Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE

REPORT SUMMARY

Wholesale Produce Market Infrastructure Executive Summary

In the fall of 2023 Cornell University, with support from USDA's Agricultural Marketing Service (AMS) and the National Association of Produce Market Managers (NAPMM), conducted a survey to understand the current state of wholesale produce market infrastructure across the country, with an emphasis on identifying infrastructure shortfalls and areas that would benefit from targeted investment.

The final report is published on the Dyson Cornell Extension Bulletin.

PROJECT STRUCTURE & OVERVIEW

For this study, wholesale produce markets are defined as facilities where multiple fresh produce wholesalers, that primarily conduct business to business (b to b) transactions, are co-located. While business to consumer (retail sales) may occur at the markets, they are not a large part of the volume of sales at the market. The research team identified 50 markets and received 20 usable survey responses.

Wholesale produce market facilities were originally constructed in major cities to provide efficient spaces for moving, handling, and storing produce since the early 1900s. During the 1950s and 1960s, AMS contributed significant resources to the design and renovation of several wholesale produce markets across the country to modernize wholesale produce supply chains. Several states in the Southeast invested in and built state farmers markets that also contained common buildings with multiple warehouses for food wholesale tenants.

However, investments in the infrastructure and transportation networks that underpin wholesale produce markets have lagged in the last 50-60 years. Wholesale produce market managers report that they are struggling under the weight of outdated facility design and deferred capital investments, while constraints that limit the transportation of products to, from, and within their market facilities have emerged.

Researchers surveyed and interviewed wholesale produce market managers about infrastructure challenges their markets face, and updates needed to ensure effective operations and usefulness for farmers, wholesalers, and consumers. The project findings suggest that most wholesale produce markets require at least some major infrastructure investments, and that most require very significant investments.

INFRASTRUCTURE PRIORITIES

The infrastructure improvements that are a significant priority to wholesale produce markets are:

	Percent of market respondents
• **Dock improvements** (including levelers, additional space, more, and temperature-controlled docks)	**60%**
• **Building improvements,** such as exterior walls, roofs, flooring systems, doors, etc.	**50%**
• **Utilities including adequate power**, such as amount of power, power sources, emergency backup power, etc.	**50%**
• **Coolers and other controlled temperature zones**	**45%**
• **Waste, sewers, water treatment**	**45%**
• **Recycling**	**35%**
• **Food waste disposal**	**30%**
• **Security improvements**	**30%**

IMPORTANT INSIGHTS

Interviews with 10 market managers provided important insights about how infrastructure deterioration and obsolescence affect wholesalers' ability to conduct business, and the hurdles market managers face when they need to invest in infrastructure improvements. The interviews revealed common themes about the effects of obsolete infrastructure on business. These were grouped into six common themes.

Business efficiency – Most managers indicated that the layout in their market does not allow for efficient product flow on and around the docks and noted that improved dock infrastructure would allow them to improve product handling.

Food safety certifications – Updates and improvements needed to comply with third party food safety certifications include wall treatments, drains, lighting fixtures, and other structural features that can be cleaned more thoroughly. Docks are also open to ambient temperatures at most markets, making it difficult to maintain cold chain required for food safety certifications and to maintain product quality.

Maintaining product quality – As wholesalers have grown, they have expanded their product lines and thus require larger and/or additional coolers to provide a wider range of temperature and humidity environments. Market managers have also reported that the lack of cooler space has limited wholesaler tenants' business capacity, contracts they can take, and types of produce they can sell.

Space to grow – The need for additional square footage to meet current business obligations and expand sales was a theme closely related to improved efficiency. Currently, the only means for most wholesale market tenants to grow their business is to buy out another tenant on the market. Sales for the individual tenant may grow up to a point, but sales handled by the markets cannot grow without additional space.

Functional utilities – Almost all markets need to replace or upgrade some of the market utilities, including water and sewage pipes, repaving, power, interior plumbing, wi-fi and security infrastructure.

Centralized business services – Being able to provide business services that are managed by the market would streamline internal traffic, handling touchpoints, and reduce food waste. The services mentioned the most included packaging and food waste recovery and handling.

Funding the improvements needed has been a challenge for markets. For these improvements, which are complex and comprehensive, markets need external funding. The respondents in this research indicated that locating grants or low-interest loans and writing proposals is beyond the ability of many market managers and tenants, and they will need to hire additional staff, agencies, or consultants to do this for them.

"As the cost of these improvements continues to rise, the majority of markets are challenged in funding these improvements. **This is an existential threat to these markets.** Major stakeholders need to be highly engaged in articulating the value that these markets play in fresh food distribution and diligently advocating for local, state, and federal funding of these national infrastructure assets."

- Interview with wholesale produce market manager

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