



2022

PRODUCE SAFETY PROGRAM REPORT



DEPARTMENT OF
AGRICULTURE

CONTENTS

Acknowledgements	1
Produce Safety Program Overview	2
2022 Summary	2
Key Challenges	3
Recommended Actions	3
Goal 1 Provide Timely Risk-Based Regulatory Services	4
Key Challenges	4
Recommendations	4
Goal 2 Provide Services to Enhance On-farm Food Safety for Produce Farms	6
Key Challenges	6
Recommendations	6
Results – Produce Safety Rule Grower Trainings	7
Results – Mini-Grant	7
Goal 3 Improve Farm Inventory Data	8
Key Challenges	8
Recommendations	8
Farm Status	9
Goal 4 Assist in Response to Pesticide Misuse on Produce Farms	10
Key Challenges	10
Recommendations	10
Conclusion	12



ACKNOWLEDGEMENTS



We appreciate the hundreds of produce farmers across the state who responded to the 2022 Annual Grower Questionnaire, provided an assessment of our grower trainings, or provided feedback through customer service surveys. We also thank the many partners within and outside of the Minnesota Department of Agriculture (MDA) who contributed knowledge, stories, and data that are included in this report and continue to influence how we improve our programs and services.



Minnesota Department of Agriculture
Produce Safety Program
625 Robert Street North
Saint Paul, MN 55155
Phone: 651-539-3648
ProduceSafety.MDA@state.mn.us
www.mda.state.mn.us

Pursuant to Minn. Stat. § 3.197, the cost of preparing this report was approximately \$1,000

This publication was made possible by U.S. Food and Drug Administration (FDA) grant PAR-16-137.



Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the FDA. In accordance with the Americans with Disabilities Act, this information is available in alternative forms of communication upon request by calling 651-201-6000. TTY users can call the Minnesota Relay Service at 711. The MDA is an equal opportunity employer and provider.

PRODUCE SAFETY PROGRAM OVERVIEW



Established in 2016 as part of a cooperative agreement with the U.S. Food and Drug Administration (FDA), the MDA Produce Safety Program works to help produce farms implement and follow the Food Safety Modernization Act (FSMA) Produce Safety Rule (PSR). The program works through relationships with farmers, educators, and agricultural organizations across the state to ensure that:

All Minnesota produce farmers receive the resources and support they need to grow safe food while meeting any regulatory requirements that apply to their farms.

2022 Summary

- **Focus on Routine Inspections**
Prior to 2022, most of the inspections taking place on farms covered by the PSR were initial inspections with a largely educational focus. In 2022, most of the inspections completed shifted to routine inspections, which combine regulation and education.
- **Mini-Grant**
The first full round of the Produce Safety Mini-Grant was administered, providing Minnesota growers with funding opportunities to help implement on-farm food safety improvements.
- **Planning for Expanded Educational Opportunities**
The Produce Safety Program, in partnership with the University of Minnesota Extension program, received a grant through the United States Department of Agriculture (USDA) Specialty Crop Block Grant to develop additional educational opportunities for growers beyond the Produce Safety Alliance Grower Trainings.
- **Pesticide Misuse Cases**
Cases continued to rise for pesticide drift, including inadvertent contamination on produce farms. The Produce Safety Program works with growers and other MDA staff to ensure the safety of impacted produce.
- **Cooperative Agreement**
The Produce Safety Program entered the first year of a new Cooperative Agreement Plan (CAP) with the FDA, which impacted program funding, personnel, and capacity.

Key Challenges

- Long-term funding to support on-farm food safety is virtually non-existent. Currently, on-farm food safety services and resources are funded through federal grant awards which focus funding primarily on large farms covered by the PSR (referred to as “covered farms”) and exclude the many smaller operations regardless of their interest and desire to improve their food safety practices.
- Maintaining accurate inventory of produce farms and activities within the state is difficult as farm operations change each year and the interactions between growers and Produce Safety Program staff to confirm this data lack supportive technology.

Recommended Actions

- Increase funding for opportunities like the Produce Safety Mini-Grant to provide farms of all sizes the opportunity to implement new or improved on-farm food safety systems.
- Support ongoing engagement and outreach with produce farms to identify how to cater education to meet unique needs.
- Provide and promote food safety educational webinars, newsletters, and other resources designed to support farms regardless of their status under the PSR.
- Evaluate inspection data to drive educational needs and further develop on-farm food safety intervention resources for covered farms.
- Further develop inventory technology and engagement capacity to continue building relationships with farms to support data informed program development.



GOAL 1: PROVIDE TIMELY RISK-BASED REGULATORY SERVICES



As of March 2022, 43 produce farms in Minnesota were eligible for routine inspection based on their status as a covered farm. The focus of inspection work remains to educate while we regulate.

Key Challenges

- Minimizing the risk of pathogens, bacteria and viruses on farms is not easy. The conversations between growers and inspectors in previous years closely resemble the conversations in 2021. Effecting change to improve food safety requires long-term support and resources.
- Cleaning and sanitizing pose significant difficulty, time, and money for farms. Farms struggle to identify what needs to be cleaned and how to clean and sanitize to adequately minimize risk of contamination.
- Providing readily accessible handwashing facilities in the field poses an infrastructure and logistics challenge to growers, though handwashing is one of the most important food safety steps to mitigate pathogens on produce.
- Worker training and record keeping are both a logistical and time-consuming process but are critical to verifying proper actions are taken.

Recommendations

- The Produce Safety Program will focus on continued education about food safety to support farms to improve their inspection outcomes.
- Promote the mini-grant and other resources to provide farms with the resources necessary for accessible handwashing facilities as well as other food safety improvements.
- Enhance education and understanding to better determine when and how a food contact surface needs to be cleaned.
- Promote benefits of recordkeeping which allow farms to verify and monitor the effectiveness of their food safety practices.

Total Number of Inspections by Type in 2022

Type of Inspections	Inspection Description	Total Number
Routine Inspections	Official on-farm annual visit for inspectors to review all food safety components under PSR with a grower	28
Initial Inspections	Non-regulatory on-farm inspection for inspectors to review all food safety components under PSR with a grower for educational purposes	7
Follow-up	Used for inspectors to determine if previously issued observations have been corrected by a grower	4
Complaint	Conducted in response to a complaint from the public or outside the Produce Safety Program	3
Investigation	Targeted on-farm inspection for inspectors to assess a specific possible concern such as a foodborne illness outbreak or pesticide misuse	1
Total Inspections Completed		44
Check in phone call	Non-regulatory phone call for an inspector to answer a grower's questions	5

Table 1. Total number of inspections by type.

Most Frequently Cited Observations on Covered Farms in 2022



Figure 1. Most frequently cited orders from inspections.

GOAL 2: PROVIDE SERVICES TO ENHANCE ON-FARM FOOD SAFETY FOR PRODUCE FARMS



Inspections focus on a small subset of produce growing farms within Minnesota. Expanding food safety services directly aligns with the MDA Food and Feed Safety Division vision to protect public health effectively and efficiently, by improving educational and financial opportunities as well as enhanced customer services to all produce farms. The Produce Safety Program has worked to offer services that provide financial support through the mini-grant and advanced educational opportunities.

Key Challenges

- Limited knowledge and information available to verify what services are necessary to improve food safety for produce growers across Minnesota.
- There was significant interest from Minnesota produce farmers to access funding to improve food safety, but currently a reliable long-term funding plan is not available.
- The Produce Safety Alliance Grower Training remains the main educational opportunity for produce growers. Limited time and resources of the Produce Safety Program makes expansion of education difficult. Current funding is through additional grants that require work to be contracted out to fulfill the desired request.
- Most of the education and resources offered is for an English-speaking audience and does not accommodate English language learners, non-English speakers and those that don't use technology.

Recommendations

- Continue to evaluate surveys completed by produce growers and seek additional opportunities for input from a broad stakeholder audience to better leverage funds towards services that are needed to advance food safety efforts to all produce growers within Minnesota.
- Continue to seek additional funding opportunities and explore long-term sustainable funding options to provide necessary financial resources to Minnesota produce growers to enhance costly food safety practices.

- Prioritize training and education efforts to those who currently lack access.
- Continue to seek translation services, interpretation at trainings and additional resources to support offerings in multiple languages when possible.
- Provide alternate types of trainings to vary education styles and approaches to accommodate the various learning methods.
- Dedicated funding and staff to support ongoing education and resource development to meet the food safety risk reduction need of covered and non-covered farms around the state.

Results – Produce Safety Rule Grower Trainings

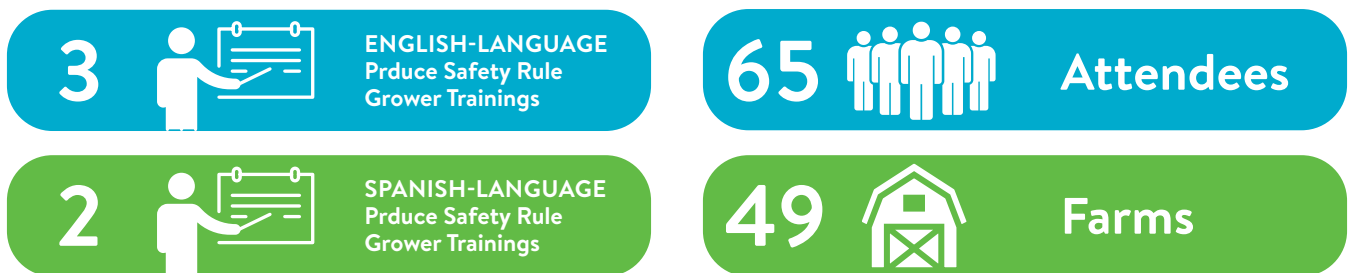


Figure 2. Produce Safety Rule Grower Trainings by the numbers.

Results – Mini-Grant

Due to the success of the pilot mini-grant in 2021, the Produce Safety Program was confident the funding secured through the USDA Specialty Crop Block Grant to help growers minimize the cost of implementing on-farm food safety systems was needed. The Produce Safety Program found the mini-grant was a successful tool to initiate a relationship with produce farms as several new farms were added to our inventory in 2022 as a result of farmers filling out Grower Questionnaires while applying for the grant. Additionally, we observed that the produce industry is growing and many emerging farmers in Minnesota are starting with specialty crop production. The Produce Safety Program is determined to provide support and resources to make food safety a priority for these emerging farms and will continue to seek out funding to ensure food safety remains a priority.

The mini-grant offers awarded growers funding on a reimbursement basis for the purchase of eligible expenses. The expenses most commonly submitted for reimbursement included harvest totes, pulp containers, portable handwashing units, and wash water sanitizer.

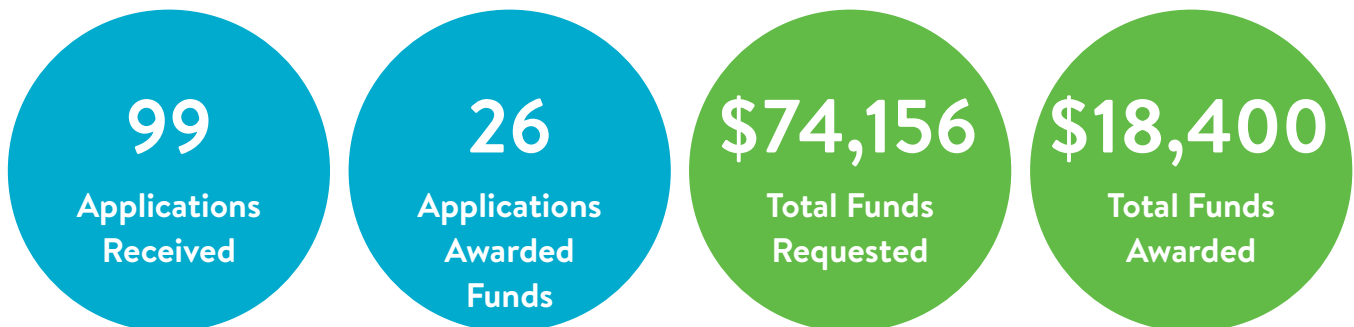


Figure 3. Most frequently cited orders from inspections.

GOAL 3: IMPROVE FARM INVENTORY DATA



The Produce Safety Program Grower Questionnaire is a tool developed to help farms identify their status under the PSR and assist the Produce Safety Program in building the Produce Farm Inventory. In 2022, we received 501 valid responses to the Grower Questionnaire.

Key Challenges

- Response rates for the Grower Questionnaire continue to decline. Without data from every produce farm in the state, we lack the ability to paint a full picture of this unique sector of agriculture.
- Farmers are overwhelmed with surveys and other forms of communication from MDA as well as other outlets. There is no easy way to obtain the necessary information from farmers.

The scale of produce farming in Minnesota is relatively small and a majority of the newly identified farms are excluded from the PSR and not subject to routine inspection. Continued interest in education and resources is apparent within this group but the Produce Safety Program has limited capacity to fulfill this desire while working to meet CAP deliverables.

Recommendations

- Continue to edit and revise the Grower Questionnaire to simplify the process for farms as much as possible.
- Dedicated staff time for ongoing outreach and engagement is a critical need. It is only through trusted relationships with produce farms that we can support them in identifying their farm status through the annual Grower Questionnaire and build the Produce Farm Inventory into a more reliable and comprehensive data set. If we know who produce farms are, and we understand their needs, we can use that data to inform program development that supports farms with resources, funding and education to help reduce food safety risks to specialty crops grown in Minnesota and help ensure specialty crops grown in Minnesota are safe for human consumption.

The goals of the Produce Farm Inventory are to:

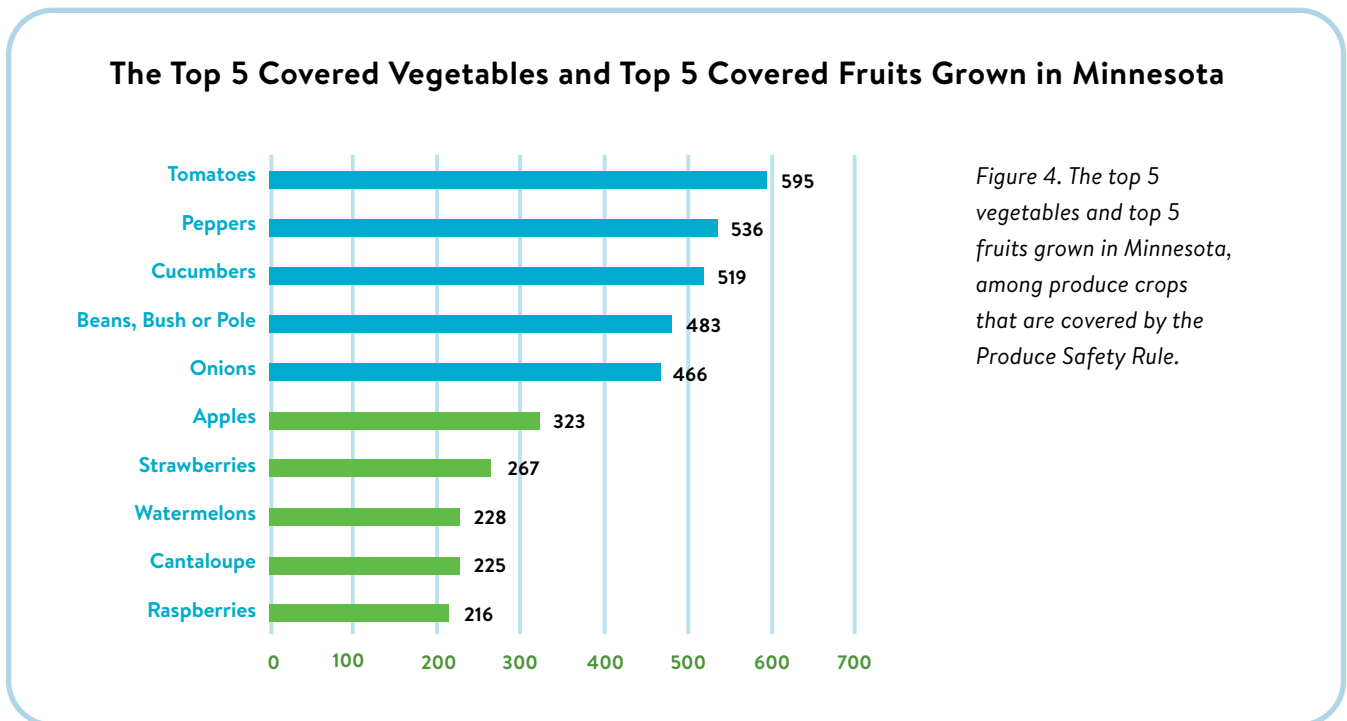
- Identify all produce farms in the state and verify their status under the PSR, which supports the cooperative agreement between the MDA and the FDA.
- Support the MDA in collecting data that is representative of all produce farms in the state and inform program development for produce farms.

Farm Status

A farm’s status determines their requirements under the PSR and whether a routine inspection is required. A farm’s status can change from year to year based on markets and sales data. The following data provides an overview of farm statuses for the farms responding to the 2022 Grower Questionnaire, along with top fruit and vegetable crops reported grown.

The 2022 MDA Farm Inventory by Status Compared to Ag Census Data				
PSR Farm Status	Status Requirements	2022 MDA Produce Farm Inventory	USDA estimate	% Verified of USDA estimate
Covered	Must follow full standards of the rule Farms are subject to a routine inspection	43	308	14%
Eligible for Exemptions	Must keep certain records Farms are not subject to a routine inspection	101	1183	9%
Excluded	Rule doesn’t apply Farms are not subject to routine inspection	346	2137	16%

Table 2. Total Produce Farms: 2022 MDA Data vs. Ag Census data.



GOAL 4: ASSIST IN RESPONSE TO PESTICIDE MISUSE ON PRODUCE FARMS



Although pesticides fall outside of the scope of the Produce Safety Rule, their use can impact whether foods are considered either adulterated or safe to consume. The Produce Safety Program works in coordination with the Pesticide and Fertilizer Management Division at the MDA on pesticide misuse cases that involve food crops. Pesticide misuse cases can fall into two categories: drift or misapplication.

- **Drift** is caused by spraying near the crop in question, but not direct application to that crop.
- **Misapplication** occurs when unapproved chemicals or amounts are applied directly to crops by a farm or operation.

Key Challenges

- Pesticide drift continues to impact produce farms at an increasing rate.
- Pesticide misuse, such as drift, is not always reported to the MDA for investigation.

Recommendations

- Expand educational efforts on how growers can properly report pesticide misuse to the MDA.
- Provide information on what the reporting and investigation process entails for impacted produce growers and encourage use of this service.

In recent years there has been an increase of pesticide misuse cases impacting produce farms, as seen in Figure 5. The Produce Safety Program works with growers to ensure any affected produce is safe before it's sent to market. Pesticide drift remains the main concern for produce growers, as compared to misapplication. The recent increase in observed misuse primarily impacted produce that is not covered by the PSR, such as sugar beets and soybeans products. These crops are not covered by the rule because they are rarely eaten raw. Observed misuse among crops covered by the rule ("covered produce") included produce such as leafy greens and tomatoes, that are commonly eaten raw.

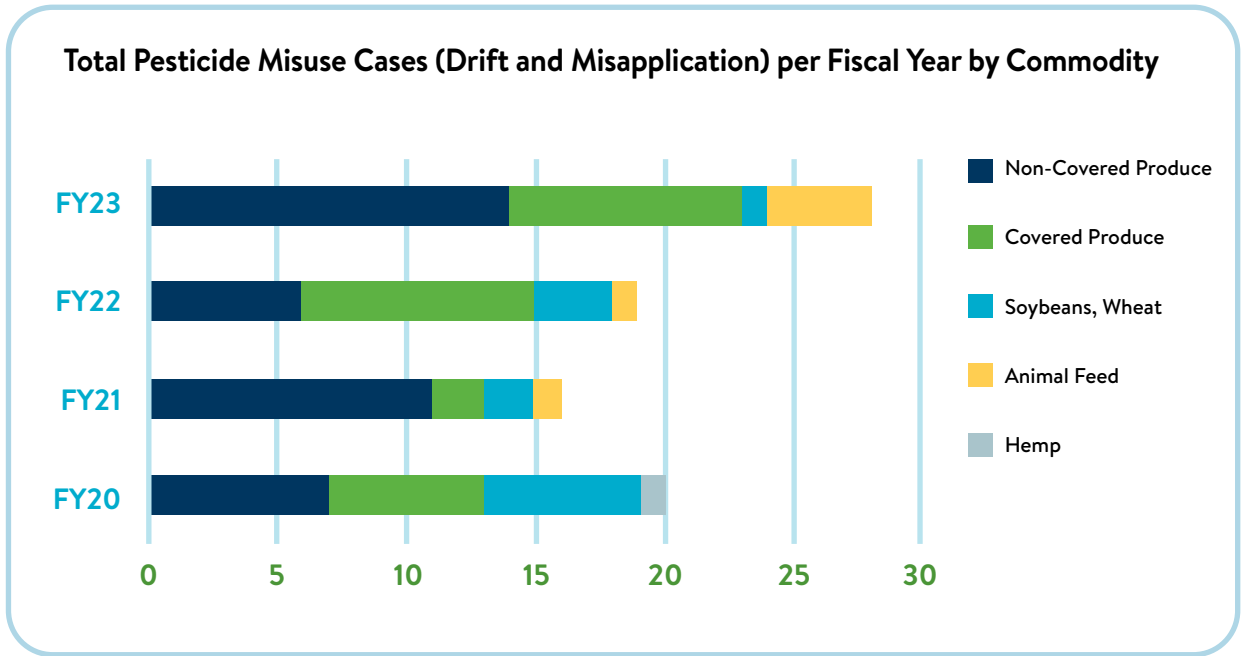


Figure 5. Breakdown of pesticide misuse cases (drift and misapplication) and commodity over time.

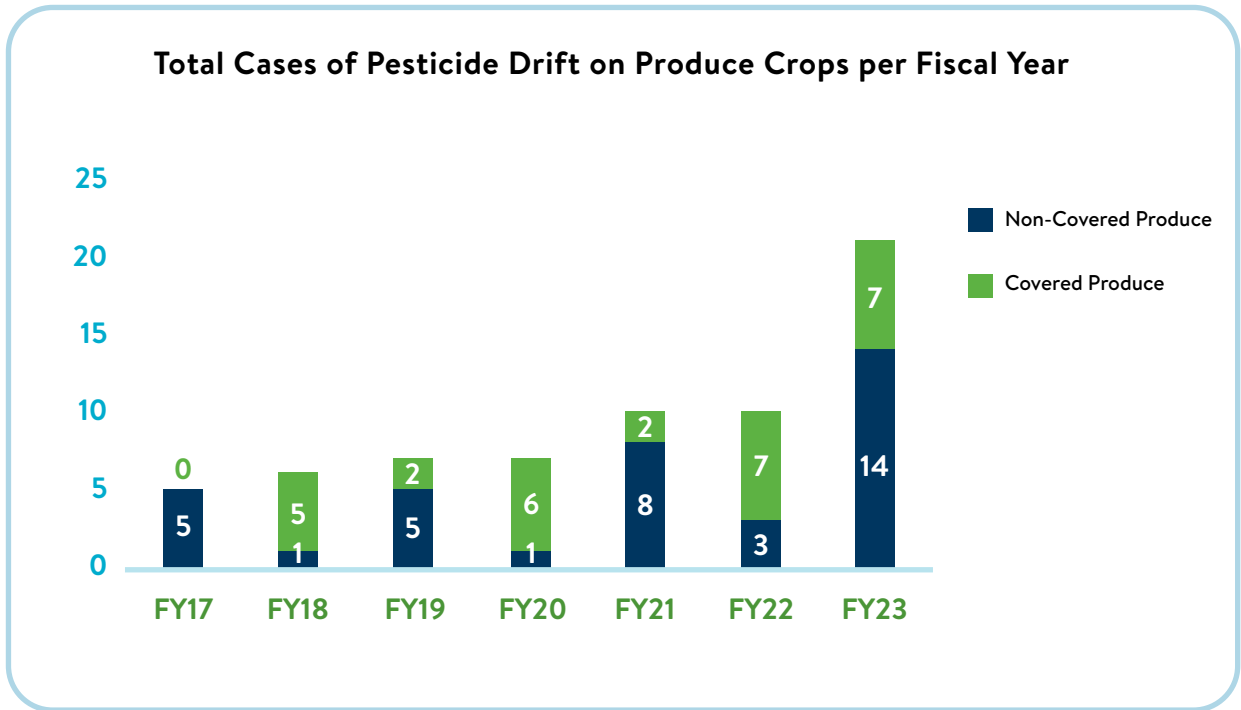


Figure 6. Reported cases of pesticide drift on produce crops over time.

CONCLUSION



We continue to seek creative solutions and alternate funding sources to successfully support produce farms in implementing on-farm food safety and achieve the end-result that all Minnesota produce farmers receive the resources and support they need to grow safe food while meeting any regulatory requirements that apply to their farms.

The primary focus in 2023 is to continue farm inventory development and supporting other on-farm food safety efforts. We plan to continue using the data and feedback from Minnesota produce farms in hopes to better serve their needs while advancing the development of programs and services to the Minnesota produce farming community.

