

Exploring the Development of an Illinois Farm to Food Bank Program

Prepared for

Feeding Illinois
Steve Ericson

Prepared by

Illinois Sustainable Technology Center
A division of the Prairie Research Institute
University of Illinois



University of Illinois Specialists

Project Manager - Zach Samaras
Project Associate – Joy Scrogum
Project Associate – Kealie Vogel
Project Associate – Savannah Feher
Project Associate – Irene Zlevor

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1.0 Executive Summary

In December of 2020, the Illinois Sustainable Technology Center (ISTC) partnered with Feeding Illinois, the Illinois Farm Bureau (IFB), and the Illinois Specialty Growers Association (ISGA) to conduct a feasibility study of a statewide Farm to Food Bank program. Research and engagement strategies included understanding current conditions at food banks, speaking with other Farm to state's Food Bank programs, a farmer survey, farmer focus groups, and a pilot project. Overall, stakeholders were very interested and supportive of the development of a statewide Farm to Food Bank program and eager to contribute to its development.

Is there a need?

Survey

ISTC administered a survey to Illinois farmers to understand current conditions on farms and options for unmarketable commodities.

- 45% of farmers leave unmarketable produce in the field.
- 61% of farmers are looking for additional markets for some or all of their commodities.
- 55% of farmers indicated that receiving 5-30 cents to offset costs would make donating more appealing.

What are the current conditions?

Food Bank Visits

ISTC and Feeding Illinois visited all eight-member food banks to understand their relationship with fresh foods.

- Planning – food banks strive to distribute fresh foods, but few have goals in place.
- Acquisition – food banks rely primarily on retail donations for fresh foods.
- Distribution – lack of capacity at food pantries creates a bottle neck to distribution.

What can we learn from others?

Farm to Food Bank Programs

ISTC interviewed 14 Farm to Food Bank programs across the country to find best practices. Six themes emerged across the topics.

- Farmer First
- Public & Private Support
- Partnership Building
- Flexibility
- Marketing & Promotions
- Logistics

What should be included?

Focus Groups

To follow-up on survey responses and gather feedback on a Farm to Food Bank program, ISTC hosted 5 focus groups with a total of 25 farmers. Five central themes emerged during discussions.

- Ease the Burden on Farmers Financially
- Effective Communication
- Flexibility
- Legal Concerns
- Gaps in Infrastructure

How should it operate?

Pilot Project: Rendleman Orchards

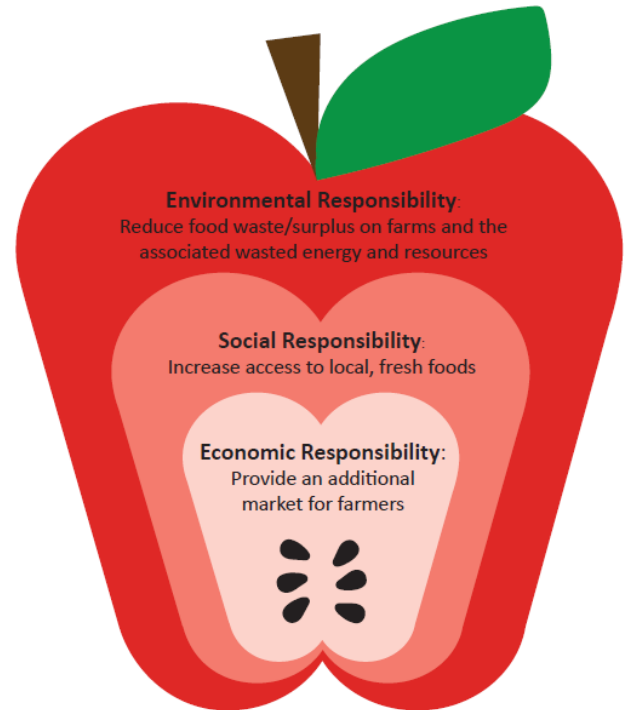
ISTC and Feeding Illinois partnered with Rendleman Orchards as the first pilot project.

By the end of the 2021 growing season, Feeding Illinois had reimbursed Rendleman Orchards \$290,529 to cover Picking and-Pack-Out (PPO) costs for 608,560 pounds of fresh fruit.

- 372,900 pounds of peaches
- 26,950 pounds of nectarines
- 208,710 pounds of apples

Recommendations for 2022 & Beyond

1. A Farm to Food Bank program should have three primary goals:
 - Support farmers by providing a secondary market for off-grade and surplus products.
 - Increase access to local, nutritious foods.
 - Reduce food waste/surplus on farms and associated energy and resources.
2. Equity must be an essential part of the program.
3. Seek out partnerships with existing aggregation and processing centers.
4. Seek out partnerships with new food pantries.
5. Make Feeding Illinois and their member food banks a staple at ag-focused and food access events.
6. Increase communication between food banks.
7. Ensure buy-in from food banks and food pantries.
8. Improve capacity and resources at the food pantries.
9. Connect a Farm to Food Bank program with existing technology platforms.
10. Diversify funding sources. Develop an advocacy plan to pursue public and private support.
11. Establish an advisory board to guide the actions of the Farm to Food Bank program.
12. Develop guidance and educational programs for farmers.
13. Measure success by more than just pounds of donated food.
14. Hire a dedicated employee to manage the Farm to Food Bank program.
15. Adapt the program as needed.
16. Continue piloting Farm to Food Bank strategies around the state.



Next Steps

While these recommendations can serve to guide Farm to Food Bank efforts, further research is needed to uncover opportunities and test collection and distribution strategies. ISTC will partner with Feeding Illinois in 2022 to continue this research. The project team will continue outreach and engagement efforts to both increase participation and gather feedback on the program. Along with continuing to work with Rendleman Orchards, there are two additional pilot projects scheduled for 2022. ISTC and Feeding Illinois will also work with farmers markets around the state to test aggregation strategies.

- **Gibbs Family Farms:** This farm has agreed to plant 2 acres dedicated to Feeding Illinois food banks and food pantries. With input from the food bank, the farm will grow broccoli, cabbage, kohlrabi, peppers, tomatoes, squash, and zucchinis.
- **Nayak Farms:** Nayak Farms 2022 Sweet Corn Initiative will grow 16 acres of sweet corn, dedicated to Feeding Illinois food banks, yielding an estimated 300,000 pounds.
- **Farmers Markets:** In partnership with the Illinois Farmers Market Association, the Farm to Food Bank program will partner with farmers markets as aggregation hubs for fresh foods.

2.0 Acknowledgements

The ISTC project team would like to recognize the support and contributions made by project partners and key stakeholders.

Project Partners

[Feeding Illinois](#)

[Illinois Department of Human Services](#)

[Illinois Farm Bureau \(IFB\)](#)

[Illinois Specialty Growers Association \(ISGA\)](#)

[Illinois Farmers Market Association \(ILFMA\)](#)

[University of Illinois Extension](#)

Key Stakeholders – Feeding Illinois Food Banks

[Central Illinois Foodbank](#)

[Eastern Illinois Foodbank](#)

[Greater Chicago Food Depository](#)

[Northern Illinois Food Bank](#)

[Peoria Area Food Bank](#)

[River Bend Food Bank](#)

[St. Louis Area Foodbank](#)

[Tri-State Food Bank](#)

Key Stakeholders – Farms

Anonymous Focus Group Participants

Anonymous Survey Respondents

[Flamm Orchards](#)

[Rendleman Orchards](#)

Key Stakeholders – Other Farm to Food Bank Programs

[Arizona Food Bank Network](#)

[California Association of Food Banks](#)

[Feeding America](#)

[Feeding America Eastern Wisconsin](#)

[Feeding Florida](#)

[Feeding Indiana's Hungry](#)

[Feeding Kentucky](#)

[Feeding Pennsylvania](#)

[Food Bank Council of Michigan](#)

[Good Shepard Food Bank \(Maine\)](#)

[Harvest Against Hunger \(Washington\)](#)

[Maryland Food Bank](#)

[Ohio Association of Food Banks](#)

[Second Harvest Heartland \(Minnesota\)](#)

[Vermont Foodbank](#)



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3.0 Introduction

In January of 2021, the Illinois Sustainable Technology Center (ISTC) partnered with Feeding Illinois, the Illinois Farm Bureau (IFB), and the Illinois Specialty Growers Association (ISGA) to conduct a feasibility study of a statewide Farm to Food Bank Program. Through interviews, surveys, focus groups, and pilot projects it became clear that a such a program would be welcomed by both the farming and food banking communities. While this is an ongoing research project, this report serves to demonstrate research efforts undertaken from December 2020 – February 2022 that have led to this conclusion along with identifying strengths, weaknesses, threats, opportunities, and recommendations for a statewide Farm to Food Bank program.

This report was prepared by ISTC for Feeding Illinois, the state association that represents the eight Feeding America-member food banks. Project contributors include the Illinois Farm Bureau, the Illinois Specialty Growers Association, and Illinois Farmers Market Association. Research done in this study was paid for by Feeding Illinois through a 50% match between the Feeding Illinois food banks and the U.S. Department of Agricultural (USDA) Farm to Food Bank grant.

If you are not familiar with Farm to Food Bank programs, the agricultural industry, and the food recovery sector, reviewing the glossary prior to reading this report is recommended. The glossary can be accessed in Appendix A.

About the Illinois Sustainable Technology Center Technical Assistance Program

[The Illinois Sustainable Technology Center's](#) (ISTC) Mission is to encourage and assist citizens, businesses, and government agencies to prevent pollution, conserve natural resources, and reduce waste to protect human health and the environment in Illinois and beyond. ISTC's applied research lab and technical assistance team work together to advance best practices in pollution prevention, water conservation, energy efficiency, renewable energy, and waste reduction.

ISTC's [Technical Assistance Program](#) (TAP) works with organizations in Illinois to reduce consumption of energy and natural resources and to minimize waste. TAP performs research, spreads awareness, and facilitates implementation regarding practices, technology and systems that improve sustainability.

TAP also assists clients by developing climate resilience adaptation strategies through identification of how climate change impacts their operations, products, or services, exploring proven, resilient responses and technologies to those impacts, and crafting strategies for relevant communication and engagement of stakeholders.

This report was authored by the Illinois Sustainable Technology Center's [Zero Waste Program](#).

ISTC does not endorse, either explicitly or implicitly, any particular manufacturer, vendor, product, or service. Information about specific products, manufacturers or vendors is provided for reference only.

Questions about this report and project may be directed to:

ISTC Zero Waste Program | 1 Hazelwood Dr. Champaign, IL 61820 | istc-zerowaste@illinois.edu

3.1 Food Insecurity

Using data from the U.S. Census Bureau, the USDA Economic Research Service (ERS) reports that [in 2020, 10.5% of U.S. households faced food insecurity](#). Put another way, 38.3 million people lived in food-insecure households, including 6.1 million children. "Food insecurity" refers to a lack of access, either temporary or long-term, to provide enough food for an active, healthy life for all household members and limited or uncertain availability of nutritionally adequate foods. Food insecurity is a complex economic and social situation, which can be caused by a variety of factors including poverty or unemployment; chronic health conditions and/or a lack of healthcare access; the affordability of other basic needs; unexpected life events; discrimination or systemic racism; and other variables. In general, food insecurity is higher among households with children and highest among such households headed by single women. Rates of food insecurity often tend to be higher in rural areas, and among communities of color regardless of location.

[In 2018, 1,283,550 people, or 10.1% of the population experienced food insecurity in Illinois. Feeding America estimates](#) that due to the COVID-19 pandemic, food insecurity increased to impact 12.7% of the Illinois population in 2020 and 10.9% in 2021.

Feeding Illinois, a Partner State Association of Feeding America is the largest hunger-relief organization in the state. Feeding Illinois' eight-member food banks collectively serve all 102 Illinois counties. To view a map of the food banks and the counties they serve, visit the [Feeding Illinois website](#). While not all food banks operations are identical, the primary flow of donation and distribution is fundamentally the same and outlined in Figure 1 below. Donations predominantly come through the food banks and are distributed by those food banks to their network of over 3,000 partner agencies and programs, or through direct distributions such as Mobile Pantries. Partner agencies can be food pantries, soup kitchens, shelters, youth and senior centers, and specialized feeding programs. For the purposes of this report, we will refer to all types of partner agencies as food pantries.

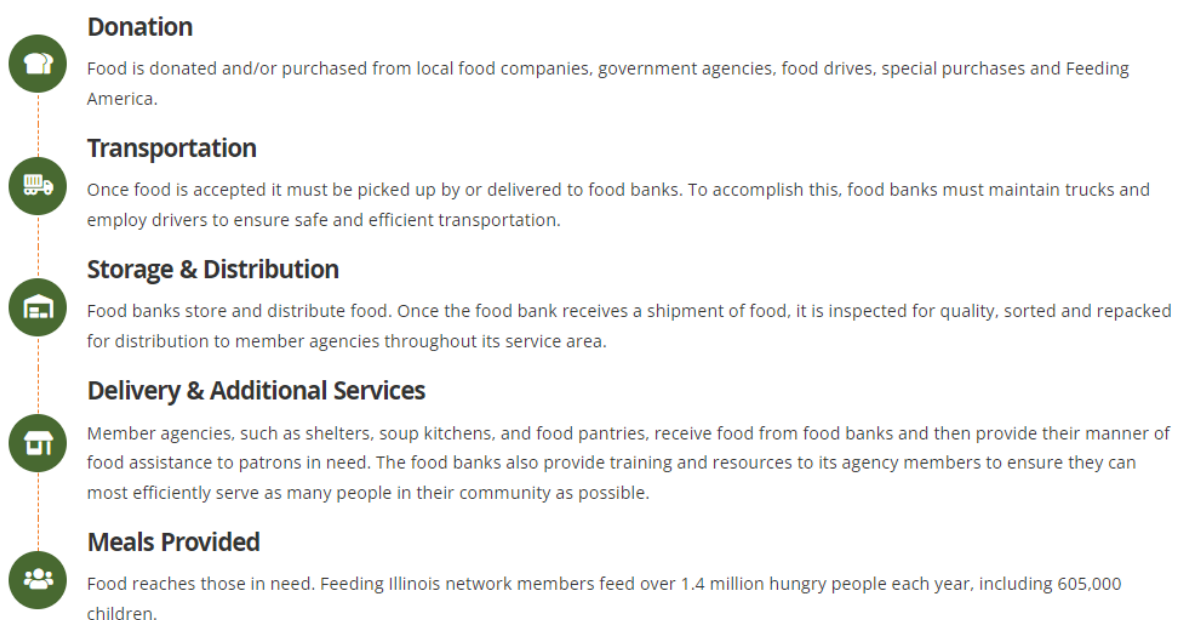


Figure 1: The typical flow of donations through the Feeding Illinois network, from the Feeding Illinois website.

3.2 Food Waste

Food insecurity, though widespread in the U.S., is not the result of food scarcity. There is an abundance of food available in this country, but a variety of factors throughout the supply chain result in food loss and waste. [According to the U.S. Environmental Protection Agency \(EPA\), more than one-third of the food produced in the U.S. is never eaten](#). ReFED, a leading non-profit organization dedicated to ending food loss and waste across the U.S. food system, [estimates 54.2 million \(54.2M\) tons of food waste was generated across all sectors in the U.S. in 2019](#). ReFED defines the term “food waste” as a subset of “surplus food.” “Food waste” is defined as food which goes straight to landfill, incineration, down the drain, or left in the fields to rot, while “surplus food” is any food that is either unsold or uneaten (including donated food).¹

Of that 54.2M tons of food waste, 27.2% (14.7M Tons, produce only) results from farming operations. The causes of food waste within the agricultural sector (before food can reach retail locations, foodservice operations, or individual consumers) may include market fluctuations for commodity prices; labor costs and shortages; cosmetic or weight standards at the retail level; weather and/or climate impacts; issues related to adequate cold storage and/or efficient transportation; limited options for value-added processing, and more. The fact that farms are the second largest source of food waste in ReFED’s estimations, even without the inclusion of wasted meats, poultry, and dairy products, illustrates that there generally remains significant opportunity to reduce food wastage within the agricultural sector.

¹ Note that “food loss” and “food waste” are sometimes treated as separate concepts, with food loss referring to unused product from the agricultural sector, such as unharvested crops, and food waste referring to plate waste, spoiled food, or portions of commodities inedible or not preferred by humans, which might be managed through landfilling, composting, anaerobic digestion, or combustion for energy recovery. For example, see <https://www.epa.gov/sustainable-management-food/sustainable-management-food-basics#Food%20Waste>. In this report, we follow ReFED’s lead and that of the US EPA Office of Research and Development in its recent report [“Part 1: From Farm to Kitchen: The Environmental Impacts of U.S. Food Waste,”](#) and use the terms “food loss,” “food waste,” and “food loss and waste (FLW)” interchangeably, considering losses from the agricultural sector and other forms of food waste together, as deeply entwined parts of a societal materials management and climate resiliency challenge. We acknowledge that not all material included in discussions of food waste is eligible or appropriate for recovery for human consumption.

[According to ReFED](#), approximately 83.2 thousand tons of surplus food were generated by farms in Illinois in 2019 (see Figure 2 below). Note this estimate only includes surplus produce, not meat, poultry, or dairy commodities. Of these 83.2 thousand tons, only an estimated 0.24% was donated while over 96% was not harvested.



Figure 2: Estimated surplus food tons (produce only) generated by IL farms in 2019 (Source: ReFED Insights Engine).

Food waste from all sectors represents not only a loss of nutrition to alleviate food insecurity, but also wastage of the labor and natural resources invested in food production. Excluding the impacts of solid waste management (e.g. methane production during the decomposition of food waste in landfills), [the U.S. EPA has stated](#) the environmental impacts of food waste in the U.S. are equivalent to the greenhouse gas emissions of more than 42 coal-fired power plants, the water and energy to supply more than 50 million homes, the amount of fertilizer used to grow all plant-based foods produced in the U.S. for human consumption, and an area of agricultural land equal to California and New York combined. The national economic impact of this wastage is also significant. [According to ReFED](#), each year, the U.S. generates a total of 229M tons of "surplus food" (defined as food which is either unsold or uneaten) worth \$408 billion. They estimate that [21% \(17M Tons\) of the surplus food in the U.S. is generated by farms](#), and that this surplus food is worth \$14 billion. They further state that only about 2% (3M Tons) of the total surplus food in the U.S. (regardless of sector) is donated for use by the food insecure, whereas 54M is food waste, representing 70% of the economic impact of surplus food, or \$285 billion. Specific to IL, [ReFed estimates](#) that 7.65 million meals could be diverted from IL farmers (produce only) by improving storage handling and capacity as well as transportation of donations, improving or expanding value-added processing, and education related to donation.

This underscores the opportunity to simultaneously address multiple negative environmental impacts and economic losses while also improving human health and welfare by identifying ways to improve food rescue and redistribution. Given the environmental impacts of food waste as well as the missed opportunities for providing nutrition and supporting the livelihood of farmers, in 2015, the USDA and U.S. EPA jointly announced the U.S. 2030 Food Loss and Waste Reduction goal, which seeks to cut food loss and waste in half by the year 2030.

3.3 Illinois Agriculture

Illinois is one of the top U.S. states in terms of agricultural production and agriculture is a significant economic driver within the state. According to the [USDA National Agricultural Statistics Service \(NASS\) 2021 State Agriculture Overview](#), there are 27,000,000 acres of farmland across 70,900 farm operations in Illinois. [According to the Illinois Farm Bureau \(IFB\)](#), 76% of Illinois land is devoted to agriculture, and Illinois ranks first among U.S. states for soybean production and second for corn production (15% of all U.S. soybeans and 13% of the U.S. corn supply is produced in IL). Illinois ranks second in the nation for the sale of crops, and twenty-four of Illinois' counties derive at least one-third of their total output from agriculture and agriculture-related industries. Even in the state's most urban county, Cook County, \$27 billion in economic activity is derived from agriculture and related industries. IFB estimates that agriculture and related industries account for over 400,000 jobs in Illinois, or 1 in every 17 jobs within the state.

While most Illinois farmland is devoted to corn and soybean production, a wide variety of specialty crops are grown in the state. [Specialty crops are defined by the USDA](#) as "fruits and vegetables, tree nuts, dried fruits and horticulture and nursery crops, including floriculture." [The Illinois Specialty Growers Association \(ISGA\)](#) states that there are over 3,600 established specialty crop farms utilizing more than 81,250 acres to produce over 472 million dollars in sales annually within Illinois. [According to IFB](#), in Illinois, more than 64 vegetables and 15 fruit and nut crops are grown commercially on more than 100,000 acres, leading to a sales volume of close to \$400 million. Illinois produces two-thirds of the U.S. horseradish supply and is the top producer of pumpkins nationally. Illinois is among the top ten states in the nation in the production of specialty crops such as asparagus, cauliflower, fresh-cut herbs, green peas, lima beans, mustard greens and snap peas, and there are 175 commercial vineyards in the state, growing 1,066 acres of grapes. Beyond specialty crops, [IFB reports](#) that of the more than 71,000 farm operations within Illinois, approximately one-third include livestock. Ninety-six percent (96%) of Illinois farm operations are family-owned and [Illinois ranks third in the nation for the number of farmers markets](#) with over 375 registered farmers markets.

Given the rate of food insecurity in Illinois, the amount of food wasted regionally and nationally, the availability of surplus, and the key role that agriculture plays in the Illinois landscape and economy, it is clear that the state, its environment, and its citizens could benefit from a statewide farm to food bank program.

3.4 What is a Farm to Food Bank Program?

"Farm to Food Bank" projects or programs are [defined in the Code of Federal Regulations \[at 7 CFR 251.10\(j\)\]](#) as "the harvesting, processing, packaging, or transportation of unharvested, unprocessed, or unpackaged commodities donated by agricultural producers, processors, or distributors for use by Emergency Feeding Organizations (EFOs)" – i.e., hunger relief agencies. Several such programs exist throughout the United States, though not in every state (for examples, see the "Lessons from Other Farm to Food Bank Programs" section of this report). While commonly referred to as Farm to Food Bank, these programs can also operate as Farm to Food Pantry programs.

The main objective of such programs is to work with regional farmers to connect fresh, locally produced foods to families facing food insecurity. The impetus behind the desire to improve access to fresh foods is the realization that improving food security must coincide with improving nutrition security. The [USDA](#) distinguishes between these concepts by defining food security as having enough calories, whereas nutrition security involves access to the "right" calories, coming from nutritious foods that promote optimal health, throughout all stages of life (see Figure 3 below). Individuals who face food insecurity are at higher risk of poor nutrition, and thus, higher risk of diseases resulting from poor nutrition. Increased consumption of fresh fruits and vegetables, as opposed to more highly processed foods, can reduce the risk of many such diseases, including heart disease, diabetes, and obesity. Farm to Food Bank programs thus strive to provide equitable access not just to food, but to higher quality, nutritious foods.

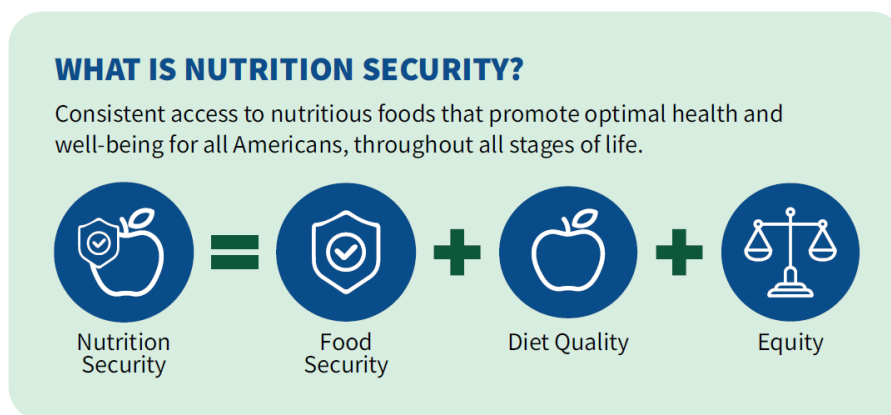


Figure 3: USDA Nutrition Security

Commodities provided by participating farmers may be surplus crops which might otherwise go to waste; or safe, edible foods which would be rejected by primary markets based on standards related to aesthetics, size, or other factors; or commodities grown or raised specifically for provision to hunger relief efforts. Some Farm to Food Bank programs rely on unpaid donations, while others compensate farmers. Though some food banks refer to product that has been provided to them with or without payment as “donations,” those providing product should not assume that such donations are necessarily tax deductible.

A popular model of compensation is reimbursing farmers for their Picking and Pack-Out (PPO) costs. Per the [USDA](#), PPO costs are paid to farmers to “help offset the costs of labor required to harvest the crop and the packaging to transport it.” Thus, in some instances, Farm to Food Bank programs not only benefit society by addressing food insecurity, but they also benefit farmers by providing additional markets for commodities, and by ensuring that the crops those farmers worked hard to produce are actually used to feed people rather than being wasted. In a 2020 study titled “[Making a market for on-farm food loss: Exploring food banks as a market for Southeastern produce](#),” Dunning et al. summarize their research by saying “Our findings thus suggest that food banks are a potentially reliable sales channel for produce growers. Given that PPO prices are generally much lower than market prices, this channel should be seen as one part of an overall marketing strategy. Sales to food banks are a way for growers to make use of surplus produce or items not meeting market standards because of characteristics such as shape, size, and color.”

4.0 ISTC Research Methods

Beginning in early 2021, ISTC worked with Feeding Illinois food banks to understand their current operations, interviewed representatives from other Farm to Food Bank-style programs throughout the U.S., conducted a survey and follow-up focus groups with Illinois farmers to learn more about their experiences and needs, and partnered with Rendleman Orchards of Union County, Illinois to complete a pilot project providing fresh produce to food banks. The following sections detail these research and outreach efforts.



Figure 4: ISTC Research Methods

4.1 Current Conditions at Feeding Illinois Food Banks

In order to better understand how Feeding Illinois food banks operate, ISTC visited all eight-member food banks to tour the facilities and conduct informal interviews on the topic of fresh foods. Themes from these interviews are categorized below as being related to Planning, Acquisition, and Distribution. While this list represents overall themes from conversations, it is worth noting that Feeding Illinois food banks vary greatly in terms of resources and capabilities.

Planning

- Food banks aspire to provide more healthy and culturally appropriate foods, but at the time of the interviews, few have goals or budgets in place to support these objectives.
- Food banks have challenges forecasting incoming fresh foods due to historical reliance on donations from the retail market as well as inconsistencies in government programs.
- There is a need for increased and improved communication among food banks to discuss opportunities and challenges.
- Food banks are always striving to develop strategies and build capacity to distribute fresh foods to pantries more quickly to avoid spoilage.

Acquisition

- Food banks rely heavily on retailers' donations, from both stores and distribution centers.
- Few food banks have established relationships with farmers.
- Food banks have inconsistent experiences with produce mixing centers. Produce mixing centers are regional aggregation centers where products are comingled into mixed truck loads or food boxes and sold to food banks.
- There are many benefits to allowing food pantries to pick up directly from retail outlets. By developing a relationship between the retail outlet and the local food pantry, donated product can more quickly reach neighbors in need. Food banks commonly refer to this acquisition strategy as "Agency Enabled" or "Direct Connect."
- Food banks are looking for a greater variety of incoming produce.

Distribution

- Limitations at food pantries can create a bottleneck to distributing more fresh foods. Limitations include:
 - Capacity, particularly cold storage
 - Reliance on volunteer labor
 - Hours (hours per day and days per week)
- Donated produce packaged in smaller quantities can be distributed more quickly than bulk donations, which require repackaging at the food bank.
- Volunteers enjoy working with fresh foods.
- The size and makeup of food bank territories presents challenges to efficient donation collection and distribution. Some food bank service areas are much larger than others, and in such territories, more time, fuel, etc. is involved in collection and distribution. The logistics of collection and distribution are impacted not only by service area size, but also on the operating hours, storage capabilities, and other aspects of hunger relief operations. Those various aspects make it challenging to develop and recommend universal procedures related to the distribution of fresh food.
- One common approach to distributing fresh foods near their end-of-life is mobile distribution, which involves transporting items to neighborhood distribution points off food bank property. See Figure 5 below for an example.



Figure 5: Northern Illinois Food Bank utilizing mobile distribution.

Two themes were most prevalent in our discussions. Currently, Feeding Illinois food banks rely heavily on the retail industry for donations; this is especially true for fresh foods. While there are excellent relationships in place with entities such as Walmart, the food banks are often at the mercy of the retail outlet as to what they will receive and the quality of that food. This approach brings in large amounts of produce, but often results in the food banks receiving produce that is well past its prime and/or produce with minimal appeal to food pantry clients. This approach also limits the ability of food banks to request specific products, such as culturally relevant foods or products in short supply from other sources. Very few food banks have established relationships with farmers, and all recognized this as an under-utilized source of fresh foods.

Another prevalent theme across our conversations was the bottleneck caused by the lack of capacity, particularly at the food pantry level, in terms of physical space, shelving and display materials, cold storage, available staff and volunteers, and days of the week/month the hunger relief agency is open to clients. Every food bank mentioned this as a primary hurdle to distributing more fresh foods. A 2021 report by University of Illinois Extension entitled ["Distribution of Fresh Foods in Illinois: Challenges and Opportunities in Illinois Food Pantries,"](#) *"Storage challenges in food pantries were abundant. Most representatives indicated they had limited storage space. Cold storage was often further limited, with some food pantries having frozen storage but no refrigerated storage available. Food pantries felt this was a particularly salient barrier for many fresh fruits and vegetables which would spoil quickly, in comparison to meats, which could often be frozen for long periods of time. A few food pantries noted that they also had limited storage supplies or furniture, such as bags, boxes, and shelves, and that these items are costly to attain or resupply."* Increasing capacity must be a priority in order to support a Farm to Food Bank program.

4.2 Lessons from other Farm to Food Bank Programs

Over the past year, ISTC staff virtually met with organizations managing Farm to Food Bank-style programs around the country to learn about their programmatic approaches, farmer compensation models, daily challenges, and recommended best practices. In total, ISTC interviewed organizations from 14 states: Arizona, California, Florida, Kentucky, Maine, Maryland, Michigan, Minnesota, Indiana, Ohio, Pennsylvania, Vermont, Washington, and Wisconsin. A list of overarching themes and key lessons learned from these discussions was compiled and is summarized below.

Farmers First

- Farm to Food Bank programs cannot work without farmers. Farmers need to be the primary focus.
- Programs need to make it easy for farmers to participate.
- Pitching Farm to Food Bank programs as programs for farmers has the best chance of seeing state funding.
- Don't forget the small farms, it all adds up.
- Every successful interaction between a food bank and a farm provides opportunity for future donations and further connections.

Public & Private Support

- Most programs are not self-sufficient and receive funding from a mix of federal/state sources and private/community donations.
- Most programs interviewed receive state funding of around \$1-2 million per year.
- Donors like to support locally focused initiatives.

Partnership Building

- Partnerships between food banks and farmers allow for better communication regarding food bank needs and farmer needs.
- Be transparent with farmers about what to expect as a participant.
- Partnerships between state and private entities can allow for increased access to transportation, monetary donations, and marketing avenues.
- Partnerships between different food banks or food banks and food pantries allow for donated produce to be most effectively distributed.

Flexibility

- Adjust strategies or procedures to suit local conditions and growing seasons.
- Allow for a mix of pre-planned and opportunistic contributions of fresh foods. Opportunistic contributions are those made when a farmer has surplus or off-grade commodities as part of a chance occurrence, while pre-planned contributions occur consistently and are made as part of pre-season agreements between farmers and hunger relief agencies. Examples of pre-season agreements may include a farm dedicating a set quantity of commodities each week or a farmer growing a plot specifically for hunger relief agencies.
- Allow for substitutions of produce when using pre-season agreements. This ensures that the hunger relief agency involved can anticipate obtaining a certain amount of fresh food while allowing for unforeseen circumstances that may be outside the control of a farmer (e.g. weather events that destroy part of a given crop).
- Continually evaluate and refine your processes.

Marketing & Promotions

- Word-of-mouth marketing within farming communities is invaluable.
- Farmer ambassadors can help establish and maintain farmer-food bank relationships. Retired farmers make good candidates.
- Recognizing farmers for participating in the program via websites, social media, newsletters, awards, postcards, etc. is another way to support participating farms and spread the word about the program.

Logistics

- Expect farms to have varying resources in terms of storage capacity and transportation.
- Make sure food pick-ups/drop-offs fit into the farmer's schedule.

- Ensure farmers don't have to change or overhaul their operations to participate.
- There is no one-size-fits-all model.

See Appendix B for further comparison on the 14 Farm to Food Bank programs interviewed.

4.3 Survey

Demographic Information

While this was technically the last section of the survey, Demographic Information is listed first in this report as it is referenced in several subsequent sections. Information collected included location, farming tenure, farm size, and how the farm is registered as a business. The 275 respondents represent 67 counties across Illinois. Figure 6 illustrates counties represented in the survey. When asked about farming tenure, 69% of respondents indicated they have been farming for more than 10 years, 27% indicated they have been farming 3-10 years, and only 4% have been farming less than 3 years. When asked about farm size, 49% of respondents indicated they have 0-4 acres in direct crop production. Table 1 shows the full breakdown of farm size and direct crop production (acreage on the farm dedicated to growing commodities not including livestock grazing, housing, etc.).

The final question of the survey asked about registered business types. Sixty-nine percent (69%) of respondents indicated they are registered as a women-owned business, 23% as a veteran-owned business, and 7% as a minority-owned business.

Direct Crop Production	% of Respondents
0-4 acres	48%
5-14 acres	17%
15-24 acres	10%
23-99 acres	13%
100-300 acres	7%
Over 300 acres	5%

Table 1: Survey results indicating crop acreage

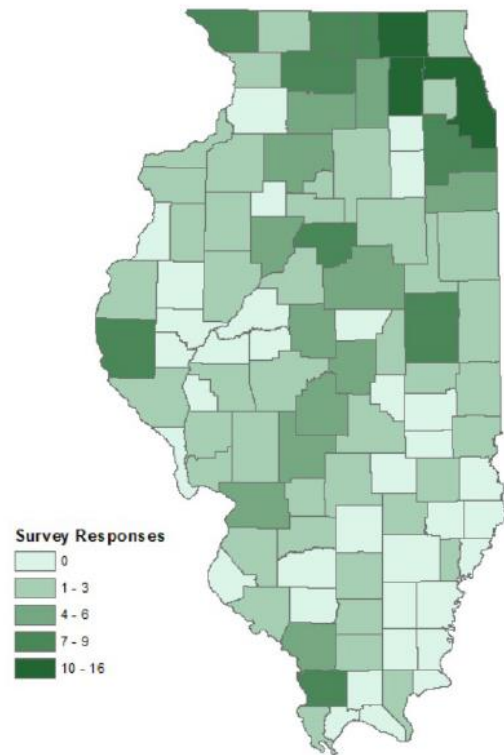


Figure 6: Survey results by county

Current Practices and Existing Conditions on Farms

This section of the survey gathered information on general practices and existing conditions on farms. When asked to indicate the crop product types that make up more than 10% of the farm's yield, 71.6% of respondents selected vegetables while 32.8%, 21.2%, and 13.6% selected fruits, other livestock, and poultry respectively. Over 90% of surveyed farmers indicated that they sell direct-to-consumer, most commonly via farmers markets, roadside stands, and on-farm retail stores.

Market Channels

This section of the survey focused on understanding current marketing channels and how surplus is distributed in terms of marketable edible and inedible food commodities. A goal of this section was to understand farmers' baseline comprehension and use of industry specific standard, such as USDA grading standards, on their farm. Understanding this baseline allows for a common language to be established between farmers and food banks. The first question in this section asked whether the farmers' commercial accounts require them to meet specific grading standards. Fifty-six percent (56%) indicated that they do not sell commercially, 16% indicated that their commercial accounts do not have grading requirements, 24% indicated that some or all their commercial accounts have grading standards, and 4% were unsure. The second question in this section asked about farms' staff knowledge of USDA grading standards. Only 30% indicated they are very knowledgeable or have significant knowledge on grading standards. Twenty-seven percent (27%) indicated they have limited knowledge, 12% said they are not familiar at all, and 31% indicated "not applicable" as they do not utilize USDA grading standards on the farm.

As shown in Figure 7, a combined 70% of respondents said their operations do not use industry specific grading standards or have limited or no knowledge of grading standards. In order to ensure all parties of a transaction are on the same page, farmers will need to be supplied with the IL Farm Bureau's USDA grading standards manual or meet with food bank representatives on the farm to discuss the product.

How knowledgeable are your operation's staff about USDA grading standards for the commodity you grow?

- Not familiar at all
- We have limited knowledge
- We have significant knowledge
- We are very knowledgeable
- Not applicable - our operation does not utilize USDA grading standards

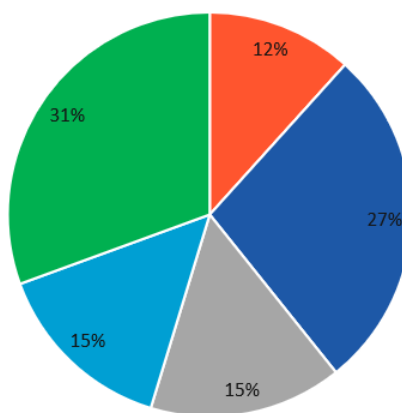


Figure 7: Farm survey results indicating familiarity with USDA grading standards.

Market Alternatives and Unsuitability

This section of the survey reviewed market alternatives and unsuitability of commodities for primary markets to provide a better understanding of how surplus is generated and how it is handled. The goal of this section was to examine the need to create a secondary market for underutilized commodities (i.e. a Farm to Food Bank program) and provide insights into the necessary infrastructure and support. Farmers were first asked what they currently do with unmarketable products. Sixty-three percent (63%) of farmers indicated they “sometimes”, “often”, or “almost always” donate their unmarketable products. Forty-five percent (45%) indicated that they are forced to sometimes, often, or almost always leave or plow the product back into the field. The farmers that were forced to leave product in the field represent an opportunity to expand donations. Farmers who have been farming 10 or fewer years were 12% more likely to “often” or “almost always” donate their unmarketable product for free compared to farmers who have been farming 10 or more years.

When asked what customer-related reasons prevent the sale of commodities, 48% of farmers pointed to cosmetic imperfections, 21% to standards for size/weight, and 31% to “other reasons.” Other reasons consisted of quality of the commodity, having a surplus, regulations/liability, lacking infrastructure, time and energy required by the farmer, lack of demand, and weather. Smaller farms (0-24 acres) were more likely to experience unmarketable commodities due to pest, disease, or weather damage while larger farms (25+ acres) were more likely to report unmarketable commodities due to cosmetic imperfections and customer size and weight requirements.

The fact that cosmetic imperfections and standards for size/weight were the largest overall barriers preventing the sale of commodities suggests a market opportunity to ensure those commodities do not go to waste. As shown in Figure 8, when asked if interested in finding additional markets for commodities, 29% of respondents indicated “yes for all commodities” and 32% indicated “yes, for some commodities.” A combined 61% of surveyed farmers looking for additional markets support the need for a Farm to Food Bank program, providing an additional outlet for Illinois farms for off-grade and surplus commodities.

Are you interested in finding additional markets for any of your commodities?

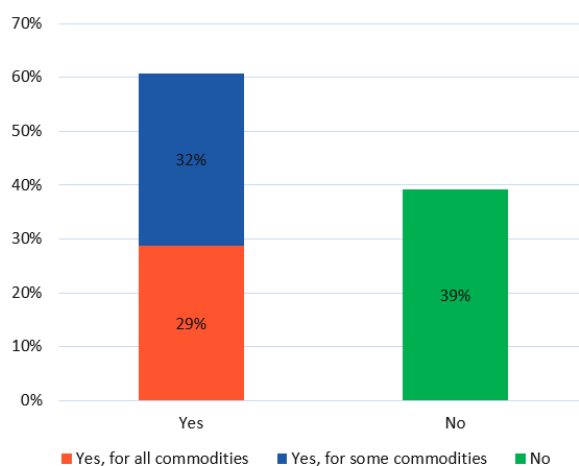


Figure 8: Farm survey results indicating farmers interested in finding additional markets.

Farm to Food Bank

This section of the survey examined barriers and opportunities to increase the movement of fresh food from farms to food banks and food pantries. Only 16% of farmers indicated that they have extensive or significant knowledge about existing programs and incentives available for producers to donate food to food banks, while 44% have limited knowledge and 40% are not familiar at all. While a formal Farm to Food Bank program has not existed in Illinois, food banks do currently accept food donations from farms. This information, along with our food bank interviews in which food bank employees indicated that they primarily focus their attention on retail rescue opportunities, demonstrates the lack of relationships that exist between IL farms and IL food banks. For a Farm to Food Bank program to thrive, building these relationships is an essential first step.

Figure 9 illustrates the barriers that stand in the way of selling or donating commodities directly to food banks. “Sometimes a barrier” responses were merged with “Consistently a barrier” responses in this graph to help illustrate which barriers farmers are most likely to face. While all barriers need to be addressed, labor expenses, demands on farmers’ time, and packing expenses were most likely to prevent these transactions from taking place. Funding to farmers to alleviate the burden of packing expenses, labor expenses, and transportation would be helpful to address these barriers. Funding should be coupled with education and outreach to assuage liability concerns and ensure the farmer knows who to contact at their local food bank regarding contributions. Additionally, built infrastructure is needed to address storage and transportation barriers. All of these factors will need to be packaged in a program that is both convenient for the farmer and the food banks.

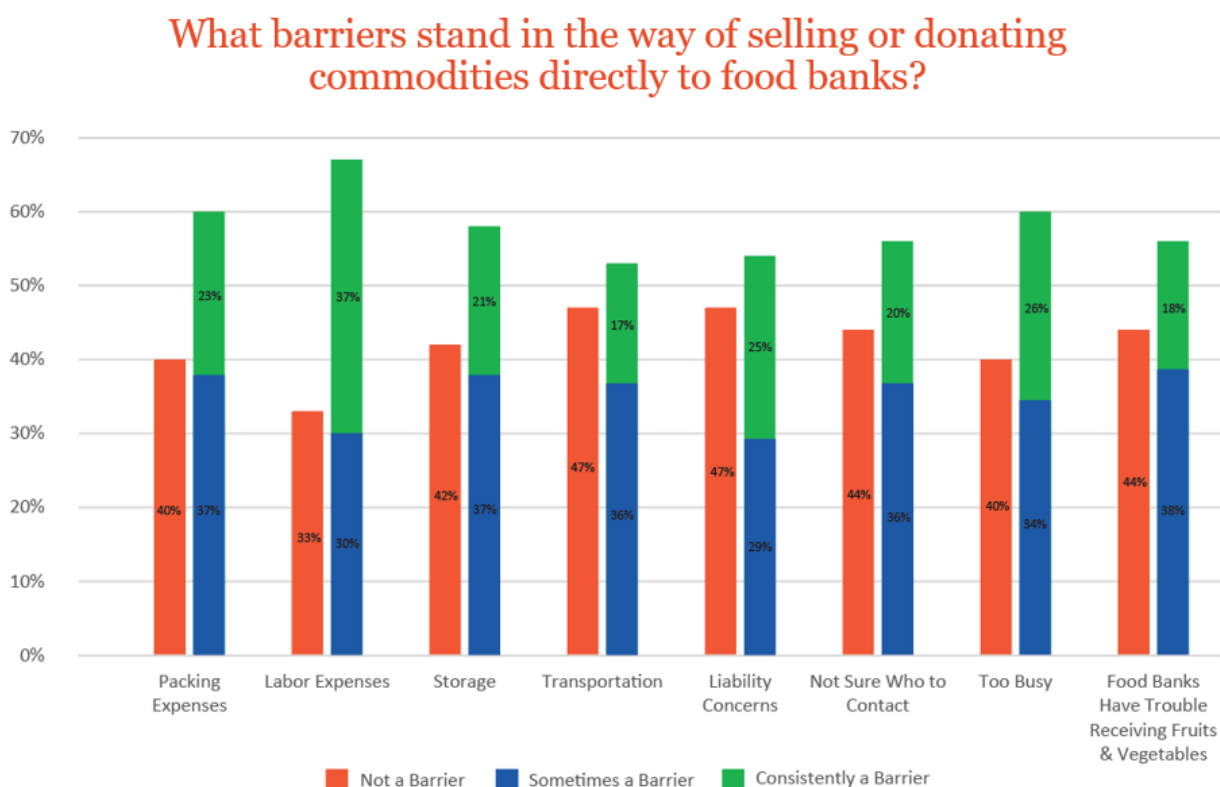
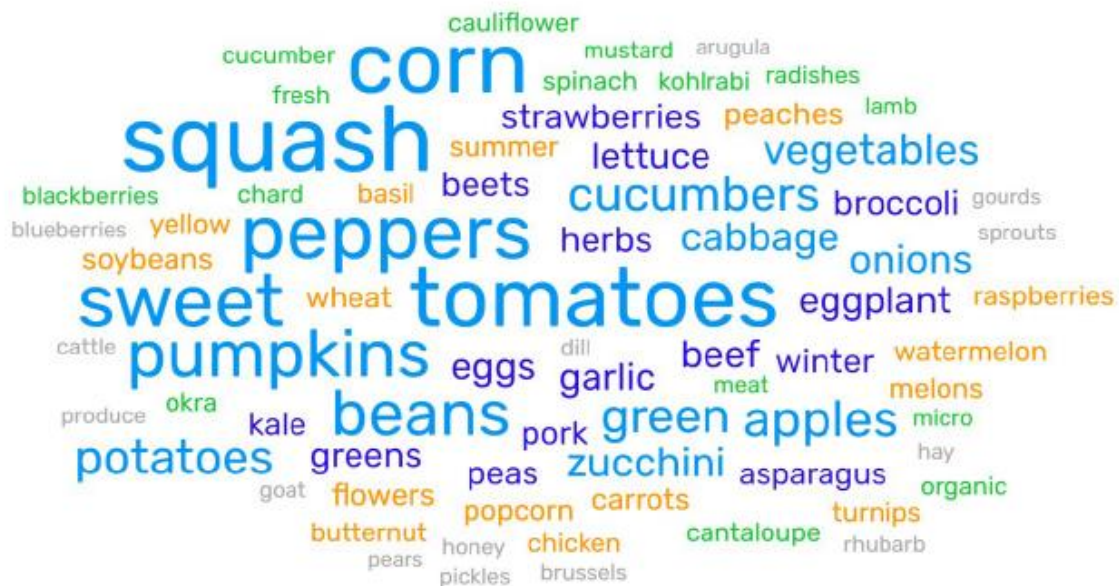


Figure 9: Survey results indicating barriers for farmers.

When asked about compensation options in a farm to food bank program, 49% of farmers indicated that they would accept Picking and Pack-Out costs (PPO) to donate more to food banks. Comparably, 55% of farmers indicated that receiving 5-30 cents per unit to offset costs would make donating more appealing.

Product Marketability



4.4 Focus Groups

ISTC administered five farmer focus groups to gather more in-depth feedback and opinions on options for off-grade and surplus produce as well as facets of a Farm to Food Bank program. ISTC hosted two in-person focus groups at the Illinois Specialty Growers Conference in Springfield, IL on January 5-7th, 2022, and three virtual focus groups hosted on Zoom. Two of the virtual focus groups took place January 12th and one on February 1st, 2022. Focus groups were each one hour long and consisted of four to six participants, with a total of 25 farmers participating. ISTC worked with IFB to ensure participants included individuals from across the state as well as minority, women, and urban farmers.

Participants also represented a wide range of ages. Farmers invited to participate were those that indicated interest on the ISTC administered survey and suggestions from the IFB and the ISGA. To be eligible, participants had to be 18 years of age and operated a farm or garden within Illinois. No compensation was provided for participating in the focus groups. A consent form was signed by each participant and strategies to ensure confidentiality and anonymity were read aloud at the start of each session. The described protocols were evaluated as exempt for review by the University of Illinois at Urbana-Champaign Institutional Review Board (Protocol #22325).

Focus group format consisted of an introduction to the research project, an ice breaker, and eight key questions with follow-ups and prompts. The same eight questions were asked during all five focus group sessions. Questions were developed to build upon research outlined in this report including interviews with food banks, interviews with representatives from other Farm to Food Bank programs, as well as the farmer survey. Overall, focus group participants seemed supportive of the development of a statewide farm to food bank program and eager to contribute to its development, despite acknowledgement of multiple challenges that would be involved in planning and barriers to success. Five key themes emerged during focus group discussions, which are outlined below.

Ease the Burden on Farmers Financially

One of the primary themes that emerged during the focus groups was that a Farm to Food Bank program needs to ease the burden on farmers financially. Hunger was discussed as a societal issue and farmers alone should not be expected to solve that issue. One farmer summed it up by saying simply, “Farmers should not carry the weight.” Every focus group touched on farmers working on small margins and the fact that spending time to harvest and pack donations would hurt their bottom line. One farmer said “[We are] not trying to get rich but do need to make a living.” An urban farmer said, “As urban farmers, our economies of scale are much smaller, and our margins are tight.”



Labor and transportation were consistently mentioned as two of the largest financial barriers to collaborating more with food banks and pantries. One farmer said “[due to the cost of labor and packaging] it becomes much more cost effective to throw it [surplus or seconds] away.” This is consistent with responses from the farmer survey. While most of the discussion on this topic was about reimbursing farmers for their Picking and Pack-Out costs (PPO), one farmer did indicate that wholesale pricing should also be considered.

Effective Communication

Two of the eight questions related directly to communication channels within a Farm to Food Bank program, but responses from several other questions indirectly indicated a need for more effective communication among stakeholders. Many farmers indicated that they would like to have a conversation with the food bank or local food pantry prior to the growing season to better understand the foods they needed most, the foods they needed least, and their overall capacity to accept and distribute fresh food. While farmers had differing opinions on whether they would want their contact to be with the state association Feeding Illinois, their area food bank, or their local food pantry, all farmers agreed that having that established point of contact is important to building a successful relationship. One farmer said, “We want help making arrangements and connecting the dots.” While we did not associate the size of the participant’s farm with each comment recorded during the focus groups, it seemed that smaller farms tended to like their point of contact at the local pantry level, while larger farms wanted a point of contact at their area food bank or with Feeding Illinois.



It was also very important to farmers that they know their food is being consumed. Several farmers discussed the pride they have in what they grow and wanting to ensure their crops are not just going to waste. Two farmers indicated that it would be great to know where their food is distributed.

Flexibility

The theme of flexibility was also present throughout several responses during the focus groups. It was evident that there will be no one-size-fits-all model to a successful Farm to Food Bank program. When discussing logistics and transportation, the farm’s equipment and capabilities dictated their preferred logistical process. Some farmers have cold storage and access to trucks, while others do not. Some farmers make regular deliveries to retail outlets near food banks and/or pantries, while others rely solely on on-farm retail stands. While most farmers agreed that a regularly scheduled on-farm pickup would be preferred, some farmers are willing to deliver.

Flexibility with transaction type was also discussed. When asked whether farmers would prefer to have a pre-season arrangement in place with a food bank/pantry or only reach out when they have surplus available, there was an array of responses. Some farmers indicated that a pre-season agreement would ease the burden on them and fit into their existing operations; other farmers indicated that it would cause additional stress and they would prefer to reach out only when they have product to contribute. Several farmers indicated that a mix of both would be the ideal option. Being flexible with both logistics and transaction type will allow for maximum participation in the program.

Gaps in Infrastructure

When discussing infrastructure needs for a Farm to Food Bank program, farmers indicated that aggregation hubs and value-added processing are both lacking in Illinois. One of the reasons farmers thought an aggregation hub would be useful is that the employee that manages the hub can ease the burden on scheduling for busy farmers and food banks/pantries. Farmers indicated it can be difficult to match up donation deliveries with local hunger relief agencies due to the capacity and distribution days/hours. Having an aggregation center would allow farmers to off-load surplus/seconds at their convenience. Some participants indicated that the aggregation hubs could also provide cold storage outlets to farmers that do not have adequate cold storage on their farm. Farmers that thought they may not have the volume to satisfy a food bank also discussed aggregation hubs as a method of allowing smaller farms to contribute to the program.

The final focus group question asked what other components farmers would like to see incorporated into a Farm to Food Bank program. Value-added processing was frequently mentioned as an opportunity to extend the life of fresh foods, both in terms of salvaging commodities just prior to spoilage, but also dealing with surplus quantities of commodities which might saturate markets. Farmers also recognized that local food pantries often do not have the capacity to take their produce. Due to physical space, cold storage, number of volunteers, and the timing of distribution days, they may not be able to take in product and deliver it before it spoils.

Legal Concerns

The last theme that surfaced during focus group discussions was the confusion surrounding liability and compliance. Several farmers questioned their liability when donating commodities, particularly if they were to participate in a Farm to Food Bank model where aggregation with other farms' commodities is taking place. There was also confusion on the use of volunteer labor. One farmer asked whether using volunteer labor to pick fruits and vegetables would still allow the farm to receive reimbursement for costs. There are also concerns related to the legality of using volunteer labor in certain circumstances. Farmers also questioned whether they are able to take a charitable tax deduction when they have already written off inputs such as seed and labor.

4.5 Pilot Project: Rendleman Orchards

Feeding Illinois and ISTC partnered with Rendleman Orchards during the 2021 growing season as the first pilot project of the Farm to Food Bank program. Rendleman Orchards grows over 80 acres of peaches, nectarines, and apples and is located in Alto Pass, Union County.

In April 2021, Feeding Illinois and ISTC visited the orchard for a tour and to better understand their current donation process. Rendleman Orchards were already supporting several local food pantries; however, the process was not scalable. Once a week, a food pantry representative would come by the farm to pick up cases of fruit. The representative was often a senior citizen volunteer driving a vehicle that was not equipped to use the loading dock at the farm, requiring farm employees to manually load the vehicle. The fruit was fully donated to the food pantries. Rendleman Orchards indicated that they would need compensation for the labor and packaging in order to scale their contributions as well as a logistical process that would better fit their operations.



Figure 11: Wayne and Michelle Sirls of Rendleman Orchards.

Utilizing funding from the USDA Farm to Food Bank grant, Feeding Illinois was able to pay Rendleman Orchards their Picking and Pack-Out (PPO) costs which represent the farm's cost to harvest and package the product – in this case grade 2 /utility grade and surplus peaches, nectarines, and apples. After discussion with Rendleman Orchards, it was determined that \$0.52/lb would cover the labor and packaging. Freight would be additional. Rendleman Orchards sells commercially and is very familiar with USDA grading standards; this allowed for expectations to be set at the beginning of the project for grade 2 and utility grade fruit.

Feeding Illinois and ISTC arranged for Tri-State Food Bank (TSFB) to accept the first load of fruit. Rendleman Orchards started by delivering 48 cases (2 pallets) of peaches to TSFB's Vienna, IL cold storage hub. After two successful deliveries, the St. Louis Area Foodbank joined the project. They had empty trucks near Rendleman Orchards on a weekly basis which allowed them to pick up directly at the farm loading dock. Rendleman Orchards would reach out to these participating food banks on Thursday of each week with product availability. Food banks would place their order by the end of the week and either arrange a pick-up or delivery, fitting seamlessly into the farm's existing operations. As interest and demand grew from two additional food banks (Northern IL Food Bank and Greater Chicago Food Depository), Rendleman Orchards aggregated additional commodities from neighboring Flamm Orchards. All invoices were sent to Feeding Illinois and were paid upon confirmation of receipt from the food banks. Feeding Illinois then invoiced the recipient food bank. The \$0.52/lb + freight costs were split 50/50 between the USDA Farm to Food Bank grant and the recipient food bank.

By the end of the 2021 growing season, Feeding Illinois had reimbursed Rendleman Orchards \$290,529 to cover PPO costs for 608,560 pounds of fresh fruit including 7,458 cases (372,900 lbs) of peaches; 539 cases (26,950 lbs) of nectarines; and a combined 208,710 pounds of bagged and bulk apples. An additional \$12,020 was paid for associated deliveries to the four recipient food banks.

“The Farmer to Food Bank Pilot was a HUGE success. Every single person we worked with went above and beyond to make this a successful pilot year. It could not have come at a better time with the overabundance of peaches nationwide. It prevents a lot of peach dumping. It recouped farmers’ costs while providing fresh and healthy food for those in need. As farmers we felt completely supported by Illinois Farm Bureau, our politicians, our state university, and our food bank partners. I truly feel this could be a shining star program for our state.”

– Michelle Sirles, Rendleman Orchards

After completion of the growing season, ISTC and Feeding Illinois worked with Rendleman Orchards, Tri-State Food Bank, and St. Louis Area Foodbank to gain feedback and evaluate the pilot project. All parties were very happy with the result of the project and would like to increase participation in 2022. Three key elements came out of the discussion that will be taken into consideration for continued piloting during the 2022 growing season:

1. **A standardized process for reporting and invoicing.** Currently, each food bank, pantry, and farm have their own set of processes. In order to ensure accurate tracking and timely payments, a more standardized process is needed.
2. **Flexible logistics.** The logistics of pick-up and delivery do not need to look the same for every food bank and every transaction. What worked for one food bank/farmer relationship did not necessarily work for the others. Being flexible with this process allows for increased participation.
3. **Timely communication.** Timely communication from both the farmer and food banks ensures on time delivery and pick-ups, and builds trust between the parties.



Figure 12: The Friends of the food banks logo was developed by the Illinois Farm Bureau (IFB) and is provided for use (on websites, signage, etc.) by any farm or food business selling or donating product to a local food bank or food pantry within the Feeding Illinois network.

5.0 Assessment, Recommendations, and Next Steps

In this section, findings since the beginning of the research project are summarized into strengths, weaknesses, opportunities, threats, and recommendations. As this is an ongoing project, these points should be evaluated after each growing season.

5.1 SWOT Analysis

This section of the report reviews the strengths, weaknesses, opportunities, and threats (SWOT) to an IL Farm to Food Bank Program.

Strengths

- During Feeding Illinois food bank interviews and board meeting presentation, it was clear that there is a network-wide commitment to the distribution of fresh, nutritious foods.
- Feeding Illinois food banks have a wide variety of resources and capabilities.
- Farm to Food Bank programs can support environmental, financial, and social goals, and thus garner support from a wide variety of stakeholders with varying priorities.
- Feeding Illinois has developed strong relationships with key stakeholders such as the Illinois Farm Bureau, Illinois Specialty Growers Association, Illinois Farmers Market Association, University of Illinois Extension, and Illinois Department of Health & Human Services.

Weaknesses

- The overall size and complexity of food bank territories presents challenges to efficient distribution of fresh foods. To view a map of the food banks and the counties they serve, visit the [Feeding Illinois](#) website.
- Food bank and food pantry capacity is a consistent challenge. Lack of storage, particularly cold storage, is frequently a bottleneck to distributing more fresh foods.
- There is a lack of established goals for fresh foods at food banks and food pantries. While there is a clear commitment to distribution of fresh foods among hunger relief agencies, there are no publicized goals.
- There are no Illinois-specific tax incentives for donations. While federal tax deductions exist, state-specific tax incentives could further increase donations.
- Lack of familiarity among farmers as to the difference between food pantry and food bank capabilities.

Opportunities

- Build partnerships with agricultural and food access-focused organizations throughout Illinois. As part of this project, ISTC and Feeding Illinois have connected with over 20 organizations and initiatives with similar goals.
- Build partnerships with new food pantries across the state and increase the access of fresh foods in those communities.
- Connect a Farm to Food Bank program with existing technology platforms such as [MealConect](#) and [MarketMaker](#).

- Provide and/or expand the secondary market for farmers.
- Increase access to local, nutritious, and culturally relevant foods for food banks and food pantries across the entire state.
- Reduce food waste on farms, as well as conserve energy and other resources used to produce food which might otherwise be wasted.
- Reduce distance foods travel from the point of production to the consumer, lowering greenhouse gas (GHG) emissions and reducing the carbon footprint of the Feeding Illinois network. Savings on reduced freight can be put back into the Farm to Food Bank program to support local farmers.
- Mitigate risk for farms looking to scale operations and/or diversify crop plantings.

Threats

- There is a lack of consistent funding to support efforts to secure fresh food for hunger relief.
- Operations and procedures vary among food banks and food pantries. This provides the potential for inconsistent experiences for farmers. Hearing about inconsistent experiences from peers may dissuade farmers that have not yet worked with hunger relief agencies from doing so.
- There is widespread confusion on liability among farmers, both in terms of food donations and the legality of using volunteer labor to support food donation.
- There is a widening lack of availability of consistent labor on farms.
- Competition and or/confusion with other similar programs, e.g., USDA Farmers to Families Food Box Program could hinder the success or efficiency of a statewide Farm to Food Bank program

5.2 Recommendations for 2022 & Beyond

1. A Farm to Food Bank program should have three primary goals, outlined below and illustrated in Figure 13. By prioritizing these three factors, the program will account for what is commonly referred to as the “Triple Bottom Line” of sustainability – consideration of economic, social, and environmental responsibilities.
 - Support farmers by providing a secondary market for off-grade and surplus products.
 - Increase access to local, nutritious foods for food banks, food pantries, and neighbors in need.
 - Reduce food waste/surplus on farms and the waste of energy and resources associated with food production and distribution.

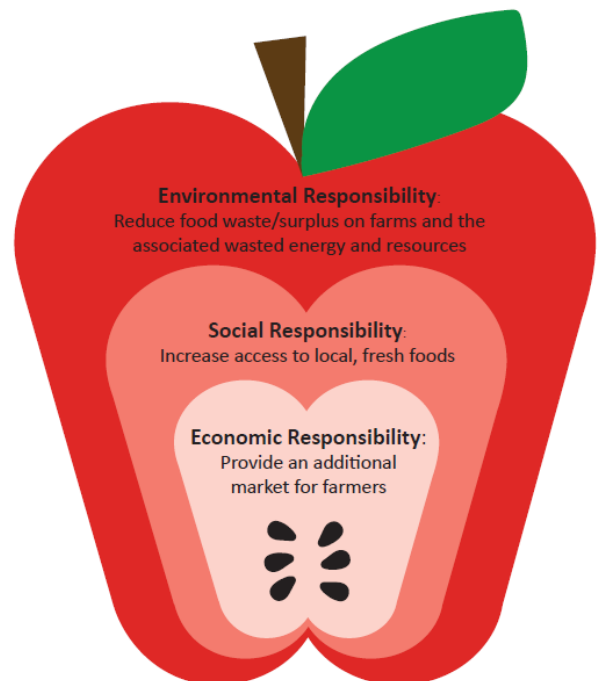


Figure 13: Farm to food bank programs support sustainability through goals associated with environmental, social, and economic factors.

2. Equity must be an essential part of the program. Ensure that marginalized farmers are included, and that culturally familiar foods are incorporated in distribution.
3. Seek out partnerships with existing aggregation and processing centers and support the creation of new centers, i.e., food hubs. These partnerships will both allow the Farm to Food Bank program to extend into winter months as well as expand overall capacity.
4. Seek out partnerships with new food pantries to expand the Feeding Illinois network and distribute more fresh foods into those communities. While called a Farm to Food Bank program, it is anticipated that many deliveries will flow from farm directly to food pantry, so expanding these relationships will be important.
5. Make Feeding Illinois and the member food banks a staple at ag-focused and food access events and conferences around the state. Continually introducing Feeding Illinois and the Farm to Food Bank program to farmers and other organizations around the state will further bolster support and expand program participation.
6. Increase communication between food banks. Ensure recurring communication among Farm to Food Bank representatives from each food bank regarding challenges and opportunities. Do not let food bank territories prevent the development of relationships.
7. Ensure buy-in from food banks and participating food pantries. Strategies include letters of engagement/intent between stakeholders, goal setting in terms of increasing access to healthy foods, a 50/50 split of costs for fresh foods between Feeding Illinois and a recipient food bank or food pantry, and building local relationships. Encourage food banks to host meet and greet events between farmers, food banks, and food pantries.
8. Capacity and resources at food pantries, including cold storage and display equipment, refrigerated trucking, and staffing/volunteer availability must continue to be addressed and improved. Lack of equipment capacity inhibits the transportation and storage of fresh foods while lack of capacity in terms of staffing/volunteer availability impacts the days and hours during which food pantries can be open, which in turn impacts the ability to accept donated commodities in a timely fashion from farms. Feeding Illinois and their member food banks and pantries should continue to seek funding to increase capacity and resources.
9. Connect a Farm to Food Bank program with existing technology platforms such as [MealConnect](#) and [MarketMaker](#).
10. Diversify funding sources and develop a plan to ensure financial sustainability of a Farm to Food Bank program to provide farmers confidence that this new market opportunity is reliable. As with most Farm to Food Bank programs, this should include a mix of public and private funding. Feeding Illinois should work with internal and external partners to create an advocacy plan to pursue support from the state of Illinois, pursue sponsorships from corporations, grants from foundations and agencies at multiple levels of government, and develop fundraising campaigns specific to the Farm to Food Bank program.
11. Establish an advisory board to guide the actions of the Farm to Food Bank program. Potential participants could include stakeholders representing farmers, local foods, food banks, and food pantries.
12. Develop guidance and educational programs for farmers to address liability and other legal concerns, and to assist farmers with taking advantage of tax deductions and other available incentives.

13. Measure success by more than just pounds of donated food. Examples include the improvement of [nutrition security](#), number of farmers supported, dollars put back into the local economy, and the distance food travels from production to consumption. Food bank programs commonly use pounds and meals as the primary indicator of success, but not every meal is created equal. Using additional measures of success will showcase the overall value of the program to stakeholders.
14. Hire a dedicated employee to manage the Farm to Food Bank program. This employee would likely be at the state association level and work to establish and maintain relationships between farmers and food banks and pantries. Enlisting part-time Farm to Food Bank ambassadors is another potential solution; these could be part-time employees or volunteers.
15. Adapt the program as needed. There is no one-size-fits-all model for success in Farm to Food Bank programs. Flexibility is key to increasing participation. Utilize the off-season as an opportunity to evaluate the program and fine-tune strategies. See Figure 12 below for an initial Farm to Food Bank model flow chart.
16. Continue piloting Farm to Food Bank strategies around the state. Further piloting is required to ensure the optimal mix of strategies to maximize farmer participation.

5.3 Next Steps

While these recommendations can serve to guide Farm to Food Bank efforts, further research is needed to uncover opportunities and test collection and distribution strategies. ISTC will partner with Feeding Illinois in 2022 to continue this research. The project team will continue outreach and engagement efforts with farmers to both increase participation and gather feedback on the program. Along with continuing to work with Rendleman Orchards, there are two additional pilot projects scheduled for 2022. ISTC and Feeding Illinois will also work with farmers markets around the state to test aggregation strategies.

- **Gibbs Family Farms:** ISTC and Feeding Illinois first connected with Gibbs Family Farm in August of 2021 after Gibbs heard about the program from an Illinois Fam Bureau Facebook post. Gibbs was very eager to participate and agreed to plant two acres dedicated to Feeding Illinois food banks and food pantries. After quantifying the costs to convert two acres of row crop to specialty crops, Gibbs hosted a community fundraiser and raised over \$25,000 to support their efforts. Produce from Gibbs will be picked up weekly by food pantries in the Woodford County area.
- **Nayak Farms:** Nayak Farms was established in 2021 as part of the [Strength to Love Foundation](#) with the mission of providing resources to food insecure communities in Illinois. Nayak Farms 2022 Sweet Corn Initiative will grow 16 acres of sweet corn, an estimated 300,000 pounds, dedicated to Feeding Illinois food banks. Nayak Farms has built storage and purchasing trailers to aid in the donation of the sweet corn.
- **Farmers Markets:** In collaboration with the [Illinois Farmers Market Association \(ILFMA\)](#), the Farm to Food Bank program will partner with farmers markets as an aggregation hub for fresh foods. Farmers market managers will introduce the program to their participating farmers and ask they bring any available surplus and off-grade commodities for contribution to food banks and food pantries.

Additionally, ISTC will work with Feeding Illinois to implement recommendations outlined above in section 5.2. Additional aspects of a Farm to Food Bank program to be explored through partnerships and potential pilot projects in the near future (depending on available funding) include, but are not limited to:

- Testing of various cold storage equipment and methods for farms and/or aggregation centers.
- Testing of various cold storage equipment and methods for transportation of product from farms to aggregation centers to food banks/pantries.
- Investigation of value-added processing of donated commodities to extend shelf-life and increase food recovery, as well as to address storage capacity issues at food banks and pantries.

5.4 Farm to Food Bank Flow Chart

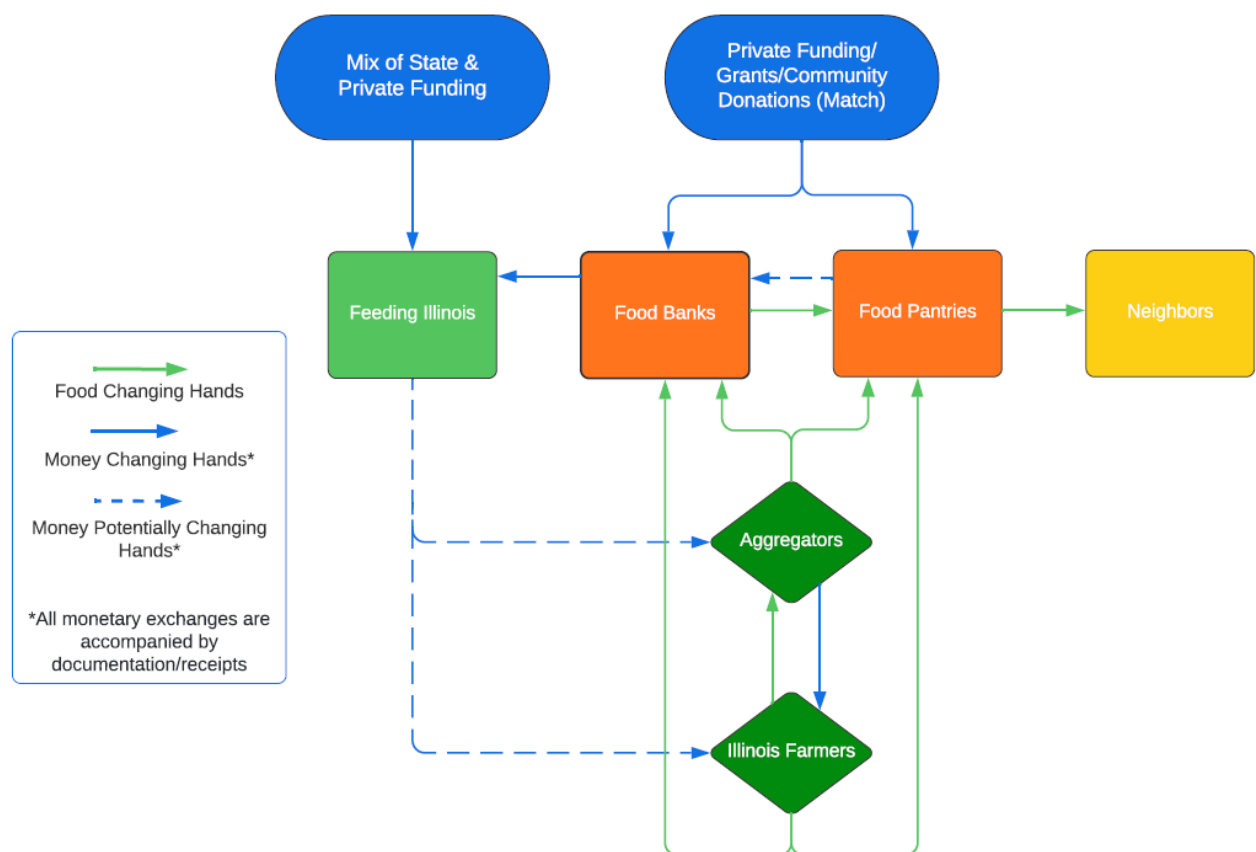


Figure 14: This flow chart demonstrates potential Farm to Food Bank components and stakeholders for Illinois and their relationships. With a mix of public and private funding, Feeding Illinois, their eight-member food banks, and their member food pantries can reimburse farmers their Picking and-Pack-Out (PPO) costs to aid in the contribution of Illinois grown and/or raised commodities. While PPO transactions are expected to make up the bulk of the Farm to Food Bank program, fully donated commodities will still be encouraged. Depending on the transaction, farmers may be providing commodities directly to food banks and pantries or through aggregators, such as farmers markets, food hubs, processors, and distributors.

6.0 Appendices

6.1 Appendix A – Glossary

Agency-enabled (aka “Direct Connect”): Refers to a type of food commodity acquisition strategy used where food pantries (rather than food banks) pick up food donations directly from retail outlets such as grocery stores.

Aggregation Center (aka Aggregator): In the context of agriculture, this is a centralized location where fresh food from multiple sources is consolidated for distribution. An aggregation center may be a farm, a food hub, a produce mixing center, a wholesale distributor, or other entity.

Capacity: In the context of this report, capacity refers to both the physical storage (facility size, display space, and cold storage) as well as availability and capability of staff and/or volunteers (availability and capabilities of staff and/or volunteers) at a farm, food bank, or food pantry.

Direct Crop Production: Acreage of the farm dedicated to growing commodities, not including livestock grazing, housing, etc.

Emergency Feeding Organizations: Institutions that facilitate the provision of food to households and individuals in times of need or emergency, e.g. food banks, food pantries, soup kitchens, shelters, or other hunger relief agencies. Such institutions are typically non-profit organizations.

Farm to Food Bank Program/Project: Programs involving the harvesting, processing, packaging, or transportation of unharvested, unprocessed, or unpackaged commodities donated by agricultural producers, processors, or distributors for use by Emergency Feeding Organizations (EFOs, i.e. hunger relief agencies such as food banks). See the [Code of Federal Regulations \[at 7 CFR 251.10\(j\)\]](#).

Food Bank: Regional hubs that collect food (by purchase or donation) from government agencies, individuals, or the food industry (e.g. manufacturers, farmers, restaurants, grocery stores, etc.), store it, and distribute it to smaller, client-facing hunger relief organizations such as food pantries, shelters, and soup kitchens. These smaller agencies are member organizations of the given food bank’s network, or service area. Food banks typically do not distribute food to organizations outside their network. Food banks may also distribute food directly to individuals or households. Food banks inspect the food they receive for quality and may sort and repackage items prior to distribution.

Food Hub: As defined by the [USDA](#) as a centrally located facility with a business management structure facilitating the aggregation, storage, processing, distribution, and/or marketing of locally/regionally produced food products. All food hubs are “aggregation centers” (see above).

Food Insecurity: A lack of access, either temporary or long-term, to provide enough food for an active, healthy life for all household members and limited or uncertain availability of nutritionally adequate foods.

Food Pantry: A public-facing hunger relief agency (or Emergency Feeding Organization) which primarily distributes food directly to individuals or households facing food insecurity. Food pantries are smaller than food banks and are typically members of a regional food bank’s network, set up to receive distributions of food from that food bank and further distribute it directly to clients. Not all food pantries operated in

the Feeding Illinois network. Food pantries may also receive direct donations of food from businesses, farmers, or individuals within their community. For the purposes of this report, the term “food pantry” includes all smaller partner agencies working with food banks, including those typically considered food pantries, soup kitchens, shelters, and specialized feeding programs.

Food Loss: The specific term referring to unused edible products from the agricultural sector (e.g. unharvested crops). This term is often used as a related, but separate, concept in conjunction with “food waste” (see below).

Food Waste: As defined by [ReFED](#), this is food which goes straight to landfill, incineration, or down the drain, or is simply left in the fields to rot.

Friend of the Food Banks: Any farm or food business selling or donating produce to a local food bank or food pantry within the Feeding Illinois network. Friend of the Food Banks logos can be seen in Figure 10 in this report.

Grading Standards: As defined by the [USDA](#), grading standards describe the quality and condition of commodities in the marketplace. Grading standards are used as a common “language”, making business transactions easier. While the USDA has official seals and labels representing the different grades, other businesses and institutions may use their own standards.

Mobile Distribution: Transporting foods to neighborhood distribution points off food bank and food pantry property. See Figure 3 in this report.

Nutrition Security: As defined by the [USDA](#), nutrition security is having consistent access to nutritious foods that promote optimal health and well-being for all Americans, throughout all stages of life.

Picking and Pack-out (PPO) costs: In the agricultural context, these are labor costs to harvest (pick) and packaging costs (pack) incurred by the farmer to ready the product for shipping. Per the [USDA](#), PPO costs are paid to farmers to help offset the costs of labor required to harvest the crop and the packaging to transport it.

Pre-season agreement: This refers to an arrangement (typically non-binding) between a farmer and a food bank or other hunger relief agency prior to the growing season for a given commodity or commodities, in which compensation for delivery of those commodities is promised in advance of order fulfillment.

Produce mixing centers: Regional aggregation centers where comingled food boxes are assembled and sold to food banks.

Seconds (or ‘second grade’, ‘utility grade,’ or ‘off-grade’): Used when referring to fresh produce, this generally refers to the portion of a produce harvest which would be unlikely to sell in primary markets due to aesthetic and/or quality flaws, despite the commodity being safe for human consumption. The exact specifications for these terms vary depending on the crop within USDA grading standards.

Specialty crops: Defined by the [U.S. Department of Agriculture](#) as fruits and vegetables, tree nuts, dried fruits and horticulture and nursery crops, including floriculture.

Surplus food/commodities: [ReFED](#) defines surplus food as “All food that goes unsold or unused by a business or that goes uneaten at home – including food and inedible parts (e.g., peels, pits, bones) that

are donated, fed to animals, repurposed to produce other products, composted, anaerobically digested, or wasted." In the context of food recovery, however, we are focused on unsold or unused items that are suitable for human consumption. Thus, when referring to "surplus commodities" on a farm within this report, we mean excess edible crops for which a farmer has not identified a market.

Triple Bottom Line of Sustainability: A framework for sustainability that includes three components: economic, social, and environmental responsibility. This framework was developed by business author John Elkington.

Value-added products/value-added processing: The [USDA](#) defines value-added products as those that undergo a change in physical state or form (such as milling wheat into flour or making strawberries into jam); those produced in a way that enhances product value or products or agricultural commodities physically segregated in a manner that results in the enhancement of the value of that commodity or product. In the context of a Farm to Food Bank program, value-added processing can extend the useful shelf-life of food commodities. Examples of value-adding processing of food commodities might include (but not be limited to) dehydration; pickling or other types of fermentation; freezing; freeze-drying; canning; transformation of fruit into preserves, jams, or jellies; infusion; juicing; cheesemaking; etc.

6.2 Appendix B - Farm to Food Bank Programs

Managing Organization - Program	FY20 Budget & Produce Acquired	Acquisition Approaches & Types of Compensation Offered
Arizona Food Bank Network - Friends of the Farm	\$500,000 300,000 lbs	<ol style="list-style-type: none"> 1. Pre-season agreements - Fair market value 2. Surplus purchasing - Fair market value 3. Donations - No compensation
California Association of Food Banks - Farm to Family	\$15,900,000 168,000,000 lbs	<ol style="list-style-type: none"> 1. Pre-season agreements - Feeding America guidelines 2. Surplus purchasing - Picking & Pack-Out costs 3. Donations - 15% tax credit
Feeding America Eastern Wisconsin Food Bank - Farm Link	\$120,000 185,000 lbs	<ol style="list-style-type: none"> 1. Pre-season agreements - Precalculated price sheet 2. Surplus purchasing - Precalculated price sheet 4. Donations - No compensation
Feeding Florida - Farmers Feeding Florida	\$1,700,000 30,000,000 lbs	<ol style="list-style-type: none"> 1. Pre-season agreements - Picking & Pack-Out costs 2. Surplus purchasing - Picking & Pack-Out costs 3. Donations - No compensation
Feeding Indiana's Hungry - Farms to Food Banks	N/A - now non-operational	<ol style="list-style-type: none"> 1. Surplus purchasing - Precalculated price sheet
Feeding Kentucky - Farm to Food Bank	\$514,397 2,827,151 lbs	<ol style="list-style-type: none"> 1. Surplus purchasing - Precalculated price sheet 2. Produce auctions – Wholesale market value
Feeding Pennsylvania - Pennsylvania Ag Surplus System	\$11,500,000 8,134,095 lbs	<ol style="list-style-type: none"> 1. Surplus purchasing - Picking & Pack-Out costs
Food Bank Council of Michigan – Michigan Agricultural Surplus System	\$2,000,000 12,000,000 lbs	<ol style="list-style-type: none"> 1. Surplus purchasing - Negotiated pricing
Good Shepherd Food Bank - Mainers Feeding Mainers	\$1,000,000 2,000,000 lbs	<ol style="list-style-type: none"> 1. Pre-season agreements - Wholesale pricing 2. Donations - State tax credits
Harvest Against Hunger (Washington) - Farm to Food Pantry	\$160,000 553,170 lbs	<ol style="list-style-type: none"> 1. Pre-season agreements - Negotiated pricing 2. Donations - No compensation 3. Gleaning - No compensation
Maryland Food Bank - Farm to Food Bank	\$500,000 2,800,000 lbs	<ol style="list-style-type: none"> 1. Pre-season agreements - \$0.50/lb 2. Surplus purchasing - \$0.50/lb 3. Donations - 50%-75% of market value tax credit (pilot) 4. Gleaning - No compensation

Ohio Association of Food Banks - Ohio Ag Clearance Program & Food Program	\$7,335,761 32,159,776 lbs	1. Surplus purchasing - Pre-calculated price sheet
Second Harvest Food Bank (Minnesota) - Farm to Food Shelf	\$1,100,000 5,000,000 lbs	1. Pre-season agreements - Negotiated pricing
Vermont Foodbank - Vermonters Feeding Vermonters	\$600,000 477,000 lbs	1. Pre-season agreements - Negotiated wholesale pricing 2. Pass thru funding to partnering agencies - Wholesale and retail prices 3. CSA “shares” purchasing - Retail pricing

6.3 Appendix C – Links to Additional Documents

6.3.1 [Survey Results](#)

6.3.2 [Rendleman Orchards Case Study](#)

6.3.3 [Farm to Food Bank Newsletters](#)

6.3.4 [Farmers Feeding Illinois](#)

6.4 Appendix D – References

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