourists trade, and a general increase in full-time residents living in the valley, Napa's two main access roads now suffer from almost constant gridlock. This has sparked growing opposition to new winery construction. Concerns regarding the time and cost to obtain winery use permits, coupled with uncertainty as to what approvals will ultimately be granted, are forcing many would be winery developers to buy existing facilities, which is also driving winery demand and prices.

Napa is a highly diverse market with significant ranges in vineyard, plantable land, and site component/entitlement values. These value ranges are generally broken down into three distinct markets, resulting from differences in location, AVA, and Terroir, which are the collective environmental factors affecting varietal selection and fruit quality. Relative to market demand and prices, Napa has historically had three fairly distinct geographic markets, driven primarily by location and AVA, as well as wine and vineyard economics.

Continued economic improvement, the limited availability of planted and plantable land, increasing demand and prices for Cabernet, plus increasing development constraints, continues to have a positive impact on demand and values for Napa's Prime and Secondary markets. While demand and prices remain the strongest in the Prime markets, the need for quality fruit has blurred the geographic lines that have traditionally separated these markets. Today, premium prices are being paid for Secondary area properties capable of producing truly premium quality Cabernet, regardless of AVA. Additionally, demand and prices in much of the Secondary markets have been at record highs for sites capable of producing and ripening good quality Cabernet.

SONOMA & MARIN COUNTIES

Sonoma County's agricultural markets continued the increasing value trend that was established in the six previous years. 2018 saw strong demand and sales volume for commercial vineyards and vineyard estate properties of all sizes and locations. This trend was a direct result of the strong economy, low interest rates, potentially high vineyard earnings, and increased winery purchases of vineyards and plantable land.

Wineries continued to be the most active buyers in order to better control grape supplies and costs, avoid increasing governmental regulations, and mitigate the higher costs for new vineyard developments. Market values continued an upward trend, continuing to exceed any previous record highs. Most good quality vineyards in prime locations sold near the middle of the market range between $130,000 and $155,000 per acre. Those vineyards selling at the top or above the vineyard value range, included vineyards with established reputations for very high wine quality, generally with net earnings exceeding $20,000 per acre. Two vineyards sold above $200,000 per acre in 2018. One was a Russian River Valley Pinot vineyard at near $215,000 per acre, which is well supported by industry sales. The other was a Knights Valley Cabernet Sauvignon vineyard near $310,000 per acre, which set a price well above the market range and was bought by a neighboring winery, who has several estate wines that retail over $100/bottle.

The Premiumization trend is a driving factor for Sonoma County. Pinot Noir and Chardonnay vineyards in prime locations with established reputations for luxury to cult wine quality continue to lead the market. However, the strong demand for high quality Cabernet Sauvignon is also driving Alexander Valley vineyard values close to those seen for prime Russian River and Sonoma Coast Pinot Noir and Chardonnay vineyards. Sonoma and Napa County wineries were the principal buyers for large commercial vineyards and small vineyard designate or boutique style vineyards. Other buyers included local growers and investors.

Vineyard designates and AVAs play a significant role in property demand and pricing. There can be substantial value differences within a single AVA due to individual micro climates, soils, and varieties grown. These factors greatly influence grape tonnage and quality, which in turn directly impact net earnings. AVAs are increasingly becoming associated with specific varietals, such as Alexander Valley with Cabernet Sauvignon, Green Valley and Russian River Valley with Pinot Noir and Chardonnay, and Sonoma Coast with Pinot Noir. Depending on vineyard reputation for quality, vineyard designates with registered trademarked names can command premium pricing.

In the last two years, Sonoma County has been defined by prime and secondary area market classifications due to increased demand and sales for areas previously identified as outlying. The prime classification defines the established American Viticultural Areas (AVA) including Alexander Valley, Dry Creek Valley, Knights Valley, Chalk Hill, Sonoma Valley, Green Valley, Russian River Valley and portions of the Sonoma Coast. The secondary classification defines areas such as the Petaluma Gap, portions of the Sonoma Coast AVA, and movement to establish vineyards in outlying or remote mountain locations within the prime or secondary market areas. This increased demand in secondary areas was a result of plantable land values being relatively inexpensive ($25,000 to $45,000 per acre) in comparison to plantable land values in prime areas ($70,000 to $120,000 per acre).

In terms of total tonnage, the 2015 grape crop was small and the 2016 and 2017 crops were considered average. 2018 experienced good growing conditions, with no weather events negatively impacting crop set or harvest, with reportedly above average production and good quality. In 2017 any excess crop over contracted amounts was purchased at or near contract prices. Due to the large 2018 crop, uncontracted or excess crop reportedly sold at substantially discounted prices or was not harvested. Additionally, wineries were generally unwilling to offer pre-plant contracts for vineyards that were to be replanted after the 2018 harvest. This pull back is a factor of winery concern over softening sales and increasing inventories. High grape prices, increasing interest rates, slower economic growth, and higher labor costs are compressing profit margins, which could be a potential sign of a slowing market. Also, due to the amount of vineyards recently purchased by wineries, there could be less demand and lower pricing for contracted grapes. Despite these factors, most growers expect 2019 contract pricing to be flat, though profitable. Vineyard viability remains highly scrutinized and marginal vineyards continue to be purchased at prices near bare land values.

"Non-farm" and "non-local" professionals, executives, or business owners remain the principal buyers for properties that provide a "lifestyle" element, such as privacy, views, desirable locations, or large estate homes. Lifestyle properties have clearly rebounded in value since 2011 and have exceeded previous record highs.

Recent winery sales continue to support a stable to slightly increasing value trend. Sales of wineries with successful brands, public tasting, and locations in prime tourist areas contribute values that generally support current construction costs. Wineries that sell without a recognized brand exhibit normal levels of deprecation. Larger facilities (40,000 cases or more) are typically discounted beyond normal levels of depreciation due to a more limited buyer base. Vested winery permits for unimproved properties typically contribute value only when the property is in a primary tourist area. Significant premiums are paid for permits on sites in prime tourist areas that allow for public tours, tastings, retail sales, and events. This is due to increasing government regulations and local opposition to new or additional winery permits and development.

The Sonoma-Marin agricultural area is described as coastal foothill pasture and hardwood forested lands within Southwestern Sonoma County and Northwestern Marin County. Most of the area is devoted to agricultural uses of livestock pasture and dairies, in addition to a limited number of equestrian facilities, poultry facilities, vineyards, olive orchards, and specialty vegetable production. Average to estate quality homes are also positioned throughout the area. The residential appeal is attributable to the desirable coastal climate, rural foothill settings, and proximity to San Francisco and Bay Area employment centers.

Grade A dairies producing organic milk are the dominant commercial use of the area. North coast dairies have historically benefitted from substantially higher organic milk prices. The ability to pasture cows, and proximity to Bay Area consumer markets allows for the cultivation of specialty or artisan cheese, butter, and yogurt products. However, within the last few years, a surplus of organic milk has resulted in significant drops in prices per cwt., requested reductions in production volume, or, in some cases, complete cancellations of milk contracts. The 2018 production year showed a loss of about 25 to 30% of gross income for most dairy producers when compared to the market peak in 2016. Future pricing or any increase in pricing of organic milk is speculative as long-term effects of the surplus are unknown. However, producers generally believe that they have reached the bottom of the current price cycle. Alongside the price drop, producers feel added pressure from secondary dairy cattle markets, which include decreased butcher cow and drop calf prices, and loss of quota value.

Very few pasture or dairy grazing land sales transacted in 2018 for Sonoma and Marin counties, and land prices remain relatively stable. Properties of fifty acres of pasture or more sold mostly for rural homesite purposes due to the continued residential demand in rural areas of Sonoma and Marin counties, especially for those properties in close proximity to city centers. In suitable locations, cattle ranchers compete with viticulturists as more historical cattle grazing land is being marketed and purchased for vineyard development.

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MENDOCINO & LAKE COUNTIES

Mendocino County's agriculture is mostly tied to the vineyard and wine industry. The region has two distinct markets within the County, including the coastal Anderson Valley, renowned for high quality Pinot Noir, and Inland Mendocino, which produces a wide variety of premium wine grapes and varieties. The short 2011 grape crop throughout most of the North Coast region was instrumental in bringing wineries back to Mendocino and Lake Counties to buy wine grapes. The increased demand has enabled growers to contract their fruit at good prices for the past several years, along the with reintroduction of preplant and long-term contracts.

2018 was a very good growing season, with most growers reporting above average yields. The only problem faced by the agricultural sector this year was the Ranch Fire. While this fire significantly impacted the Lake County grape crop, Mendocino County was not completely spared from smoke taint issues in the grapes. The northern areas including Redwood Valley and Potter Valley, were the most impacted, with many growers reporting grape price discounts or outright rejections by the wineries. The southern end of the region was less impacted, but some growers on the eastern edges tested positive for smoke taint. Anderson Valley was not impacted by the fires.

Grape demand and pricing throughout Mendocino County were generally good this year. Anderson Valley continued to experience strong demand for Pinot Noir in 2018, with most growers receiving prices of $3,500 to $6,000 per ton, while Inland Mendocino Pinot Noir was closer to $1,800 per ton. The demand for Cabernet Sauvignon was strong at $2,000 to over $2,400 per ton throughout most of the region. Demand and prices for Chardonnay remained stable at $1,200 to $1,400 per ton, with some long-term and pre-plant contracts being offered again. As Sauvignon Blanc vineyards continue to get replanted to Cabernet Sauvignon in Napa and Sonoma County, the demand for Sauvignon Blanc was exceptionally strong this year, with most growers receiving $1,100 to $1,500 per ton. The large grape crop, made it difficult for growers to sell excess fruit over their contracted amounts, and those who did, received substantially discounted grape prices.

Mendocino County vineyard sales appear to have stabilized in the past year, but with limited market activity, and the number of vineyard listings is also limited, mostly consisting of average to below average vineyards. Sales activity in Mendocino's inland area was modest, with a mix of small and mid-sized vineyard sales, scattered from Potter Valley to Hopland. Most fair to average quality vineyards sold in the high-$20,000's, with two good quality vineyards selling for around $40,000 per acre. Several above-average plantable land sales occurred this year ranging from $15,000 to around $18,000 per acre. Sale activity in Anderson Valley was very limited, which is typical for the area. Anderson Valley vineyard and fruit demand and prices appear to have stabilized, but with continued strong demand from Napa and Sonoma County wineries. The most recent sales in Anderson Valley of good quality vineyards have sold upwards of $100,000 per acre mostly to wineries out of Sonoma and Napa County.

The Lake County market was significantly impacted by the Ranch Fire, which blanketed much of the area in smoke for nearly two months. While few vineyards were destroyed by the fire, the 2018 grape crop, for many growers, was negatively impacted by smoke. Smoke taint in the grapes resulted in a large percentage of fruit from northern Lake County being heavily discounted or rejected by the wineries. Growers reported discounts off their contract prices of around 25% for white varietals and 40% for red varieties due to the longer hang time. The best estimate is that 25% of the grapes were rejected by the wineries. Some growers decided to custom-crush the rejected fruit, while other chose to let the fruit hang and take the insurance proceeds.

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Fire issues aside, as with Mendocino County, the market price of Chardonnay remained stable at $1,200 to $1,400 per ton, with some long-term and pre-plant contracts being offered again. Sauvignon Blanc demand is also exceptionally strong, with most growers receiving prices of $1,100 to $1,500 per ton. The demand and prices for Cabernet Sauvignon was also very strong at $2,000 to over $2,400 per ton throughout most of the region, with much of the fruit going into Napa and Sonoma wine programs. As was the case for most growing regions, local growers had a difficult time selling any excess fruit over their contracted amounts, because wineries were full. Uncontracted fruit was either left on the vine or sold at a substantially discounted price.

Market demand for vineyards in Lake County remained strong, with a modest number of sales. Sales in the Big Valley area generally ranged from $30,000 to $44,000 per acre, for good quality vineyards producing from five to over seven tons per acre. The highest priced vineyards in Lake County are upland sites, with volcanic soils, in the Red Hills and High Valley regions, which are noted for producing high quality Cabernet Sauvignon. These generally range up to $50,000 per acre.

MENDOCINO & LAKE COUNTIES

PEARS

The acreage developed to pears continues to decline. While most of the remaining orchards are high producing and owned by a handful of long-time growers, the simple fact is economics and the return potential from pears, in most years is barely sufficient to support the underlying plantable value of the land for vineyard use. As such, even the best orchards are likely to be pulled, since the most likely buyer would be a vineyard grower. The 2018 crop was slightly above historical averages, with generally good fruit size and quality. 2018 saw a further reduction in demand from canneries, with more pears being directed to the fresh market. While the returns from the canneries were good, the fresh market prices were terrible. Most growers received average prices from $280 to around $320 per ton this year, which was $100 per ton below 2017. The industry outlook is a bit bleak, with the reduced demand from the canneries, increasing operating costs, uncertainty of labor affordability or availability, and new regulations which could have a major impact on profitability going forward. Several good quality orchards sold in the Mendocino or Lake County in 2018, with the buyers planning to remove the trees and plant vineyards. No new orchards have been planted in nearly 20 years, and none are scheduled. The walnut planting craze over the past several years in Lake County has stopped, due to declining demand and commodity prices.

HUMBOLDT, DEL NORTE & TRINITY COUNTIES

This area overlies the most northerly portion of Region 2. Historically, market sales are few and far between, but like the rest of this region trends appear to be positive, with generally steady upward pressure on values.

Humboldt County is located on the Pacific Coast in northwestern California, approximately 200 miles north of San Francisco. Agriculture is tied primarily to dairies, pasture crops, and cattle ranching. This market has seen very few sales but values have been steadily increasing over the past ten years. Demand for pasture is strong but most properties are closely held and seldom available for sale. Pastureland sales are often between a long-term tenant and the landlord. In recent years there has been an increase in the number of properties listed by realtors. This is because sellers are realizing that their properties must be well marketed to garner the best price.

Agricultural production in the region includes dairying, beef cattle, irrigated pasture crops, small truck farms growing organic crops, and several nursery operations. Increasingly dairies in Humboldt County are converting to organic operations. The County's dairies tend to be small (200 to 500 cows) turn-key operations with the cows on pasture most of the year. Almost all of the operating dairies in the county are now organic. With the drop in organic milk prices there have been fewer transactions of pastureland in the past year.

In early 2016 Humboldt County passed regulations to develop a permitting process to bring existing cannabis growing operations into environmental compliance. Approximately 2,300 growers applied before the cut-off date at the end of 2016. The passage of California Proposition 64 (The Marijuana Legalization Initiative) legalized the growing and processing cannabis as of January 1, 2018.

Through 2017 there was strong demand for cannabis cultivation sites

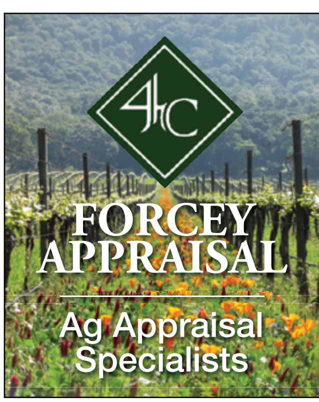
(80 to 400 acres) in remote parts of Humboldt, which resulted in many parcels being acquired for cannabis production instead of traditional agriculture or timber management use. Parcels with good access, an established building site, and water resources were strong in demand. After Humboldt County's deadline for obtaining a compliance permit closed, regulations for cannabis cultivation have been strictly enforced. In 2018 values for parcels that do not have cannabis grow permits or parcels that are not in the application process have softened as demand for these parcels has waned.

Del Norte County is located on the Pacific Coast in the extreme northwest corner of the state. This is a remote area with over 97% of the land area identified as forestland that is mostly owned by the federal government. Agricultural activity is limited to the flood plain of the Smith River and the adjacent coastal benches. Agricultural production includes dairying, beef cattle, Easter lily bulbs and irrigated pasture crops, and one nursery operation. Agricultural land is closely held and sale activity is very limited.

Trinity County is located in the Klamath Mountains in northwestern California. This is also a remote and very steep area, with over 95% of the land area being forestland that is mostly owned by the federal government. Agricultural activity is mostly limited to the mountain valleys along the Trinity River, but there are several large cattle ranches located in the southwest corner of the county. Agricultural production includes beef cattle, range pasture, irrigated pasture, and a small number of vineyards. Agricultural land is closely held and sale activity is non-existent. Generally, sales from adjacent counties must be relied on to value the agricultural land in Trinity County.

Similar to Humboldt County small parcels in Trinity County with good access, a building site, and a water source were in demand. After the legalization of recreational cannabis use in California, these parcels were in high demand throughout 2017. After Humboldt County's deadline for obtaining a compliance permit closed, regulations for cannabis cultivation have been strictly enforced. This has pushed demand for unpermitted properties into Trinity County, which still has an open permitting deadline and has a reputation for more lenient enforcement of cannabis regulations.

North Coast Region Timber Production: Timber production occurs in most of the counties (except for Napa) that comprise the North Coast Region. For Humboldt and Mendocino Counties it is a major contributor to the local economy. Approximately 26% of all the timber harvested in California comes from the North Coast Region. Private timberland ownership is almost equally divided between large industrial holdings and small privately-owned tree farms. Improvements in the housing market have led to increased demand and prices for sawlogs. Demand for timberland, particularly redwood timberland, is strong with few properties available for sale. Prices for redwood and Douglas-fir logs have reached 10-year high points. Markets for smaller timberland parcels (160 acres and less) appear to be shifting from being driven by cannabis growers back to investors seeking long-term timberland investments.



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VALUES: LAND AND LEASE

LAND USE	VALUE PER ACRE	MARKET DEMAND	MARKET ACTIVITY	VALUE TREND
		NAPA COUNTY		
Vineyards - Prime Napa Valley	$300,000 - >$400,000	Strong	Strong	Increasing
Vineyards - Secondary Napa Valley	$120,000 - >$340,000	Strong	Strong	Increasing
Vineyards - Outlying Napa County	$50,000 - >$130,000	Moderate	Limited	Increasing
Plantable - Prime Napa Valley	$200,000 - >$250,000	Strong	Strong	Increasing
Plantable - Secondary Napa Valley	$50,000 - >$240,000	Strong	Strong	Increasing
Plantable - Outlying Napa County	$25,000 - >$50,000	Moderate	Limited	Increasing
Homesite - Prime Napa Valley	$2,000,000 - >$5,000,000	Strong	Strong	Increasing
Homesite - Secondary Napa Valley	$300,000 - >$3,000,000	Strong	Strong	Increasing
Homesite - Outlying Napa County	$0 - >$350,000	Limited	Limited	Stable
		SONOMA COUNTY		
Vineyards - Prime	$100,000 - $215,000	Moderate-Strong	Moderate-Strong	Increasing
Vineyards - Secondary	$70,000 - $100,000	Moderate-Strong	Moderate-Strong	Increasing
Plantable - Prime	$70,000 - $120,000	Moderate-Strong	Moderate-Strong	Increasing
Plantable - Secondary	$25,000 - $45,000	Moderate-Strong	Moderate-Strong	Increasing
Homesite - Prime	$300,000 - $3,100,000	Moderate-Strong	Moderate-Strong	Increasing
Homesite - Secondary	$0 - $300,000	Moderate-Strong	Moderate-Strong	Stable
Sonoma-Marin Pasture	$7,000 - $14,500	Moderate	Moderate	Stable
		MENDOCINO COUNTY		
Vineyards - Anderson Valley	$65,000 - $100,000	Strong	Limited	Stable
Vineyards - Inland Mendocino	$22,000 - $40,000	Moderate	Limited	Stable
Plantable - Anderson Valley	$25,000 - $35,000	Strong	Limited	Stable
Plantable - Inland Mendocino	$10,000 - $18,000	Moderate	Limited	Stable
		LAKE COUNTY		
Vineyards - Resistant Rootstock	$25,000 - $50,000	Moderate	Moderate	Stable
Plantable Land or Pears	$10,000 - $18,000	Moderate	Moderate	Stable
		HUMBOLDT COUNTY		
Dairy Pasture	$5,000 - $8,000	Moderate	Limited	Stable-Increasing
		DEL NORTE COUNTY		
Dairy Pasture	$7,000 - $10,000	Limited	Limited	Stable-Increasing
Irrigated Cropland (Lily Bulbs)	$7,500 - $9,500	Limited	Limited	Stable-Increasing

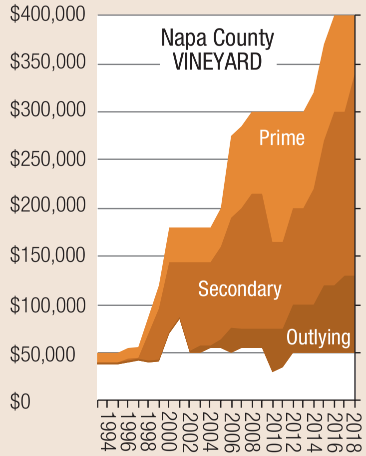
HISTORICAL VALUE RANGE PER ACRE

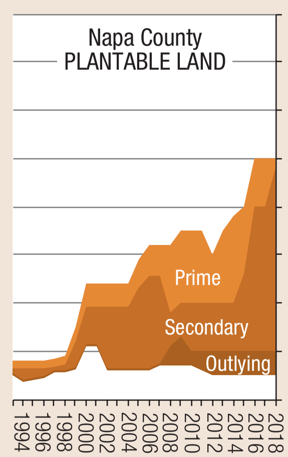
LAND USE	PRIME	SECONDARY	OUTLYING	PRIME	SECONDARY	OUTLYING
NAPA COUNTY VINEYARDS				NAPA PLANTABLE		
2018	$300,000 - $400,000	$120,000 - $340,000	$50,000 - $130,000	$200,000 - $250,000	$50,000 - $240,000	$25,000 - $50,000
2017	$300,000 - $400,000	$120,000 - $300,000	$50,000 - $130,000	$200,000 - $250,000	$50,000 - $200,000	$25,000 - $50,000
2016	$300,000 - $400,000	$120,000 - $300,000	$50,000 - $120,000	$200,000 - $250,000	$50,000 - $200,000	$25,000 - $50,000
2015	$250,000 - $370,000	$120,000 - $270,000	$50,000 - $120,000	$130,000 - $200,000	$50,000 - $130,000	$25,000 - $50,000
2014	$220,000 - $320,000	$100,000 - $220,000	$50,000 - $100,000	$100,000 - $190,000	$50,000 - $100,000	$25,000 - $50,000
2013	$200,000 - $300,000	$100,000 - $200,000	$50,000 - $100,000	$100,000 - $175,000	$50,000 - $100,000	$25,000 - $50,000
2012	$200,000 - $300,000	$100,000 - $200,000	$50,000 - $100,000	$100,000 - $150,000	$50,000 - $100,000	$25,000 - $50,000

LAND USE	PRIME	SECONDARY	OUTLYING
NAPA HOME SITES			
2018	$2,000,000 - $5,000,000	$300,000 - $3,000,000	$0 - $350,000
2017	$2,000,000 - $5,000,000	$300,000 - $2,500,000	$0 - $350,000
2016	$2,000,000 - $5,000,000	$300,000 - $2,500,000	$0 - $350,000
2015	$1,000,000 - $5,000,000	$250,000 - $1,000,000	$0 - $350,000
2014	$1,000,000 - $5,000,000	$250,000 - $1,000,000	$0 $350,000
2013	$1,000,000 - $5,000,000	$250,000 - $1,000,000	$0 - $350,000
2012	$1,000,000 - $5,000,000	$250,000 - $1,000,000	$0 - $350,000

LAND USE	VINEYARD	PLANTABLE LAND	HOMESITE CONTRIBUTION	VINEYARD: RESISTANT ROOTSTOCK	PLANTABLE LAND (or Pears)	DAIRY PASTURE	PASTURE
SONOMA COUNTY				LAKE COUNTY		HUMBOLDT	SONOMA/MARIN
2018	$70,000 - $215,000	$25,000 - $120,000	$0 - $3,100,000	$25,000 - $50,000	$10,000 - $18,000	$5,000 - $8,000	$7,000 - $14,500
2017	$70,000 - $170,000	$25,000 - $100,000	$0 - $3,100,000	$25,000 - $50,000	$10,000 - $15,000	$5,000 - $8,000	$7,000 - $13,800
2016	$90,000 - $170,000	$45,000 - $100,000	$0 - $3,100,000	$25,000 - $50,000	$8,000 - $14,000	$5,000 - $7,800	$6,000 - $13,800
2015	$70,000 - $150,000	$45,000 - $100,000	$0 - $3,100,000	$25,000 - $50,000	$8,000 - $12,000	$5,000 - $7,800	$6,000 - $13,800
2014	$60,000 - $125,000	$35,000 - $85,000	$0 - $3,100,000	$25,000 - $50,000	$8,000 - $12,000	$5,000 - $7,800	$4,500 - $11,200
2013	$60,000 - $125,000	$35,000 - $80,000	$0 - $3,100,000	$20,000 - $36,000	$6,000 - $10,000	$5,000 - $7,500	$4,500 - $10,500
2012	$60,000 - $125,000	$35,000 - $80,000	$0 - $3,100,000	$15,000 - $35,000	$4,000 - $8,500	$5,000 - $7,500	$4,500 - $8,500

LAND USE	VINEYARD: ANDERSON VALLEY	VINEYARD: INLAND MENDOCINO	PLANTABLE: ANDERSON VALLEY	PLANTABLE: INLAND MENDOCINO	DAIRY PASTURE	CROPLAND (Lily Bulbs)
MENDOCINO COUNTY					DEL NORTE	
2018	$65,000 - $100,000	$22,000 - $40,000	$25,000 - $35,000	$10,000 - $18,000	$7,000 - $10,000	$7,500 - $9,500
2017	$65,000 - $100,000	$22,000 - $40,000	$25,000 - $35,000	$10,000 - $15,000	$4,000 - $6,500	$7,500 - $8,000
2016	$65,000 - $100,000	$22,000 - $40,000	$25,000 - $35,000	$10,000 - $15,000	$3,500 - $6,000	$7,500 - $8,000
2015	$65,000 - $100,000	$22,000 - $40,000	$25,000 - $35,000	$10,000 - $14,000	$3,500 - $6,000	$7,500 - $8,000
2014	$65,000 - $100,000	$22,000 - $35,000	$25,000 - $35,000	$10,000 - $14,000	$3,500 - $6,000	$7,500 - $8,000
2013	$65,000 - $95,000	$22,000 - $30,000	$25,000 - $35,000	$8,000 - $11,000	$3,500 - $6,000	$7,500 - $8,000
2012	$65,000 - $85,000	$15,000 - $30,000	$25,000 - $30,000	$7,500 - $10,000		


Napa County
VINEYARD
Prime
Secondary
Outlying


Napa County
PLANTABLE LAND
Prime
Secondary
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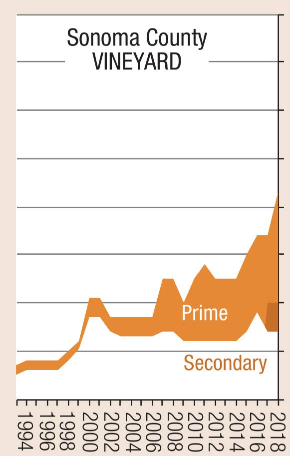
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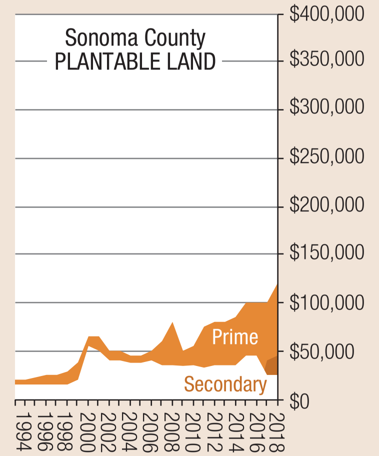
Prime
Secondary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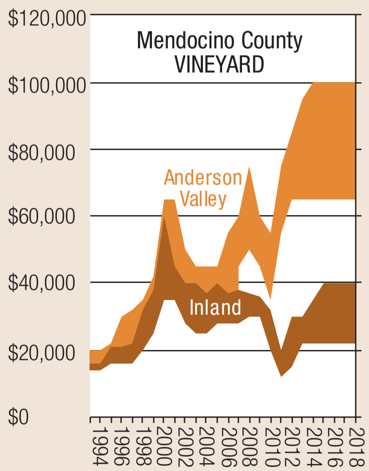
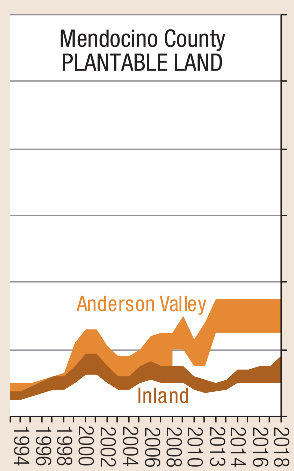
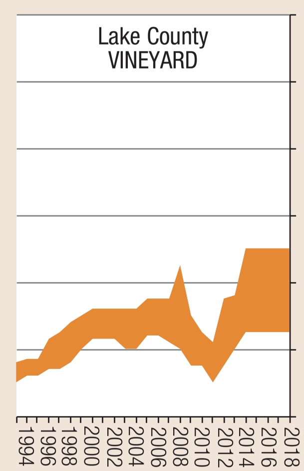
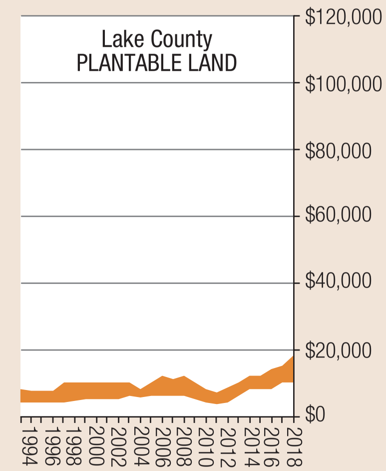
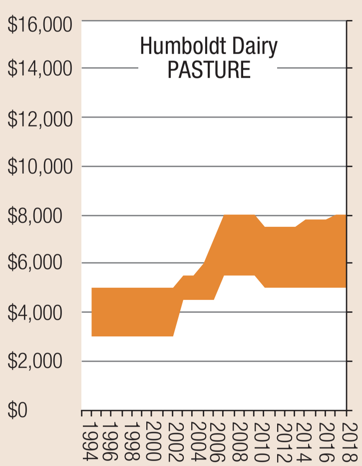
Secondary

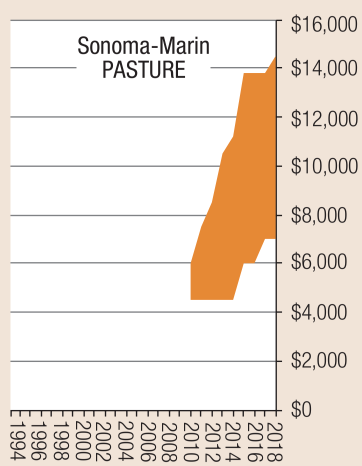

Mendocino County
VINEYARD
Anderson
Valley
Inland


Mendocino County
PLANTABLE LAND
Anderson Valley
Inland


Lake County
VINEYARD


Lake County
PLANTABLE LAND


Humboldt Dairy
PASTURE


Sonoma-Marin
PASTURE

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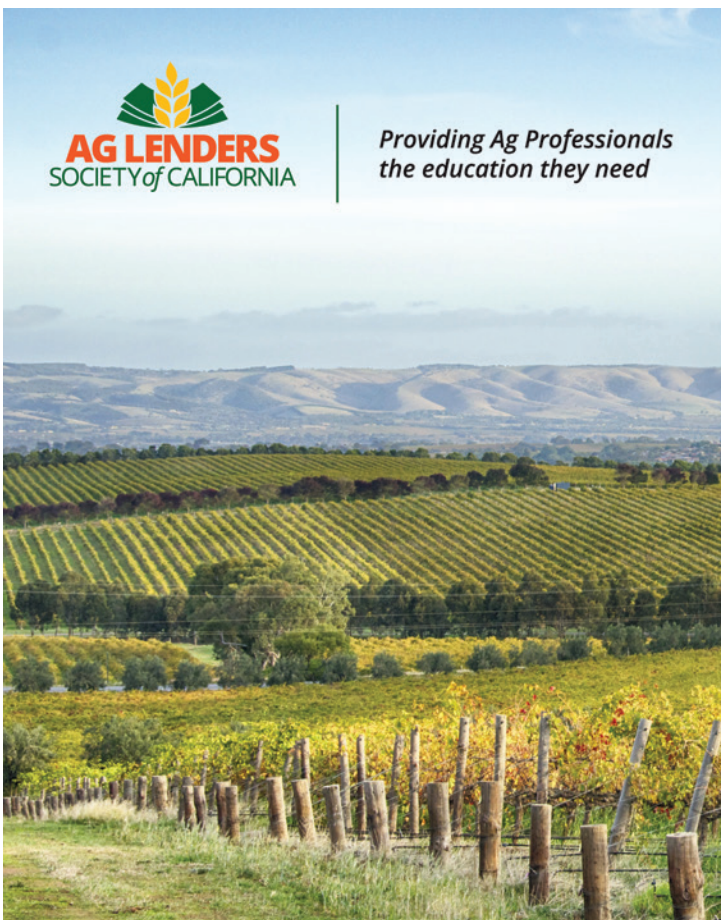

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3 REGION

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NORTHERN SAN JOAQUIN

GENERAL COMMENTS

For Region 3, 2018 was a year of give and take. While some of the region's primary commodities continued to thrive, others experienced decreasing prices or even detrimental downturns. Land values remained mostly stable with values in some areas increasing slightly and with increased demand in strong irrigation districts, spurred by impending groundwater legislation.

As Groundwater Sustainability Agencies' (GSAs') deadline to implement regulations draws nearer, market participants report a sense of urgency to obtain properties within strong irrigation districts as opposed to properties relying on pump and well water or those with marginal surface water rights. That said, buyers are left to pick their poison, as concern over surface water availability remains.

The State Water Resources Control Board approved the Bay-Delta water quality control plan on December 12, 2018, requiring east-side districts in Region 3 to leave 40% of unimpaired flows in the Stanislaus, Tuolumne and Merced Rivers, regardless of largely publicized local opposition, concern over the State's reliance on faulty and outdated science, significant under-estimates of the impact to the local region, the Board's sole reliance on increased flows to increase salmon numbers rather than more effective plans to promote spawning habitat and decrease predation, and negotiations of voluntary settlements supported by the governor that were sidelined by the vote. The plan will significantly impact future deliveries from the historically strong east-side districts if fully implemented. On December 21, 2018 the Merced Irrigation District filed a lawsuit challenging the state board decision, and TID, SSJID, OID and MID filed their own lawsuits on January 10, 2019. The matter will likely be tied up in court for years.

2018 presented many dichotomies for Region 3's primary commodities. Almond prices increased slightly from the prior year, remaining fairly steady, while walnut prices decreased significantly in the later half of the year. Cherry prices were up slightly from the prior year, although below expectations, and demand for uncontracted wine grapes was limited. Dairy producers, in a fourth year of low milk prices, felt the strain. Many smaller dairy producers were forced to exit the business in 2018, following the trend toward larger, more efficient dairy facilities.

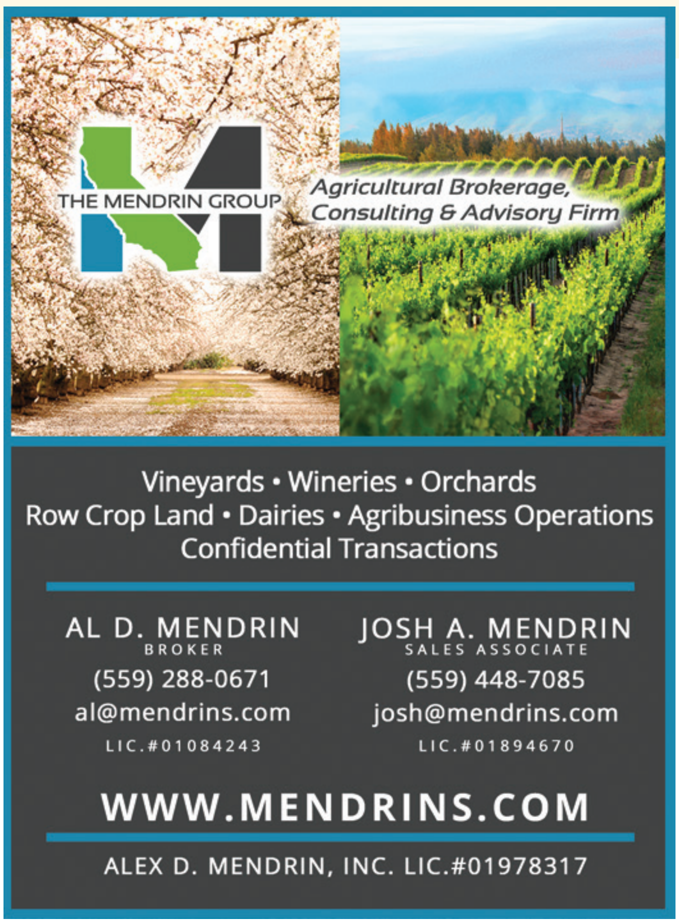
ALMONDS

Region 3 produced 28% of California's almonds, approximately 635.5 million pounds, in 2018. While the industry faced its challenges, demand and commodity prices remained strong and the good generally outweighed the bad.

The two primary challenges to the almond market in 2018 were a frost event and uncertainty in the trade market. The frost event was widespread though occurred in the first half of bloom, with early varieties being affected most significantly. While this created uncertainty in the market throughout the spring, ultimately yields at harvest ran slightly higher than the prior year. High retaliatory trade tariffs were adopted in China, Japan and Turkey in the summer of 2018, which account for approximately 20% of almond exports. Trade concerns slowed commitments over the summer for the 2019 crop year and began the marketing year in September slightly depressed from higher prices in the first half of 2018, with opening prices back down to levels near the prior year's opening. Demand continued to build through the fall as tariffs restricted commitments and shipments, building expectations for a record shipment month in December. The good news is that demand is not just strong, but is forecasted to remain strong, as almonds are increasingly becoming part of a healthy diet and marketing campaigns are steadily expanding into new geographical areas. Almonds and almond products fit into most modern diets and lifestyle shifts and demand continues to exceed the growing supply. Even with the challenges of more bearing acres than ever and marketing the largest ever crop (with new records set nearly every year), demand is expected to keep up.

Almond commodity prices remained stable in 2018, with a slight increase over 2017 prices. The market for almond orchards also remained stable. In general, very few high-quality orchards are available for sale. Average to good-quality orchards with reliable irrigation sources defined the upper end of the range. Lower quality orchards in federal water districts defined the lower end of the range. Lower quality orchards were typically purchased for redevelopment, near open ground prices. Some notable sales occurred in areas influenced by strong homesite desirability and were excluded from the value range, due to their non-agricultural influence.

While orchards are typically owner-operated in the region, leasing is still common for smaller orchards owned by elderly, absentee or non-farmer rural residents, and increasingly common for larger tracts developed in the eastern pasture areas. Leases vary widely in structure, but for smaller in-district properties they typically fall between 18% to 30% of gross income to the landlord, with the tenant responsible for all development costs at the low end of the range and the landlord paying all development costs at the high end of the range. Leases typically run for 20-30 years. For larger tracts in the eastern part of the region, lease rates range from 8% to 20% of gross income to the landlord, as a water source must typically be developed. Tenants bear this cost at the low to mid points of the range, while the landlord may share in this cost at the high end of the range. Leases may be shorter in duration in this area, particularly when the landlord is responsible for well development.



WALNUTS

Despite a decline in commodity prices in 2018, sale prices of walnut orchards were up from the prior year. Although the sale data was limited, a few sales of high quality orchards defined the upper end of the range. These orchards were primarily purchased by large-scale growers who are vertically integrated and can expect long-term profits in the face of lower commodity prices. That said, no significant walnut orchard sales occurred after trade tariffs sent commodity prices plummeting. The bottom of the range was defined by low-quality orchards being sold for redevelopment. This bottom end was also up from last year, commensurate with a slight increase in open land values. Walnuts continue to be a popular crop diversification choice for area growers, as sales reflect mixed use properties of almond and walnut acreage.

Walnut orchards are more typically owner-operated, but as with almonds some are leased. Walnuts are typically farmed on in-district acreage and are structured similar to in-district almond leases.

CHERRIES

After a record setting crop in 2017, 2018 yielded the second lowest crop in 10 years for the State. Prices were higher due to the restricted supply, but not as high as expected, and labor was less of an issue than in 2017 for packing sheds due to the smaller crop and shorter season. Export shipments decreased, and the U.S. / China tariffs had a softening effect on both export prices and shipments. The Coral crop surpassed the Bing crop for the first time this year due to additional acreage now in production, less chill requirements and more resilience to frost damage and cracking from late rains. Bearing acreage appears to be stable to slightly decreasing and the majority of new plantings are to the Coral varietal.

Sale activity for cherry orchards remained limited in 2018. The few known sales suggest that older, mixed permanent planting properties are selling for above open ground value. Other market data supports stable values for larger, productive orchards well above the value of open ground. The market primarily consists of established growers who are willing to expand and packing sheds that want to be vertically integrated and ensure a large enough supply of early and late season fruit to make their packing operations economically viable. Leasing activity has increased and is offering an alternative way for packers to vertically integrate. The primary cherry-growing areas in Region 3 remain San Joaquin and Contra Costa Counties.

WINE GRAPES

The 2018 grape growing season experienced a more normal weather year with increased yields noted for most vineyards. Demand for grapes exceeding contracted volume was very low, and growers without contracts had trouble pricing grapes at profitable levels. Sale activity was largely driven by the older, less desirable vineyards and wine grape varietals. Head-trained, Old Vine Zinfandel vineyards continue to be sold and redeveloped to other less labor intensive and more profitable plantings. There were also some sales of older Cabernet Sauvignon plantings and vineyards with expiring grape contracts. The pull-out quality vineyards and properties with a poor water source sold at, or slightly above, open ground prices, while the vineyards in better condition with good water sources sold well above open ground prices. Vineyards located within close proximity to Lodi continue to generate the strongest demand and prices. Overall, market activity for vineyards in Region 3 has remained limited.

The wine grape growing category includes various California Grape Pricing Districts, which include District 6 (Delta area including Contra Costa County), District 10 (Sierra foothills including Amador, El Dorado and Calaveras Counties) and District 11 (southern Sacramento County and northern San Joaquin County). There was very limited sale activity for Districts 6 and 10 and only one known sale for each. Continued profitability in District 10 has led to a stable market outlook. Production in the Sierra foothills is consistently below that of the Valley due to climate but grape pricing is stronger. The primary grape-growing area of District 10 is the Shenandoah Valley of Amador and most vineyards are small at 10 to 20 acres. The one known sale was a large, commercial size vineyard purchased by a well-known winery based out of the Clarksburg area. Historical grape pricing in the district is similar to Lake County and many wineries in Napa and Sonoma County source grapes from this area. District 6 has had more difficulty with grape pricing and is experiencing some redevelopments from older vineyards to other permanent plantings (mostly almonds). The majority of vineyards are large, commercial size plantings with higher production, but lower grape pricing than the foothills. The one known sale was in the Brentwood area, only partially developed to older vineyards, with plans to be redeveloped to nut

crops. District 11, which includes the Lodi area, experienced moderate sale activity with primarily smaller 20 to 50-acre vineyards. There is still strong demand for larger, commercial vineyards in the area but few good-quality vineyards are offered for sale. Districts 6 and 10 define the lower end of the value range for vineyards in Region 3, the Lodi wine grape growing area defines the upper end of the range and indicate a tighter range in value from $24,500 to $38,000 per acre.

RANGELAND

Sale activity for rangeland was very limited in 2018 but shows a stable trend. Typical rangeland buyers are cattlemen, although prices paid for rangeland are not consistent with profits from raising cattle. Cattlemen are motivated to purchase land despite inability to turn a profit due to rising rents and a decreased supply, as significant rangeland and irrigated pasture acreage has been developed to orchards and vineyards. Rangeland in the north and east portions of the region (with higher rainfall and better access to populated areas) define the high end of the range, while rangeland suitable for grazing in the south and west portions of the region define the low end of the range. Values are influenced by size and the presence of conservation easements, with smaller, unencumbered parcels defining the high end and larger, encumbered parcels defining the low end of the range. Smaller parcels purchased primarily for home sites were not included in the indicated range.

North and east side rangeland leases have increased, due to high demand and a decreased supply of rangeland and irrigated pasture. These leases range from $25 to $45 per acre, while south and west side leases define the lower end at $10 to $25 per acre.

Sales of rangeland with permanent planting potential are limited to San Joaquin County and southern Sacramento County. For Stanislaus and Merced counties, sale activity has ceased, due to local regulations and in response to the Sustainable Groundwater Management Act (SGMA). For non-district land with no wells already permitted or developed, the ordinances have rendered the land unable to support permanent plantings, essentially eliminating this category of land. However, no regulations have yet been adopted for San Joaquin or Sacramento counties. Although sale activity was limited for this category in 2018, former rangeland is still being purchased for vineyard, almond or walnut development. Traditionally, the upper end of the range is defined by smaller parcels with more gentle topography, while the lower end of the range is defined by larger parcels with more rolling, steep topography.

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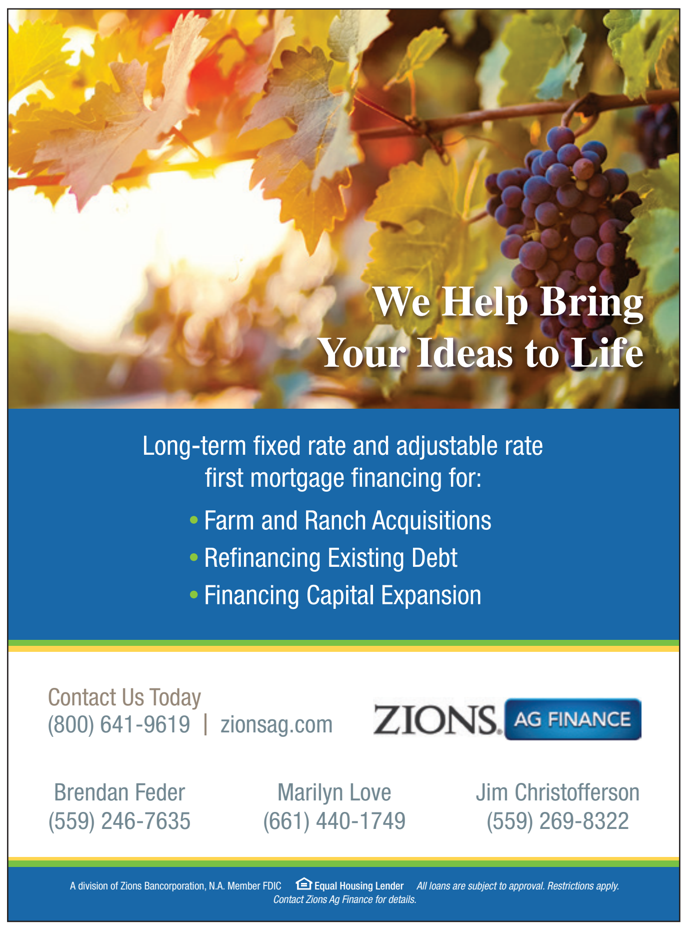
CROPLAND

In the north portion of Region 3, cropland is separated into three geographical submarkets. The lower end of the range is defined by Delta land (islands and bordering cropland) that has historically had limited permanent planting adaptability, while the high end is defined by cropland on highly productive soils in the central areas adaptable to high-value plantings such as walnuts, wine grapes and cherries. Cropland in the Delta area continued to have demand from growers looking for a lower-cost alternative for land adaptable to growing permanent plantings with strong water rights. Values on land in the Delta stabilized somewhat but remained strong from the prior year. Although no known sales of cropland in the Lodi region occurred in 2018, the market is assumed to be stable. Sales of poor-quality orchards and vineyards to be removed sold slightly above open ground values, reflecting its wine grape influence. The Northern San Joaquin County cropland category remained stable. Demand was strongest for properties within a district; however, there was some sale activity for cropland dependent on well water.

In the central and southern portions of Region 3, cropland is divided by water source. Land located in districts with the strongest water rights, lowest water costs and best delivery histories (east side districts) commanded the highest price. Cropland in non-federal west side districts (exchange contractors) define the middle of the range, as this land received full water deliveries at relatively inexpensive prices, most with efficient supplemental groundwater availability. Land in federal west side districts were given 20% of their full water allocation in 2018, after a rare 100% allocation in 2017, which many farmers predict may never happen again. Typically, these properties are supplemented by deep wells in order to provide an adequate source of irrigation water. Uncertainty around water has caused mixed feelings in the market. While some buyers report a sense of urgency to purchase land in strong irrigation districts due to new groundwater legislation, they also fear the availability of adequate surface water in the future due to actions by the State Water Resources Control Board to limit surface water supplies to the districts.

Although most annual irrigated cropland leases in Region 3 range from $150 to $400 per acre, annual leases for sweet potatoes in the sandy soil areas of northern Merced Irrigation District and a small portion of southern Turlock Irrigation District can range up to $600 to $800 per acre due to strong competition. However, this has softened slightly from the $1,000 per acre leases seen in the prior years, as the normal cycle of almond orchard redevelopment returns and the supply of land available for rent in this area is beginning to increase, resulting in a softening of this rental market. In a similar though more dramatic trend, annual lease rates within South San Joaquin Irrigation District where tenants seeking land suitable for strawberry plants and other specialty truck crops now range from $350 to $500 per acre, down from $600 to $1,000 per acre. Again, this is primarily due to more ground



available as more older orchards are being redeveloped. In westside federal districts, lease rates can also vary significantly, as they are dependent on water clauses, which are highly variable.

DAIRY

2018 sale activity of dairy facilities in Region 3 remained very limited, but indicated a stable to slightly decreasing market trend, as more facilities sold with no contributory value. Most of the U.S. and international markets continued to see increased milk supplies in 2018 in addition to new tariffs imposed by China and other large U.S. trading partners. Specifically, 2018 average monthly milk production in Region 3 was up 5.5% from 2017, while monthly milk prices were down on average 7% per cwt, between $13 and $15. Further complicating a producer's ability to remain solvent is an oversupply of beef cattle in the U.S. due to tariffs, an oversupply of dairy heifers due to sexed semen, and historically low mortality rates for baby calves. Successful dairies continue to trend toward efficient, well managed, and diversified operations. Those with quota and enough land base to grow their own feed are found to better-withstand pricing volatility, while small scale and inefficient producers continue to exit the industry. Region 3 continued to experience herd dispersals in 2018 averaging between one and two herds per month.

Demand for larger, more modern dairy facilities is difficult to measure, due to lack of market activity. There are generally few good-quality dairies offered for sale. One 1,200 milk cow dairy facility set the upper end of the range in 2018 at $2,300 per milk cow. The remaining sales in Region 3 ranged from 280 to 600 milk cow facilities and indicated a range in sale price from $725 to $540 per milk cow. These sales were primarily purchased as rented facilities with existing leases, by neighboring dairy operators looking to expand or as feedlot facilities. Demand for older or marginal dairies is weak at best, with most of these types of facilities being purchased to be converted to other agricultural uses, primarily permanent plantings.

Dairymen continue to face competition from permanent planting developers, which is in large part why land values have remained stable. At the same time, demand for permanent plantings has offered dairymen an option for diversification. Larger dairies in the region remain stable and continue to drive their own profitability by consolidating smaller dairies. Current trends are expected to continue through most of 2019.

VALUES: LAND AND LEASE

LAND USE	VALUE PER ACRE	ACTIVITY / TREND	RENT RANGE	ACTIVITY / TREND
Almonds: Irrigation Districts	$25,000 - $40,000	Moderate/Sl. Increasing	18% - 30%	Limited/Stable
Almonds: Federal Districts or Well Water Only	$18,000 - $32,000	Limited/Stable	18% - 30%	Limited/Stable
Walnuts	$25,000 - $42,000	Limited/Sl. Increasing	20% - 30%	Limited/Stable
Cherries	$27,000 - $36,000	Limited/Stable	25% - 30%	Limited/Stable
Wine Grapes: Districs 6, 10 & 11	$18,500 - $38,000	Limited/Stable	15% - 35%	Moderate/Stable
Rangeland: Permanent Planting Potential	$4,000 - $9,000	Very Limited/Sl. Decreasing	N/A - N/A	N/A
Rangeland: Grazing Only	$600 - $3,000	Limited/Stable	$10 - $45	Limited/Stable
CROPLAND NORTH: NORTH SAN JOAQUIN, CONTRA COSTA & SACRAMENTO COUNTIES				
N. San Joaquin Co (Well Water, SEWD, CSJWCD)	$11,000 - $21,500	Limited/Stable	$300 - $450	Very Limited/Stable
Lodi Region (Well Water and Woodbridge ID)	$18,000 - $24,000	Very Limited/Stable	$350 - $450	Very Limited/Stable
Delta (Various Small Districts and Well Water)	$8,000 - $16,000	Moderate/Stable	$250 - $450	Limited/Stable
CROPLAND CENTRAL: SOUTH SAN JOAQUIN & STANISLAUS COUNTIES				
Eastside Districts (SSJID, OID, MID, TID)	$24,000 - $35,000	Moderate/Sl. Increasing	$250 - $500	Moderate/Stable
Westside Non-Fedral Districts (includes Gustine)	$20,000 - $28,000	Limited/Sl. Increasing	$300 - $400	Moderate/Stable
Federal Districts and Well Water	$12,000 - $20,000	Limited/Sl. Increasing	$150 - $300	Moderate/Stable
CROPLAND SOUTH: MERCED COUNTY				
Merced ID	$14,000 - $30,000	Moderate/Stable	$200 - $800	Moderate/Stable
Well Water, Westside Non-Fed, Class II MID/CWD	$12,000 - $22,000	Limited/Sl. Increasing	$200 - $400	Moderate/Stable
West Side, Federal District and Well	$5,000 - $10,000	Limited/Stable	$125 - $200	Moderate/Stable
DAIRIES				
Dairies (per lactating cow - without underlying land)	$500 - $2,300	Very Limited/Sl. Decreasing	$12 - $18	Limited/Stable

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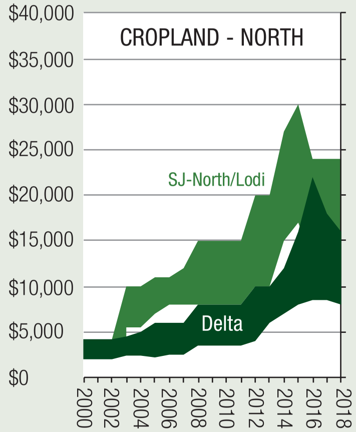
HISTORICAL VALUE RANGE PER ACRE

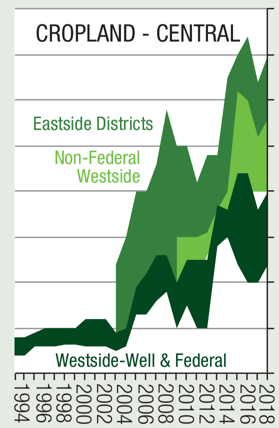
LAND USE	ALMONDS	RANGELAND	WALNUTS	WINE GRAPES	CHERRIES
SAN JOAQUIN, STANISLAUS & MERCED COUNTIES					
2018	$18,000 - $40,000	$600 - $3,000	$25,000 - $42,000	$18,500 - $38,000	$27,000 - $36,000
2017	$20,000 - $40,000	$600 - $3,000	$20,000 - $35,000	$24,000 - $42,000	$28,000 - $36,000
2016	$22,000 - $42,000	$600 - $3,000	$23,000 - $35,000	$28,000 - $35,000	$30,500 - $36,000
2015	$22,000 - $45,000	$500 - $3,500	$22,000 - $40,000	$22,000 - $35,000	$30,500 - $36,000
2014	$16,500 - $37,000	$500 - $3,300	$20,000 - $40,000	$15,000 - $32,000	$32,000 - $36,000
2013	$15,000 - $31,000	$500 - $3,300	$15,000 - $31,000	$15,000 - $32,000	$25,000 - $38,000
2012	$14,000 - $30,000	$500 - $2,000	$15,000 - $26,000	$15,000 - $33,000	$25,000 - $38,000

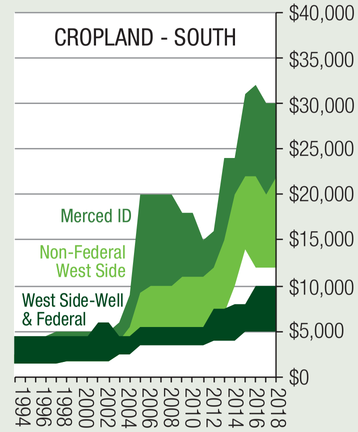
LAND USE	N. SAN JOAQUIN CO (SEWD, CSJWCD & WELL H20)	LODI REGION (Woodbridge ID & WELL H20)	DELTA LANDS (Small Districts & Well H20)
CROPLAND: NORTH			
2018	$11,000 - $21,500	$18,000 - $24,000	$8,000 - $16,000
2017	$11,500 - $22,000	$18,000 - $24,000	$8,500 - $18,000
2016	$13,000 - $24,000	$18,000 - $24,000	$8,500 - $22,000
2015	$17,000 - $30,000	$13,000 - $24,000	$8,000 - $16,000
2014	$15,000 - $27,000	$10,500 - $17,500	$7,000 - $12,000
2013	$10,000 - $20,000	$11,000 - $15,000	$6,000 - $10,000
2012	$10,000 - $20,000	$11,000 - $15,000	$4,000 - $10,000

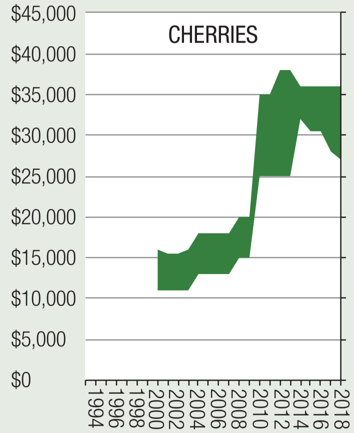
LAND USE	EAST SIDE DISTRICTS (SSJID, OID, MID, TID)	WESTSIDE NON-FEDERAL DISTRICTS (includes Gustine)	FEDERAL DISTRICTS & WELL WATER
CROPLAND: CENTRAL			
2018	$24,000 - $35,000	$20,000 - $28,000	$12,000 - $20,000
2017	$22,000 - $32,000	$20,000 - $26,000	$10,000 - $18,000
2016	$22,000 - $37,000	$20,000 - $30,000	$10,000 - $22,000
2015	$22,000 - $35,000	$20,000 - $31,000	$12,000 - $22,000
2014	$17,000 - $32,500	$15,000 - $20,000	$15,000 - $18,000
2013	$14,000 - $24,000	$15,000 - $18,000	$15,000 - $18,500
2012	$10,000 - $24,000	$13,000 - $15,500	$5,000 - $12,500

LAND USE	MERCED ID	WELL WATER, WESTSIDE NON-FEDERAL, CLASS II MID & CWD	WESTSIDE: FEDERAL DISTRICTS & WELL	DAIRIES per Milk Cow with Equipment
CROPLAND: SOUTH				MERCED, STANISLAUS & SAN JOAQUIN CO.
2018	$14,000 - $30,000	$12,000 - $22,000	$5,000 - $10,000	$500 - $2,300
2017	$14,000 - $30,000	$12,000 - $20,000	$5,000 - $10,000	$1,100 - $2,400
2016	$15,000 - $32,000	$12,000 - $22,000	$5,000 - $10,000	$1,200 - $2,400
2015	$17,000 - $31,000	$14,000 - $22,000	$5,000 - $8,000	$1,200 - $2,400
2014	$12,000 - $24,000	$10,000 - $20,000	$4,000 - $8,000	$1,200 - $2,400
2013	$8,000 - $24,000	$7,000 - $15,000	$4,000 - $7,500	$700 - $2,500
2012	$8,000 - $16,000	$7,000 - $12,000	$4,000 - $7,500	$650 - $1,950


CROPLAND - NORTH
SJ-North/Lodi
Delta


CROPLAND - CENTRAL
Eastside Districts
Non-Federal Westside
Westside-Well & Federal


CROPLAND - SOUTH
Merced ID
Non-Federal West Side
West Side-Well & Federal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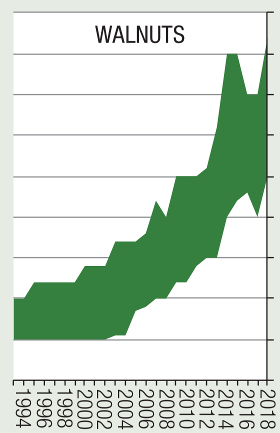
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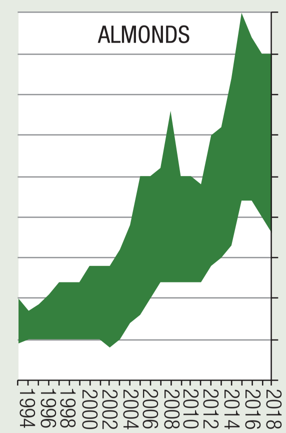
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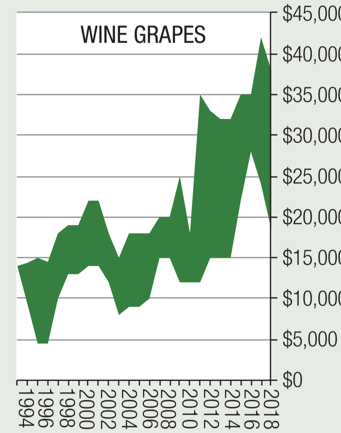
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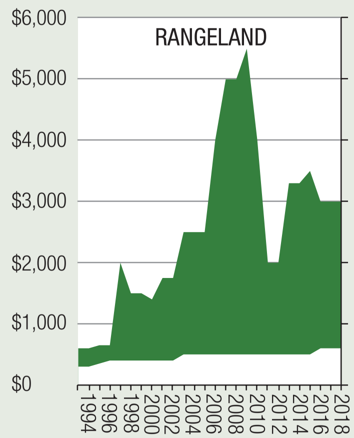
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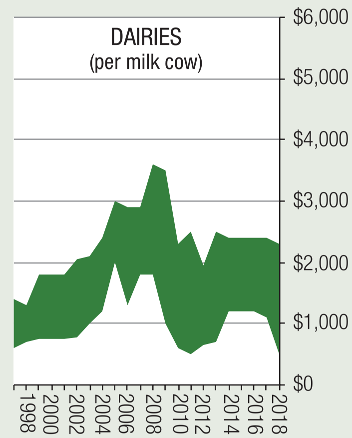
DAIRIES
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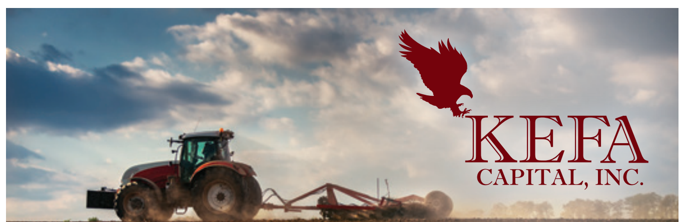

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4 REGION

CENTRAL SAN JOAQUIN

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GENERAL COMMENTS

Demand for agricultural properties in Region 4 stabilized in 2018, with an increased awareness of the Sustainable Goundwater Management Act (SGMA) and its implications on those areas solely reliant upon groundwater. A declining trend in 2017 was noted, correlating with a softening in commodity prices; however, the decline was most notable in regions described as white areas; those areas lacking surface water delivery. Stabilization occurred in 2018 with demand remaining strongest for properties with reliable and inexpensive surface water deliveries supplemented by pumps. Sale data for open land and permanent plantings is generally described as moderate to active throughout Fresno and Madera Counties, with diminishing inventory and strong demand noted in areas with dual water sources. Conversely, extended marketing periods and some languishing properties are noted in areas with pumped water only when priced above the indicated range.

Sale activity for dairy facilities continued to be very limited in 2018 with very few known sales occurring within Region 4. Although milk prices have stabilized, the industry has experienced extended down cycles over the past five years and herd liquidation continued in 2018.

Value trends for dairy facilities throughout the Central Valley have retained a stable status resulting from interest in the underlying land from permanent planting growers.

Rental rate ranges and activity reported for permanent plantings are based on very limited to limited data and are reflective of annual terms on mature, producing orchards/vineyards. Nut orchards are most often owner operated or custom farmed. Very few annual rents are available due to several years of strong commodity prices. Development leases have become more common in the region; however, these rental terms are not reflective of the rent range reported. Tree fruit and citrus rents remain limited with a stable trend. Vineyard leases are also limited with crop share most common in the raisin and wine markets. Table grape vineyards are almost exclusively owner operated. Land rents indicate limited to moderate activity and also reflect annual terms. Long term rental agreements were not reported in this analysis.

TREE NUT ORCHARDS

Sale activity among tree nut orchards was moderate in 2018. A slight increase in the value trend for almonds was evident after the 2017 harvest season due to smaller than projected crops and increasing commodity prices. The demand for good quality nut orchards with reliable surface and pumped water supplies has remained stable and strong. The upper end of the reported range is reflective of these good quality orchards in areas with dual water sources. West side almond sales, located in the federal districts indicate substantially softer values as compared to East side properties; however, the value trend has also remained fairly stable in this market as well. The low end of the value range represents these west side transactions, with prices ranging from $10,000 per acre to $18,000 per acre for mature almond orchards. The lower prices are a direct reflection of water conditions on the west side and the inability to apply marginal ground water without blending with surface water. The bottom of the west side range reflects orchards lacking a supplemental water source. East side sales indicate stronger pricing, with 2018 transactions ranging between $20,000 and $37,000 per acre for almond orchards in Fresno and Madera Counties. These values generally parallel nut orchard values seen across the entire Central San Joaquin Valley. The low end of the value range represents marginal orchards reliant upon a single pumped water source, old orchards in fair to poor condition and/or orchards that have arrived at the end of their economic lives.

Activity for pistachio orchards continued to be limited in 2018 but supports a relatively stable value trend with values ranging from $17,000 to $36,000. Distinct differences are noted for immature versus mature orchards. West side pistachio developments remain fairly similar to east side orchards, primarily due to the pistachio's tolerance of marginal water quality. The low end of the range in Madera County is reflective of older orchards planted on non-resistant rootstocks with very high water costs. A sizable number of these older orchards remain in Madera County but few exist in Fresno County.

There continues to be a high number of new almond and pistachio orchard developments planted throughout Fresno and Madera Counties, as well as throughout the central San Joaquin Valley.

TREE FRUIT ORCHARDS

Although the sale activity among tree fruit orchards was limited in Fresno County in 2018, the overall value trend is described as slightly increasing. Most tree fruit orchard properties consist of numerous fruit varieties, some of which are in favor with packers/consumers and others that are not. As such, the demand for tree fruit has historically been influenced more by location and general land characteristics, rather than orchard quality. The 2018 crop year was profitable for most growers due to strong commodity prices. The low end of the value range typically represents orchards whose tree fruit varieties are not in high demand or are located in secondary tree fruit markets. In most markets, the low end of the range tends to parallel open land value as buyers typically redevelop the orchards to new tree fruit varieties or other permanent plantings.

The tree fruit industry has been consolidated into the control of a few large entities. Many smaller operations have sold their orchards to these larger, vertically integrated entities.

CITRUS

Sales of citrus groves in Fresno County were limited to moderate in 2018 with a stable value trend. Demand remains strongest for specialty citrus crops including Mandarins, Clementines and/or Blood varieties. A significant increase in mandarin acreage has been noted over the past several years. Navels and lemon varieties have also experienced an increase in bearing acreage with declines noted in Valencias. The low end of the range is characteristic of older groves with inferior varieties, indicating values generally consistent with open land values. Most buyers of these older groves will continue to farm them for the short term and redevelop the land to newer, more desirable citrus varieties in the near future.

VINEYARDS

The majority of the vineyard activity involved traditional raisin producing vineyards in Fresno and Madera Counties, with substantial sale activity in Fresno County and limited sales in Madera. Despite very strong pricing in 2017 and 2018, the majority of these vineyards are continuing to be purchased for redevelopment to nut crops and/or other permanent plantings. The value trend for raisin grape vineyards has remained fairly stable over the last year with a reported range of $18,000 to $30,000 per acre. The slight decline in the bottom of the range reflects the softening in land values in white areas due to SGMA. The middle to high end of the value range is representative of vineyards with strong yields and/or location within prime water districts with supplemental water sources.

Wine grape vineyard sale activity continued to be very limited in 2018 with an overall slightly decreasing value trend primarily due to commodity prices. The market indicates little to no enhancement for wine grape vineyards with values essentially mirroring land values. Demand remains driven by good quality soils and water conditions for redevelopment to nut crops. Commodity prices for wine grape varieties continue to be soft with many growers struggling to find good prices or buyers for uncontracted grapes.

Table grape vineyard sales were also extremely limited in 2018, with the data suggesting a range from $18,000 to $33,000 per acre. The low end of the value trend is consistent with raisin and wine grape vineyards, reflecting land value. The top end of the range is characterized by good quality table grapes with modern trellising and desirable varieties. Limited market data is available for these good quality developments; however, the top of the range tends to be higher when compared to raisin and/or wine grape vineyards.

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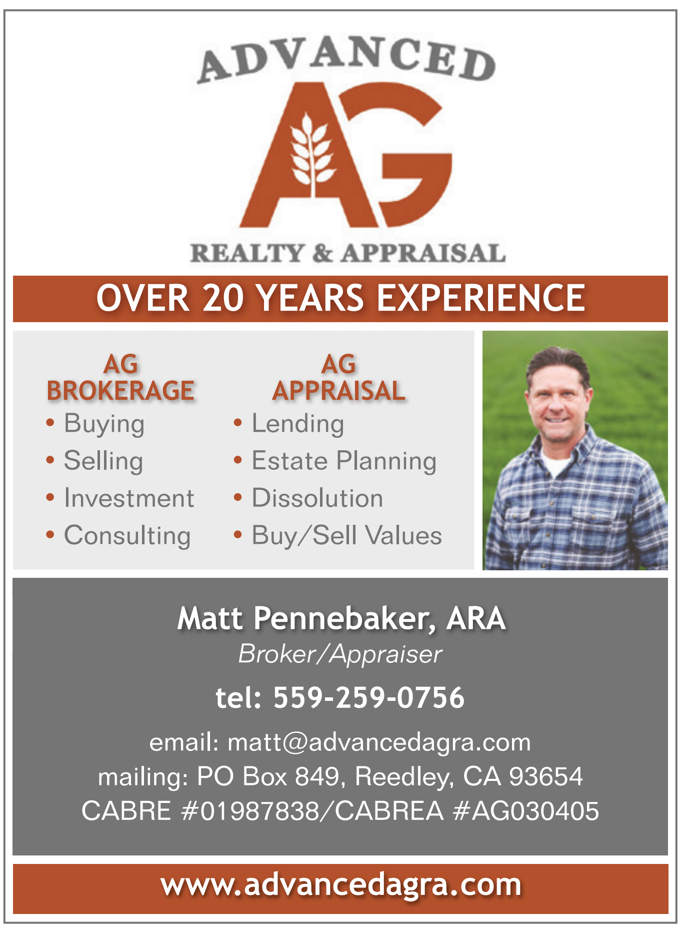
CROPLAND

The sale activity for cropland in all markets in Fresno and Madera counties ranged from moderate to very limited, with stable to slightly decreasing value trends observed. In the USBR markets of the westside of Fresno County, a fairly stable value trend is supported with the primary range reported between $5,000 per acre and $9,000 per acre. Open land lacking a supplemental water source and/or poor soils and drainage conditions reflect the lower end of the range ($5,000 to $7,000 per acre), while those properties with supplemental wells, good quality soils and favorable drainage conditions are reflective of the upper end of the range ($7,000 to $9,000 per acre). Sale activity was driven by buyers who intend to develop the properties to permanent plantings, mostly pistachio and almond orchards.

Activity in the Exchange Contractor districts of Western Fresno and Madera Counties was very limited in 2018; but the few data points suggested a stable value trend. Land in these markets tends to be tightly held by multi-generational farming families who recognize the benefit of the reliable and inexpensive water supplies these districts enjoy. Buyers in these markets tend to be neighboring land owners who would like to expand their operations. The Exchange Contractor districts provide water stability lacking in the USBR districts.

Sale activity of Fresno County cropland with surface water delivery was moderate in 2018, with a stable value trend. The range of values observed is wide, from $12,000 to $30,000 per acre. The low end of the range is represented by cropland properties toward the west end of the county, where soil and drainage conditions are less desirable, especially as they relate to permanent planting development. The high end of the range is seen in markets where competition among buyers is higher and soil, water, and drainage conditions are good. The single most determining factor for land value is water sources. Demand for properties dependent upon pumped ground water has diminished. Large blocks of irrigated field cropland with both surface water deliveries and good-quality well water retain the strongest demand and therefore value. In general, the market remained fairly stable in 2018, similar to most permanent planting markets in Region 4.

Activity for cropland with well water as its sole water supply retained a limited status in 2018, with a slightly declining range of values from



$8,000 to $16,000 per acre. The low end of the market remained fairly stable; however, the upper end of the range indicates a decline near 25%. Like other markets, values are dictated by soil conditions and water supplies. Brokers and market participants are becoming more cognizant of water sources with consideration given to imminent pumping regulations due to SGMA and the availability of surface water deliveries, which has negatively affected this market.

Activity for cropland in Madera County was also described as limited in 2018; however, the trend has stabilized for those properties within established irrigation districts. Properties solely reliant upon well water reflect a slightly declining trend similar to Fresno County. Most activity and demand in the market is derived from buyers motivated to develop permanent plantings. This trend has been observed in the market over the past several years and continues to be the driving force.

District water deliveries on the east side of Fresno and Madera Counties are becoming more vital due to the pending Sustainable Groundwater Management Act. Properties with two sources of water have experienced the greatest demand and strongest values in 2018. This trend is expected to continue as the Groundwater Management Plans produced by local Groundwater Sustainability Agencies take effect in 2020.

RANGELAND

Market activity for rangeland properties in the westside and eastside markets of Fresno County and the eastern Madera County market remained very limited in 2018 with very few current transactions. Market demand remained stable for eastside properties, with a slightly increasing value range reported between $750 and $2,500 per acre. The high end of the range in the eastside market is reflective of good quality rangeland with moderate topography, reliable stock water sources and working corrals. Smaller parcels with strong rural home site influences have been noted above the reported value trend range; however, are not considered reflective of production agriculture. Westside rangeland sales were very limited in 2018, supporting a stable value range falling between $250 and $1,000 per acre.

DAIRY INDUSTRY

Sale activity for dairy facilities continued to be very limited in 2018 due to lower milk prices and reduced market demand. Milk prices remained soft in 2018 due to declining global demand which reduced overall producer returns to California milk producers. This has resulted in a decline in value trends for dairy facilities throughout the Central Valley; however, dairy facility values are often supported by interest in the underlying land from permanent planting growers. Most sales of smaller facilities in the valley continue to be purchased mainly for the underlying land. The facilities on these dairies were either abandoned or removed after the close of escrow. Larger dairies continue to be purchased primarily by dairymen; however, a couple of sales involving modern dairies with sizeable acreage were purchased by permanent planting developers.

There were a number of dairies liquidated over the last few years, with the older and less efficient units being impacted the most. This was primarily a result of an extended period of low prices paid to dairy producers, higher costs for feed, and restrictive environmental regulations. The dairy market has trended to larger operations with milking capacities in excess of 1,000 head with full dairy heifer replacement capacity, combined with sizeable amounts of associated open row and field cropland for waste management and feed production. Premium prices have historically been paid for those facilities in the 1,000 to 3,000 milking head range, as this size of facility appears to have the greatest market demand for buyers in the marketplace with the financial ability to purchase a facility of this size. Amount of support land is also another primary factor affecting dairy values, as a considerable amount of support land is needed in order to grow forage crops and accommodate waste management.

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VALUES: LAND AND LEASE

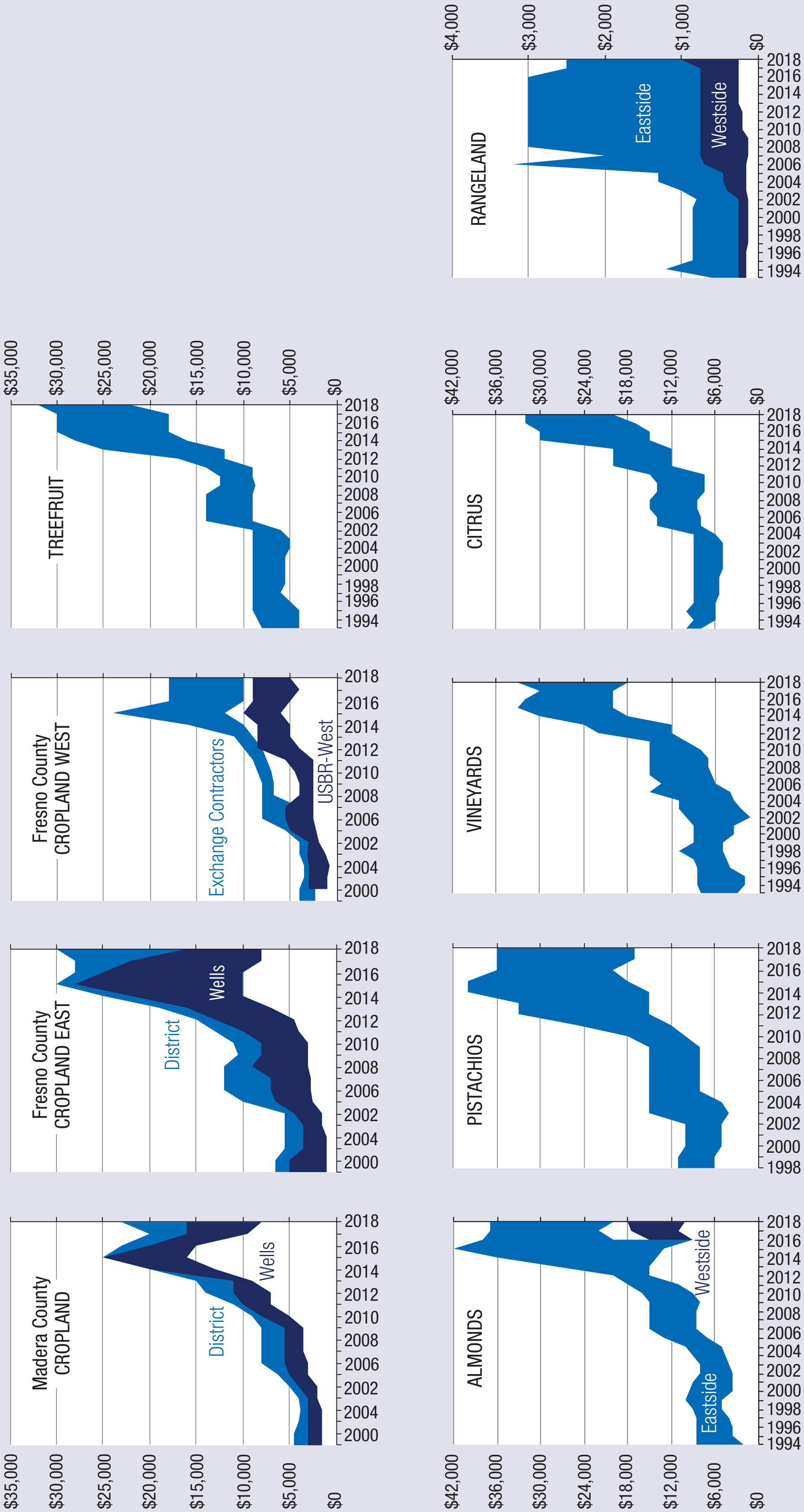
LAND USE	VALUE PER ACRE	ACTIVITY / TREND	RENT RANGE	ACTIVITY / TREND
PERMANENT PLANTINGS				
Almonds: Eastside	$20,000 - $37,000	Moderate/Stable	25% - 35%	Very Limited/Stable
Almonds: Westside	$10,000 - $18,000	Moderate/Stable	25% - 35%	Very Limited/Stable
Pistachios	$17,000 - $36,000	Limited/Stable	25% - 30%	Very Limited/Stable
Tree Fruit	$22,000 - $32,000	Limited/Sl. Increasing	$750 - $1,250	Limited/Stable
Citrus	$20,000 - $32,000	Moderate/Stable	$500 - $1,000	Limited/Stable
Raisin Grapes	$18,000 - $30,000	Strong/Stable	20% - 25%	Limited/Declining
Table Grapes	$18,000 - $33,000	Very Limited/Stable	N/A	Limited/Stable
Wine Grapes	$18,000 - $28,000	Very Limited/Sl. Decreasing	20% - 25%	Limited/Declining
CROPLAND				
Fresno County: USBR-West	$5,000 - $9,000	Moderate/Stable	$175 - $350	Moderate/Stable
Fresno County: Exchange Contractor Districts	$10,000 - $18,000	Very Limited/Stable	$250 - $450	Moderate/Stable
Fresno County: Districts	$12,000 - $30,000	Moderate/Stable	$200 - $400	Moderate/Stable
Fresno County: Well Water, No District	$8,000 - $16,000	Limited/Sl. Decreasing	$200 - $400	Limited/Stable
Madera County: Districts	$16,000 - $23,000	Limited/Stable	$200 - $350	Moderate/Stable
Madera County: Well Water, No District	$8,000 - $16,000	Limited/Sl. Decreasing	$200 - $350	Limited/Stable
RANGELAND				
Westside	$250 - $1,000	Very Limited/Stable	$5 - $15	Moderate/Stable
Eastside	$750 - $2,500	Limited/Sl. Increasing	$12 - $30	Moderate/Increasing
DAIRIES (FRESNO & MADERA COUNTIES)				
Newer (per lactating cow - without underlying land)	$1,400 - $2,400	Very Limited/Declining	$10 - $20	Very Limited/Declining
Older (per lactating cow - without underlying land)	$700 - $1,400	Very Limited/Declining	$5 - $15	Very Limited/Declining

HISTORICAL VALUE RANGE PER ACRE

LAND USE	ALMONDS	PISTACHIOS	TREE FRUIT	CITRUS	RAISIN GRAPES	TABLE GRAPES	WINE GRAPES
FRESNO & MADERA COUNTIES							
2018	$10,000 - $37,000	$17,000 - $36,000	$22,000 - $32,000	$20,000 - $32,000	$18,000 - $30,000	$18,000 - $33,000	$18,000 - $28,000
2017	$11,000 - $37,000	$17,000 - $36,000	$18,000 - $30,000	$17,000 - $32,000	$20,000 - $30,000	$20,000 - $30,000	$20,000 - $28,000
2016	$9,000 - $38,000	$20,000 - $36,000	$18,000 - $30,000	$15,000 - $30,000	$20,000 - $32,000	$20,000 - $32,000	$20,000 - $32,000
2015	$13,000 - $42,000	$18,000 - $40,000	$18,000 - $30,000	$15,000 - $30,000	$20,000 - $33,000	$20,000 - $30,000	$20,000 - $30,000
2014	$14,000 - $36,000	$15,000 - $40,000	$16,000 - $28,000	$12,000 - $20,000	$18,000 - $30,000	$18,000 - $25,000	$18,000 - $28,000
2013	$15,000 - $28,000	$15,000 - $33,000	$12,000 - $25,000	$12,000 - $20,000	$12,000 - $23,000	$12,000 - $20,000	$13,000 - $24,000
2012	$15,000 - $20,000	$15,000 - $33,000	$12,000 - $17,000	$12,000 - $20,000	$12,000 - $18,000	$12,000 - $19,000	$13,000 - $22,000

LAND USE	CROPLAND USBR-WEST	CROPLAND EXCHANGE CONTRACTORS	CROPLAND DISTRICT WATER	CROPLAND WELL WATER	RANGELAND WEST SIDE	RANGELAND EAST SIDE
FRESNO COUNTY					RANGELAND (FRESNO & MADERA COUNTIES)	
2018	$5,000 - $9,000	$10,000 - $18,000	$12,000 - $30,000	$8,000 - $16,000	$250 - $1,000	$750 - $2,500
2017	$4,000 - $9,000	$10,000 - $18,000	$11,000 - $28,000	$8,000 - $22,000	$250 - $750	$750 - $2,500
2016	$5,000 - $9,000	$10,000 - $18,000	$10,000 - $28,000	$10,000 - $25,000	$250 - $750	$600 - $3,000
2015	$6,000 - $10,000	$12,000 - $24,000	$10,000 - $30,000	$10,000 - $28,000	$250 - $750	$600 - $3,000
2014	$5,000 - $8,500	$10,000 - $16,000	$10,000 - $25,000	$10,000 - $22,000	$250 - $750	$600 - $3,000
2013	$5,000 - $8,500	$9,000 - $11,000	$7,500 - $19,000	$7,000 - $16,000	$250 - $750	$600 - $3,000
2012	$4,000 - $8,500	$8,000 - $10,000	$7,500 - $15,000	$4,500 - $13,000	$200 - $750	$500 - $3,000

LAND USE	CROPLAND MADERA DISTRICTS	CROPLAND WELL WATER	DAIRIES NEWER	DAIRIES OLDER
MADERA COUNTY			DAIRIES (FRESNO & MADERA COUNTIES)	
2018	$16,000 - $23,000	$8,000 - $16,000	$1,400 - $2,400	$700 - $1,400
2017	$16,000 - $20,000	$9,500 - $16,000	$1,400 - $2,400	$700 - $1,400
2016	$18,000 - $23,000	$15,000 - $20,000	$1,400 - $2,600	$700 - $1,400
2015	$18,000 - $25,000	$16,000 - $25,000	$1,400 - $2,600	$700 - $1,400
2014	$16,000 - $20,000	$13,000 - $20,000	$1,400 - $2,600	$700 - $1,400
2013	$11,000 - $15,000	$9,000 - $11,000	$1,200 - $2,400	$500 - $1,200
2012	$10,000 - $14,000	$7,000 - $11,000	$1,400 - $2,800	$500 - $1,200



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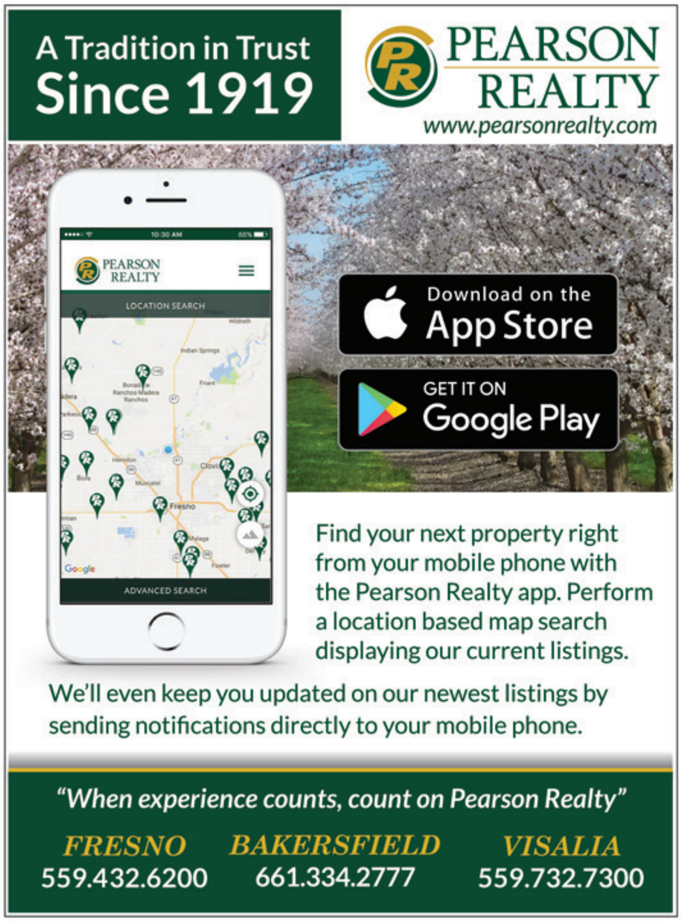

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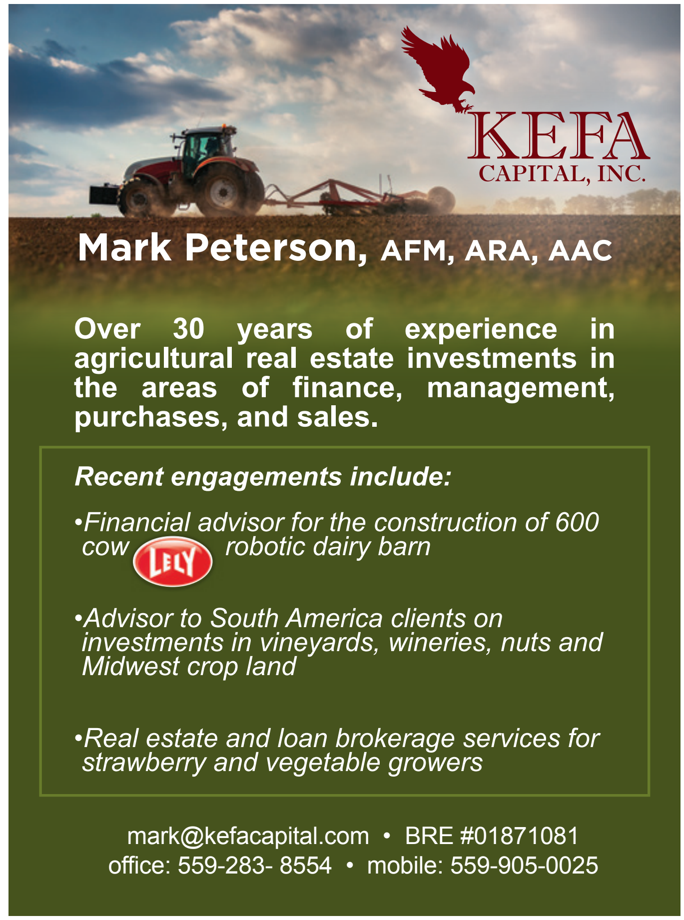

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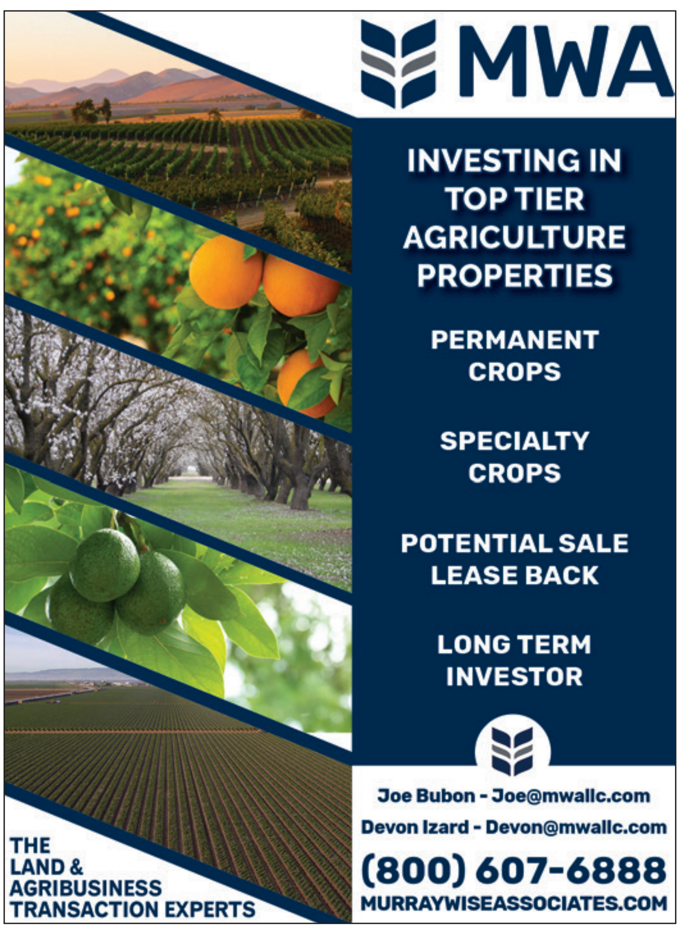

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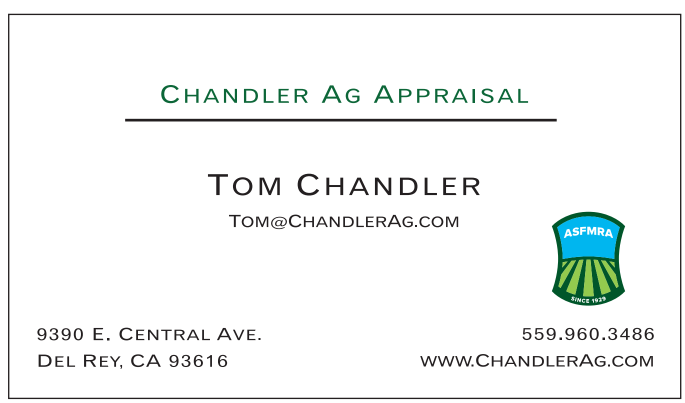

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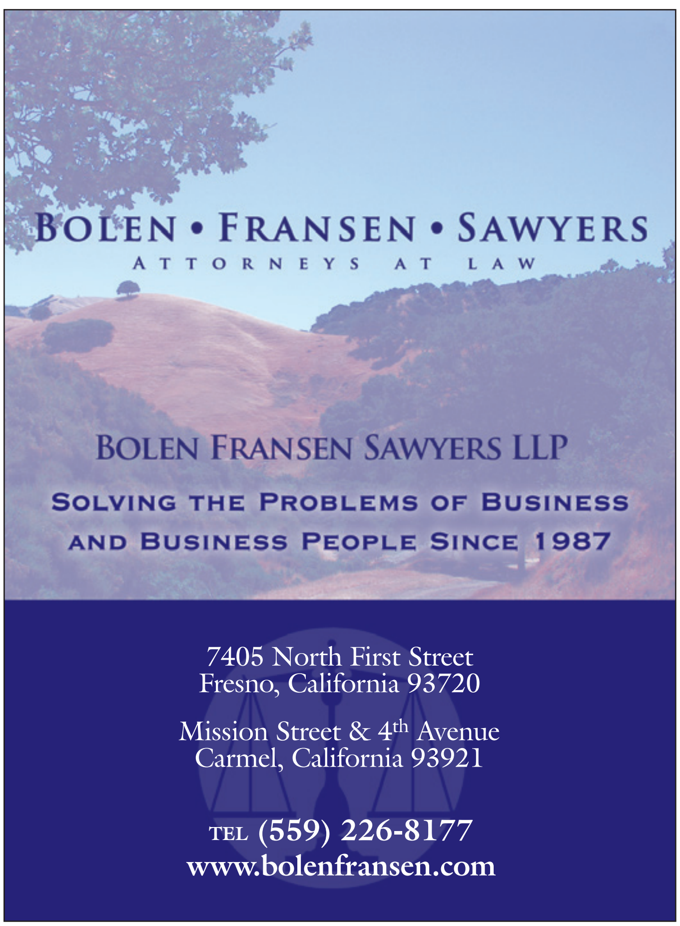
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SOUTHERN SAN JOAQUIN

OVERVIEW

ALMONDS - ALL

While overall almond commodity prices were stronger in 2018 than 2017, prices softened in the latter half of 2018 as a result of trade tariffs. Thus, commitments for shipments declined in the first three quarters, but then strengthened in the fourth quarter due to pent-up demand and bargain prices. The stronger prices in the first half of the year created stability and increased demand in the orchard market, where effects of the tariff-induced price softening have yet to make an impact. The movement of orchards is steady and the values have appeared to stabilize. Almond orchards are generally selling in a range of $20,000 per acre to $32,000 per acre.

2018 good quality orchards were selling in a range of $25,000 to $32,000 per acre. Older orchards with limited economic life are generally at $20,000 to $24,000 per acre. There is a current sale in Tulare County at $35,000 per gross acre that seems to be an outlier from the normal ranges, influenced by 1031 pressure. There are buyers actively in the market but very limited sellers. Buyers are searching for younger orchards, four to 10 years with two sources of water.

TABLE GRAPES - ALL

Sales of table grape vineyards were very limited in 2018, as is typical, with one sale of a young, high quality property. The value range of $26,000 to $35,000 per acre for economic vineyards was measured at the lower end by recent sales and at the upper end by one early-year sale of a younger vineyard with newer varieties. The wide range is due to the economic viability of the vineyards. There are buyers actively in the market but very limited sellers of newer variety vineyards. Old age and old variety vineyards range from land value to $26,000 per acre.

The table grape industry had a disastrous year in 2018. Operators indicate some differences in opinion as to the major factors affecting the industry but the two that are most often mentioned are over-production and trade tariffs. It remains to be seen what the long term effects of 2018 will have on the table grape industry in California but there is a consensus that there will be significantly fewer growers in the coming years, perhaps as soon as 2019. As a result of over production, tariffs, and the overlapping markets of Mexico, the Coachella Valley, and the San Joaquin Valley the commodity prices for most table grapes is less than the cost of production. In addition, the cold storages are full and the grapes are not moving. This will be the year that significant numbers of growers will go out of business. Even the largest, most efficient growers are struggling to break even. Previous analysis of the profitability of table grape operations is no longer relevant and many vineyards would only sell for open ground value if the property needed to be sold in the near future.

CITRUS - ALL

Demand for citrus plantings is considered limited with sales of citrus groves in Tulare and Kern counties ranging from $14,000 to $26,000 per acre in 2018. The high end of the range reflects sales in Kern and Tulare Counties of good-quality groves with newer navel varieties. The low end of the range reflects sales primarily in the Terra Bella-Ducor area of southern Tulare County and the McFarland area of northern Kern County. Values in the Wheeler Ridge-Maricopa area in southern Kern County would fall near the upper end of the range but sales in that area rarely occur. There are buyers actively in the market but very limited sellers. Mandarin varieties have been very limited and our analysis makes no effort to cover that market in detail.

TREE FRUIT - ALL

Sales of tree fruit orchards continue to be primarily limited to existing grower/packers. While a good portion of the tree fruit orchard sales, regardless of planted varieties, continue to be purchased primarily for the underlying ground; good quality orchards developed with young, acceptable varieties are beginning to show contributory value. This is considered a reflection that supply and demand are back in balance, allowing for better returns and a slightly more optimistic future. The bulk of tree fruit sales continue to be concentrated in Fresno County, northern Kings County, or near the Fresno-Tulare County line, with limited sales reported in the central to southern Tulare County area.

WALNUTS - ALL

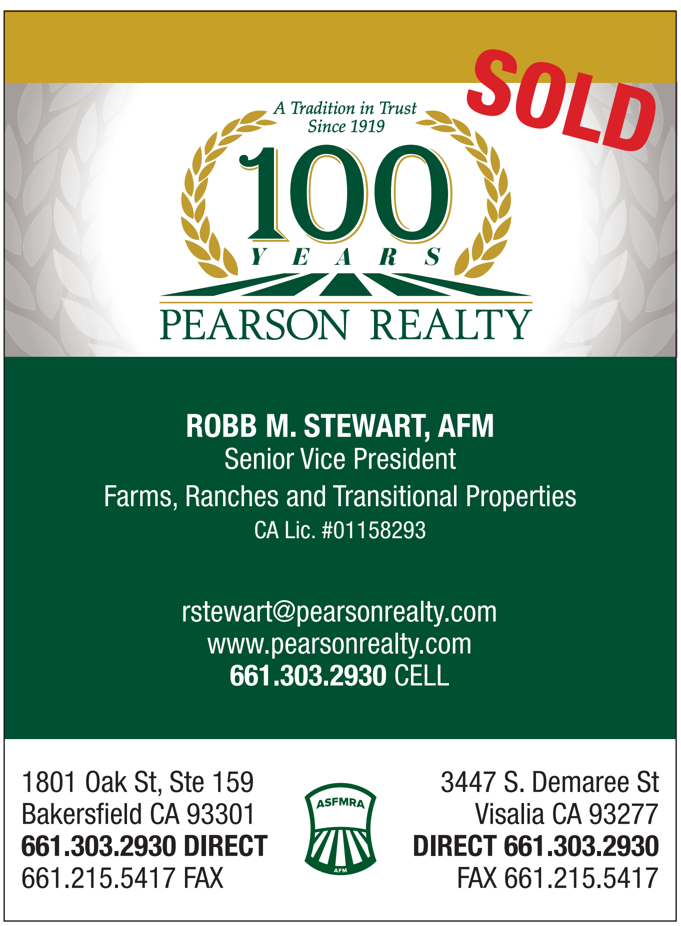
Walnut prices dropped in 2018, similar to other nut crops, though walnuts were affected by trade tariffs by a much greater degree than other nut crops. Sales of walnut properties were very limited, as sale prices decreased on the low end of the range and slightly increased on the high end range from $16,000 to $35,800 per acre in Tulare County.

PISTACHIOS - ALL

The 2017 commodity price stabilized and rose. As a result there were a few good quality orchards for sale in areas with a dependable subsurface water supply; however, demand for orchards with adequate water supplies is strong. Due to competition from other nut crops for good soils with good water sources and the pistachio tree's better ability to handle stressful conditions, pistachio orchards are consistently being planted on marginal soil that often has marginal water supplies. Sales of pistachio properties were very limited, sales range from $25,000 to $38,000 per acre. Large and small blocks of pistachios in White Land areas are receiving less buyer activity. White land areas are located outside any water district boundaries.

RENTAL DATA ON PERMANENT CROPS

In Region Five, rental data for open ground is relatively common, but the leasing of permanent crops is rare. In some cases there is not enough data to provide even an educated guess at lease terms. Where there is seemingly more data, many of the leases are between family members or the terms are held confidential by investment holders. This has resulted in most if not all of the crop share data for permanent crops being unchanged in many years, as new data is seldom uncovered. On the occasion when new data is found, it has been incorporated into our understanding of the limited market and reflected in the accompanying table. From this occasional crop share data of permanent crops, we have attempted to estimate cash equivalent rents, without providing for a lower return on cash rents due to less risk to the landlord. These crop share and cash equivalent rents are made under the assumption that the landlord both owns the ground and developed the permanent planting. Often, land is leased for 15 to 20 years, and the tenant develops the permanent planting and therefore, the landlord would not receive the full crop share or cash rent equivalents reflected in the data provided.



KERN COUNTY

CROPLAND - ALL AREAS

California has implemented the Sustainable Groundwater Management Act (SGMA), establishing a framework for sustainable, local groundwater management. SGMA requires groundwater-dependent regions to halt overdraft and bring basins into balanced levels of pumping and recharge. Upon passage of SGMA, DWR launched the Sustainable Groundwater Management (SGM) Program to implement the law and provide ongoing support to local agencies around the state.

Region 5 is classified by SGMA as being located in High Priority Basins (Critically Overdrafted). This is not unique for the San Joaquin Valley as most basins south of the Delta are similarly classified.

The Kern County Basin (5-22.14) is ranked as the 11th overall basin ranking out of 21 High Priority Basins. Impact consists of subsidence, overdraft, and water quality degradation.

Buyers are beginning to understand SGMA's possible implications and making decisions on best information provided by local basin managers and experts. Sellers have yet to fully grasp the implication of SGMA and its long term effect on water use and its relationship to value.

Open cropland in water districts that provide above-average water delivery through surface delivery and have water banking receive the highest level of interest. On the other end of the spectrum White Land areas (areas with no surface water rights or delivery) are receiving little to no buyer activity.

Sale activity in 2018 slowed from the previous year in water districts with less reliable water resources and white land areas. The number of marketed properties actually rose reflecting slowing demand for land suitable for permanent crop development in the face of lower commodity prices for nut crops in these areas. The fewer good-quality water sources available to properties directly equates to how the market views and values the land. Access to only well water in areas outside of known water district boundaries (White Lands) is becoming problematic in recognition of the SGMA.

On the other hand, sale activity for land in good-quality water districts in 2018 also slowed from the previous year due to the lack of properties entering the market for sale. These districts have additional water sources deliverable to farmers through surface delivery, water banking programs or both. These districts have developed water banking programs over the past several years and continue to put forward new and exceptional water banking projects to help manage water needs in the future. Properties that enter the market receive above average consideration.

RANGELAND - EAST

Sale activity was very limited, with decreasing number of significant rangeland transactions. Prices, however, were stable from last year's levels, reflective of higher per-acre rents.

RANGELAND - WEST

Traditionally there is little rangeland sold for grazing purposes on the west side of Kern County. The economics of grazing land in this area do not vary much from one year to the next. There is no home site influence and limited recreational potential. Land values were stable in 2018, with a stable value trend projected going forward.

TULARE AND KINGS COUNTY

CROPLAND

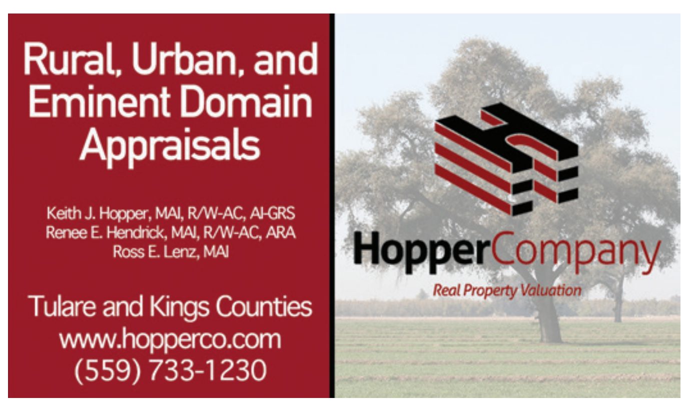
Tulare County open land properties were stable in a range of $17,000 to $24,000. The highest demand has been for open land with prime soils and irrigation water from a combination of dependable surface water and ground water sources.

Northern Kings County open land properties were stable in a range of $20,000 to $25,000. Land in Central Kings County was stable in a range of $18,000 to $22,000. Land sales in Western Kings County were very limited with two sales indicating values of $5,000-$8,000. There were no reported 2018 Westlands Water District sales in Kings County.

Tulare and Kings County will be adversely affected by SGMA as discussed above in Kern County Cropland.

The Tulare County Basins (5-22.11 and 5-22.13) are ranked as the 2nd and 16th overall basin ranking out of 21 High Priority Basins. The High Priority rankings are due primarily to overdraft, water quality issues, high nitrates and total dissolved solids (TDS) in areas.

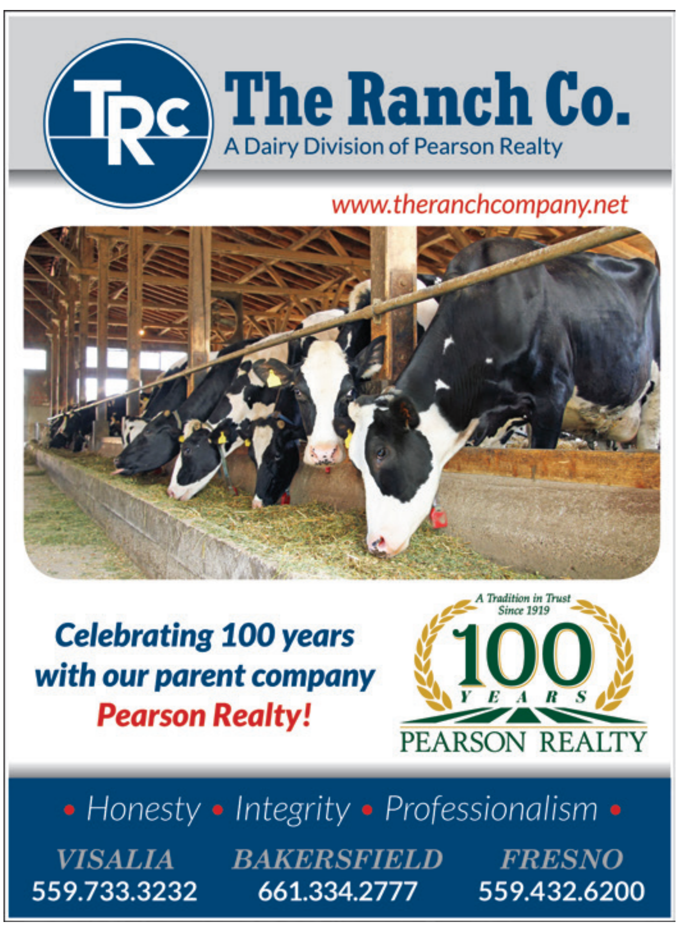
The Kings County Basin (5-22.12) is ranked as the 15th overall basin ranking out of 21 High Priority Basins. The High Priority ranking is due primarily to subsidence, overdraft and water quality degradation.

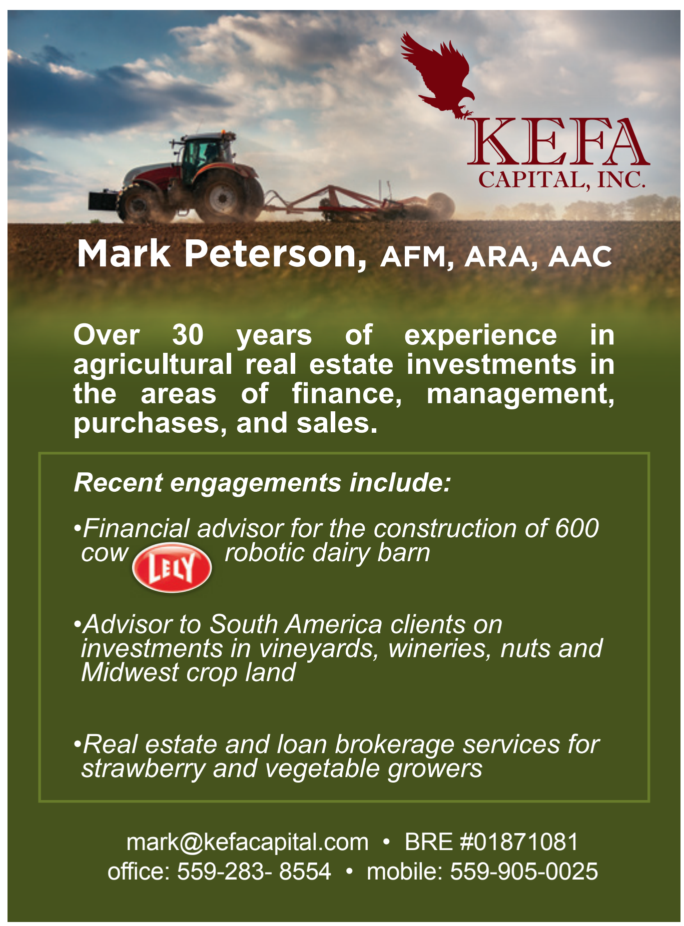


DAIRY

Sale and listing data indicate declining demand for dairy properties, as 2018 marks the fourth consecutive year of weak commodity pricing and profitability. Older and smaller facilities (1,000 milk cows or less) continue to show no contributory value, purchased primarily for re-development to permanent plantings. Modern, mid-size facilities (1,000-3,000 milk cows), are showing contributory value; however, values continue to soften from 2017. Limited data exists for large facilities (greater than 3,000 milk cows) with no reported sales within Kern, Tulare and Kings Counties.

Overall, demand continues to be limited as milk prices continue to show little upward movement. The dairy industry has and continues to contract with little change in the foreseeable future.





VALUES: LAND AND LEASE

LAND USE	VALUE PER ACRE	ACTIVITY / TREND	RENT RANGE	ACTIVITY / TREND
Almonds	$20,000 - $32,000	Limited/Declining	10% - 20%	Limited/Stable
Pistachios	$25,000 - $38,000	Limited/Declining	No Rents	Limited/Stable
Table Grapes	$26,000 - $35,000	Limited/Declining	$500 - $1,000	Limited/Stable
Rangeland - East	$1,000 - $1,200	Limited/Stable	$16 - $25	Limited/Stable
Rangeland - West	$500 - $900	Limited/Stable	$7 - $10	Limited/Stable
KERN COUNTY				
Cropland - NE & Central	$18,000 - $25,000	Limited/Sl. Declining	$250 - $400	Limited/Stable
Cropland - Southeast	$18,000 - $20,000	Limited/Sl. Declining	$250 - $500	Limited/Stable
Cropland - State Water	$6,500 - $18,000	Limited/Sl. Declining	$200 - $300	Limited/Stable
Citrus	$22,000 - $26,000	Limited/Stable	No Rents	Limited/Stable
TULARE COUNTY				
Cropland	$17,000 - $24,000	Limited/Sl. Declining	$200 - $500	Limited/Stable
Walnuts	$16,000 - $35,800	Limited/Declining	10% - 20%	Limited/Stable
Citrus	$14,000 - $25,500	Limited/Stable	10% - 20%	Limited/Stable
Tree Fruit	$17,500 - $23,500	Limited/Stable	$400 - $800	Limited/Stable
Olives	$13,000 - $21,000	Limited/Stable	None	None
KINGS COUNTY				
Cropland (North)	$20,000 - $25,000	Limited/Sl. Declining	$250 - $400	Limited/Stable
Cropland (Central)	$18,000 - $22,000	Limited/Sl. Declining	$250 - $500	Limited/Stable
Cropland (West)	$5,000 - $8,000	Limited/Sl. Declining	$175 - $250	Limited/Stable
DAIRIES (KINGS, TULARE AND KERN COUNTIES)				
Newer*	$1,350 - $1,750	No Sales/Stable	No Rents	No Rents/Stable
Older*	None			

*per lactating cow - without underlying land

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HISTORICAL VALUE RANGE PER ACRE

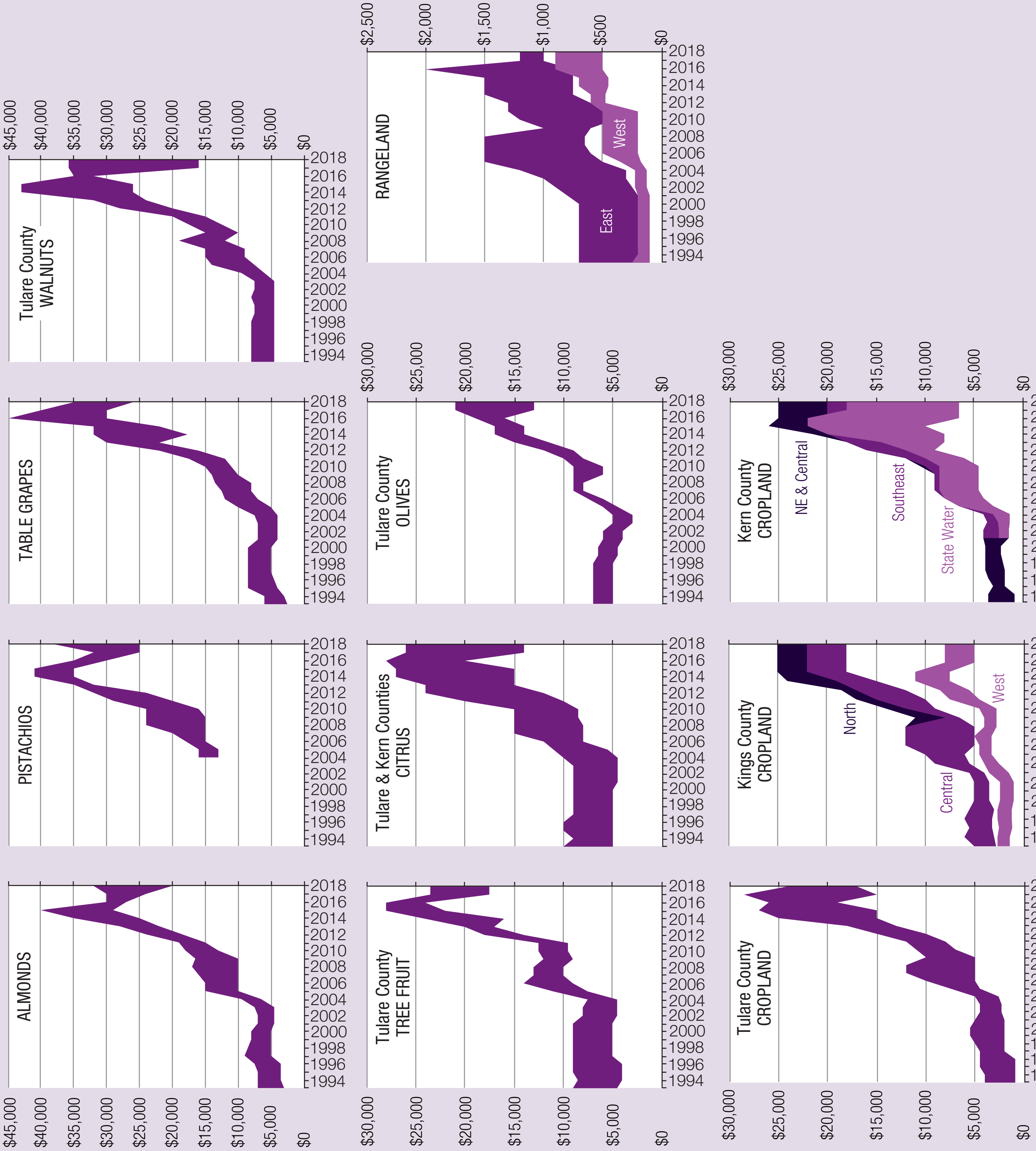
LAND USE	ALMONDS	PISTACHIOS	TABLE GRAPES	RANGELAND (EAST)	RANGELAND (WEST)
2018	$20,000 - $32,000	$25,000 - $38,000	$26,000 - $35,000	$1,000 - $1,200	$500 - $900
2017	$24,000 - $30,000	$25,000 - $32,000	$30,000 - $40,000	$1,000 - $1,200	$500 - $900
2016	$27,000 - $30,000	$30,000 - $35,000	$30,000 - $45,000	$750 - $2,000	$500 - $900
2015	$29,000 - $40,000	$35,000 - $41,000	$22,000 - $32,000	$750 - $1,500	$450 - $700
2014	$25,000 - $35,000	$35,000 - $41,000	$17,700 - $32,000	$750 - $1,500	$450 - $700
2013	$22,000 - $28,000	$32,000 - $35,000	$22,000 - $30,000	$750 - $1,500	$475 - $600
2012	$18,500 - $24,000	$24,000 - $32,000	$16,000 - $22,000	$600 - $1,300	$475 - $600

LAND USE	CROPLAND NE & CENTRAL	CROPLAND SOUTHEAST	CROPLAND STATE WATER	CITRUS
KERN COUNTY				
2018	$18,000 - $25,000	$18,000 - $20,000	$6,500 - $18,000	$22,000 - $26,000
2017	$18,000 - $25,000	$18,000 - $20,000	$6,500 - $18,000	$22,000 - $26,000
2016	$20,000 - $25,000	$19,000 - $20,000	$6,500 - $22,000	$22,000 - $25,000
2015	$22,000 - $26,000	$18,000 - $22,000	$10,000 - $22,000	$15,000 - $25,000
2014	$16,000 - $21,500	$16,000 - $20,000	$8,000 - $20,000	$15,000 - $25,000
2013	$16,000 - $18,000	$15,500 - $18,000	$8,000 - $14,500	$15,000 - $21,000
2012	$13,000 - $15,000	$13,000 - $16,000	$9,000 - $12,000	$12,000 - $20,000

LAND	CROPLAND	WALNUTS	CITRUS	TREE FRUIT	OLIVES
TULARE COUNTY					
2018	$17,000 - $24,000	$16,000 - $35,800	$14,000 - $25,500	$17,500 - $23,500	$13,000 - $21,000
2017	$15,000 - $28,500	$16,000 - $35,800	$14,000 - $25,500	$17,500 - $23,500	$13,000 - $21,000
2016	$19,000 - $26,000	$32,000 - $35,000	$20,000 - $28,000	$24,000 - $28,000	$16,000 - $19,000
2015	$15,000 - $27,000	$26,000 - $43,000	$15,000 - $27,000	$22,000 - $28,000	$14,000 - $17,000
2014	$15,000 - $25,000	$26,000 - $43,000	$15,000 - $27,000	$16,000 - $24,000	$14,000 - $17,000
2013	$13,000 - $18,000	$24,000 - $32,000	$18,000 - $24,000	$17,000 - $20,000	$11,500 - $15,000
2012	$10,000 - $15,000	$20,000 - $28,000	$14,000 - $24,000	$14,000 - $18,000	$9,000 - $12,000

LAND USE	CROPLAND (NORTH)	CROPLAND (CENTRAL)	CROPLAND (WEST)	DAIRIES, NEWER*
KINGS COUNTY				DAIRIES (KINGS, TULARE & KERN COUNTIES
2018	$20,000 - $25,000	$18,000 - $22,000	$5,000 - $8,000	$1,350 - $1,750
2017	$20,000 - $25,000	$18,000 - $22,000	$5,000 - $8,000	$1,350 - $1,750
2016	$20,000 - $25,000	$18,000 - $22,000	$5,000 - $8,000	$1,350 - $1,650
2015	$19,000 - $25,000	$18,000 - $22,000	$7,500 - $11,000	$1,350 - $1,650
2014	$16,000 - $24,000	$15,000 - $19,000	$7,500 - $11,000	$800 - $2,200
2013	$15,000 - $18,500	$12,000 - $17,000	$5,500 - $8,500	$1,000 - $2,000
2012	$12,000 - $17,000	$10,000 - $15,000	$4,500 - $7,500	$1,400 - $2,000

*(per cow basis, including milk barn equipment and residence)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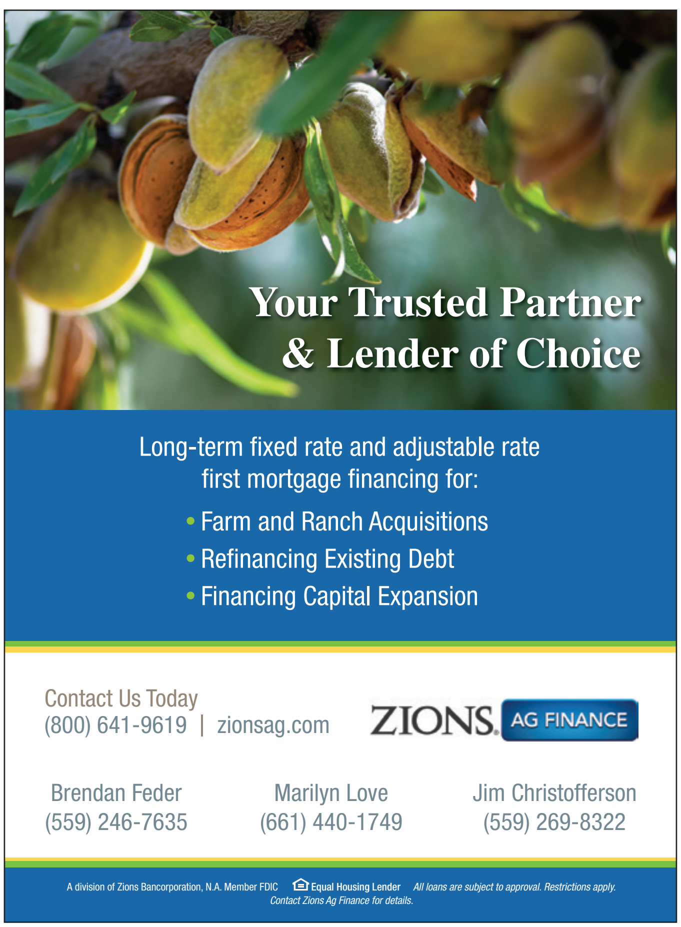
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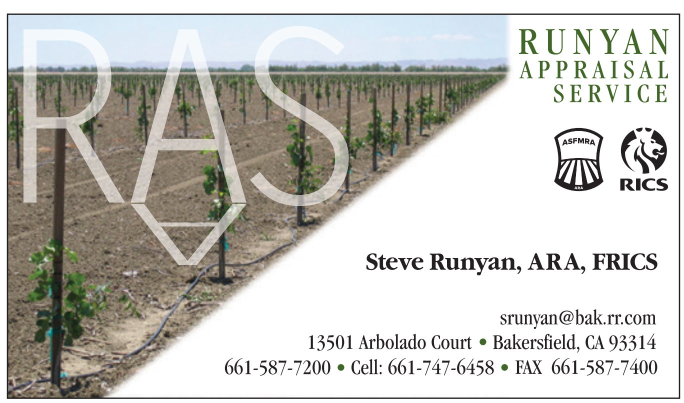
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REGION FIVE

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6 REGION

CENTRAL COAST

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CENTRAL COAST

SANTA CLARA COUNTY

ROW CROPS

Irrigated farmland in Santa Clara County is primarily found to the south, near Morgan Hill, San Martin, and Gilroy. Farmland values are heavily influenced by land investors and speculators enticed by future development potential as the supply of development land in nearby Silicon Valley continues to shrink. The majority of buyers tend to be investors/absentee owners, with an occasional farmer adding to an existing farming operation. Agricultural land typically falls into three subgroups based on size. Small parcels (five acres and less) are typically purchased for residential estate purposes. Agricultural properties ranging from 10 to 40 acres are often purchased by investors; these properties are often leased and in many cases farmed in conjunction with adjacent land on an interim basis. Tracts larger than 40 acres reflect a stronger commercial farming element with a combination of owner/operators and investors purchasing these properties. The Gilroy area in the very southern part of Santa Clara County tends to have larger tracts of agricultural land and per-acre land values are correspondingly lower than in the Morgan Hill area, which is generally limited to smaller five to 10 acre residential sites and 20 to 40 acre "speculative" sites purchased by long term investors.

SAN BENITO COUNTY

ROW CROPS

San Benito County row crop prices are stable, with relatively limited activity as of late. Demand is moderate to strong, but supply is limited. Good quality farmland is seeing values in the $30,000 to $40,000+ per acre range, while values in secondary farming areas are seeing values in the $20,000 to $30,000 per acre range. Most buyers in the San Benito County market are owner/operators. There are few investors purchasing farms in the county primarily due to rents being insufficient to produce adequate returns.

Agricultural water is derived primarily from wells, with supplemental water available in areas of the county serviced by the San Felipe Division of the Central Valley Project. In light of recent drought conditions, unpredictable district allocations have adversely impacted farming operations in areas with poor groundwater quality. Additionally, the San Benito County Water District is now delivering recycled water to growers along Wright Road from the city's reclamation facility.

Since land and rental values in San Benito County are typically less than those of similar properties in Monterey County, there continues to be moderate to strong interest in prime San Benito County agricultural land. Farmland rents appear to have mostly stabilized. Farmland adaptable to berries typically has seen the strongest rents. Other factors influencing rental rates include organic/conventional status, wind, and water quality.

MONTEREY & SANTA CRUZ COUNTIES

ROW CROPS

Monterey and Santa Cruz County row crop land values have experienced increases over the past few years. Sale activity was typical, with only a handful of prime farmland transactions occurring in each county in 2018. Sales indicate values ranging from $26,000 to $72,000 per acre. Recent sales have typically been listed on the open market, soliciting several competing offers, many of which have been above the asking price. Increasing values, and corresponding decreasing capitalization rates, have essentially priced investors out of the market on the interim, until rents catch up. Current buyers are primarily local growers looking to secure land with less emphasis placed on the income earning capability of a property. The few institutional investor purchases that have taken place involve ranches being added on to existing adjoining holdings.

Agricultural land rents vary depending upon many factors. These factors include the lease term, crops that can be supported (specifically berry crops), negotiation skills of the owner and lessee, condition and quality of the irrigation system, type of drainage system, and topography. Rents are normally cash and the lessee is typically responsible for paying the real estate taxes, water costs, and irrigation system maintenance. Farmland rents are stable to increasing, and there is a limited supply of available properties in the market area. A definitive trend in capitalization rates has yet to be determined. Historically, rates have trended from 4.50% to 5.50%; however, the current rate range is sub-3.00% to 4.00%. Recent sales don't yet reflect changes in market rental values. With the majority of buyers looking to satisfy contract obligations, which is a component of their business that incentivizes paying prices above what investors are willing to pay, there may be a trend towards lower capitalization rates.

MONTEREY COUNTY

WINE GRAPES

There was very limited activity related to vineyard properties this past year, and in the few sales that did occur the buyers were mostly looking to either redevelop or transition to irrigated crop land. While Monterey County includes many large and profitable commercial vineyard properties, none of them sold in 2018. Pinot Noir and Chardonnay continue to be prized and prices have been stable to increasing over the last several years. The Santa Lucia Highlands AVA continues to be the most recognized growing area in the county, which is captured by above average grape and bottle pricing. Good quality commercial vineyard properties generally range from $45,000 to $75,000 per net vine acre, with the higher values mostly tied to locations within the Santa Lucia Highlands AVA and the lower values mostly tied to more southern locations that have lower underlying land values.

SANTA CLARA, SAN BENITO & MONTEREY COUNTIES

CENTRAL COAST RANGELAND

Demand for Central California pasture ranches is moderate, depending upon the specific location and amenities. Good quality, well located pasture ranches are seeing steady market activity from both individual and institutional investors. Smaller pasture ranches (500 to 3,000 acres) are seeing demand from “lifestyle” buyers while many of the larger ranches reflect a stronger investor influence. While most of the ranches are capable of supporting livestock production, recreational influence is strong and has contributed to the demand.

OTHER INFLUENCES & CONCERNS

CANNABIS

There was very limited greenhouse sale activity in 2018. While the supply of greenhouses has been absorbed, there remain questions about the permit process for cannabis cultivation operations. Temporary local permits are set to be eliminated on January 1, 2019, when new state-level permits will be required. However, as of yet few state-level permits have been granted locally. Santa Cruz County has fewer greenhouse facilities as many of the early players purchased in Monterey and Santa Barbara Counties, thus the cultivation industry is still in its early stages. Local operators are waiting to see how the permit process plays out and if there will be additional requirements that further complicate the process. Most recently San Benito County approved a new ordinance that allows indoor-only cultivation of cannabis in agricultural districts and industrial zones. Interviews indicate that some initial rental rates have been reduced. There is an expectation that some tenants will default due to over-investment based on the higher initially-anticipated price per pound which continues to fall with the increase in supply. The Track and Trace program (CCTT), which begins in earnest in 2019, will presumably prevent cannabis from leaving the state and increase the supply further.

LABOR COSTS & DEMAND

AB 1066, which reduces the number of hours an agricultural worker works before overtime kicks in, both on a daily and weekly schedule, will be initiated at the start of 2019 for employers with over 25 employees. While housing continued to be an issue in 2018, only a limited number of farm labor housing projects were developed in Monterey County, partially due to the difficulty in finding an appropriate site and difficulty in obtaining approvals. Currently there are 1,618 beds in three private seasonal facilities and a recent study of the Monterey and Santa Cruz County demand indicates a need for 1,057 additional units (7 people per unit, includes children and non-farmworker spouses). H2A visas nationally increased over 21% from 2017. Interviews with labor contractors indicate no discernible alleviation on the demand for more beds with the development of the most recent projects. AB 1066 will increase the costs and decrease returns to the farmer given the lack of excess laborers to hire as an alternative to paying overtime, and lack of the farmer's ability to pass on the cost to the consumer due to competition from out-of-state growers not subject to the same overtime regulations.

SANTA MARIA VALLEY

IRRIGATED VEGETABLE STRAWBERRY LAND

Current land prices for the Santa Maria Valley are presently ranging between \$25,000 and \$58,000±/acre. The heart of the Santa Maria Valley (that area east and west of the City of Santa Maria) typically commands the upper end of the range with the most recent sales ranging from \$54,000 to \$58,000 per acre assuming good adaptability to crops along with a good water supply. Values in the "outlying" areas including Arroyo Grande, Oceano Plains/Cienaga Valley, Nipomo, Los Alamos and Lompoc are typically lower, in the \$30,000 to \$50,000 per acre range.

The current market for farmland in the Santa Maria Valley is stable with limited activity in the heart of the vegetable and strawberry growing area. There were only two "puritan" sales in 2018 and one in 2017. There were two additional mixed-use property sales in 2018 that include some irrigated vegetable/strawberry land.

Rents in the Santa Maria Valley have softened slightly from last year with current vegetable crop rents ranging from \$1,300 to \$1,900 per acre, and strawberry rents ranging from \$2,000 to \$3,000 per acre, depending on the adaptability of the soils to strawberries. Strawberry growers in this area have begun to explore more marginal areas for production, reducing the demand for traditional cropland. They are also developing rotation strategies with local vegetable growers to maximize land utilization and lessen some of the competition for irrigated field crop land.

SAN LUIS OBISPO COUNTY

WINE GRAPES

This market is broken down into three fairly distinct growing areas, which impacts the underlying land and vineyard values, along with grape/bottle prices. Unlike Monterey County, land suitable for vineyards in San Luis Obispo County has little to no competition from vegetable and berry growers.

Starting at the north end of the county, vineyards located west of Paso Robles/Templeton and Highway 101 set the upper end of the range, with vineyards currently selling for approximately $50,000 to more than $70,000 per net vine acre. These values are influenced by above average grape and bottle pricing (Cabernet Sauvignon), smaller parcel sizes, and rural estate and/or winery site appeal. Most of the sales in this area are purchased by wineries looking to secure fruit or lifestyle buyers looking to enter the wine industry.

Staying at the north end of the county and moving east of Highway 101, parcels tend to get larger and rural estate and winery site appeal has less influence on the land and vineyard values. These large vineyard properties are mostly owned and purchased by growers, wineries, and institutional investors. Grape pricing for this area tends to be closer to county average and the profitability of the vineyard has a significant impact on value. Most of the plantable land in this area is within the Paso Robles Ground Water Basin that restricts new plantings and additional water usage without an off-set as outlined by the county. These restrictions have resulted in increased demand and value for vested, plantable land, with values mostly falling between $15,000 and $22,500 per acre. Plantable land sales that require an off-set for its irrigation supply indicate values less than $15,000 per acre, with some non-vested land sales as low as $5,000 to $10,000 per acre. In 2018 there was a group of vineyard sales that had below average profitability and in many cases were approaching the end of their economic life. These sales can be generalized as having grape pricing near county average, with historical production dropping below four tons per acre, and in some cases only break-even production (less than three tons per acre). These less profitable/interim vineyards supported values near plantable land and up to around $30,000 per net vine acre. The next group of vineyard sales for this area are near mid-life with average production levels and grape prices, indicating values mostly between $30,000 and $40,000 per net vine acre. Vineyard values beyond $40,000 per net vine acre are mostly young to mid-life, with production levels near or above five tons per acre, and grape pricing near county average. In 2018 a new high was set near $70,000 per net vine acre for an East Paso Robles/Shandon vineyard. This was purchased by an institutional investor and the property featured a large young vineyard, with good water resources, and exceptional production capabilities. Even with this new high observed in the East Paso Robles/Shandon growing area, demand for grapes going into the 2018 harvest started to soften, with several reports of uncontracted Cabernet Sauvignon selling for a steep discount. This is not uncommon for a large crop year and time will tell if there is any impact on vineyard values going forward. With that said, there was no measurable evidence of softening vineyard or land values in 2018.

Edna Valley is the most established southern vineyard market in San Luis Obispo County and has some similarities to West Paso Robles/Templeton, in that values are influenced by above average grape and bottle pricing (Pinot Noir & Chardonnay), smaller parcel sizes, and rural estate and/or winery site appeal. Enda Valley is not an active market and values historically have been at the upper end of the range for San Luis Obispo County and more in line with the cool climate growing areas in Santa Barbara County.

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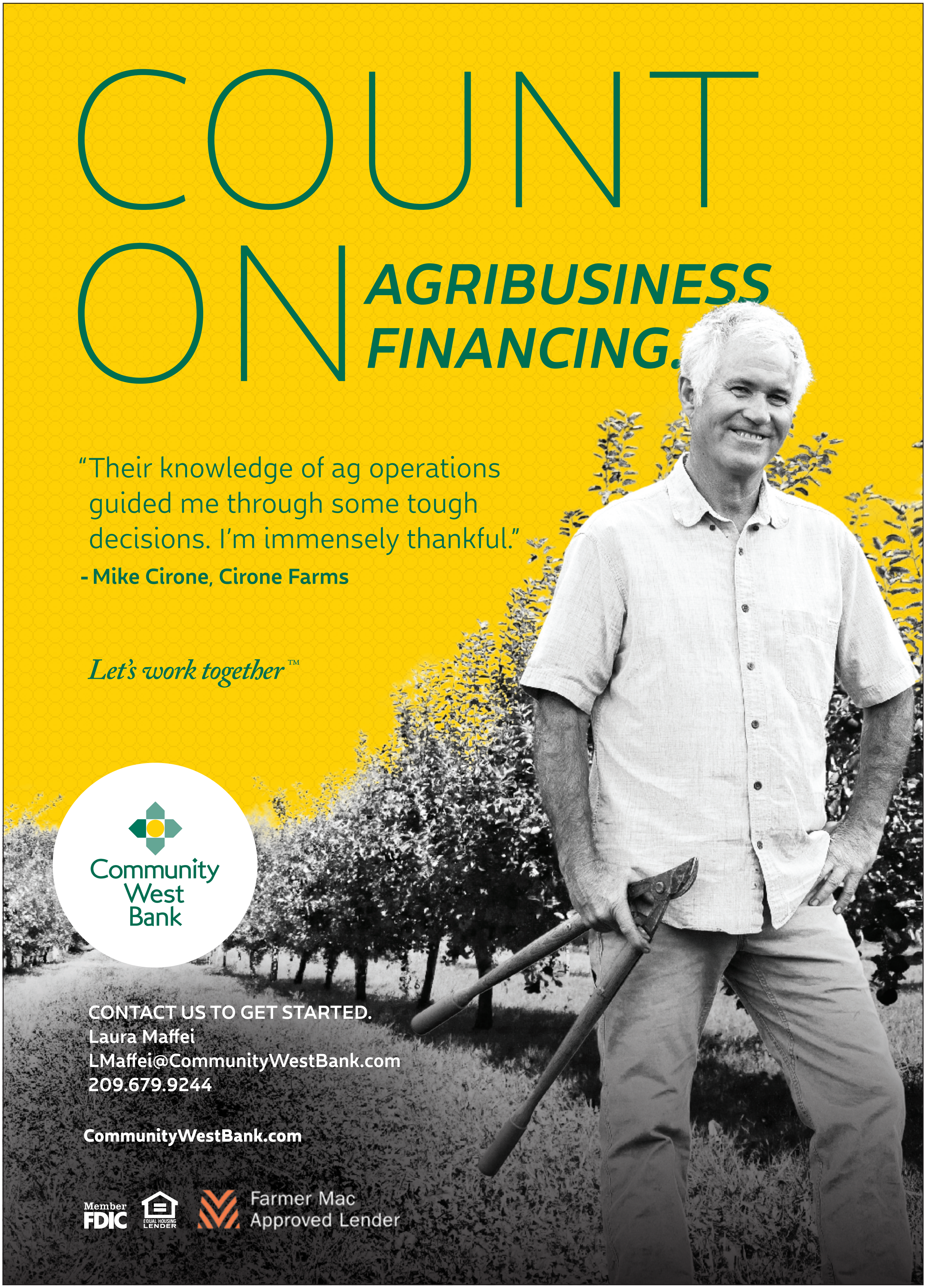
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REGION SIX

SANTA BARBARA COUNTY

WINE GRAPES

This market is broken down into four growing areas, which all have different influences, from competition with vegetable/berry growers, lifestyle/rural estate buyers, and AVA notoriety to name a few.

The Santa Maria Valley AVA is the most northerly growing area in Santa Barbara County and also has the greatest competition from vegetable and berry growers, which limits vineyard plantings to the southeasterly area of the Valley. Aside from competition with vegetable and berry growers, Pinot Noir and Chardonnay are drivers in this market, with vineyard holdings mostly owned and purchased by wineries, intuitional investors, and to a lesser degree growers. Holdings in this area tend to be of commercial size, with little to no rural estate or winery site influence aside from Clark Avenue and Foxen Canyon Road. In 2018 the Santa Maria Valley had two large commercial vineyard sales, which were both purchased by the same winery in the same month, but from two different sellers. These sales both had vineyard values near $60,000 per net vine acre. One of the sales had a much larger proportion of irrigated field cropland (IFC) than planted vineyard land, with the IFC land approaching the vineyard value.

Moving south along Highway 101 is the Los Alamos growing area, which borders Highway 101 on both sides and extends west along Highway 135. A good portion of the vineyard acreage is held by large wineries and there is limited sale activity. Some of the most recent sales (none in 2018) were purchased by institutional investors, with values historically ranging from $45,000 to $60,000 per net vine acre. Vineyard and vegetable growers compete for land in the Los Alamos Valley along Highway 135, with land values historically ranging between $30,000 and $40,000 per acre.

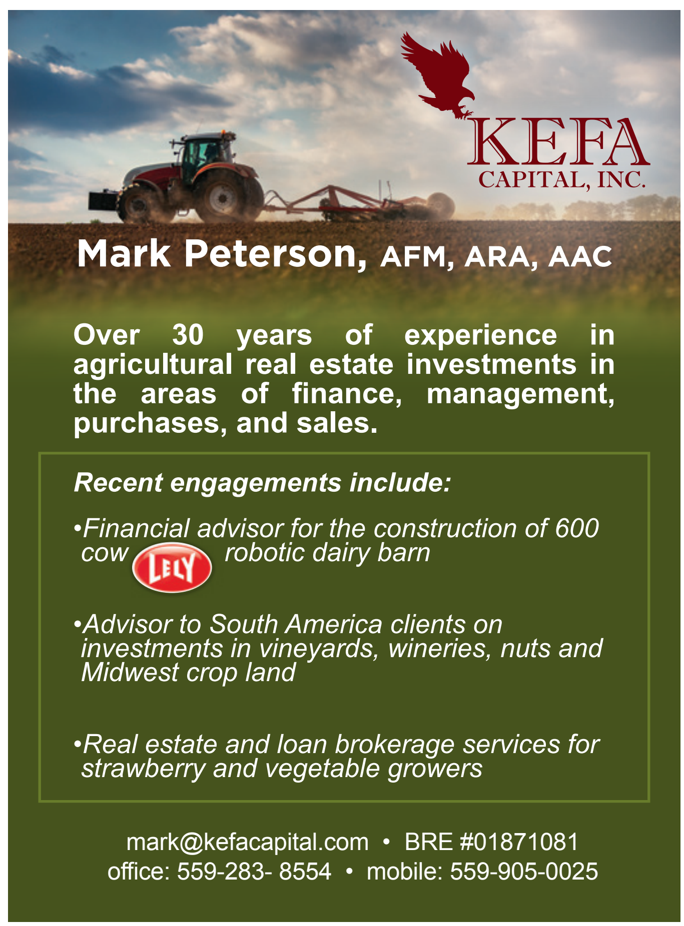
Between Buellton and Lompoc is a highly recognized cool climate Pinot Noir and Chardonnay growing area, known as the Santa Rita Hills AVA. Vineyards are mostly located along Highway 246 and Santa Rosa Road. In 2018 there were no vineyard sales to speak of, but there are some vineyards being marketed and one premium vineyard is reportedly under negotiation going into 2019, expectations are that this potential sale will set a new high. While there have been no new vineyard sales in the Santa Rita Hills, there have been several new high-quality Pinot Noir developments completed by wineries that are based in the North Coast. Existing grape contracts for premium vineyards and grape contracts for new developments are seeing fairly consistent prices for Pinot Noir between $4,500 and $6,000 per ton, with the tonnage amount of the contract being an important factor. For example, smaller 5 to 10 ton contacts that are supporting vineyard designate wine programs are seeing prices at the upper end of the range.

SAN LUIS OBISPO AND SANTA BARBARA COUNTIES

DRY PASTURE RANGELAND

For several years, the Temblor Mountain Range/Carrizo Plains market was influenced by out of town buyers purchasing ranches for recreational, retreat and home-site purposes. Since the downturn in the economy, the demand from these types of buyers has been reduced. These sales are divided into two main groups: ranches of 1,500 acres and smaller, and ranches 1,500 acres to 15,000 acres. The first group ranges from $800 to $7,000 per acre, while the second group ranges from $300 to $1,200 per acre. The primary influence that drove prices up on the smaller parcels was residential and/or recreational uses. The larger ranches may also be further divided into parcels purchased for recreational, retreat and home site desirability, versus those ranches purchased for grazing land. The larger ranches that offer scenic vistas, hunting, and other forms of recreation are typically forested, watershed land and of little use for grazing. These ranches tend to set the upper limit of the price range. The large ranches purchased for cattle grazing are selling for between $500 and $1,500 per acre. A large 21,000± acre dry pasture ranch in northern San Luis Obispo/Monterey County, sold in December 2016 for $1,482/acre.

Parcels along the Pacific Ocean and Coastal Mountain Range with rural residential appeal have continued to remain stable to strong during the past several years. After 2007, this market saw a decline in activity and prices; however, it has shown substantial recovery over that past several years. This area is very attractive for large, rural home sites, with these properties typically being less than 1,000 acres. Sales range from $2,500 per acre for large dry pasture ranches with limited utility and/or lack of ocean views, to $15,000 per acre for smaller, desirable parcels with coastal influence, ocean views and/or cultivatable land. There have been several sales of small to medium size (120-600 acres) ranch properties along the coastal Santa Lucia Mountains in 2017 and 2018. These sales ranged in price from $9,000 to $13,750 per acre. The primary differences in pricing were due to location, ocean views and buyer/seller motivation.



VENTURA COUNTY

IRRIGATED VEGETABLE/STRAWBERRY LAND

The prime area of Ventura County for truck crops (irrigated crops) is the Oxnard Plain. During 2018, sales in the Oxnard Plain for berry ground have been ranging between $68,000 and $81,000 per acre (there were two transactions outside this range due to extreme buyer motivations). Rents in the Oxnard Plain range from $2,900 to $4,300 per acre. Sales in and near the Oxnard Plain for vegetable land have been limited to two transactions, one at $59,000 per acre and the other at $68,000 per acre with rents ranging from $1,700 to $2,900 per acre. The other irrigated crop areas in the county are located more inland (to the east). They command lower prices and lower rents as they experience more extreme temperatures, which negatively affect crop growing conditions. Prices in those areas in 2018 have been $45,000 to $53,000 per acre, with rents at $1,700 to $2,300 per acre. The current market for Oxnard Plain berry ground is soft. The current market for Oxnard Plain vegetable land is stable. The current market for other areas appears to be stable. Currently, there is little inventory of land offered for sale. Only commercially viable properties are included in the Land and Lease Values Table.

VENTURA COUNTY AND SOUTHERN SANTA BARBARA COUNTIES

LEMONS & AVOCADOS

Ventura County and Southern Santa Barbara County lemon values for commercial-size orchards have been stable over the past year, based on limited sales. Ventura County and Southern Santa Barbara County avocado values for commercial-size orchards have been stable over the past year based on very limited sales. The values have increased slightly for small (homesite) size parcels, causing them to command higher per acre prices than commercial-size properties. This appears to be a reflection of the improving residential market and its influence on rural properties. The lower sale prices are from properties located in the far eastern portions of the county, in which more extreme temperatures negatively affect growing conditions. Only commercial size properties are included in the Land and Lease Values Table.

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VALUES: LAND AND LEASE

LAND USE	VALUE PER ACRE	ACTIVITY / TREND	RENT RANGE	ACTIVITY / TREND
SANTA CLARA COUNTY				
Row Crops - Gilroy	$20,000 - $40,000	Moderate/Stable	$400 - $1,000	Moderate/Stable
Rangeland	$1,500 - $3,000	Limited/Stable	$15 - $30	Limited/Stable
MONTEREY COUNTY				
Row Crops	$26,000 - $70,000	Moderate/Stable-Sl.Increasing	$1,000 - $3,300	Moderate/Stable
Rangeland	$700 - $2,000	Limited/Stable	$6 - $30	Limited/Stable
Wine Grapes	$35,000 - $75,000	Limited/Stable	N/A	N/A
SANTA CRUZ COUNTY				
Row Crops	$40,000 - $72,000	Moderate/Stable-Sl.Increasing	$1,700 - $3,000	Moderate/Stable
SAN BENITO COUNTY				
Row Crops	$20,000 - $40,000	Limited/Stable	$450 - $1,800	Moderate/Stable
Rangeland	$600 - $2,500	Limited/Stable	$6 - $30	Limited/Stable
SAN LUIS OBISPO AND SANTA BARBARA COUNTIES				
Row Crops	$25,000 - $58,000	Limited/Stable	$1,300 - $3,000	Limited/Stable
Coastal Rangeland (San Luis Co)	$2,500 - $15,000	Limited/Stable	$7 - $20	Limited/Stable
Inland Rangeland (San Luis Co)	$300 - $7,000	Limited/Stable	$5 - $15	Limited/Stable
Rangeland (Santa Barbara Co)	$2,500 - $15,000	Limited/Stable	$7 - $20	Limited/Stable
Wine Grapes	$25,000 - $75,000	Moderate/Sl. Increasing	N/A	N/A
VENTURA COUNTY				
Row Crops/Strawberries	$45,000 - $81,000	Limited/Decreasing	$1,700 - $4,300	Moderate/Sl. Decreasing
Lemons	$50,000 - $86,000	Limited/Stable	N/A	N/A
Avocados	$37,000 - $63,000	Limited/Stable	N/A	N/A

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Avocados
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artbliss455@gmail.com
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HISTORICAL VALUE RANGE PER ACRE

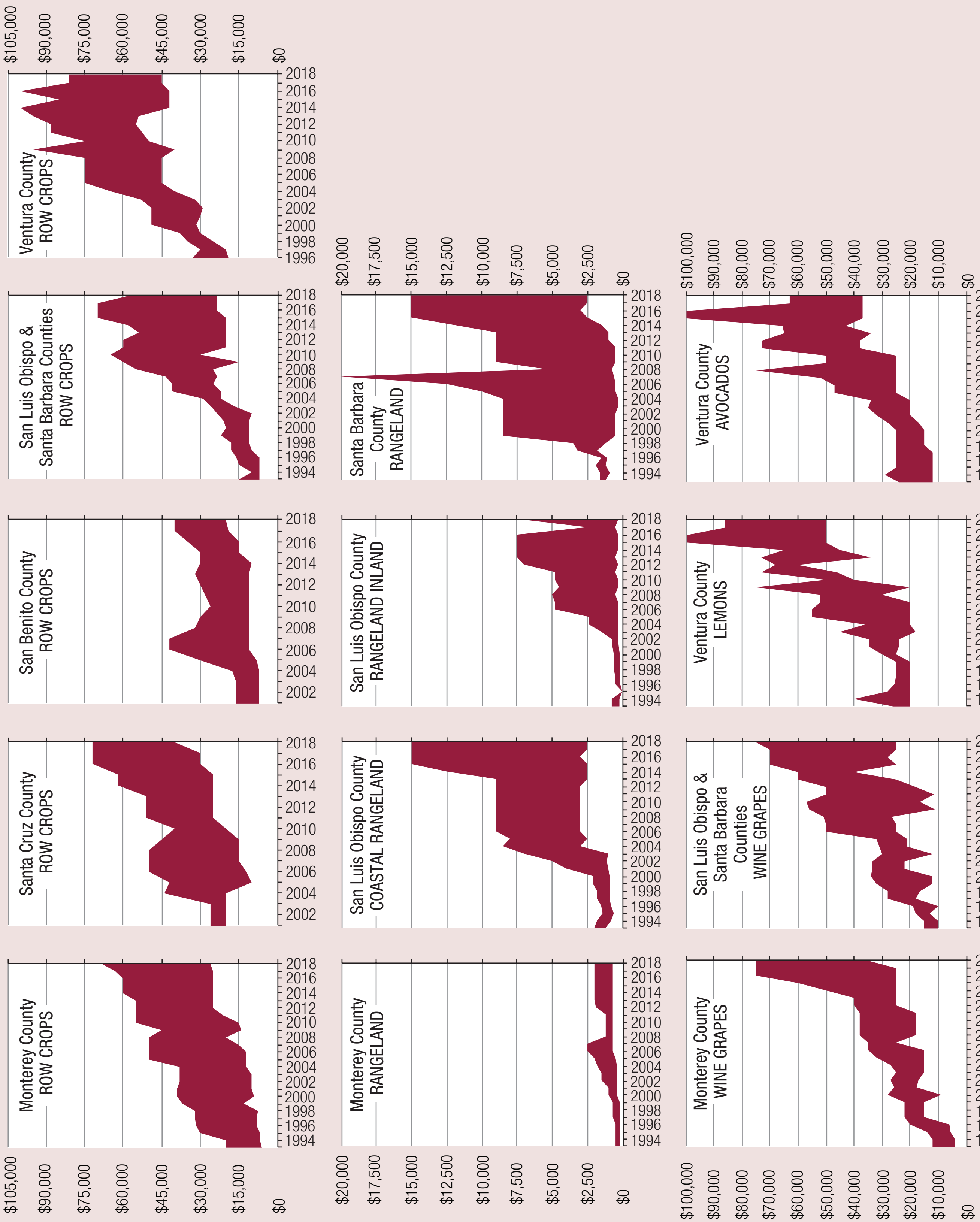
LAND USE	ROW CROPS	RANGELAND	WINE GRAPES
MONTEREY COUNTY			
2018	$26,000 - $70,000	$700 - $2,000	$35,000 - $75,000
2017	$25,000 - $63,000	$700 - $2,000	$25,000 - $75,000
2016	$25,000 - $60,000	$700 - $2,000	$25,000 - $75,000
2015	$25,000 - $60,000	$700 - $2,000	$25,000 - $60,000
2014	$25,000 - $60,000	$700 - $2,000	$25,000 - $50,000
2013	$25,000 - $55,000	$700 - $2,000	$25,000 - $40,000
2012	$25,000 - $55,000	$700 - $1,900	$25,000 - $40,000

LAND USE	ROW CROPS	ROW CROPS	RANGELAND
SANTA CRUZ COUNTY		SAN BENITO COUNTY	
2018	$40,000 - $72,000	$20,000 - $40,000	$600 - $2,500
2017	$30,000 - $72,000	$19,000 - $40,000	$600 - $2,500
2016	$30,000 - $72,000	$15,000 - $35,000	$600 - $2,500
2015	$25,000 - $62,000	$15,000 - $30,000	$600 - $2,500
2014	$25,000 - $62,000	$10,000 - $30,000	$500 - $2,500
2013	$25,000 - $51,000	$11,000 - $32,000	
2012	$25,000 - $51,000	$11,000 - $30,000	

LAND USE	ROW CROPS	RANGELAND COASTAL (San Luis County)	RANGELAND INLAND (San Luis County)	RANGELAND (Santa Barbara County)	WINE GRAPES
SAN LUIS OBISPO COUNTY & SANTA BARBARA COUNTY					
2018	$25,000 - $58,000	$2,500 - $15,000	$300 - $7,000	$2,500 - $15,000	$25,000 - $75,000
2017	$23,500 - $70,000	$2,500 - $15,000	$500 - $2,500	$2,500 - $15,000	$25,000 - $70,000
2016	$23,000 - $70,000	$3,000 - $15,000	$300 - $7,500	$3,000 - $15,000	$28,000 - $70,000
2015	$20,000 - $70,000	$2,500 - $15,000	$300 - $7,500	$2,500 - $15,000	$25,000 - $70,000
2014	$20,000 - $58,000	$2,500 - $12,500	$300 - $7,500	$1,500 - $12,000	$40,000 - $60,000
2013	$20,000 - $54,000	$2,500 - $9,000	$500 - $7,500	$1,000 - $9,000	$25,000 - $60,000
2012	$20,000 - $60,000	$3,000 - $9,000	$300 - $7,000	$1,000 - $9,000	$18,000 - $50,000

LAND USE	ROW CROPS (Gilroy)	RANGELAND
SANTA CLARA COUNTY		
2018	$20,000 - $40,000	$1,500 - $3,000
2017	$20,000 - $40,000	$1,500 - $3,000
2016	$18,000 - $40,000	$1,500 - $3,000
2015	$18,000 - $40,000	$1,500 - $3,000
2014	$15,000 - $40,000	$1,000 - $2,500
2013	$15,000 - $40,000	$2,500 - $5,000
2012	$15,000 - $40,000	$1,200 - $5,000

LAND USE	ROW CROPS	LEMONS	AVOCADOS
VENTURA COUNTY			
2018	$45,000 - $81,000	$50,000 - $86,000	$37,000 - $63,000
2017	$45,000 - $81,000	$50,000 - $86,000	$37,000 - $63,000
2016	$42,000 - $100,000	$50,000 - $100,000	$37,000 - $100,000
2015	$42,000 - $85,000	$50,000 - $100,000	$37,000 - $100,000
2014	$42,000 - $100,000	$45,000 - $65,000	$43,000 - $65,500
2013	$54,000 - $95,000	$34,000 - $73,000	$34,000 - $65,000
2012	$55,000 - $88,000	$60,000 - $68,000	$38,000 - $73,000


Ventura County
ROW CROPS
San Luis Obispo &
Santa Barbara Counties
ROW CROPS
San Benito County
ROW CROPS
Santa Cruz County
ROW CROPS
Monterey County
ROW CROPS
Santa Barbara
County
RANGELAND
San Luis Obispo County
RANGELAND INLAND
San Luis Obispo County
COASTAL RANGELAND
Monterey County
RANGELAND
Ventura County
AVOCADOS
Ventura County
LEMONS
San Luis Obispo &
Santa Barbara
Counties
WINE GRAPES
Monterey County
WINE GRAPES
$105,000
$90,000
$75,000
$60,000
$45,000
$30,000
$15,000
$0
$20,000
$17,500
$15,000
$12,500
$10,000
$7,500
$5,000
$2,500
$0
$100,000
$90,000
$80,000
$70,000
$60,000
$50,000
$40,000
$30,000
$20,000
$10,000
$0

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7 REGION

SOUTHERN CALIFORNIA

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SOUTHERN CALIFORNIA

Region 7 covers the various farming regions of Southern California and includes farmland located within Los Angeles, Orange, San Bernardino, San Diego, Riverside, and Imperial Counties. With varying microclimates, from the arid low deserts to the temperate coastal foothills, trends in agricultural land and lease values are best analyzed by area and commodities grown. Although some of the region's submarkets face pressures from urban encroachment, agriculture continues to be an important contributor to Region 7's economy.

COASTAL MOUNTAINS AND INLAND VALLEYS

AVOCADOS

Avocado groves remained generally stable. The concurrent fires in North San Diego County and Ventura County (Lilac and Thomas Fires, respectively) in late 2017 to early 2018 impacted groves in both areas. While groves in San Diego County were less affected, the ability to get new rootstock was impacted. An early summer heat wave damaged groves throughout the North San Diego and Temecula areas, which resulted in well below-average 2019 supply projections. Properties in the coastal regions have continued to struggle with affordable irrigation water sources. More efficient water management and a continued drive to become less reliant on district water supplies has resulted in the development of more advanced filtration systems, salt tolerant rootstock, and higher density plantings. Groves with suitable alternative or multiple water sources and reverse osmosis filtration have experienced stronger demand and higher prices, while areas with less favorable water sources are exhibiting weaker values. As with most permanent plantings, high-producing groves with potential for estate development have demonstrated the highest values.

CITRUS

Market activity has remained limited, though demand appears to have increased marginally for citrus properties in the coastal regions and inland valleys. While there were a few sales of citrus groves, no transactions of significant size were noted. Lemons continue to be the citrus crop of choice for most growers; both as new plantings and as an alternative to historically water intensive crops. Overall, the consensus is that values remained stable during 2018. Asian citrus psyllid (ACP), the insect which carries the disease Huanglongbing (HLB), continues to be monitored. HLB has not appeared in commercial citrus groves, but has appeared in residential citrus trees within Southern California.

DAIRY

Region 7's dairy market is concentrated in two main areas, the Chino Basin in western Riverside – San Bernardino Counties, and the San Jacinto River Basin in western Riverside County. Milk products continue to be the number one commodity in San Bernardino County, with 2017 sales of $161± million. In Riverside County, 2017 saw milk products hold its spot as the number two leading commodity with $146± million; down from the previous year's total of $149± million. The Chino Basin continues to experience urban encroachment as new construction has moderately increased with the improved housing market. New development in the San Jacinto River Basin market area has been extremely limited. Price trends are stable to increasing in the Chino Basin and considered to be stable in the San Jacinto River Basin with limited market activity taking place.

NURSERY/GREENHOUSES

The market for nursery properties was relatively slow again this year, with only a limited volume of transactions. Driven by continued demand for new housing construction, the industry's positive outlook continued throughout the year with continued growth in the drought tolerant plants sector. Proposition 64, which legalized recreational marijuana at the state level, seems to have had less of an impact in Southern California's nursery and greenhouse market than in other parts of the state, with most municipalities limiting marijuana growers to industrial areas.

WINERIES AND VINEYARDS

Region 7 includes the South Coast American Viticultural Area (AVA), which comprises grapes grown in Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties. The largest and most well-known sub-region is the Temecula Valley AVA in southwestern Riverside County. The Temecula Valley was recently named one of the top 10 Best Wine Travel Destinations of 2019 by Wine Enthusiast. Temecula's relative proximity to Southern California population centers benefits the area with significant tourist traffic. Wineries in this market are set up to support this large influx of visitors on the weekends with events, weddings, lodging, dining, and a wide variety of tasting experiences. The local vineyard and rural estate market exhibits some impact from winery tourism with vacation rentals and bed and breakfasts becoming more common.

In 2018 there was one winery transaction that included a small vineyard (less than 10 acres) and was a resale from 2011. Aside from this sale, one other winery was being actively marketed that included significant vineyard acreage, with strong interest going into 2019. Aside from a handful of rural estate parcels selling with a few acres of vineyard, vineyard transactions have been very limited over the last few years, with no commercial-sized vineyards selling. In 2018 there were two notable vineyard listings along Rancho California Road, with asking prices near $125,000 per acre. Both of these vineyard listings have excellent winery site appeal and buyer interest has been steady. Land and vineyard values were stable in 2018, with the most active part of the vineyard market being redevelopments, along with some new plantings. The trend of replacing citrus groves with vineyards continued in 2018 within the Temecula Valley. The 2018 crop was below average in the Temecula Valley due to unfavorable weather during the growing season. Grape prices are reportedly increasing going into 2019, with the tight grape supply being a factor.

In 2017 some concern was raised when a glassy-winged sharpshooter (carries Pierce's Disease) trapping program captured its largest haul since it was instituted in 2003. The pests were found in orange groves in the Temecula Valley. In 2018 there were no damaging reports, which highlights the efforts of the UC Riverside monitoring program, along with the outreach by the Temecula Valley Winegrowers Association to help educate growers about detection and treatment options.

LOS ANGELES COUNTY

Los Angeles County covers 4,058 square miles with topography that varies from the coastal plains along the Pacific to the rugged foothills of the Santa Monica - San Gabriel Mountain Range to the arid region of the Mojave Desert. Los Angeles County is the most populous county in the nation and agriculture encompasses less than 1% of the land area. Sale activity is sporadic and the value of agricultural real estate is very location-specific, making value trends difficult to quantify.

ORANGE COUNTY

Orange County has a total land area of about 800 square miles that extends from the coastal plains along the Pacific coast to the foothills of the Santa Ana Mountain Range. Though the county was once a thriving area for agriculture, today only about 20,689 acres (4%) is in production. Like neighboring Los Angeles County, agriculture has a small influence on value trends.

DESERT REGION

COACHELLA VALLEY

The Coachella Valley extends for approximately 45 miles in Riverside County, from the San Bernardino Mountains in the north to the Salton Sea in the south. Approximately 60,000 acres in the Valley benefit from surface water for irrigation that is delivered from the Colorado River via the Coachella Canal branch of the All-American Canal. The Coachella Valley Water District continues planning to extend infrastructure for delivery of surface water to farmers in the Oasis area that are currently pumping groundwater. The desert region is attractive as it produces some of the earliest crops in the nation, resulting in good returns to growers. The main crops include table grapes, citrus (mostly lemons), vegetables, dates, and nursery stock. Similar to the prior year, 2018 saw overall limited sale volume with approximately two sales of open land and 14 sales of land planted to permanent crops. The majority of these sales comprised date palm plantations from a large investor's portfolio that is being slightly consolidated. Additionally, the table grape vineyard sales that occurred all came from the same portfolio of a large owner. Land remained stable within the wide range of $16,000 to $30,000 per acre, demonstrating that many factors can influence land prices in the area such as development potential, condition, abandoned permanent crops, etc. Dates remained stable though saw an increase in transaction volume from the prior year due to more properties on the market. Citrus also remained stable from the prior year with limited sales of varying plantings. Table grapes saw a very high price of $45,000 per acre for an early harvest vineyard, which led to an increase in the high end of the range for vineyards.

IMPERIAL VALLEY

Imperial Valley is a flat, northerly sloped irrigated valley established in the early 1900s, consisting of 462,359 irrigated acres. This valley lies directly north of the Mexican Border, west of Arizona, east of San Diego County, and south of Riverside County. Like the Coachella and Palo Verde Valleys, Imperial Valley benefits from low cost surface water coming from the nearby Colorado River. The Imperial Irrigation District (IID) provides water to the region and water costs have remained at $20 per acre-foot for the past decade. Typical water usage is six to eight acre-feet per acre.

The market participants in the Imperial Valley can be divided into three active groups: local farmers, well established regional growers, and packers and shippers of winter vegetables and other produce. Previously solar energy developers were active in the market as well; however, their activity has declined significantly because IID's renewable energy needs are believed to have been largely satisfied.

In 2018, approximately 30 farmland tracts sold, representing a decrease from 2017, when approximately 40 farm transactions closed. There were only four sales at or above $12,000 per acre in 2018, indicating that activity has cooled at the top end of the market; however, a smaller tract sold for roughly $16,000 per acre demonstrating good competition for farmland. Similar to 2017, there were very few large sales in 2018 – no transactions exceeded 1,000 acres – and the 30 farms that sold averaged just over 100 acres.

The sales that took place in the past year largely involved local farmers, though agricultural investors and land speculators from other regions of California were also active, some of whom were looking to place 1031 exchange funds. There are significant price differences between classes of land. Prices paid for produce-quality land have been strong, with better quality land prices ranging from $12,000 to $15,000+ per acre with the highest prices paid for high quality farmland near Holtville. Average quality land has also been steady with purchase prices ranging from $8,500 to $12,000 per acre on land suitable for alfalfa and vegetables. Sales of limited adaptability land have been limited, ranging from $5,500 to $7,500 per acre. The past year saw average and good adaptability properties continue to generate significant interest, while the lower tier of land experienced increasing marketing times and slightly lowered prices, though transactions still occurred for fairly priced tracts.

PALO VERDE VALLEY

The Palo Verde Valley is located in eastern Riverside County along the Colorado River basin. The valley is approximately 29 miles long (north to south) and has a maximum width of about 15 miles. Hot summers, mild winters, and very little rainfall characterize this desert climate. By far the most widely produced commodity in the Valley is alfalfa, with other forage crops, cotton, small grains, broccoli, leafy vegetables, and melons also being commonly planted.

2018 saw slightly fewer transactions take place, with mostly local/regional growers and little to no activity from high paying water districts and foreign interests. As such, sale prices were much lower than in prior years; however, market participants indicated that this is due mostly to the inventory of available properties. Overall the view is that values are stable. Generally, the non-speculative farm buyers active in 2018 were paying in the range of roughly $11,000 to $15,250 per water toll acre. Farmland with river frontage was purchased for conservation at over $20,000 per water toll acre, though the premium was due to the river frontage. Speculative buyers have been at the higher end, in the mid to high teens per water toll acre range in prior years. Rental rates have not tracked upward as land values increased, leading to extremely low capitalization rates that indicate the buyers currently active in the marketplace are limited to owner-users or speculators rather than investors who expect a cash flow that is sufficient to justify the investment.

In a 2005 agreement, Metropolitan Water District of Southern California (MWD) negotiated with Palo Verde Irrigation District (PVID) in Blythe to fallow up to 35% of the Valley's farmland for 35 years. This equitable agreement pays farmers for Colorado River water that would have been used for farming in the

VALUES: LAND AND LEASE

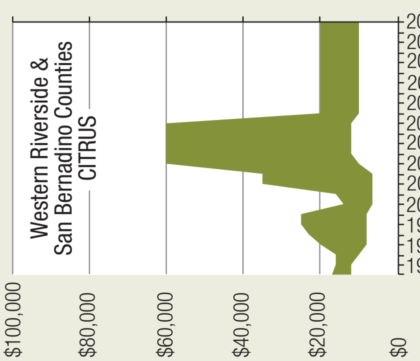
LAND USE	VALUE PER ACRE	ACTIVITY/TREND	RENT RANGE	ACTIVITY/TREND
WESTERN RIVERSIDE & SAN BERNARDINO COUNTIES				
Dairies: San Jacinto	$150,000 - $500,000	None/Stable	$8 - $10/MC/Mo	Limited/Stable
Dairies: Chino	$150,000 - $500,000	Limited/Stable	$7 - $10/MC/Mo	Very Limited/Stable
Citrus	$10,000 - $20,000	Limited/Stable	30% - 40% Share	Very Limited/Stable
Wine Grapes	$50,000 - $100,000	Limited/Stable	$500 - $700	Limited/Stable
SAN DIEGO COUNTY				
Citrus	$10,000 - $28,000	Limited/Stable	30% - 40% Share	Very Limited/Stable
Avocados*	$10,000 - $25,000	Limited/Stable	30% - 40% Share	Very Limited/Stable
Cropland	$25,000 - $65,000	Limited/Stable	$350 - $2,000/Ac	Very Limited/Stable
*Includes Southwestern Riverside County				
COACHELLA VALLEY				
Citrus	$18,000 - $30,000	Limited/Stable	30% - 40% Share	Very Limited/Stable
Dates	$30,000 - $50,000	Moderate/Stable	$400 - $600	Very Limited/Stable
Table Grapes	$25,000 - $45,000	Moderate/Stable to Sl. Increasing	$500 - $700	Very Limited/Stable
Open Land	$16,000 - $30,000	Limited/Stable	$350 - $500	Very Limited/Stable
PALO VERDE VALLEY				
Irrigated Field Crops	$11,000 - $17,000**	Limited/Stable	$200 - $350	Limited/Stable
**$/Water Toll Acre				
IMPERIAL VALLEY				
Good Adaptability (Produce)	$12,000 - $15,000	Limited/Stable	$350 - $550	Limited/Stable
Average Adaptability (Alfalfa)	$8,500 - $12,000	Moderate/Stable	$250 - $400	Limited/Stable
Limited Adaptability	$5,500 - $7,500	Moderate/Stable	$175 - $250	Limited/Stable

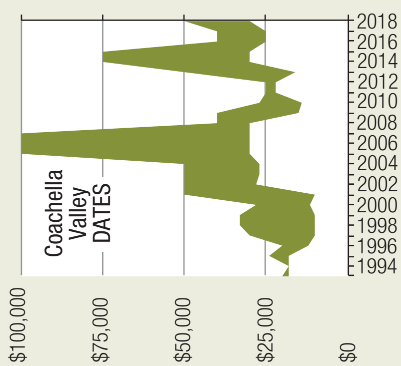
area and transfers the water to MWD for urban use in Southern California. The MWD fallowing payment for the 2018-2019 year is $829.88 per water toll acre.

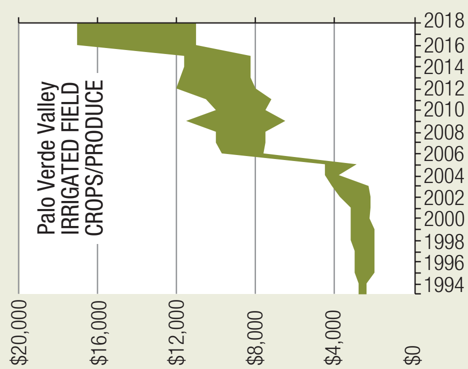
In September 2017, PVID filed a lawsuit against MWD centered around the 2015 purchase of over 12,000 acres of farmland in the Valley as well as the district's leasing practices. This lawsuit was subsequently dropped in March 2018 in favor of each party's preference to settle the dispute outside of court. This has created some uncertainty in the market as those water districts were largely responsible for the upward value pressure that has been present since 2015.

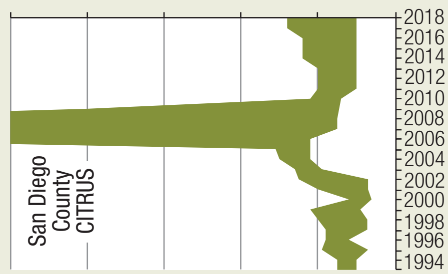
HISTORICAL VALUE RANGE PER ACRE

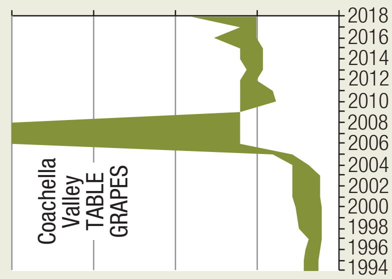
LAND USE	CITRUS	DAIRIES	WINE GRAPES	
WESTERN RIVERSIDE AND SAN BERNARDINO COUNTIES				
2018	$10,000 - $20,000	$150,000 - $500,000	$50,000 - $100,000	
2017	$10,000 - $20,000	$150,000 - $500,000	$50,000 - $100,000	
2016	$10,000 - $20,000	$150,000 - $500,000	$50,000 - $100,000	
2105	$10,000 - $20,000	$180,000 - $500,000	$45,000 - $90,000	
2014	$10,000 - $20,000	$188,000 - $475,000	$45,000 - $90,000	
2013	$10,000 - $20,000	$90,000 - $250,000	$35,000 - $70,000	
2012	$10,000 - $20,000	$65,000 - $250,000	$35,000 - $70,000	
LAND USE	CITRUS	CROPLAND	AVOCADOS	
SAN DIEGO COUNTY			(includes Southwestern Riverside)	
2018	$10,000 - $28,000	$25,000 - $65,000	$10,000 - $25,000	
2017	$10,000 - $28,000	$25,000 - $60,000	$10,000 - $25,000	
2016	$10,000 - $24,000	$25,000 - $60,000	$10,000 - $25,000	
2015	$10,000 - $24,000	$40,000 - $60,000	$13,000 - $35,000	
2014	$10,000 - $24,000	$40,000 - $60,000	$13,000 - $28,000	
2013	$10,000 - $20,000	$40,000 - $60,000	$13,000 - $28,000	
2012	$10,000 - $20,000	$40,000 - $55,000	$10,000 - $24,000	
LAND USE	CITRUS	DATES	TABLE GRAPES	OPEN LAND
COACHELLA VALLEY				
2018	$18,000 - $30,000	$30,000 - $50,000	$25,000 - $45,000	$16,000 - $30,000
2017	$20,000 - $28,000	$25,000 - $40,000	$25,000 - $30,000	$18,000 - $30,000
2016	$20,000 - $25,000	$25,000 - $40,000	$25,000 - $38,000	$18,000 - $30,000
2015	$20,000 - $25,000	$30,000 - $75,000	$23,000 - $30,000	$18,000 - $29,000
2014	$20,000 - $25,000	$30,000 - $75,000	$23,000 - $30,000	$23,000 - $28,500
2013	$16,000 - $29,000	$16,000 - $50,000	$23,000 - $28,000	$16,000 - $29,000
2012	$16,000 - $25,000	$22,000 - $25,000	$25,000 - $30,000	$18,000 - $27,000
LAND USE	IRRIGATED FIELD CROPS (per water toll acre)	GOOD ADAPTABILITY (Produce)	AVERAGE ADAPTABILITY (Alfalfa)	LIMITED ADAPTABILITY
PALO VERDE VALLEY		IMPERIAL VALLEY		
2018	$11,000 - $17,000	$12,000 - $15,000	$8,500 - $12,000	$5,500 - $7,500
2017	$11,000 - $17,000	$12,000 - $15,000	$8,500 - $12,000	$6,000 - $8,500
2016	$11,000 - $17,000	$11,500 - $15,000	$8,500 - $11,500	$6,000 - $8,500
2015	$8,250 - $11,600	$11,500 - $14,500	$8,500 - $11,500	$6,500 - $8,500
2014	$8,250 - $11,600	$9,000 - $11,000	$7,000 - $8,000	$5,500 - $7,000
2013	$8,250 - $11,800	$9,000 - $12,500	$6,000 - $9,000	$5,000 - $6,000
2012	$8,000 - $12,000	$9,000 - $10,000	$4,500 - $7,000	$3,500 - $4,500

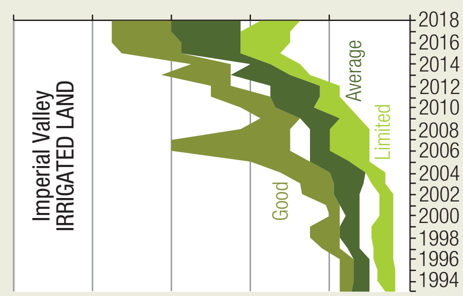

Western Riverside &
San Bernadino Counties
CITRUS
$100,000
$80,000
$60,000
$40,000
$20,000
$0

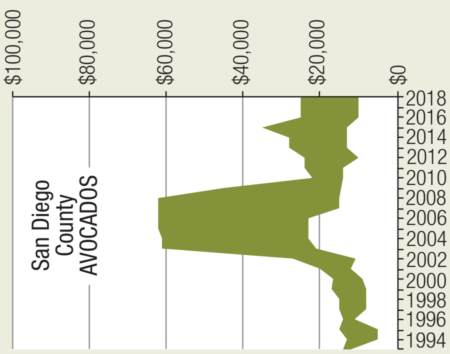

Coachella
Valley
DATES
$100,000
$75,000
$50,000
$25,000
$0


Palo Verde Valley
IRRIGATED FIELD
CROPS/PRODUCE
$20,000
$16,000
$12,000
$8,000
$4,000
$0

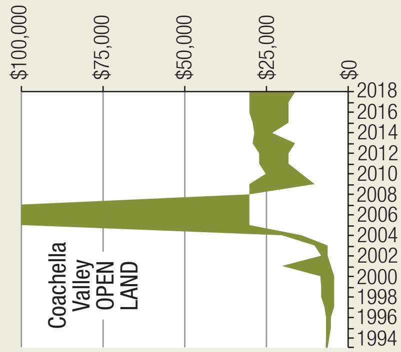

San Diego
County
CITRUS


Coachella
Valley
TABLE
GRAPES


Imperial Valley
IRRIGATED LAND
Good
Average
Limited


San Diego
County
AVOCADOS
$100,000
$80,000
$60,000
$40,000
$20,000
$0


Coachella
Valley
CITRUS


Coachella
Valley
OPEN
LAND
$100,000
$75,000
$50,000
$25,000
$0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8

REGION

MOUNTAINS

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MODOC | MONO | NEVADA | PLACER (EAST) | PLUMAS | SHASTA | SIERRA | SISKIYOU | TUOLUMNE

MOUNTAINS

NORTHERN INTER-MOUNTAIN VALLEYS

LASSEN, MODOC, SHASTA & SISKIYOU COUNTIES

Located in northeastern California, the leading commodities for the Northern Inter-mountain Valleys in order of value are forage (primarily alfalfa), cattle and calves, nursery stock (primarily strawberries), vegetables (primarily potatoes and onions), timber, wild rice, and grains. Walnuts are also a fairly new crop being grown in Shasta County. There is currently average to good demand throughout for irrigated farms and livestock grazing. Time on market for both property types has lengthened. Commodity prices have decreased substantially from the highs seen in previous years with cattle and hay prices experiencing lower but more stable and sustainable prices. The demand for farms and ranches hasn't diminished as demand for forage—and the ability to control it—seem to be major factors in the market. There is limited sale activity, as there are a limited amount of average-quality or better offerings presented. Overall, this market area appears stable with a limited number of sales.

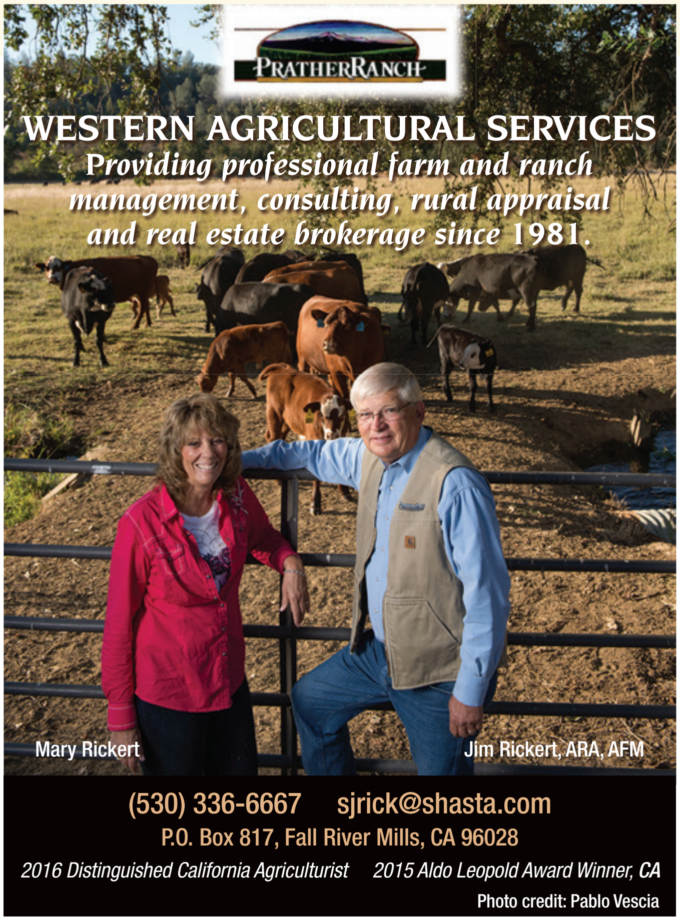
In the past, the surrounding forestlands in this region provided timber for the many saw mills in operation throughout the area. The decline in the timber industry began in the mid 1990s due to the placing of the California Spotted Owl on the sensitive species list and the resulting reductions in federal timber sales. Lumber prices softened and volume dropped dramatically after the housing crash of 2008. These two factors resulted in the closure of most of the smaller mills in Northern California and Southern Oregon and the loss of many timber-related jobs. Timber prices increased significantly for most classes in 2018, as housing starts increased due to wildland fires and the destruction of many homes in some areas. Sales of timber parcels in the area are usually limited with extended marketing periods.

The Northern Inter-Mountain Valleys are broken into various sub-market areas. The Alturas area and Surprise Valley are located in northeastern Modoc County. A key attribute of the area is the abundant supply of federal rangeland available for a relatively low cost; fertile bottomlands; and power from the Surprise Valley Rural Electric Co-Op at some of the lowest rates in the state. All of these features combine to make this a productive farming and ranching region in the intermountain west. Historically, the principal crops grown in this area were alfalfa hay, irrigated pasture for beef cattle, cereal grains, and dry pasture, with some wild rice grown south and west of Alturas.

Tulelake is situated in the agricultural district known as the Klamath Basin in the northeastern portion of California and extends into south-central Oregon. Historically, the principal crops grown in this area were cereal grains, alfalfa hay, irrigated pastures for beef cattle, onions, potatoes, and grass seed. More recently, mint, garlic, and fresh market carrots have also been planted. The area is noted for the production of potatoes and malting barley. Irrigation water has been at the forefront in recent years due to the numerous entities that are vying for it. The parties laying claim to the water vary and include Indian tribes on the Klamath River, farmers and irrigation districts, wildlife refuges, environmentalists, and wildlife on the endangered species list. Even in the best of years, the water available does not satisfy the needs of all the parties which lay claim to it. In 2001 emergency State and Federal grants provided money to drill supplemental wells and as of 2004 nine wells were completed and able to serve approximately 25% of the total lands irrigated. Due to the wells' location and capacity, not all the farms in the basin have access to water from these wells. Several private wells have also been drilled and can supplement small areas. With the adjudication of water rights completed in March of 2013, a whole new set of problems arose affecting water right priorities and access to water for those ranches and farmers in the upper basin. Those producers dependent on water from the Sprague and Sycan Rivers were denied water beginning in June of 2013 with the water going to fulfill the water needs adjudicated to and claimed by the Klamath Tribe. More recently, the Klamath Tribe made a call on the water as early as Spring 2018 which impacted the upper basin irrigators throughout the summer. Despite the ongoing water issues surrounding the Klamath Basin area, demand for property is average with values stable over the past year.

Butte Valley is an intensive farming area located in Siskiyou County. A key attribute of the area is the abundant supply of relatively low cost irrigation water from underground wells and the Butte Valley Irrigation District. Historically, the principal crops grown in this area were alfalfa hay, irrigated pasture for beef cattle, cereal grains, and potatoes. More recently potatoes have been replaced by the growing of strawberry sets with the right type of soils and infrastructure. Strawberry nursery production is one of the county's most valuable crops with plants exported to many countries worldwide. Competition from various nurseries is strong for lands capable of producing the sets. Demand for property in the area is average to good and values were seen as stable during the past year with very limited sale activity. Timber production has also tapered off.

Shasta Valley and Scott Valley are situated within north-central Siskiyou County. Sierra Valley is located within Plumas and Sierra Counties. Honey Lake Valley is located in southeastern Lassen County and Big Valley comprises the northwestern part of Lassen County and the southwestern part of Modoc County, and lies near the northeastern corner of the State. Historically, the principal crops grown in these areas were alfalfa hay, irrigated pasture for beef cattle, cereal grains, and dry pasture. Timber production has tapered off as in the other submarkets. A key attribute of this market area is the abundant supply of federal rangeland available for a relatively low cost; fertile bottomlands; and water for irrigation.



Pittville/McArthur is situated in eastern Shasta and western Lassen Counties near the communities of Fall River Mills, McArthur and Pittville. This area falls within the Fall River Valley. Historically, the principal crops grown in this area were alfalfa hay, irrigated pastures for beef cattle, cereal grains, and wild rice. The surrounding forest-lands provide timber and support several saw mills in the area. More recently, mint, garlic, and strawberry sets have been also planted. The area is noted for the production of wild rice and strawberry sets. Demand for property in the area is usually strong and values have been stable over the past year.

RANGELAND IN ALL SIERRA NEVADA MOUNTAIN COUNTIES

Prior to the downturn in the economy, the rangeland market was influenced by buyers looking for ranches for recreational, retreat, and homesite purposes. At the present time, the demand from these types of buyers has decreased. There was very limited sale activity in most of the market area in 2018, and the few sales that did occur indicated stable prices. At the same time, there appears to be some interest from livestock producers in purchasing large ranches at current listed prices, with no justification for a positive return. More recently, Nevada BLM permits are being purchased for the rainfall insurance claims as well as the ease of sub-leasing them out to neighboring ranchers.

EAST PLACER COUNTY

IRRIGATED CROPLAND/RICE GROUND

There are limited areas in the eastern portion of Placer County that are suitable for these uses. Land values have remained stable with very limited sale activity noted. Parcels adaptable to permanent plantings command the highest prices. Properties having less desirable soil types for growing permanent plantings remain in various irrigated crops or rice. However, nut commodity prices are putting pressure on any and all open land. Similar to the northern rice producing counties, values of good quality rice properties have remained relatively stable. There is limited availability of rice farms for purchase in the area. Prospective buyers tend to be other farmers looking to expand their operations, which creates good competition for desirable rice farms.

VALUES: LAND AND LEASE

LAND USE	VALUE PER ACRE	ACTIVITY / TREND	RENT RANGE	ACTIVITY / TREND
NORTH INTERMOUNTAIN VALLEY AREAS (Lassen, Modoc, Shasta, Siskiyou Counties)				
Strawberry Ground	$5,000 - $6,000	Limited/Stable	$400 - $600	Limited/Stable
Irrigated Crop/Good Quality Acreage	$2,500 - $4,500	Limited/Stable	$175 - $250	Limited/Stable
Meadow/Irrigated Pasture	$2,000 - $3,000	Limited/Stable	$20 - $30/AUM	Limited/Stable
Dry Pasture	$400 - $1,000	Limited/Stable	$10 - $20/AUM	Limited/Stable
SIERRA VALLEY				
Irrigated Crop/Good Quality Acreage	$2,500 - $5,000	None/Stable	Insufficient Data	None/Stable
Meadow/Irrigated Pasture	$2,500 - $3,500	Limited/Stable	$20 - $35/AUM	None/Stable
Dry Pasture	$1,000 - $2,500	Limited/Stable	$10 - $20/AUM	None/Stable
PITTVILLE/McARTHUR				
Irrigated Crop Acreage	$4,000 - $8,500	Limited/Stable	$250 - $350	Limited/Stable
NORTH INTERMOUNTAIN CATTLE RANCHES Value per Animal Unit (Lassen, Modoc & portion of Siskiyou Counties)				
Inside Operation (0-15% Public)	$5,000 - $8,000	Limited/Stable	$15 - $35/AUM	Limited/Stable
Range Operation (>15% Public)	$4,000 - $7,000	Limited/Stable	$15 - $35/AUM	Limited/Stable
PLUMAS, EAST PLACER, SIERRA, NEVADA & ALPINE COUNTIES				
Rangeland	$1,000 - $2,000	Limited/Stable	$15 - $35/AUM	Limited/Stable
Irrigated Cropland/Rice Ground (Placer)	$7,000 - $8,000	Limited/Stable	N/A	Limited/Stable
EAST EL DORADO, AMADOR & CALAVERAS COUNTIES				
Rangeland	$1,000 - $2,200	Limited/Stable	$15 - $35/AUM	Limited/Stable
TUOLUMNE, MARIPOSA, MONO & INYO COUNTIES				
Rangeland	$1,000 - $2,000	Limited/Stable	$15 - $35/AUM	Limited/Stable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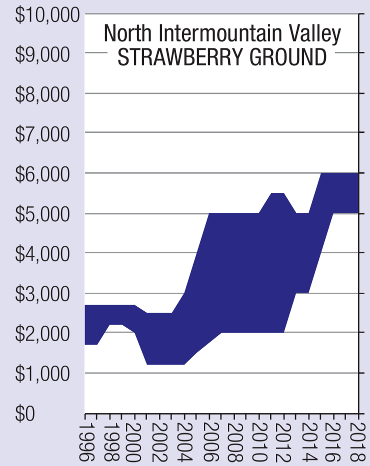
HISTORICAL VALUE RANGE PER ACRE

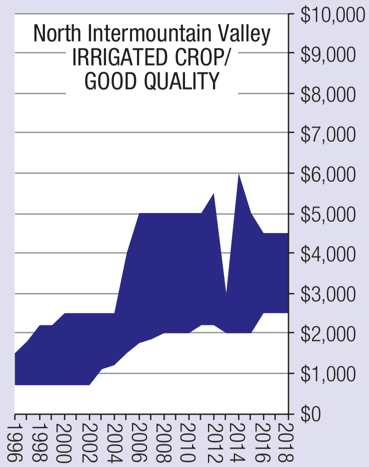
LAND USE	STRAWBERRY GROUND	IRRIGATED CROP/ GOOD QUALITY ACREAGE	MEADOW/ IRRIGATED PASTURE	DRY PASTURE
NORTH INTERMOUNTAIN VALLEY AREAS (Lassen, Modoc, Shasta & Siskiyou Counties)				
2018	$5,000 - $6,000	$2,500 - $4,500	$2,000 - $3,000	$400 - $1,000
2017	$5,000 - $6,000	$2,500 - $4,500	$2,000 - $2,500	$400 - $1,000
2016	$5,000 - $6,000	$2,500 - $4,500	$2,000 - $2,500	$400 - $1,000
2015	$4,000 - $6,000	$2,000 - $5,000	$2,000 - $3,000	$250 - $1,000
2014	$3,000 - $5,000	$2,000 - $6,000	$2,000 - $3,000	$500 - $1,000
2013	$3,000 - $5,000	$2,000 - $3,000	$1,750 - $4,000	$500 - $1,200
2012	$2,000 - $5,500	$2,200 - $5,500	$1,750 - $4,000	$500 - $1,200

LAND USE	IRRIGATED CROP GOOD QUALITY ACREAGE	MEADOW/ IRRIGATED PASTURE	DRY PASTURE	IRRIGATED CROP ACREAGE
SIERRA VALLEY				PITTVILLE/McARTHUR
2018	$2,500 - $5,000	$2,500 - $3,500	$1,000 - $2,500	$4,000 - $8,500
2017	$2,500 - $5,000	$2,500 - $3,500	$1,000 - $2,500	$4,000 - $8,500
2016	$2,500 - $5,000	$2,500 - $3,500	$1,000 - $2,500	$4,000 - $8,500
2015	$2,500 - $5,000	$2,500 - $5,000	$1,000 - $5,000	$4,000 - $8,500
2014	$2,500 - $5,000	$2,500 - $10,000	$2,500 - $5,000	$4,000 - $6,000

LAND USE	RANGELAND	IRRIGATED CROPLAND/ RICE GROUND
PLUMAS, E. PLACER, SIERRA, NEVADA & ALPINE CO		EAST PLACER
2018	$1,000 - $2,000	$7,000 - $8,000
2017	$1,000 - $2,000	$7,000 - $8,000
2016	$1,000 - $4,000	$7,000 - $8,000
2015	$1,000 - $4,000	$7,000 - $8,000
2014	$1,000 - $4,000	$7,000 - $8,000
2013	$500 - $5,000	
2012	$500 - $4,500	

LAND USE	RANGELAND	RANGELAND	INSIDE OPERAION 0-15% Public)	INSIDE OPERATION (>15% Public)
EL DORADO, AMADOR & CALAVERAS CO		TUOLUMNE, MARIPOSA, MONO & INYO CO	CATTLE RANCHES ($ per AU)	
2018	$1,000 - $2,200	$1,000 - $2,000	$5,000 - $8,000	$4,000 - $7,000
2017	$1,000 - $2,000	$1,000 - $2,000	$5,000 - $7,000	$3,000 - $5,000
2016	$1,000 - $5,000	$1,000 - $3,000	$3,500 - $7,000	$3,000 - $5,000
2014	$1,000 - $5,000	$1,000 - $3,500	$3,500 - $5,000	$3,000 - $4,000
2013	$1,000 - $5,000	$1,000 - $3,500	$3,500 - $5,000	$3,000 - $4,000
2012	$1,200 - $5,500	$1,000 - $3,000	$5,000 - $12,500	$2,500 - $4,000


North Intermountain Valley
STRAWBERRY GROUND
$10,000
$9,000
$8,000
$7,000
$6,000
$5,000
$4,000
$3,000
$2,000
$1,000
$0
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018


North Intermountain Valley
IRRIGATED CROP/
GOOD QUALITY
$10,000
$9,000
$8,000
$7,000
$6,000
$5,000
$4,000
$3,000
$2,000
$1,000
$0
1996
1998
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2006
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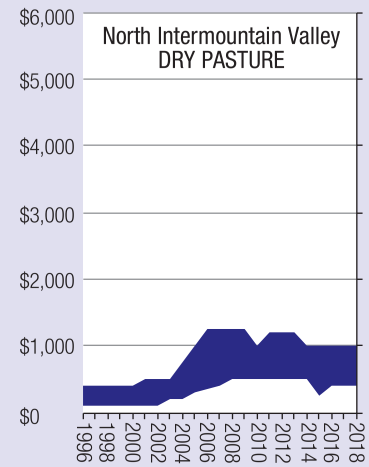
North Intermountain Valley
DRY PASTURE
$6,000
$5,000
$4,000
$3,000
$2,000
$1,000
$0
1996
1998
2000
2002
2004
2006
2008
2010
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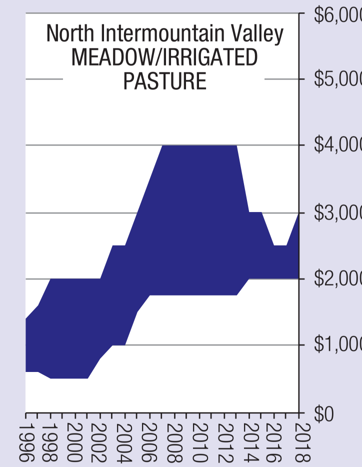
2018


North Intermountain Valley
MEADOW/IRRIGATED
PASTURE
$6,000
$5,000
$4,000
$3,000
$2,000
$1,000
$0
1996
1998
2000
2002
2004
2006
2008
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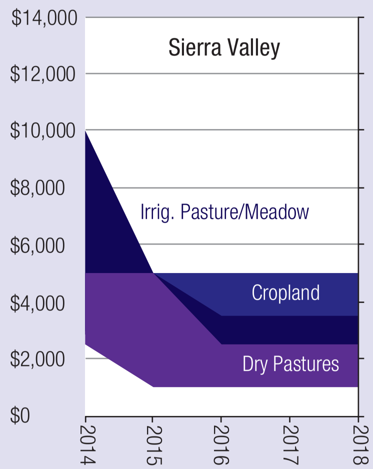
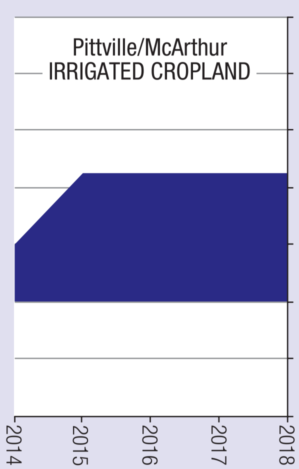
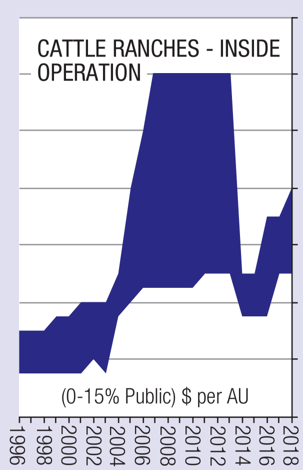
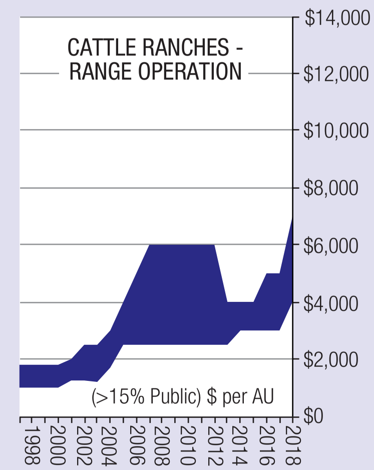
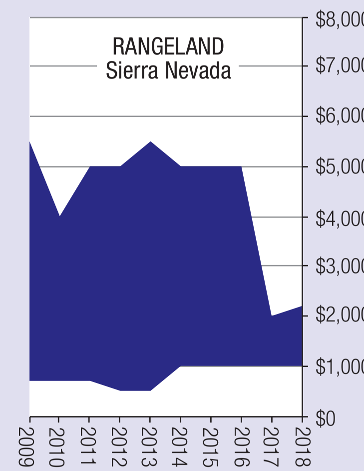
2012
2014
2016
2018


Sierra Valley
Irrig. Pasture/Meadow
Cropland
Dry Pastures
$14,000
$12,000
$10,000
$8,000
$6,000
$4,000
$2,000
$0
2014
2015
2016
2017
2018


Pittville/McArthur
IRRIGATED CROPLAND
2014
2015
2016
2017
2018


CATTLE RANCHES - INSIDE
OPERATION
(0-15% Public) $ per AU
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018


CATTLE RANCHES -
RANGE OPERATION
(>15% Public) $ per AU
$14,000
$12,000
$10,000
$8,000
$6,000
$4,000
$2,000
$0
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018


RANGELAND
Sierra Nevada
$8,000
$7,000
$6,000
$5,000
$4,000
$3,000
$2,000
$1,000
$0
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018

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9 REGION

NEVADA

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LANDER | LINCOLN | LYON | MINERAL | NYE | PERSHING | STOREY | WASHOE | WHITE PINE

NEVADA

There are numerous valleys rich in agricultural resources across the state of Nevada. Most of these valleys go unseen from highways and roads that traverse the State. Nevada agriculture is directed primarily toward range livestock production. Cattle and calves are the leading agricultural industry. Cow-calf operations predominate with a few stocker operators and feedlots. Nevada's high desert climate is also very well suited to the production of high quality alfalfa hay, which accounts for over half of the total value of crops produced in the state. Much of the alfalfa is marketed to dairies in California and a significant quantity is exported overseas. Additional crops produced in Nevada include potatoes, barley, winter and spring wheat, corn, oats, onions, garlic and honey. Leafy greens have become a predominate crop in Mason Valley near Yerington. Smaller acreages of alfalfa seed, mint, turf grass, fruits and vegetables are grown throughout the state.

Within the State of Nevada, comparable sale activity has been consistent with prior years. There has been relief in drought conditions because of the average winter in 2015/16 and the above-average winter of 2016/17. The 2017/18 winter was somewhat average. In 2016, alfalfa and cattle prices had softened to levels that were substantially lower than the past few years. Comparable sale data has indicated that there have been no effects on real estate values because of the softening in alfalfa and cattle prices in 2016. In 2017 alfalfa and cattle prices had strengthened and have been fairly stable throughout 2018.

There have been a few sales in the Lovelock area that indicate a stable market. In the Fallon area, there have also been some farm sales and sales of water rights that indicate no decline in value. In Mason and Smith Valleys, farm values appear to be stable, based on limited sale activity. The Walker River Restoration Program has had some impact on values in the Mason and Smith Valleys, as water purchases were concluded with some including deeded lands. There have been a few comparable sales of alfalfa farms throughout Nevada that rely solely on pumped ground water, which also indicate a stable market. A few cattle ranch sales have also occurred indicating a fairly stable market.

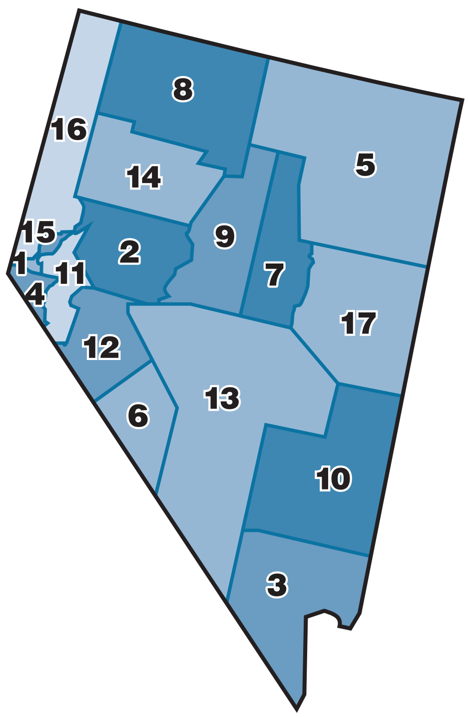
Overall, the Nevada agricultural real estate market has remained fairly stable throughout 2018.

VALUES: LAND AND LEASE

LAND USE	VALUE PER ACRE	ACTIVITY / TREND	RENT RANGE	ACTIVITY / TREND
NORTHERN NEVADA IRRIGATED CROPLAND VALUE PER ACRE				
Lahontan Valley (Fallon)	$5,500-$10,000	Stable/Stable	$125-$200	Limited/Stable
Lovelock	$2,000 - $3,000	Limited/Stable	33% Crop Share	Limited/Stable
Mason Valley	$5,500 - $8,000	Limited/Stable	$150 - $400	Limited/Stable
Smith Valley	$5,500 - $8,000	Limited/Stable	$150 - $200	Limited/Stable
Carson Valley	$7,000 - $10,000	Limited/Stable	N/A	N/A
Orovada	$3,000 - $4,000	Limited/Stable	$100 - $150	Limited/Stable
Kings River/Silver State Valley	$3,000 - $4,000	Limited/Stable	$100 - $150	Limited/Stable
Winnemucca Area	$3,000 - $4,000	Limited/Stable	$100 - $150	Limited/Stable
Elko/Diamond Valley/Reese River Valley	$2,500 - $3,500	Limited/Stable	$100 - $150	Limited/Stable
NORTHERN NEVADA CATTLE RANCH OPERATIONS VALUE PER AU				
Inside Operation	$5,000 - $7,000	Limited/Stable	$100 - $200	Limited/Stable
Range Operation	$3,000 - $5,000	Limited/Stable	$100 - $150	Limited/Stable
Desert Operation	$2,400 - $3,600	Limited/Stable	$100 - $150	Limited/Stable
GRAZING PERMITS VALUE PER AUM				
Grazing Permits	$80 - $200	Limited/Stable	N/A	None/Stable
GRAZING LAND VALUE PER ACRE				
Dry Grazing (Range)	$100 - $500	Limited/Stable	N/A	None/Stable
Pasture/Meadow	$500 - $2,000	Limited/Stable	$25 - $30/AUM	Limited/Stable

NEVADA AGRICULTURAL COMMODITIES BY COUNTY

1	CARSON CITY	alfalfa, livestock
2	CHURCHILL	forage, grains, vegetables, melons, alfalfa, dairy, livestock, bedding plants
3	CLARK	forage, grains, alfalfa, dairy, livestock, melons
4	DOUGLAS	forage, pasture, grains, dairy, livestock, garlic, onions, grapes
5	ELKO	forage, grains, pasture, livestock
6	ESMERALDA	alfalfa, grains, carrots, livestock
7	EUREKA	forage, grains, alfalfa, timothy hay, livestock
8	HUMBOLDT	potatoes, forage, grains, mint, alfalfa seed, garlic, turf, bean seed, honey, peas, onions, livestock
9	LANDER	forage, grains, alfalfa seed, livestock
10	LINCOLN	forage, grains, potatoes, apples, turf, livestock
11	LYON	onions, garlic, corn, alfalfa, dairy, turf, potatoes, vegetables, livestock
12	MINERAL	forage, grains, livestock
13	NYE	forage, grains, melons, row crops, pecans, pistachios, turf, livestock
14	PERSHING	alfalfa seed, forage, grains, honey, livestock
15	STOREY	potatoes, onions, vegetables, livestock
16	WASHOE	forage, grains, onions, garlic, potatoes, dairy, livestock, turf
17	WHITE PINE	forage, grains, livestock



REGION NINE

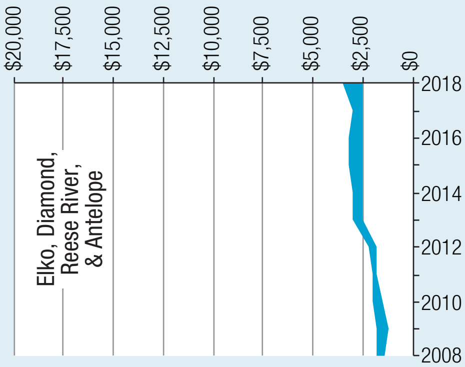
HISTORICAL VALUE RANGE PER ACRE

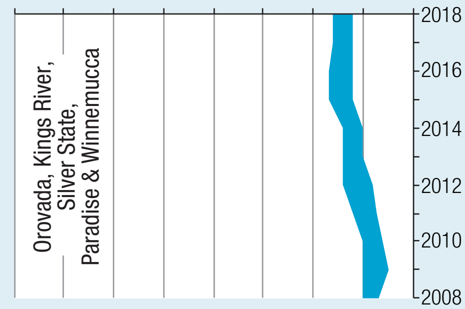
LAND USE	LAHONTAN VALLEY (FALLON)	LOVELOCK	MASON VALLEY	SMITH VALLEY	CARSON VALLEY	OROVADA	KINGS RIVER/ SILVER STATE VALLEY	WINNEMUCCA AREA	ELKO, DIAMOND VALLEY, REESE RIVER
NORTHERN NEVADA IRRIGATED CROPLAND									
2018	$5,500 - $10,000	$2,000 - $3,000	$5,500 - $8,000	$5,500 - $8,000	$7,000 - $10,000	$3,000 - $4,000	$3,000 - $4,000	$3,000 - $4,000	$2,500 - $3,500
2017	$5,500 - $9,000	$2,000 - $3,000	$5,500 - $8,000	$5,500 - $8,000	$7,000 - $10,000	$3,000 - $4,000	$3,000 - $4,000	$3,000 - $3,500	$2,500 - $3,000
2016	$6,000 - $9,000	$2,000 - $3,000	$5,500 - $8,000	$5,500 - $8,000	$7,000 - $10,000	$3,500 - $4,200	$3,500 - $4,200	$3,000 - $3,500	$2,500 - $3,200
2015	$6,000 - $9,000	$2,000 - $3,000	$6,000 - $8,000	$6,000 - $8,000	$7,000 - $10,000	$3,500 - $4,200	$3,500 - $4,200	$3,000 - $3,500	$2,500 - $3,200
2014	$6,000 - $8,000	$2,300 - $3,000	$5,500 - $8,000	$5,500 - $8,000	$7,000 - $12,000	$3,000 - $3,500	$2,500 - $3,500	$2,500 - $3,000	$2,500 - $3,000
2013	$6,000 - $8,000	$2,300 - $3,000	$5,500 - $8,000	$5,500 - $8,000	$7,000 - $12,000	$3,000 - $3,500	$2,500 - $3,500	$2,500 - $3,000	$2,500 - $3,000
2012	$5,000 - $7,000	$1,800 - $2,500	$5,000 - $7,500	$5,000 - $8,000	$7,500 - $15,000	$2,000 - $3,500	$2,000 - $3,500	$2,000 - $3,500	$1,800 - $2,200

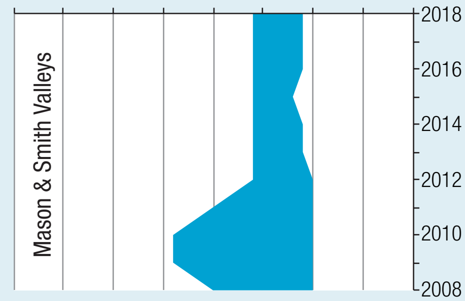
LAND USE	INSIDE OPERATION	RANGE OPERATION	DESERT OPERATION
NORTHERN NEVADA CATTLE RANCH OPERATIONS (VALUE PER AU)			
2018	$5,000 - $7,000	$3,000 - $5,000	$2,400 - $3,600
2017	$5,000 - $7,000	$3,000 - $5,000	$2,400 - $3,000
2016	$5,000 - $7,000	$3,000 - $5,000	$2,400 - $3,000
2015	$5,000 - $7,000	$2,500 - $5,000	$2,400 - $3,000
2014	$5,000 - $7,000	$3,000 - $5,000	$2,400 - $3,000
2013	$5,000 - $7,000	$3,000 - $5,000	$2,400 - $3,000
2012	$5,000 - $8,000	$3,000 - $5,000	$2,400 - $3,000

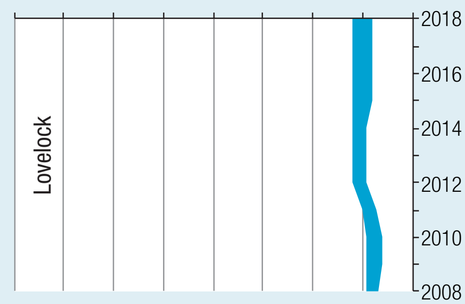
LAND USE	GRAZING PERMITS
GRAZING PERMITS (VALUE PER AUM)	
2018	$80 - $200
2017	$80 - $200
2016	$80 - $200
2015	$80 - $200
2014	$80 - $120
2013	$80 - $120
2012	$75 - $120

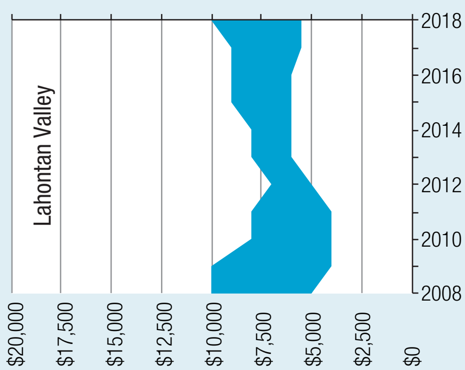
LAND USE	DRY GRAZING (RANGE)	PASTURE/MEADOW
GRAZING LAND VALUE PER ACRE		
2018	$100 - $500	$500 - $2,000
2017	$100 - $500	$500 - $2,000
2016	$100 - $500	$500 - $2,000
2015	$100 - $500	$1,000 - $2,000
2014	$100 - $300	$500 - $1,500
2013	$100 - $300	$500 - $1,200
2012	$75 - $300	$500 - $1,200

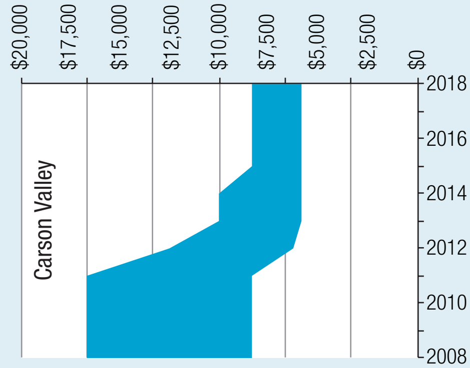

Elko, Diamond, Reese River, & Antelope
$20,000
$17,500
$15,000
$12,500
$10,000
$7,500
$5,000
$2,500
$0
2008
2010
2012
2014
2016
2018

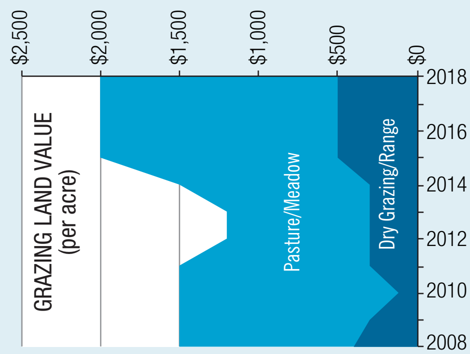

Orovada, Kings River, Silver State, Paradise & Winnemucca
2008
2010
2012
2014
2016
2018

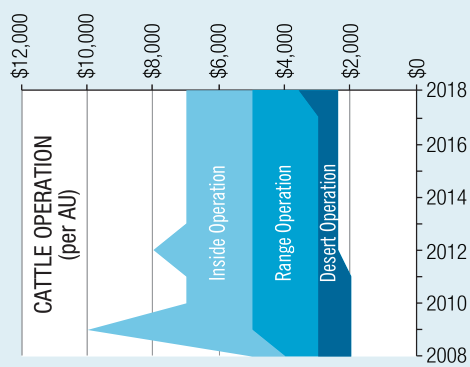

Mason & Smith Valleys
2008
2010
2012
2014
2016
2018


Lovelock
2008
2010
2012
2014
2016
2018


Lahontan Valley
$20,000
$17,500
$15,000
$12,500
$10,000
$7,500
$5,000
$2,500
$0
2008
2010
2012
2014
2016
2018


Carson Valley
$20,000
$17,500
$15,000
$12,500
$10,000
$7,500
$5,000
$2,500
$0
2008
2010
2012
2014
2016
2018


GRAZING LAND VALUE (per acre)
$2,500
$2,000
$1,500
$1,000
$500
$0
Pasture/Meadow
Dry Grazing/Range
2008
2010
2012
2014
2016
2018


CATTLE OPERATION (per AU)
$12,000
$10,000
$8,000
$6,000
$4,000
$2,000
$0
Inside Operation
Range Operation
Desert Operation
2008
2010
2012
2014
2016
2018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continued from page 4

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% Crop Share: Rent paid as a percentage of gross income from crop sales, sometimes with a guaranteed minimum. This type of rent transfers some crop risk from the tenant to the landowner, usually resulting in a higher level of potential profit.

Adaptability: The suitability of the land for use with higher valued crops.

Ancillary Markets: A market other than what is commonly perceived as being the primary or historical use for the property.

AU: Animal Unit, which is considered a cow calf pair.

AUM: Animal Unit Month, which is a cow calf pair per month.

AVA: American Viticultural Area. A geographical area designated by the United States Alcohol and Tobacco Tax and Trade Bureau (TTB) as having homogenous growing conditions for wine grapes, such as climate, soils, and topography. The name of the AVA may be used on a wine bottle, however if used, 85% of the wine must originate from the named region.

Boutique Acreage: Small acreage parcels where the grapes typically are used by the owner to make wine for his or hers private labels marketed through small Boutique wineries.

Cannabis: Marijuana, a drug derived from the family of plants that include hemp.

Cash Rental Rates: Cash money exchanged for the rental for real property.

Cropland: Irrigated land suitable for field crops or row crops.

CCID: Central California Irrigation District (Exchange Contractor District.

Custom Crush: A service arrangement whereby a winery processes grapes into wine for a fee.

Custom Farmed: Farmed or operated by a professional farmer or organization other than the owner.

CWD: Chowchilla Water District (Merced and Madera Counties).

CWT: Hundred weight.

Delta Land: Land located in the Sacramento Delta region.

Desert Operation: 50 to 100% outside grazing (public grazing permits)

Double Crops: A second crop that can be planted in the same season, and on the same land, after the first crop has been harvested.

DOV—Dried on the Vine: A manner in which raisin grapes are harvested which allows for their drying while they remain on the vine instead of being separated from the vine and laid on trays on the ground. Typically require upgraded trellis systems.

ENID: El Nido Irrigation District (Merced County).

Early Fruit: Fruit that is harvested during the very earliest part of the overall growing season. This fruit typically receives higher prices because it is the first to reach the consumer.

Entitlements: In the context of ownership, use, and/or development of real property, the right to receive governmental approvals for annexation, zoning, utility extensions, construction permits, and occupancy/use permits. The approval period is usually finite and may require the owner and/or developer to pay impact and/or user fees in addition to other costs to secure the entitlement. Entitlements (sic) may be transferable, subject to covenants or government protocols, may constitute vested rights, and may represent an enhancement to a property's value.

Exchange Contractors: The Central California Irrigation District, Firebaugh Canal Water District, Columbia Canal Company, and San Luis Canal Company. These entities exchanged their riparian rights on the San Joaquin River for a water right entitlement from the Delta-Mendota Canal.

Field Crops: Any of the herbaceous plants grown on a large scale in cultivated fields; primarily a grain, forage, sugar or fiber crop.

Forage Crops: Historically the term forage has meant only plants eaten by the animals directly as pasture or immature cereal crops, but it is also used to describe chopped hay or silage.

Free Tonnage: Raisin tonnage received by a handler, for which the only Federal marketing order regulation is a minimum quality or size standard.

Grape Contracts: A written agreement between the buyer of grapes (typically a winery) and the grape grower specifying the terms and conditions of the agreement. The contracts typically include the price per ton, time period, acceptable brix (sugar), variety, acreage, and minimum quality standards.

Groundwater: A sub-surface water source, usually underground aquifers tapped with deep wells.

GSA: Groundwater Sustainability Agency: local agencies comprised of water users and municipalities (Irrigation Districts, cities, counties, etc.) formed by mandate through SGMA to manage their basins or sub-basins. Responsible for creating and managing their basin/sub-basin's Groundwater Sustainability Plan.

GSP: Groundwater Sustainability Plan; plan created and implemented by a local GSA by mandate through SGMA to achieve sustainable groundwater management in the local basin/sub-basin. Sustainable management aims to avoid depletion of supply, reduction in storage, seawater intrusion, degraded water quality, subsidence, or depletion of interconnected surface water. GSPs must be in place by 2020 for critically overdrafted basins, and 2022 for all other basins. GSPs must achieve groundwater sustainability within 20 years of their implementation.

IID: Imperial Irrigation District. IID delivers water to over 450,000 acres of highly productive farmland in southernmost Southern California.

Inside Operation: 0-15% outside grazing (public grazing permits)

Irrigated Field or Row Crops: Any crops that are irrigated for a season.

Late Fruit: Fruit that is harvested during the latest part of the overall growing season. This fruit usually receives higher prices because it is the last fruit to reach the consumer.

Marketable: Appeal to market for sale.

Market Consolidation: Process of concentrating the market in a smaller number of typically larger participants.

MID-Madera: Madera Irrigation District (Madera County).

MID-Merced: Merced Irrigation District (Merced County).

MID-Modesto: Modesto Irrigation District (Stanislaus County).

Milk Cows: Lactating cows that are being milked on a daily basis.

MWD: Metropolitan Water District is a consortium of 26 cities and water districts that provides drinking water to nearly 18 million people in parts of Los Angeles, Orange, San Diego, Riverside, San Bernardino, and Ventura Counties.

Nonbearing: Trees or vines that are immature, not old enough to bear a marketable crop.

OID: Oakdale Irrigation District.

Open Land: Unimproved or undeveloped land with adaptability to crops.

Owner-Operated: Operated by the owner of the real property.

Palo Verde Irrigation District (PVID): A privately developed district located in Riverside and Imperial Counties, California near and around Bythe, California. Water for irrigation is diverted from the Colorado River at the Palo Verde Diversion Dam.

Perfected Water Rights: Generally, water rights that are established, documented, and approved by the California State Water Resources Control Board.

Per Unit Values: Values or prices on a per unit basis such as acres, cows, square feet, etc.

Plottage: Land purchased to add to adjoining/neighboring acreage.

Premiumization: The move towards more expensive premium products.

Rangeland: An extensive stretch of grazing land or land that produces forage plants.

SGMA: Sustainable Groundwater Management Act signed into law in CA in 2014 to address critical groundwater overdraft throughout the state. The Act is the state's first attempt to regulate groundwater extraction and use on a state-wide basis, and establishes a timeline for achieving groundwater sustainability through local control of groundwater sub-basins.

Recreational Land: Can generally be described as the current use for lands that historically were used for grazing or farming, but are now being purchased and used for leisure uses such as hunting, trapping, fishing, wildlife preservation or nature study.

Rent Range: The low and high values in a data set of rental rates (annual unless otherwide noted).

Reserve Tonnage: The raisin tonnage set aside as authorized by a Federal marketing order.

Resistant Rootstock: Vine or tree rootstock varieties which have tolerance or resistance to insects or diseases.

Rootstock: A root and its associated growth buds, used as a stock in plant propagation.

Share Rental Arrangements: Typically landord's percentage of gross crop proceeds in exchange for property rental.

SLCC: San Luis Canal Company (Exchange Contractor District).

Soften: To lose value or decrease in demand.

Spot Market: The buying and selling of agricultural commodities generally on a one-year or one-time basis. Spot market sales are done through brokers or directly between producer and processor, and are contrasted by sales of commodities done via pre-arranged contract or through membership in a cooperative.

Stabilized: Generally level or flat.

Stable: Firmly established.

Stocker Cattle: Weaned calves that are held over for another grazing season or year for the eventual sale to feedlots.

Super High Density Olive Planting: A system of planting olives specifically for the production of olive oil, whereby trees are densely spaced in hedgerow configuration and suitable for mechanical harvest with an over-the-row type machine.

Surface Water: A typically renewable water supply that flows in channels along the surface of the earth. In this context said water is typically irrigation water that is provided by rivers, irrigation companies or water districts.

Terroir: The set of special characteristics that the geography, geology and climate of a certain place, interacting with plant genetics, express in agricultural products; the term is primarily used in the wine industry, but also used for coffee, tea, artisan cheese, etc.

TID: Turlock Irrigation District (Stanislaus and Merced Counties).

Topography: Elevation(s) or contour of land.

Transitional Property: Generally used to describe a rural property where the highest and best use is potential urban development making existing agriculture activities an interim use.

USBR: Irrigation Districts under the United States Department of the Interior Bureau of Reclamation.

Vineyard Designate: An individual vineyard's name (often trademarked) that, when shown on a wine label, indicates the named vineyard supplied at least 95% of the fruit for that wine.

Vinyardist: Grower of grapes on a wide range of parcel sizes under a wide range of climate conditions.

Wastewater: Water produced as a byproduct of an agricultural or industrial activity such as milk production or fruit and vegetable processing.

Water Allocation: Term generally used to describe the amount of surface water provided to a property by the district provider.

Water Banking: The act of storing water, either physically or legally, for use at another time. Physical water banking can be done in public or private reservoirs or in underground contained aquifers.

White Areas: Unincorporated areas that are not within the jurisdictional boundaries of a public water agency or district (no surface water rights or deliveries available).

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