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POLICY BRIEF

Nourishing the Nation: Strengthening the Production of US Produce to Support Health

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Introduction

In recent years, food has been a central focus in the national conversation about health and well-being, not just in preventing disease but also improving overall health. This brief explores the policy opportunity to bring farmers and the broader produce production ecosystem into this critical conversation, better linking food system resiliency to health.

Diets rich in fruits, vegetables, and nuts are consistently linked to better health outcomes, enhancing both individual quality of life and the resilience of communities. Yet, despite clear evidence that fruits and vegetables promote better health, only one in five individuals consumes the recommended daily amount.[1] Factors such as affordability, accessibility, and nutritional knowledge play key roles in how people consume nourishing food.

However, even if consumption increased, the US does not currently grow enough fruits and vegetables domestically to meet the recommended dietary intake. Efforts to encourage Americans to increase their fruit, vegetable, and nut consumption must consider the whole food supply chain and the associated environmental, social, and economic context. These intersections provide a significant opportunity to reframe how we think about the connection between resilient food production and overall health across the US.

Further integrating the production of fruits and vegetables into health interventions, including Food Is Medicine (FIM), will be essential to move beyond simply treating diet-related diseases and shift toward prevention. To realize this vision, it is essential to foster practices that support farmers, economies, and human health, all while creating a cleaner, safer, healthier food ecosystem. This strategic integration will provide the necessary building blocks for healthier diets while strengthening the connection between agriculture and the broader US health system.

Milken Institute Feeding Change worked with 20 key stakeholders from across the food system, including farmers, distributors, retailers, health systems, researchers, and investors, to inform the policy priorities in this brief, which outlines key recommendations to strengthen the link between resilient fruit and vegetable production and the national health agenda. Feeding Change works at the intersection of produce production and FIM to build a more nutritious, resilient food system and achieve better health outcomes. The resulting recommendations

focus on four main priority areas: promoting a natural capital approach, financing resiliency through credit and insurance, cultivating a modern agricultural workforce, and connecting farmers to food as health programs. These recommendations will help bridge the gap between food production and health outcomes, ensuring a resilient food system that will enhance the health of communities nationwide.

I. Promoting a Natural Capital Approach

To ensure a resilient and health-supportive produce supply, it will be necessary to scale conservation practices by reducing barriers, strengthening partnerships, and making targeted investments that support sustainable soil and water management as the foundation for long-term fruit, vegetable, and nut production.

This first priority, to support health by strengthening resilient fruit and vegetable production, builds on the recent Feeding Change brief, *Perspectives on a Natural Capital Approach to Financing Food System Transformation*. A natural capital approach values the long-term benefits of soil and water quality in agricultural production beyond annual crop production. Farmland management that uses this approach is central to cultivating food system resilience, which we define as the ability to adapt to disruptions such as natural disasters and economic shocks. Practices that prioritize resilience while tailoring to local needs, including those that fall under the umbrella of regenerative agriculture, can decrease input costs and overall risk while increasing yields and improving soil health. As farmers seek to meet the growing demand for fruit, vegetables, and nuts, production practices should be designed with responsible management of natural resources in mind.

Several key federal programs supply growers with resources to identify practices best suited to their land while providing upfront funding. Natural Resources Conservation Service (NRCS) programs, including the Environmental Quality Incentives Program (EQIP), the Conservation Stewardship Program (CSP), and the Organic Transition Initiative (OTI), offer fruit and vegetable producers support to enhance natural resources while improving their business operations.

Some farmers do not qualify for NRCS programs due to limits on adjusted gross income, which is capped at $900,000. This cap can be a barrier to many fruit and vegetable producers with higher gross revenues but larger production and marketing costs compared to farmers of commodity crops, including corn, wheat, and soybeans. In addition, small- and medium-sized farmers often do not have the capacity or time to fill out paperwork and applications for these programs, presenting an administrative barrier to implementing conservation practices.

Conservation practices are an alternative avenue for investing in long-term soil quality that may minimize the need for other inputs while producing the essential fruit and vegetable supply to improve Americans' health. One expert we interviewed emphasized that farmers face increased financial stress due to rising input costs linked to international trade uncertainty.

Many fruit and vegetable farmers have already implemented sustainable practices out of necessity and in observance of good business practices. The Advancing Markets for Producers (AMP) initiative is a reformed federal program currently used to encourage and support farmers implementing conservation practices through producer incentives. AMP supports pilot programs through producer incentive payments for conservation practices that include using fertilizers with enhanced efficiency, biochar, and compost.[2] For example, a distributor interviewed for this brief leveraged AMP to encourage fruit and vegetable farmers to adopt regenerative agriculture practices. Overall, programs like the AMP initiative incentivize practices that not only increase productivity to meet consumer demand but also ensure the longevity of domestic fruit and vegetable production throughout the US.

Recommendations:

- Reduce administrative burden for farmers to participate in US Department of Agriculture (USDA) programs that encourage responsible soil and water stewardship. This includes streamlining the application and reporting processes so that more fruit and vegetable farmers can easily apply and qualify for these programs.

- Improve soil and water health by strengthening innovative public-private partnerships between the USDA and the fruit and vegetable industry. For example, leverage the AMP initiative to support farmers seeking to implement conservation practices.
- Expand eligibility for NRCS programs to better support farmers in the transition to regenerative agriculture practices, including cover crops, no-till and strip-till, and precision agriculture.

II. Financing Food System Resiliency Through Access to Credit and Insurance Programs

To build a more resilient, health-supportive agricultural supply chain, there is an urgent need to improve access to risk protection and financing tools such as crop insurance, credit, and disaster assistance for fruit, vegetable, and nut producers, whose unique operational and market characteristics are often underserved by existing programs.

To promote a resilient agricultural supply chain that supports human health, fruit and vegetable producers need ample access to credit and insurance programs. Crop insurance programs mitigate revenue or yield losses that result from a range of causes, including a fall in prices, pest outbreaks, and extreme weather events. Beyond protection from revenue, yield, or disaster losses, farms also rely on upfront credit to purchase inputs and invest in infrastructure. In addition to risk protection, crop insurance can be a pathway to credit access as lenders accept insurance payments to meet loan obligations.

Despite fruits and vegetables being high-value, risky crops, only 17 percent of specialty crop farmers purchased crop insurance compared to 66 percent of row crop farmers in 2023.[3] According to one producer, this disparity in coverage may be due to a lack of awareness of viable financing options for fruit and vegetable operations. Coverage also varies widely among crops. For example, the USDA Risk Management Agency's Federal Crop Insurance Program (FCIP) covers over 80 percent of tomato acreage, but only 20 percent of cabbage acreage.[4]

Most often used for row crops, FCIP provides insurance for individual crops, including approximately 80 types of fruits and vegetables. According to one expert interviewed, fruit and vegetable producers generally run more diversified farm operations and often cycle between more crops than commodity producers. Across the industry, farmers cultivate over 300 types of fruit, vegetables, and nuts. In addition, single crop insurance is available based on county-level actuarial data, so there may not be enough production data if a vegetable farmer wants FCIP coverage in an area dominated by soy production.[5]

Alternatively, farmers can opt to insure up to $17 million under Whole-Farm Revenue Protection (WFRP), which covers all crops grown on a farm. Unlike FCIP, WFRP availability is not based on location. However, farmers who frequently cycle crops face challenges accessing WFRP because the program requires five years of revenue history. In addition, farmers who want to apply regenerative agriculture practices to their fields may see losses in the first year or two before seeing increased profit, a delay that skews the five-year revenue average.

Risk protection and investment are needed for farmers to move toward resiliency in the face of increasingly frequent natural disasters. As reported by the National Oceanic and Atmospheric Administration in 2024, there were 27 major weather events.[6] Overall, major weather and fire events resulted in over $20.3 billion in total losses to crops and rangeland, excluding losses to infrastructure.[7] After a declared disaster, farmers can apply for Emergency Farm Loans, administered by the Farm Service Agency (FSA), to replace damaged equipment and cover production costs.

One food system leader we interviewed said that improving disaster resiliency for fruit and vegetable growers requires additional equipment for food storage, permitting changes, and infrastructure like emergency generators. Another expert emphasized the opportunity to redesign disaster programs to provide modern risk protection while accounting for the unique needs of fruit, vegetable, and nut producers, such as the perishability of their products

compared to more robust commodities. Investment in resiliency would ensure farmers have the resources they need to grow, harvest, process, store, and market their products, supporting a national shift toward produce-rich diets.

Recommendations:

- Establish methods to inform insurance policies in areas where actuarial data are sparse. Educate fruit, vegetable, and nut farmers on federal crop insurance options and survey them to understand how these options can better align with their unique needs.
- Improve WFRP by raising coverage for single-crop farms and allowing producers who are undergoing transitions to regenerative or conservation practices to waive multiple years of revenue for acreage.
- Expand access to emergency disaster loans to help fruit, vegetable, and nut farmers obtain equipment and rebuild infrastructure after disasters.

III. Cultivating a Modern Agriculture Workforce

A resilient fruit, vegetable, and nut supply chain depends on a stable, skilled workforce and the strategic adoption of agricultural technologies. However, rising labor costs, workforce shortages, and barriers to hiring foreign workers for temporary or seasonal agricultural jobs via the H-2A program are straining production and threatening affordability and supply.

A strong agricultural workforce is essential to nourishing Americans. As the most labor-intensive sector of the US agriculture system, fruit, vegetable, and nut production requires manual work across the majority of production stages, including planting, picking, sorting, and packaging. Labor costs account for nearly 40 percent of total production costs for fruits, vegetables, and nuts, roughly four times greater than for commodity crops.[8] An association representing cherry growers in Washington shared that producers spent more money harvesting cherries this season than they earned from their revenue.

Compared to commodity crops, produce requires greater human intervention, necessitating a balance between leveraging agricultural technologies and skilled labor. Technology plays a vital role in addressing labor shortages and rising costs. Technological advances, including mechanized harvesting, tracking supply chains, and automating high-risk jobs, can lead to safer and more efficient work. Other solutions, such as controlled atmosphere production, year-round greenhouses, and automated sensor sprayer systems, could further enhance productivity and efficiency.

Despite these advancements, produce producers have been slow to adopt new technologies, which are often complex and have high upfront costs. In addition, fruits, vegetables, and nuts are highly perishable and fragile, creating unique challenges for technology use. Unlike more uniform commodity crops, they require greater precision and adaptability to accommodate differences in ripeness and variation of produce shapes.

Ultimately, sufficient labor is critical to resilient fruit, vegetable, and nut production. From 2019 to 2020, foreign workers accounted for 70 percent of labor within fruit, vegetable, and nut production, with the H-2A program serving as a major contributor.[9] Labor shortages have resulted from a lack of domestic agricultural workers, labor costs outpacing revenues, and difficulties using the H-2A program. Many producers experience administrative burdens and face high costs to employ workers through the H-2A program, yet still turn to the program for their unmet labor needs. Between 2012 and 2023, the number of government-certified H-2A positions increased by over 400 percent.[10]

Specialty crop producers have noted that escalating labor costs make it increasingly difficult to produce fruits, vegetables, and nuts affordably. Persisting labor shortages reduce fruit, vegetable, and nut production, resulting in limited supply across the nation.

Recommendations:

- Reform the H-2A temporary worker program to provide a reliable, efficient, and affordable workforce. Bipartisan legislation, such as the 2025 Farm Workforce Modernization Act (H.R. 3227, 119th Cong.), offers a potential framework for further action.[11]
- Educate and train fruit, vegetable, and nut producers to increase adoption of existing agriculture technologies.
- Invest in and support innovative agriculture technologies for efficient fruit, vegetable, and nut production by forging collaborative partnerships between public and private organizations.

IV. Connecting Farmers to Food Is Medicine Initiatives

There is a clear opportunity to bring farmers into the center of FIM initiatives by strengthening local food systems, expanding direct-to-consumer models, and aligning policy to improve access to nutritious, locally grown foods.

As FIM gains traction across the United States, it is becoming a key public health strategy to improve chronic disease outcomes by shifting people toward healthier diets. Backed by a growing body of evidence, FIM interventions, such as produce prescriptions and medically tailored meals, are increasingly integrated into health-care and nutrition policy conversations. These programs are reshaping how we think about prevention, treatment, and the role of food in clinical care, yet the role of farmers and food production remains peripheral. Farmers produce the fruits, vegetables, and nuts at the heart of FIM interventions, and they bring critical insights, infrastructure, and resilience to local and regional food systems. While there are promising examples, from produce-sourcing pilots to statewide food hub networks, existing programs do not allow farmers to fully capture the momentum of FIM initiatives.

New bidirectional models for collaboration and connectivity can help farmers distribute more produce to impact the health of communities. For example, the NC Food Hub Collaborative improves distribution of fruits and vegetables across the state by connecting farms to a variety of consumers through FIM programs, schools, and other procurement avenues. A distributor we interviewed pointed out the growing number of California food hubs that enable food producers to distribute local produce directly to FIM providers or serve as FIM providers themselves. Additionally, health systems have also shown interest in partnering with local farms, farmers markets, or food hubs to further integrate their local food systems with the health-care ecosystem.

Beyond distribution, there is growing recognition that resilient farming practices can strengthen FIM. For example, the Oklahoma Association for Conservation Districts partnered with growers to expand production capacity in ways that directly supported local FIM efforts. Although no longer active, the USDA's Farmers to Families Food Box Program serves as a promising model for connecting local food systems with government purchasing. Between 2020 and 2021, the program delivered millions of produce boxes to families nationwide by sourcing directly from regional farmers.[12] This initiative demonstrated how public procurement can simultaneously increase fruit and vegetable consumption while creating new markets for local growers.

One expert from an agricultural management company noted that Washington state often has an oversupply of apples and emphasized the need for sustained channels to redirect high-quality surplus produce to consumers, especially to those in underserved communities.

Improving direct access between farmers and consumers is especially important in areas where transportation challenges, financial constraints, and limited availability of products restrict access to nutritious foods. This is amplified in rural communities where proximity to farmland does not necessarily translate to proximity to healthy food. To address this issue, one produce distributor we interviewed partnered with Medicaid plans on a

FIM intervention to deliver produce boxes directly to beneficiaries' doors. This model's success has motivated participants and FIM programs alike to leverage other direct produce distribution programs, including farmer-run digital platforms that accept Medicaid and Medicare FIM interventions. Prioritizing innovative solutions that connect farmers directly to communities with barriers to food access can promote healthy eating habits, strengthen local food systems, and increase access to nutrient-dense foods.

Recommendations:

- Increase coordination between the US Department of Health and Human Services and the USDA to integrate health, nutrition, and agricultural programs to drive production and consumption of fruit, vegetables, and nuts. Further leverage partnerships among these agencies, state and local governments, retailers, producers, health plans, and FIM organizations to provide incentives for purchasing produce and supporting healthy food access.
- Use the USDA Farmers to Families Food Box Program as a blueprint to connect local farmers with federal purchasing programs to deliver fresh fruits and vegetables to consumers. Prioritize ways to implement similar programs in rural areas that connect local producers with health systems, community-based organizations, and health plans.
- Strengthen regional and local food systems by adopting procurement policies that prioritize sourcing from domestic farmers, investing in collaborations and infrastructures that expand market access, and forging partnerships that link food systems with health systems.

Conclusion

A healthier nation begins with a resilient food system that supports farmers, protects natural capital, ensures a modern workforce, and connects the agricultural sector with health-focused initiatives. As Congress considers the 2025 Farm Bill and related legislation, actionable pathways exist to strengthen this critical industry sector. By empowering producers, improving program design, and reinforcing the link between agriculture and health, policymakers can help ensure that US fruit, vegetable, and nut production remains competitive, resilient, and central to a healthier future for Americans. These actions are not only agricultural priorities, but also national priorities that serve farmers, families, and communities alike. These recommended actions will help close the gap between food production and health outcomes, ensuring agricultural policies that nourish individuals and build healthier, more resilient communities across the nation.

Endnotes

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