

California Table Grape Insight

Executive Summary

Despite growing competition from South American producers over the last few years, California table grape growers have remained resilient and expanded output to capitalize on growing global grape consumption, particularly in Asia. Recent trade tensions and rising labor costs have been headwinds for table grape producers. Still, the longterm outlook for California's table grapes remains positive as fervent global demand and exports will continue to support the industry.



Imports Find Balance with Domestic Grape Supply

U.S. table grapes—nearly all of which are produced in California—faced competition from imports in the early 2000s as Chile significantly increased production. Between 2001 and 2008, Chilean table grape producers expanded output from 754,000 metric tons (mt) to 1.2 million mt.¹ Chile's exports rose by 35% during that time span and shipments to the U.S. specifically increased to a record level of 480,000 mt in 2006 (Figure 1).² This surge in grape imports from Chile increased supply in the U.S. and limited grape price appreciation.

However, the domestic industry persisted through foreign pressure. Imports emerged as a complement rather than a competitor to U.S. grapes, because they satisfy consumer demand during the domestic off season. Total U.S. grape imports ultimately moderated—averaging 554,000 mt over the last five years—of which, virtually all occurs during the off season. This balance and climbing global grape demand have allowed the industry to expand. Total California table grape area has grown 6% since 2010 to reach over 90,000 acres.³ Kern County, which holds 44% of U.S. table grape area, increased acreage 1.2% annually over the last ten years. Combined with more consistent yields, U.S. table grape production has climbed by 22% since 2008.



Figure 1 | U.S. Grape Imports by Source and Production (1,000s mt)

Source: U.S. Census, USDA, MIM

U.S. Exporters Fight for Market Share in Asia

The U.S. exports just over one-third of its annual grape production. Historically, the U.S. primarily exported to Canada and Mexico. However, in the early 2000s, Asia became an important demand source for U.S. grapes. South Korea, Hong Kong, Indonesia, Vietnam and China have been the primary growth markets in Asia, and their combined grape consumption has grown 137% since 2001. By 2005, Asia accounted for 47% of U.S. grape exports as volumes there grew to 171,900 mt from 75,000 mt in 1995. The U.S. has since struggled to significantly increase export volumes to Asia while Chile and Peru have exported more across the Pacific.

Between 2008 and 2017, Peru's total table grape export volume grew 24% annually compared to 1% for the U.S. The two South American countries now account for half of grape imports in Asia's primary growth markets.⁴ Furthermore, Chile and Peru will gradually receive reduced-tariff rate access to Trans-Pacific Partnership members in Asia,⁵ which would place U.S. grapes at a tariff disadvantage.

450 400 350 300 250 200 150 100 50 0 2001 2003 2005 2007 2009 2011 2013 2015 1989 1991 1993 1995 1997 1999 2017 ■ Asia ■ Canada and Mexico Other

Figure 2 | U.S. Exports by Destination (1,000s mt)

Source: U.S. Census, MIM

U.S-China Dispute Disrupts Global Trade Flows

Most U.S. grapes are harvested between July and November, supplying both the domestic market and export demand during those months. From December to June, imports from Chile, Mexico, and Peru satisfy the majority of offseason demand. However, the U.S.-China trade dispute disrupted this supply and demand balance as China's retaliatory tariffs increased the import duty on U.S. grapes from 12% to 50%.6 In 2018, U.S. table grape export volumes to China and Hong Kong were down 39% and 14% year-over-year (yoy), respectively. Without these exports, U.S. grape inventory rose rapidly, and the December 15th cold storage volume of grapes in the U.S. was up 56% yoy in 2018.⁷ As a result, the U.S. retail price of red seedless grapes in December 2018 was 23% below the five-year average (Figure 3).

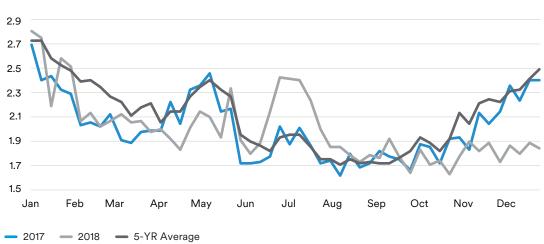


Figure 3 | Red Seedless Grape Retail Price (\$/lb)

Source: USDA, MIM

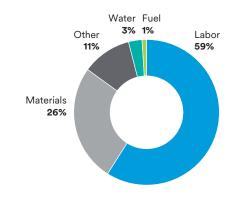
Due to the oversupply, growers in Chile and Peru—who typically begin to export to the U.S. in December—saw no U.S. demand for their recently harvested grapes. This has complicated internal supply chain dynamics for multiple U.S. fruit companies who have grape operations in both the U.S. and South America.8 More importantly, without the usual U.S. demand, Chile

and Peru increased market volumes in Asia and other developing markets. While pursuing these relationships could hurt U.S. access to these opportunities for export growth over the long term, U.S. grape producers do not have much competition during their harvest and could increase exports during the peak U.S. season.

Input Costs Driving Down Profitability

Labor costs are challenging California producer profitability. In 2016, state laws increased the minimum hourly agricultural labor wage annually by \$1 beginning this year until it hits \$15 in 2022.9 Additionally, overtime labor must be compensated at one-and-a-half times the regular rate. Table grapes require time-consuming labor throughout the season for vine pruning, leaf removal, and trimming late spurs. Based on budget data from the University of California, labor costs increased 8% annually between 2007 and 2018.10 Labor was 59% of the operating cost of producing table grapes in 2018 (Figure 4). All else constant, minimum wage growing to \$15 per hour in 2022 could increase grape labor costs by 36% and swell labor's share of total costs to 64%.

Figure 4 | Table Grape Operating Cost (Flame Seedless, 2018, San Joaquin Valley)



Source: University of California, MIM

An increasingly important operating cost for table grape producers is water—totaling about \$528 per acre and 3% of the total cost in 2018. Water cost increased 9% annually between 2007 and 2018 as its management becomes a more pertinent issue in California. These growing expenses have pushed total operating cost up 7% annually in the same time span. By comparison, prices have remained relatively constant since 2014 which has pressured recent profitability.

Figure 5 displays a profitability matrix for various combinations of yields and prices for table grape growers. Producers with a 850 boxes per acre yield (the five-year average) need to receive \$21.03 per box for their grapes to be profitable. The five-year average price received was \$19.20 per box. Increasing cost will likely push consolidation in the industry to growers who have larger economies of scale and higher yields.

Figure 5 | Table Grape Producer Profitability (\$/box11)

Price Received (\$/box)	Yield (boxes/acre)			
	800	840	880	920
18.25	-4.08	-3.02	-2.05	-1.17
19.50	-2.83	-1.77	-0.80	0.08
20.75	-1.58	-0.52	0.45	1.33
22.00	-0.33	0.73	1.70	2.58

Source: University of California, USDA, MIM

Despite Hurdles, Table Grape Outlook Positive

Potential challenges for the U.S. table grape industry include rising input costs and competition from South America in key Asian markets. While the U.S. has struggled to grow in Asia as a whole, the U.S. has made in-roads in specific markets. Exports to South Korea and Vietnam were up 69% and 55% yoy, respectively, in 2018. A resolution with China and further pursuit of trade agreements with Japan and Southeast Asian countries would help solidify more growth opportunities. Additionally, the ratification of the United States-Mexico-Canada Agreement (USMCA) will be crucial to supplement trade in Asia by reinforcing U.S. table grapes' presence in Canadian and Mexican markets. Exports to Canada and Mexico rose 11% yoy in 2018.

If these issues regarding trade can be resolved, a tight global balance sheet will also help support prices and combat rising input costs. South American production growth has eased over the last few years, which has stabilized global output and supported prices as demand remains strong. Additionally, the lack of competition during peak U.S. harvest season will help growers in the event of global oversupply.

To mitigate increasing labor costs, prioritizing high yields and increased efficiency should take precedent as globalization and labor costs squeeze margins. Despite the potential for tighter profits and some consolidation, strong global demand, rising exports to USMCA members and select Asian markets, and a seasonal supply advantage will help the California table grape industry to prosper over the long term.

Endnotes

- ¹ USDA FAS, January 2019.
- ² U.S. Census Bureau, International Trade, January 2019.
- ³ USDA NASS, January 2019.
- ⁴ Comtrade, March 2019.
- ⁵ Reuters, Asia-Pacific nations sign sweeping trade deal without U.S., March 8, 2018.
- ⁶ USDA FAS, China Updates List of U.S. Products Subject to Additional, August 9, 2018.
- ⁷ USDA AMS, January 2019.
- ⁸ Bloomberg, Fruit Fight in Chile Reveals Hidden Ripples From U.S.-China Trade War, December 26, 2018.
- ⁹ State of California. SB-3 Minimum wage: in-home supportive services: paid sick days, April 4, 2016.
- ¹⁰ University of California-Davis, 2018.
- ¹¹ Assumes 1 box of table grapes is equivalent to 25 pounds.

Authors



ERIC RAMA, CFAHead of Agricultural Research



BLAINE NELSON Associate Director Agricultural Research



TOM KARMELAssociate
Agricultural Research

About MetLife's Agricultural Finance Group

MetLife's Agricultural Finance Group ranks among the most active private agricultural, agribusiness and timberland mortgage lenders in North America, with a total agricultural mortgage portfolio of \$17.9 billion.* We specialize in providing fixed and variable rate mortgage financing for a full range of capital needs.

Whether you're looking to re-amortize your term debt, expand your operation or refinance an existing mortgage, MetLife can tailor a loan to fit your needs. Our regional network keeps us close to our markets and better positioned to serve your immediate and long-term mortgage financing needs.

For more information, please visit us at metlife.com/ag.

*Includes MetLife general account assets and assets managed on behalf of unaffiliated/third party clients as of 12/31/18.

All information contained herein has been obtained by MetLife from sources believed by it to be reliable. The analysis, opinions, forecasts and predictions contained herein are believed by MetLife to be as accurate as the data and methodologies will permit. However, MetLife makes no representations or warranties, either expressed or implied, to any persons as to the completeness, accuracy and reliability of such information, forecast and/or predictions and expressly disclaims any liability with respect to any of the foregoing.

