

Q2 2024 OUTLOOK

Pistachio Shipments Strong Amid Oversupply Concerns

By Matt Woolf, Ph.D.

SITUATION

Whereas almond and walnut pricing has been below breakeven in the last few years, pistachios have remained profitable. This has led some Central Valley farmers to consider increasing their current acreage or entering the market for the first time. Nevertheless, the high levels of new plantings since the 2010s will increase production substantially in coming years, which could ultimately put downward pressure on prices. While demand has been able to meet supply thus far, growers should take these broader market trends into consideration when determining whether to plant.

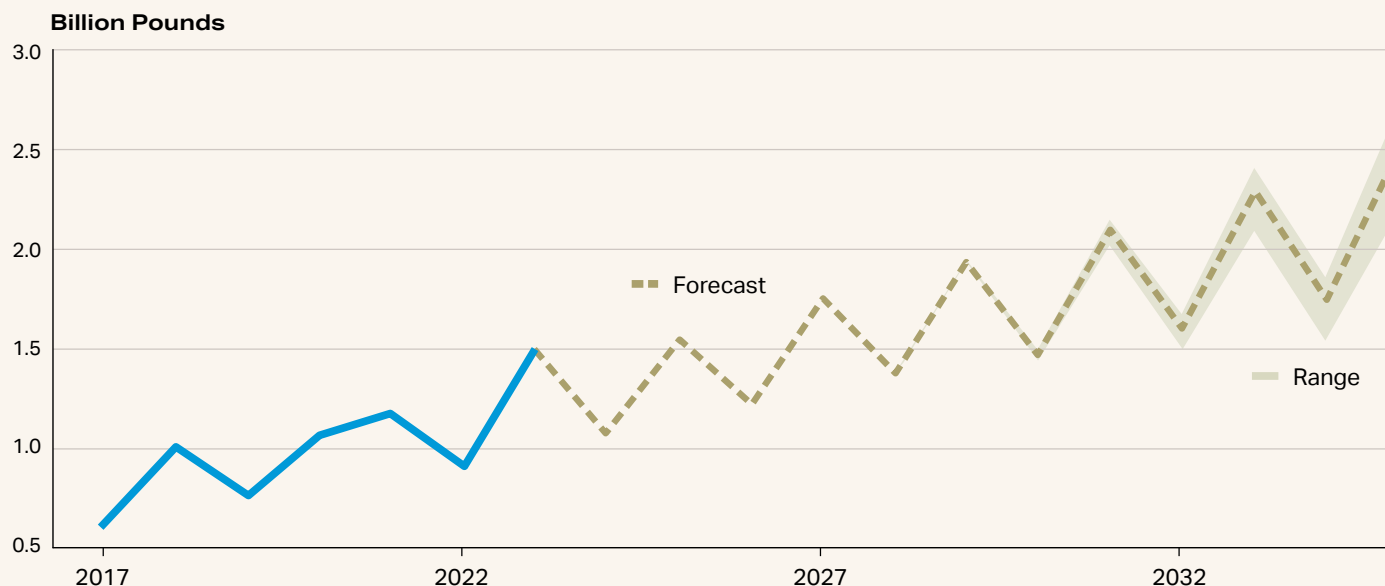
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SUPPLY

There is no doubt that the primary concern among pistachio growers isn't just water, but also supply. When pistachio profitability rose throughout the 2010s, plantings quickly went with it. In 2016, new pistachio plantings hit 35,569 new acres, a nearly fourfold increase from just five years earlier. The jump led to a record crop in 2023 as new acreage came into production and is likely to continue to increase overall pounds given the approximately 144,000 acres (about 24% of total acreage) that have yet to bear.

If new plantings are to continue at the five-year average, bearing acreage is likely to surpass 800,000 acres by 2035.

Chart 1: Pistachio Production Could Hit 2.5 Billion Pounds by 2035



Note: Minimum (maximum) of forecast range uses the minimum (maximum) of plantings in last five years.

Sources: Administrative Committee for Pistachios, UC Davis, Terrain

Making assumptions about new plantings and yield going forward, we can back into future bearing acreage and production numbers.

If new plantings are to continue at the five-year average, bearing acreage is likely to surpass 800,000 acres by 2035. This would be a 75% increase from current bearing acreage of about 461,000. More bearing acreage implies higher overall production.

If yields by tree age are to be consistent with the most recent University of California, Davis, cost study¹ and the yield swing from off- to on-years is 40%, production will surpass 2 billion pounds in 2033 and approach 2.5 billion pounds by 2035 (see Chart 1).² If bearing acreage continues at the five-year new plantings minimum, however, then production will be 2.15 billion pounds in 2035.

Though these numbers help indicate where pistachio production might be headed in coming years, there are other variables that may dampen them, which should be considered.

With the implementation of the Sustainable Groundwater Management Act, it is likely that acreage will be removed and some yields reduced, which would bring down total production numbers. Further, given the interest rate environment and overall cost of production, it is possible that new planting numbers will fall as they had done in 2023.

Nevertheless, the overall effects will undoubtedly be that pistachio production will increase significantly going forward, which could put downward pressure on future prices.

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DEMAND

Prices are also a function of demand which, in the world of pistachios, has shown little evidence of slowing. Shipments in the 2023/2024 marketing year have set new records with over 600 million pounds shipped thus far, a 68% increase from this time last year (see Chart 2). If shipments from February to August can keep up with last year's numbers, the industry will ship a record 1.15 billion pounds. This would be a 30% increase from last year's approximately 902 million pounds.

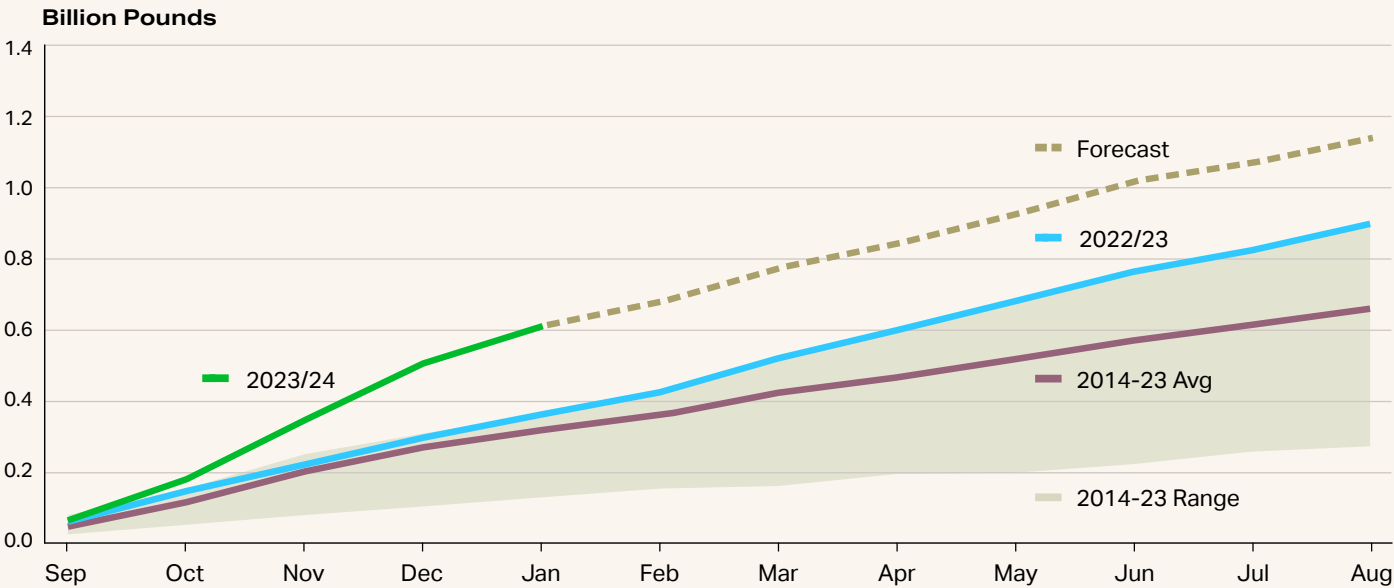
The strong cumulative shipment numbers thus far have been driven by exports (up 97% from last year) versus

domestic shipments (down 1.5%). This is especially impressive given the macroeconomic headwinds that are persisting in many countries, such as poor consumer sentiment and inflationary pressures. There is also the added obstacle of an appreciated U.S. dollar, which has made American pistachios more costly for developing markets.

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The challenge is where demand will be a decade from now when many non-bearing acres enter production. Whereas supply forecasts are relatively easy to predict using non-bearing acreage and yield assumptions, it is far more challenging to know how consumer demand and preferences might change.

Chart 2: Pistachio Shipments in 2023/2024 Have Been Off the Charts



Sources: Administrative Committee for Pistachios, Terrain

Given that the industry hasn't developed value-added products or fully entered many developing economies, there is more runway for the industry to continue building demand. India, for instance, remains a country with a lot of demand potential.

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OUTLOOK

The balance of these supply and demand dynamics on price is critical for the grower who is evaluating whether to plant pistachios soon. Though the total supply of pistachios is on an upward trajectory, with the possibility of 2.5 billion pounds by 2035, so is demand, which has already set records this crop year.

Whether it makes sense to plant will vary by operation — primarily because of wide differences in present and future water constraints. One approach, however, is to determine where your operation falls within the break-even price range of \$1.15 to \$2.14 implied by the most recent UC Davis cost study. Operations with internal breakevens toward the bottom of that range may consider moving ahead with new plantings while those toward the top end may reconsider. Knowing this should give growers a comfortable cushion against downward price pressure as more and more acres come into production.

NOTES

- ¹ The 2020 UC Davis cost study assumes pistachios yield 600 pounds at 6 years old, 1,300 pounds at 7 years, 2,200 pounds at 8 years, and 2,800 pounds at 9 years and older. A 40% swing implies trees 9 years or older yield 3,266 pounds in on-years and 2,333 pounds in off-years.
- ² Yield swings are assumed to be present only for trees that are 9 years or older.

ABOUT THE AUTHOR



Matt Woolf, Ph.D., is Terrain's specialty crop analyst, focusing on tree nuts, fruits and vegetables. He is a native of California's Central Valley, where his family grows almonds, pistachios and a variety of row crops. Matt has an extensive academic, teaching and research background, including a Ph.D. in economics from the Australian National University.

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