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Fragrant Rice: Opportunity or Threat for the U.S. Rice Industry?

Key Points:

- Since 1980, rice imports into the U.S. continue to set new records, driven in part by a fast-growing Asian American population and demand for quality fragrant, or aromatic, rice like jasmine and basmati. U.S. rice acreage, meanwhile, has remained stagnant amidst this growth in demand.
- Jasmine rice from Thailand, also known as hom mali, is the primary rice imported into the U.S., and is typically sold at double to triple the price of traditional long-grain rice from the U.S.
- U.S.-grown fragrant rice comprises less than a 5% market share of this fastgrowing specialty rice market out of Asia. If all fragrant U.S. rice imports were grown solely in the U.S., it would take an acreage the size of the rice crop in Texas or Missouri in 2021.
- With U.S. rice exports expected to remain stagnant in the years ahead due to Asian rice price supports and quality issues with U.S. rice hybrids, the growth opportunity for the U.S. rice industry lies with rising domestic consumption of fragrant rice.
- With demand for fragrant rice expected to follow a rising Asian American population, capturing market share could transform the U.S. rice industry. But it will require a commitment to adjusting the supply chain and investing in seed genetics, milling assets, and consumer marketing.

Introduction

Since 1980, U.S. rice imports have grown from nearly zero to over 1.1 MMTs, while U.S. rice consumption has grown from 2.0 MMTs to nearly 5.0 MMTs. Nearly one-third of the gain in U.S. consumption has been satisfied by imported rice. Jasmine and basmati – both long-grain rice varieties – are characterized by their aroma, mouth feel, and grain length, whereas conventional long grain lacks aromatic appeal. U.S. consumers have increasingly favored fragrant rice imports. While much of the increase is driven by the fast-growing Asian American population, non-Asian U.S. consumers are also participating in growing demand for fragrant rice, according to U.S. rice millers and marketers.

Exports of U.S. rice, though, have remained stagnant as it competes with subsidized rice from Asia in the global market and foreign consumers opt for other-origin rice that meets milling and consumer needs. With U.S. exports not expected to soon overcome its hurdles in the export market, and with U.S.-grown aromatic rice comprising less than a 5% share of the fast-growing specialty rice market, U.S. rice growers, millers, and marketers are eying the growth opportunity in the U.S. Indeed, since 1980, the U.S. has been a major growth market for rice in the Western Hemisphere, while U.S. rice acreage in the last few years has held nearly constant (Exhibit 1). Delivering quality rice that meets the needs of millers and consumers, though, will require long-term investments throughout the supply chain from farmer to consumer.

Fragrant Rice Imports

Fragrant rice, specifically jasmine from Thailand and basmati from India, account for the majority share of rice imports into the U.S. Jasmine alone comprises 35% of U.S. rice imports. Thailand supplies most of the rice imports to the U.S. Jasmine of Thai origin, also known as Thai hom mali, is considered one of the world's premier rices, prized for its pearl-white appearance, long grain length, and sweet aroma. Jasmine and basmati rice typically sell for double to triple the price of traditional long grain rice from the

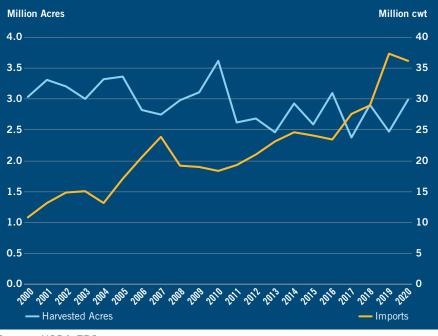
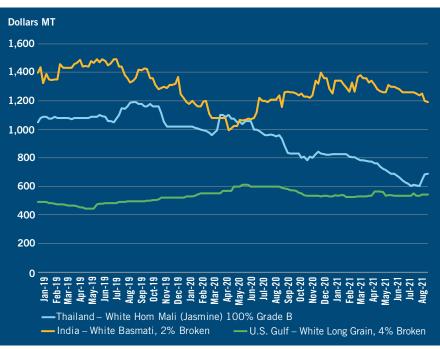


EXHIBIT 1: U.S. Rice Harvested Acreage vs. Rice Imports

Source: USDA-ERS





Source: LRI

* Freight on board, the price on the boat before it leaves the dock. Does not include shipping and insurance.

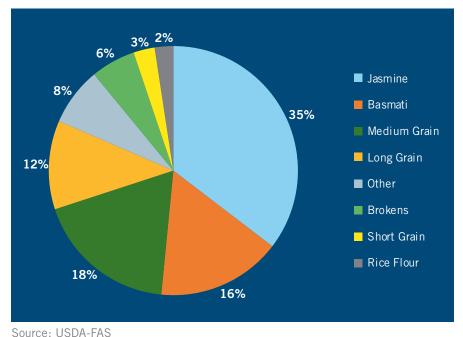


EXHIBIT 3: U.S. Rice Imports – July 2020 - July 2021

projects that the Asian American population will double by 2060. Asian Americans have a strong cultural history of consuming both jasmine and basmati. Aside from cultural preferences of Asian consumers, non-Asian consumers in the U.S. may be converting from other starches like wheat and potatoes as they seek more varied culinary experiences.

Headwinds to U.S. Rice

Across Asia, governments have stepped up price supports to farmers through rising minimum support prices and subsidized inputs, causing an abundance of rice to be sold on the global market. Most

U.S. Pandemic-driven logistics issues with container shipping, though, have recently eroded jasmine's price premium in the market *(Exhibit 2).*

Vietnam is also a growing but still minor supplier of jasmine. Imports from India, almost all basmati, account for roughly 16% of all U.S. rice imports (*Exhibit 3*). Eighty percent of basmati imports into the U.S. are sourced from India with Pakistan sourcing most of the remaining basmati the U.S. consumes. U.S. rice imports equate to roughly 175,000-200,000 acres – a growing area the size of the rice crop in Texas or Missouri. Indeed, since 1980, the U.S. has been one of the few growth markets for rice imports in the Western Hemisphere.

It is widely presumed by rice millers and marketers that the burst in domestic demand for specialty rice in the U.S. comes from a rapidly growing Asian American population *(Exhibit 4).* Other countries in the Americas that lack strong and growing Asian populations have no comparable growth in rice demand. By comparison, Brazil has a domestic rice demand even larger than the U.S., yet has experienced a large decline in rice consumption since 2008. The Pew Research Group of the global increase in rice production has been in Asia, especially India and China. The U.S. in particular has been a key destination for the growing surplus of Thai and Indian fragrant rice. The rise in exportable rice supplies in Asia has simultaneously competed with U.S. rice exports into the Americas, the Caribbean, and key importing regions.

Further complicating matters for U.S. rice exporters is the perceived lack of quality and consistency in U.S. hybrid rice for some foreign buyers. The propensity to grow high-yield hybrid rice has diminished demand for U.S. rice from certain origins outside of Mexico, the U.S.'s largest customer. In these rice import markets, quality is nearly as large a consideration as price.

Some foreign consumers perceive current U.S. rice hybrids as an inconsistent product and harder on milling equipment than conventional varieties. While high yielding, U.S. hybrids are frequently noted to have higher chalk, higher brokens content, and an unappealing mouth feel for some consumers. They are also noted as being abrasive on harvesting and milling equipment, and as lacking consistency in grain size, stickiness, and

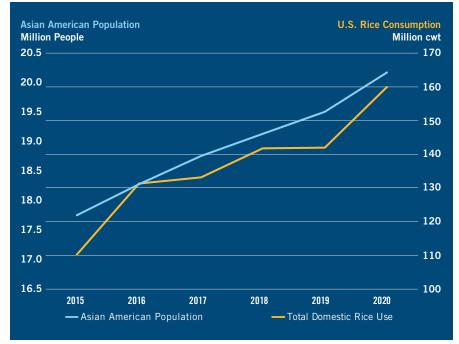


EXHIBIT 4: U.S. Asian American Population vs. U.S. Rice Consumption

Source: USDA-ERS

performance for parboiling uses. Both Jasmine and Basmati rice, however, show a much more consistent product with fewer quality issues.

U.S. rice millers face additional headwinds. A large share of U.S. long grain exports are rough (not milled) rice to Latin American destinations, reducing the overall demand for rice milling in the U.S. All fragrant rice imports enter the U.S. as milled, not rough rice. With the U.S. struggling to keep pace with subsidized rice export prices from Asia, the growth opportunity for U.S. rice growers, millers, and marketers is the U.S. market for fragrant rice.

U.S.-Grown Fragrant Rice

Jasmine and basmati varieties have been tailored for the U.S. Delta/Gulf Coast region, and a jasmine variety was bred for California's climate. However, breeders face monumental challenges developing varieties that simultaneously meet the quality characteristics demanded by millers and consumers while also performing in the unique growing environment of the U.S. Delta/Gulf Coast region with insect and disease pressures. Both Asian varieties are grown away from the coast in areas of higher elevation and reduced environmental stressors.

U.S. farmers in the Delta/Gulf Coast region still report higher profit margins on jasmine and basmati rice versus other higher-yielding nonfragrant varieties as fragrant varieties capture a significant price premium. Rice growers in California face fewer challenges with breeding varieties for the arid Western environment and can therefore focus on breeding for quality characteristics, but nonetheless face significant water scarcity issues that risk production.

The ideal solution would be to breed aromatic varieties that satisfy consumer needs and while giving farmers the high yields of hybrid rice. But even in Asia, breeders have not found the perfect blend of fragrant smell with high yields. At best, fragrant rice remains a small part of Asian rice production. For example, in India, basmati is only 5% of total rice production.

Industry experts say recent immigrants from Asia can tell the difference between U.S.-grown and imported varieties, and reportedly prefer imports from their native homeland. Imports are also perceived to be higher quality among the broader U.S. consumer base. One Thai jasmine brand in particular, Elephant brand, has a strong and loyal following in the U.S. However, with improved marketing, U.S.-grown fragrant varieties have successfully sold to U.S. consumers. Entrepreneurial rice marketers see an opportunity for marketing a more competitively priced U.S.-grown rice to the broader, non-Asian U.S. consumer base.

Conclusion

Over the last four decades, an import market for Asian rice has developed in the U.S. that is capturing a significant share of the U.S. rice market. Half the imports are for high-value jasmine and basmati specialty rice varieties, while other rice imports – like medium grain milled rice from Asia – have also grown in recent years. Despite several efforts to develop locally grown alternatives in the climates of California and the U.S. Delta/Gulf Coast regions, the U.S.-grown share has remained very small in comparison to imports. The good news is that these imports have not seemed to cannibalize sales of U.S.-grown conventional long-grain rice, but rather expanded the base of rice consumers.

U.S. growers, millers, and merchandizers can take advantage of the fast-growing domestic market for fragrant rice, but investment will be needed to guarantee identity preservation throughout the supply chain from field to fork to capture premium prices in the marketplace. Investment in storage, transportation, and milling assets, and cooperation with retailers and the food industry, will be needed for the U.S. rice industry to help capture a greater share of the domestic rice market and compete with well-known and trusted imports. Specialty rice may always be a project for smaller size millers that can separate the milled outturn, and manage problems of cleaning out aromatics in conveyors and storage systems.

Continued investment in seed genetics will also be needed to meet millers' and consumers' demands for quality and farmers' needs for yield. And, while it is widely assumed Asian American consumers are driving demand for fragrant rice, it is not yet clear who else consumes fragrant rice in the U.S. and whether it is eroding demand for traditional long-grain U.S. rice. More research is needed on the U.S. consumer and how rice is consumed to more clearly understand future demand trends.

If production, handling, and marketing of U.S. fragrant varieties is scaled sufficiently, the U.S. could also capture overseas markets and further grow the U.S. rice export footprint into other key markets in the Americas, Europe, the Middle East, and Africa longer term. Asia could also be a potential export destination for U.S.-grown fragrant rice as more Asian consumers move into the middle class and demand higher-priced fragrant rice.

The U.S. must continue lobbying for Asia to reduce tariff barriers and rice subsidies to farmers for the U.S. rice industry to be more competitive long term. Near term, high transportation costs currently create a headwind to imports into the U.S., giving the U.S. an edge in growing domestic market share. If the quality issues are resolved with higher yielding, conventional long-grain U.S. in the future, both fragrant and hybrid rice varieties could encounter greater competition for acreage and logistics resources in the U.S.

Without adapting, the U.S. rice industry will largely remain dependent on an export market that has become tepid toward U.S. rice. If nothing changes in the U.S., then domestic demand potentially shifts away from U.S.-grown conventional long-grain rice to premium fragrant imports. If successful, however, U.S.-grown fragrant rice could be transformative for the stagnant U.S. rice industry with the U.S. competing with Asia in markets around the world.

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