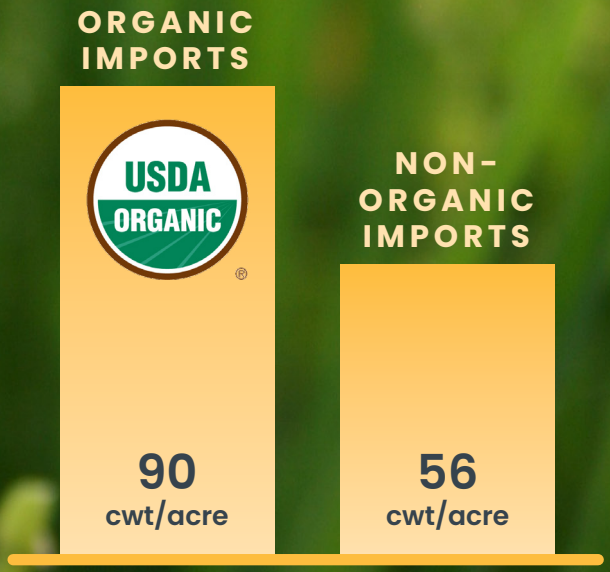
CHALLENGES AND OPPORTUNITIES FOR

U.S. ORGANIC RICE



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Rice in the Global and U.S. Food System

Rice is one of the world's most essential food staples, providing about 21% of global caloric intake and 15% of dietary protein. While its cultural and dietary significance is most pronounced in Asia where over 90% of the world's rice is both produced and consumed, rice also plays a critical role in American diets. The United States ranks 13th globally in rice production, but low domestic consumption allows for substantial surpluses. As a result, the U.S. consistently ranks among the top five rice-exporting nations.

Status of organic rice in the U.S. as reported by the USDA Organic Survey in 2020

- Organic rice farmers produced 1.8 million hundredweights (cwt) (equivalent to 93,000 metric tons) of organic rice.
- 69% of organic rice is produced in California and Texas.
  Decreased from 91% in 2016; suggests organic farming is becoming less regionally concentrated.
- Generated $52 million in sales value.
- Organic rice represents 1.1% of total rice production (171.2 million cwt in 2022) and 1.6% of total rice sales value ($3.16 billion in 2022).
- Organic rice receives a 56.1% higher price than conventional rice.

	TOTAL (2022)	ORGANIC (2020)
Production (cwt)	171,256,829	1,832,038
Acres	2,279,958	41,281
Sales Value (USD)	$3,169,606,000	$52,935,585

U.S. Rice Sector Summary

Despite this export strength in conventional rice, U.S. grocery store shelves are increasingly stocked with imported organic rice, primarily from India and Thailand. Between 2022 and 2024, the U.S. imported organic rice for an average of $38.6 million annually—most of it long-grain varieties that U.S. farmers are already well equipped to produce conventionally (USDA, 2025). This raises the question: if American growers have the agronomic know-how and infrastructure to lead in conventional rice, why is organic production lagging as consumer demand grows?

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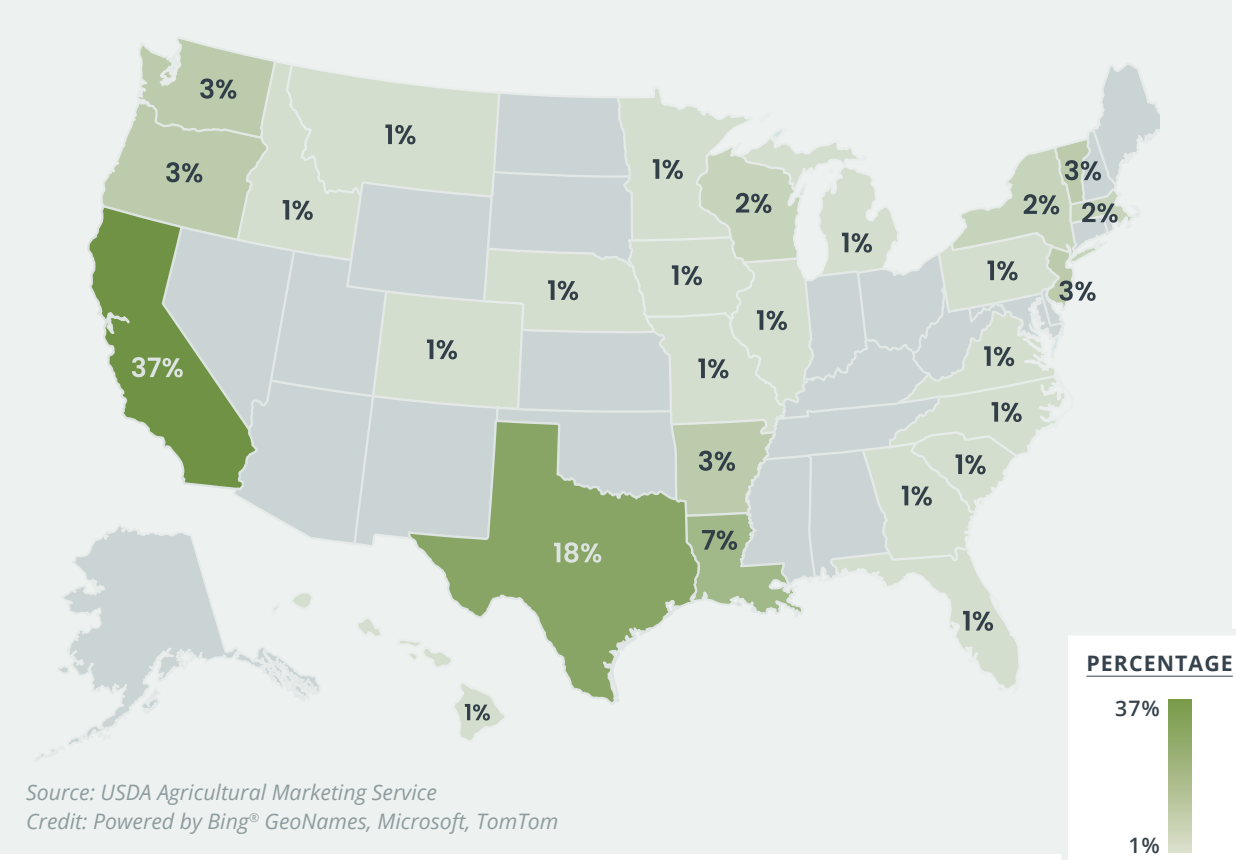
Share of Certified Organic Rice Farmers by State (2025)



Source: USDA Agricultural Marketing Service
Credit: Powered by Bing® GeoNames, Microsoft, TomTom

CASE STUDY

Challenges and Opportunities for Organic Rice in the U.S.: a Multistate Study

Funded by the Organic Agriculture Research and Extension Initiative (OREI; Award #2021-51300-34910), USDA National Institute of Food and Agriculture's (NIFA) program, this study aimed to explore the disconnect between rising U.S. demand for organic rice and the limited domestic supply.

The gap carries significant implications for consumer, producer, and policy areas, underscored by the following three trends:

1. **Rising Consumption:** Shifts in U.S. demographics—especially the growth of Asian and Latin American-heritage populations—alongside increasing preference for gluten-free foods are driving higher rice consumption across the country.
2. **Production Potential:** The climatic and infrastructural advantages that enable the U.S. to dominate in conventional rice exports should, in theory, support a thriving organic market as well.
3. **Lack of Producer-Centered Insight:** To date, no comprehensive research effort has focused on rice farmers' perspectives regarding the risks and barriers of transitioning to organic practices. Without their input, policy and market interventions risk being misaligned with in-the-field realities.

This project aimed to capture firsthand accounts from rice growers across the U.S., shedding light on the economics, practices, and decision-making processes shaping organic rice production.

STUDY APPROACH

Listening to the Producers

The study used both quantitative and qualitative methods to gather insights from farmers in the five states responsible for nearly all U.S. rice production: Arkansas, California, Texas, Louisiana, and Missouri.

Survey Outreach: A combined phone and online survey was distributed to 6,288 rice growers (173 certified organic) between January and April 2023. A total of 181 farmers agreed to participate (164 conventional and 17 organic) with an 81% survey completion rate overall and 88% completion rate among organic rice producers specifically.

Focus Groups: To enrich the survey data, the study hosted four roundtable discussions with organic growers in Beaumont and El Campo, Texas and Yuba City, California, during the summers of 2022 and 2023. These sessions offered vital context and narrative depth, surfacing nuances that numbers alone could not capture.

STUDY OUTCOMES

What Was Heard and Observed

KEY PROS AND OPPORTUNITIES

Consumer Demand
Rising interest in organic rice driven by health, environmental values, and demographic shifts.

Price Premiums
Organic rice receives a 56% higher price than conventional rice.

Potential Production Capacity
U.S. farmers have the tools and know-how to grow rice, especially long-grain varieties.

Successful Regional Models
California and Texas demonstrate viable organic rice markets with better buyer connections.

Supportive Policies
There is room to improve the farm safety net for organic producers, for instance, by modifying the commodity title programs (Price Loss Coverage and Agricultural Risk Coverage) to the reality of organic rice yields and prices.

KEY CONS AND CHALLENGES

Limited Domestic Supply
Organic rice accounts for just 1.1% of U.S. rice production. The market remains reliant on imports.

High Transition Barriers
Farmers face steep learning curves, higher input costs, and uncertain returns during certification.

Insurance and Input Gaps
Lack of crop insurance tailored to organic and limited availability of standardized organic inputs.

Market Disconnect
Many conventional farmers are unaware of organic buyers operating in their regions.

Perceived Risk and Skepticism
Conventional growers cite weed management, land availability, and profitability concerns as key deterrents.

Perceptions and Barriers

Organic farmers identified several key barriers to expanding production, including weed management challenges, high input costs, limited availability of suitable land, and uncertainties during the three-year transition to certification. As one producer explained, *"Way fewer products available than for conventional, and fewer standardization of fertilizers, so many times you do not know what you are buying."*

Dual system farmers, operating both organic and conventional acres, highlighted additional constraints such as limited land rotation options and the need to meet buyer-specific variety demands. One grower shared, *"The buyer asks farmers to produce specific varieties based on the demand they have,"* highlighting how contract requirements can limit flexibility and discourage full organic conversion.

Among conventional-only growers, responses ranged from curiosity to skepticism. *"Don't know"* was a popular response when asked what might motivate a shift to organic, while others cited profitability concerns, weed and pest pressure, and a lack of buyer information. As one respondent put it, *"Seems there is not much interest from farmers. Organic rice is harder than conventional."* Another added, *"Given the current Calrose market, why would farmers choose organic? Do not see growing interest in organic."*

Values, Diet, and Identity

Despite differing production practices, both groups ranked profitability as their top operational priority. Conventional growers placed greater value on ease of management, while organic producers were more focused on reducing production costs. Both groups also expressed pride in their work and a sense of land stewardship, though few cited peer or community perception as an influential factor in their decision-making.

Dietary habits diverged more sharply. All organic growers reported regularly eating organic food, while more than half of conventional growers said they rarely or never do. Still, both groups associate

organic food with health and environmental benefits. As one conventional farmer noted, *"Just so happens that is what we get, California has some of the highest standards in pesticide regulation and California food is about as safe as you can get."* Organic producers, meanwhile, more frequently emphasized environmental motivations, and over 90% reported eating organic rice themselves, compared to over 50% of conventional farmers who had never tried it.

Market Outlook and Risk

Across the board, farmers cited organic rice imports as a direct threat to their market viability. While both conventional and organic growers agreed that organic farming involves higher risk, many said they were willing to accept that risk if the potential returns were sufficient. As one Arkansas grower observed, *"If the reward matched the risk on organic, more of us would already be doing it."* Another organic farmer elaborated, *"The risk in organic rice is substantially higher than in conventional, so farmers should be*

rewarded for that. On the other hand, there is a lot of price resistance (in part due to cheap imports, in part due to changing marketing structure with bigger retailers).”

Organic growers also placed greater emphasis on sustainability and long-term resilience, suggesting that market mechanisms and policy support should better reflect the unique challenges and public benefits associated with organic production.

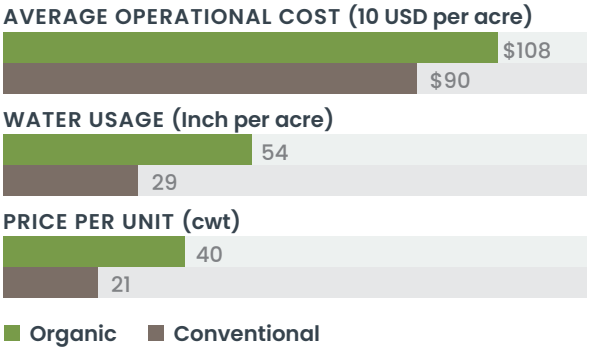
Demographics and Farm Structure

Regardless of production system, most respondents were male, over 45, highly educated, and earn over $750,000 annually; however, a key difference is that conventional farmers were primarily located in Arkansas, while organic farmers were concentrated in California and Texas. Age was the only statistically significant demographic difference—conventional farmers tend to be younger.

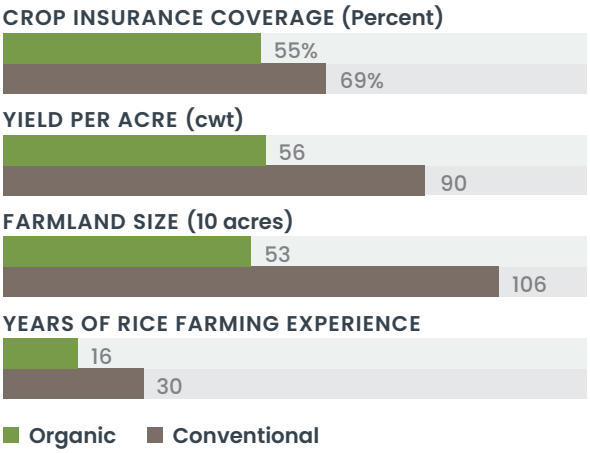
Field Practices and Economics

Scale and Yields: Conventional farms averaged 1,060.7 acres under rice and reported yields of approximately 90.2 hundredweight (cwt) per acre. Organic farms were smaller and yielded less per acre, but commanded a price premium of $39.61 per cwt.

Operational Costs and Water Use: Organic growers faced significantly higher per-acre costs, partly due to limited options for standardized organic inputs. They also used nearly twice the water (54 inches per acre) as conventional farms.



Insurance Gaps: While conventional growers made broad use of crop insurance, many organic producers reported a lack of insurance products tailored to their unique risks.



Discussion

This research highlights a clear disconnect between strong consumer demand for organic rice and the limited support available to farmers trying to meet it. While price premiums suggest a robust market, producers face significant barriers such as weak buyer networks and inadequate technical and policy support, that make organic transition uncertain.

Geography plays a major role. In places like California and Texas, access to processors and tailored extension services has helped

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organic rice production take root. But in the mid-south, particularly Arkansas (the U.S.'s top rice-producing state) organic acreage remains low.

Water use adds another layer of complexity. Organic rice often uses traditional flooding for weed control, though some growers are shifting toward more efficient practices like alternate wetting and drying to reduce water use. These methods show promise but require technical support, precise management, and access to infrastructure that many organic producers don't have.

Unlocking the full potential of organic rice will require:

- Better coordination across the supply chain.
- More investment in regional support systems.
- Innovation in practices like water-efficient growing methods.

Recommendations for Closing the Gap

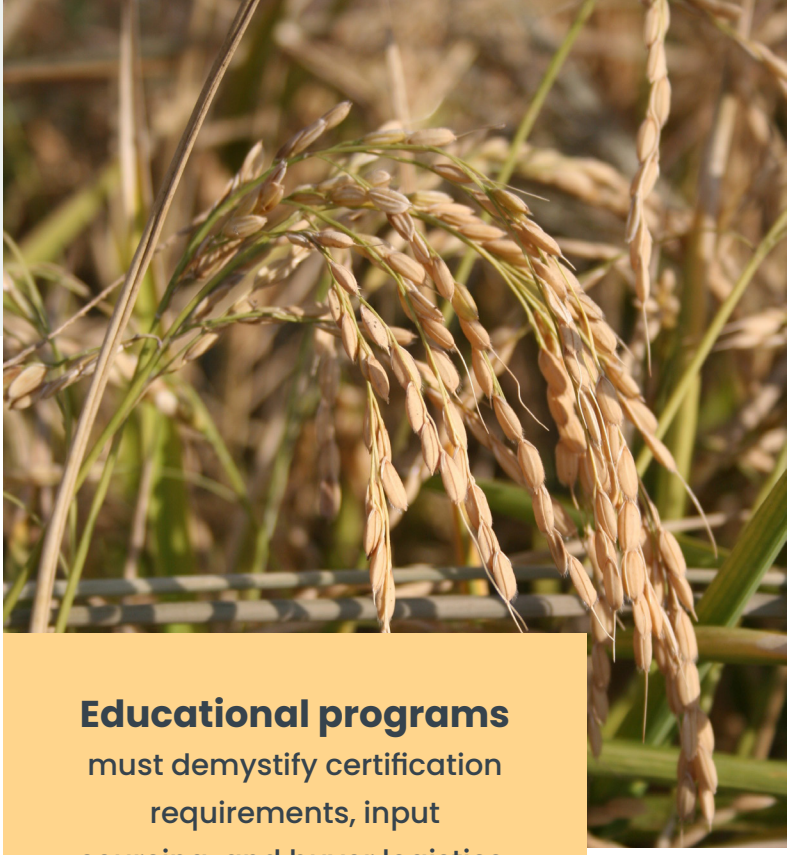
CHALLENGE	SOLUTION
17% of conventional farmers responded *"Do not know"* when asked what would motivate them to adopt organic practices, suggesting a lack of interest. Many conventional farmers lack information about organic markets and certification.	**Boost Awareness and Education** Launch targeted outreach to address the 17% of farmers unaware of organic options. Provide region-specific resources on transition steps, risks, and profitability.
Organic farmers perceive organic rice farming as significantly riskier than conventional farmers do. Concerns about profitability, weed/pest pressure, and lack of market access were top reasons for *not* adopting organic practices.	**Support Risk Management** Adapt policies (e.g., crop insurance and commodity programs) and technical support tools to reflect the higher perceived risk in organic rice farming.
Farmers cited insufficient government support as a key barrier to organic adoption. Some conventional farmers are open to adopt organic practice if there is greater profitability and/or government support.	**Enhance Incentives** Expand organic transition programs, with support aligned to farmers' concerns (e.g., land suitability, input cost).
Conventional farmers reported they do not know any organic rice buyers in their area. Organic farmers reported that a lack of buyers is not a major concern, indicating better-connected markets in certain regions such as California and Texas.	**Strengthening Market Access** Invest in local buyer networks and cooperatives to connect farmers to organic rice markets, especially in conventional-dominant regions such as Arkansas.
Both groups prioritize profitability, sustainability, and pride in their operations. Farmers downplay the influence of peers or external perception when making decisions.	**Align Messaging with Farmer Values** Frame organic adoption around profitability and land stewardship: values shared by both conventional and organic growers.

STUDY RECOMMENDATIONS

Looking Ahead

The United States has the agronomic capacity, infrastructure, and entrepreneurial drive to meet much of its own organic rice demand. Yet, current production falls far short, leaving the market heavily reliant on imports. Reversing this trend requires a coordinated, multi-stakeholder approach that addresses both structural and perceptual barriers.

To begin with, targeted extension and outreach efforts are essential. Nearly one-fifth of conventional growers surveyed indicated that they "don't know" enough about organic options to consider transitioning. Educational programs must demystify certification requirements, input sourcing, and buyer logistics, particularly in regions like Arkansas—where organic production remains low despite strong conventional infrastructure.



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At the same time, **financial tools and policy instruments must evolve to better reflect the production realities of organic systems**. Organic farmers in this study consistently pointed to higher risks associated with weed and pest management, along with limited access to suitable products and inputs. Crop insurance, commodity programs, and technical assistance programs should be redesigned to account for these unique challenges, offering region-specific risk-sharing mechanisms that incentivize experimentation rather than penalize deviation from the conventional norm.

In the early years of transition, farmers often face rising costs before organic price premiums can be fully captured. To offset this imbalance, **stronger and more accessible financial incentives, such as cost-share programs, low-interest loans, and site-specific conservation payments should be prioritized**. These supports would make it easier for producers to shoulder the short-term burdens of certification while building long-term resilience.

Supply chain development is also critical. Building regional buyer networks and cooperatives, particularly in states like Arkansas and Texas, would reduce marketing frictions, increase price transparency, and strengthen trust between producers and purchasers. Clearer market signals from committed buyers, including processors and retailers, will give farmers the confidence to invest in organic acreage.

Equally important is reframing how organic is positioned. This study found that profitability and stewardship, not peer perception or ideology, are core values across all farmer types. Messaging that highlights organic rice as a profitable, environmentally aligned business strategy can resonate more than moral or lifestyle-based appeals. **Aligning the organic narrative with farmers' existing identities as land stewards and businesspeople can help drive adoption.**

As a next step, a systematic analysis of international organic rice supply chains would shed light on why imports remain so dominant. A comparative review of cost structures, certification rigor, labor standards, and government supports in leading exporting countries could help U.S. stakeholders understand how to compete more effectively, whether through policy reform, marketing innovation, or research investment.

Scaling organic rice production in the U.S. will require more than price premiums. It demands robust institutional support, clearer communication, and a shared narrative that links economic opportunity with sustainability. If the insights from this research are acted upon, the next decade could lead to a meaningful transformation, redefining U.S. rice country—not only as a global exporter of conventional grain, but as a leader in organic production that delivers value to farmers, consumers, and the environment.

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Resources

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Outreach resources developed by the team

The Ins and Outs of Organic Rice. The Rice Stuff: The Podcast for all Things Rice. https://thericestuffpodcast.com/episode/71-organic-rice/

Resources from other organizations

ATTRA—Organic Rice Production Guide: https://attra.ncat.org/wp-content/uploads/2019/05/rice.pdf

Texas A&M Organic Rice Production guidelines: https://agrilifeorganic.org/wp-content/uploads/2024/06/2021_organicrice_production_guidelines.pdf

Multistate Organic Rice IPM Research Update: https://www.organic-center.org/sites/default/files/SouthernOrganicRice/2017-Organic-Rice-Research-Update_Zhou.pdf

Texas A&M AgriLife Organic Rice Resources: https://agrilifeorganic.org/2024/06/12/organic-rice-resources/

Publications from the Research Team

Decoding Organic Purchase Decision: Exploring Generational Disparities in Awareness and the Organic Halo Effects. Under review in the *Journal of the Agricultural and Applied Economics Association*.

Han, J., Durand-Morat, A., and Nayga, R. Are Preferences for Organic Food Shifting? The Case of Organic Rice. Revise and resubmit to *Q Open*, June 2025.

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