2020 Produce Safety Program Report

A look at program data and stories from the produce growing community

DEPARTMENT OF AGRICULTURE

Is your farm represented in this annual report? If not, complete the annual Grower Questionnaire to be sure your farm is counted! The questionnaire shapes this annual report and raises awareness of the significance of Minnesota's produce farming sector. The questionnaire also helps the MDA understand produce farmer needs and ensure safe produce for consumers.

Complete the questionnaire here: **www.surveymonkey.com/r/producesafety**

Minnesota Department of Agriculture
INDIGENOUS LAND ACKNOWLEDGEMENT

The Minnesota Department of Agriculture recognizes that Minnesota's vibrant food system is built on land which is crucial to Indigenous cultural identity. While this land acknowledgment doesn't rectify the significant cultural, physical, and emotional losses of Indigenous people due to the loss of land and connection with it, the Department hopes it is a good starting point to move forward together to both fulfill the agency's mission to enhance all Minnesotans' quality of life by equitably ensuring the integrity of our food supply, the health of our environment, and the strength and resilience of our agricultural economy, and to support current Indigenous efforts to use food as a means of reaffirming their treaty rights and regaining culture, sovereignty and self-sufficiency for all tribes in Minnesota.

The name Minnesota comes from the Dakota name for this region, Mni Sota Maḳoce — "the land where the waters reflect the clouds." The Dakota and numerous other Indigenous peoples, whose cultural, spiritual, and economic practices are intrinsically woven to this landscape, hold this land sacred. We, the Minnesota Department of Agriculture, recognize them as original stewards of this land and all the relatives within it, who had thriving and vibrant communities prior to disruption by settlers. Today, the State of Minnesota shares geography with eleven Tribal Nations, in addition to the Ho-Chunk, Cheyenne, Oto, Iowa, Hidatsa, Arikara, A'aninin, Cree, Blackfeet, Assiniboine, and the Sac and Fox tribes all who also acknowledge Minnesota as important to their tribal histories. By offering this land acknowledgement, we affirm tribal sovereignty and hold ourselves accountable to recognize and counter the historical and contemporary injustices that continue to impact Indigenous people, through mutually beneficial partnerships, research, policies, and practices that respect Indigeneity.

ACKNOWLEDGEMENTS

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A LETTER TO PRODUCE FARMERS
from the Commissioner of Agriculture

The past year has challenged us in new ways. From the COVID-19 pandemic to the death of George Floyd, 2020 magnified our awareness of long-standing inequities and discrimination in our society and in our food and agriculture systems. These shortcomings are not new, but the pandemic has shown us that the problems we face must be addressed. These are challenging times, farmers know what it means to dig in and persevere through uncertainty, discomfort, and change because we know that through growth, we can harvest abundance.

Despite challenges, community innovation and many opportunities for produce farms have developed at the Minnesota Department of Agriculture (MDA), for example:

- Thanks to an MDA Specialty Crop Block Grant, for the next three years, the Produce Safety Program will continue offering Produce Safety Rule Grower Trainings at a discounted rate. It will also provide more than $30,000 directly to farms through mini-grants designed to help cover the cost of on-farm food safety implementation.
- In October 2020 the MDA launched the Emerging Farmers' Working Group after receiving 101 applications from people interested in supporting and investing in farmers who are women, veterans, persons with disabilities, American Indian or Alaskan Natives, members of a community of color, young, and urban. Seventeen members have been selected, and monthly meetings are open to the public. For more information on the group's meetings and members, visit our website at: **www.mda.state.mn.us/emerging-farmers-working-group**.
- Our Agriculture Growth, Research and Innovation (AGRI) Farm to School grants now offer funding to schools or school districts to support continued market development for producers interested in selling into school markets directly or through distributors. These pilot grant funds will directly reimburse schools for buying from Minnesota producers and additional local procurement to grow the amount of healthy, local food in school meals across the state.

In addition, this annual report from the Produce Safety Program (PSP) demonstrates the knowledge we have learned about produce farms and their experiences. Minnesota is home to a dynamic produce farming sector that is diverse in farm size, crops and farmers who recognize the connections that farming has to food and social justice issues of our time. We hope that this report can be a reference to better understand how we as an agency and state can improve services to produce farms to ensure that their contribution of safe and local food to communities across the state are not overlooked and that they receive the resources they need to manage successful farm businesses.

The success of this report and the work of the PSP is dependent on the willingness of farms to share information through the annual Grower Questionnaire. Data gathered from the questionnaire will continue to help us understand the value of produce farming in Minnesota and how together we can work to support produce farmers operate successful farm businesses.

Thom Petersen
Commissioner of Agriculture
Minnesota Department of Agriculture

2020 FARMER SPOTLIGHTS –
Why on-farm food safety is important

Meet Faro Jones of Jones Family Farm

Knowing how to keep food safe is important to me because it ensures that I provide a safe product to my customers. For me food safety on the farm is not just about the produce, it's also ensuring you have safe water, clean facilities, proper equipment, healthy workers, good record keeping and policies and procedures that support all of this.

I personally practice food safety before the farm season starts, during the season and post-season. Pre-season I attend FSMA trainings to refresh the basics and get updated on any new guidelines. During the season I clean and sanitize equipment, practice handwashing and safe harvesting, cleaning, and storing of my produce. This year because of the Covid-19 pandemic, an extra layer of safety procedures were added, including tracking for illness, temperature checks and mask wearing. Throughout the season I keep records to show what I have done. These records help to inform me in the moment and are used to establish better or safer practices next year.

I also rent from a larger organic farm operation that has their own safety plan and staff so whole farm safety issues like yearly water checks and temperature checks of the shared refrigerators are done by them.

I think the biggest take away from the training is that food safety doesn't require a lot of extra time and money. Establishing a food safety plan before the season starts can help inform you throughout the season so you can keep your produce safe. The coolest thing I learned was how to build my own simple hand washing station. The stations are stationed all over the farm and I even keep one in my car so that I can use it when I am out in the fields working.

Faro Jones harvesting delicata squash on her farm, part of the incubator farming program at Big River Farms in Marine on St. Croix, Minnesota

Meet Ron Branch of Berry Ridge Farm

During my 33 years of growing and marketing fresh produce, I have developed a great relationship with my customers. I strive to have fresh, high quality products that are safe and wholesome for them and their families. Following PSA guidelines is an important risk management tool for my farm business.

Meet Lori Cox of Roots Return Heritage

I found that the expertise, knowledge, and structure of the training programs allow producers to better understand FSMA rules, and how produce safety can be easily implemented on our farms with easy to follow templates and guides. This helps us enable food safety measures for ourselves, our employees, and the public at large. I'm very happy this resource (The Produce Safety Program) is available for all of us.

Produce Safety Program OVERVIEW

Established in 2016 as part of a cooperative agreement with the U.S. Food and Drug Administration (FDA), the Minnesota Department of Agriculture (MDA) Produce Safety Program (PSP) 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 produce grown in Minnesota is safe to eat and all Minnesota produce farmers receive the resources and support they need to grow safe food while meeting the regulatory requirements that apply to their farms.*

Public health risk of food borne outbreaks

Foodborne illness outbreaks from consumption of produce have caused serious health consequences and death in the U.S. While some produce crops pose a higher risk than others, virtually all types of produce can pose a public health risk. Outbreaks not only hurt the people who become ill, they can also negatively impact sales for farmers growing similar crops in the same region regardless of whether those farms are connected to the outbreak.

The PSR focuses on minimizing the risk of foodborne outbreaks on Minnesota produce farms through prevention. The program acknowledges, however, that on-farm food safety comes at a significant cost of resources, time, and labor for produce farmers. Because of this, we prioritize outreach and education, and work closely with all those engaged in produce farming so that we can better understand the barriers farmers face in implementing on-farm food safety.

Definition of produce

For the purposes of this report, "produce" is used as defined in the PSR. This definition includes foods generally consumed raw, including all fruits, vegetables (including mushrooms), and nuts. Oil seeds (flax, soy, etc.) and field grains (wheat, barley, field corn) are not considered produce. The full definition can be found at

www.fda.gov/food/food-safety-modernization-act-fsma/fsma-final-rule-produce-safety

What is the purpose of this report?

In 2019, the **Produce Safety Advisory Group**, comprised of volunteers who provide feedback and recommendations to the PSP, suggested that the data collected from the Annual Grower Questionnaire be shared publicly to provide transparency for our program. To our knowledge, this level of data on Minnesota produce farms has never been collected by the state prior to this time.

Our cooperative agreement with the FDA requires collection of produce farm data such as total farms, crop types, and average sales. This data helps identify farms that require inspections under the PSR. We also collect data through customer surveys to evaluate the success of our program and indicate how we can improve our programming to better assist farms in implementing on-farm food safety. The initial Farm Inventory Report was released in December of 2019. We are pleased to be able to share data about produce farms in Minnesota that can shed light on the experience of produce farming in Minnesota, lift up the unique contributions produce farms make to our state and acknowledge the many challenges they face in keeping their farm business afloat.

For more information about our advisory group, our program and the rule sign-up for our newsletter: **public.govdelivery.com/accounts/MNMDA/subscribers/new?preferences=true**

And visit our website: **www.mda.state.mn.us/producesafety**

2020 PROGRAM HIGHLIGHTS

20% of farm inventory is verified

23% of all farms in the inventory have attended a Produce Safety Rule Grower Training

86% of farmers who responded to our 2020 Grower Questionnaire report that the Produce Safety Program provides the level of information they need about produce safety and requirements under the rule

50% of our resources are translated

45% of farmers in the inventory understand their status under the PSR and how it impacts their farm

75% of **Produce Safety Advisory Group** participants report that they can see the impact that the group has on the on-going development of the Produce Safety Program

75% of farmers who responded to our post-inspection survey report that they felt confident in their ability to implement the Produce Safety Rule on their farm after their inspection

100% of farmers who responded to our post-inspection survey report that the inspector communicated in a way that was clear and easy to understand

Produce Safety Rule inspections

PSR inspection staff evaluate produce farms, participate in grower trainings, support inventory development, develop standard procedures for inspections, facilitate a regional regulatory group to ensure consistency of inspections throughout the Midwest, and support outreach and education activities to farms and wholesale buyers. During 2019 and 2020 inspectors conducted a total of 30 inspections of Minnesota produce farms and we expect that number to increase as the farm inventory expands. As of 2020, all covered farms, regardless of their size, are now being inspected. We encourage farmers to visit our website for more information.
www.mda.state.mn.us/food-feed/farm-inspections

Farm size

The FDA determines a farm's size based on its average annual produce sales (over the previous three years):

Very small farm
$25K–$250K

Small farm
$250K–$500K

Large farm
>$500k

Average:
~3 hours

Longest:
5 hours

Shortest time:
2 hours
45 minutes

Inspection time on-farm 2019

On-farm inspection time in 2020 was reduced to 1-hour in accordance with state and federal guidelines in place to minimize the spread of COVID-19.

Inspection observations

"Doing well"

- Farms have systems in place to reduce food safety risks

- Farms using single use packing boxes

- Multiple handwashing stations on farm operations

- Training plans and policies that focus on food safety

"Needs improvement"

- Cleaning procedures, specifically scrubbing surfaces before sanitizing

- Identification of food contact surfaces to be included in a farm's cleaning and sanitizing plan and records

- Developing recordkeeping and documentation

- Incorporating clean breaks and produce lots when appropriate

Produce Safety Rule grower trainings

Our program co-hosts FSMA PSR grower trainings each season with the University of Minnesota Extension. Trainings are open to all farmers interested in the requirements of the rule and ways to implement on-farm food safety practices.

Figures 1 and 2 indicate the total number of trainings and training attendees from 2017-2020. Figure 3 displays the location of all trainings since 2017. It does not include remote trainings held via Zoom.

Additionally,

- In 2019 we held two Spanish language trainings
- In 2020 we hosted one Hmong language training and one remote training

Partnership with Minnesota Produce Farmers
Each training team includes at least one Minnesota produce farmer who combines personal experience implementing on-farm food safety with their knowledge of the PSR. When asked how these farmer- trainers improved the training, participants said:

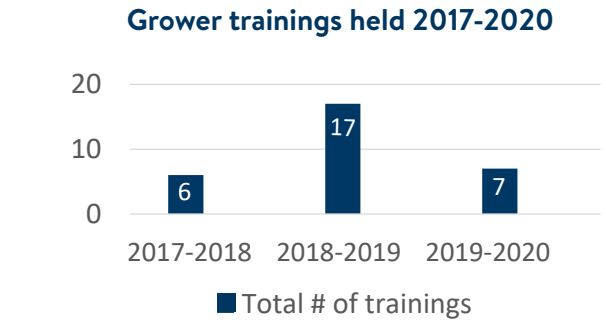


Figure 1

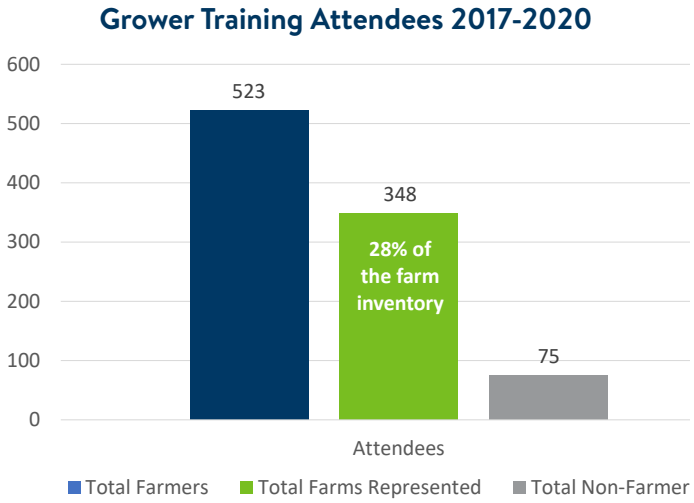


Figure 2

Partnership with the University of Minnesota Extension (UMN)

The MDA works closely with Annalisa Hultberg, a statewide Extension Educator in Food Safety who leads the UMN Extension's outreach efforts around the FSMA PSR via the FSMA Grower Trainings and other educational efforts. She also coordinates the On-Farm GAPs Education Program which works with small to large-scale fruit and vegetable farmers, farm to school programs, food hubs, agricultural educators, and others to provide education around the use of good agricultural practices. For more information about resources at the UMN contact Annalisa Hultberg.

Email:
hultb006@umn.edu

Phone:
651-480-7710

Website:
extension.umn.edu/safety/growing-safe-food

Impact of grower trainings

A survey was designed in 2019 to assess the long-term impact of the grower trainings. With this assessment, we were able to determine what resources and education services growers needed. The survey was distributed to people who had attended a training between January 2018 – June 2019 and focused on four main areas:

- Buy-in/culture change
- Implementation of food safety on the farm
- Barriers to implementation
- Long-term education needs

The survey results showed that although many educational goals are being met, areas for improvement exist. (The complete results will be published separately from this report).

All-time grower training coverage Year 4

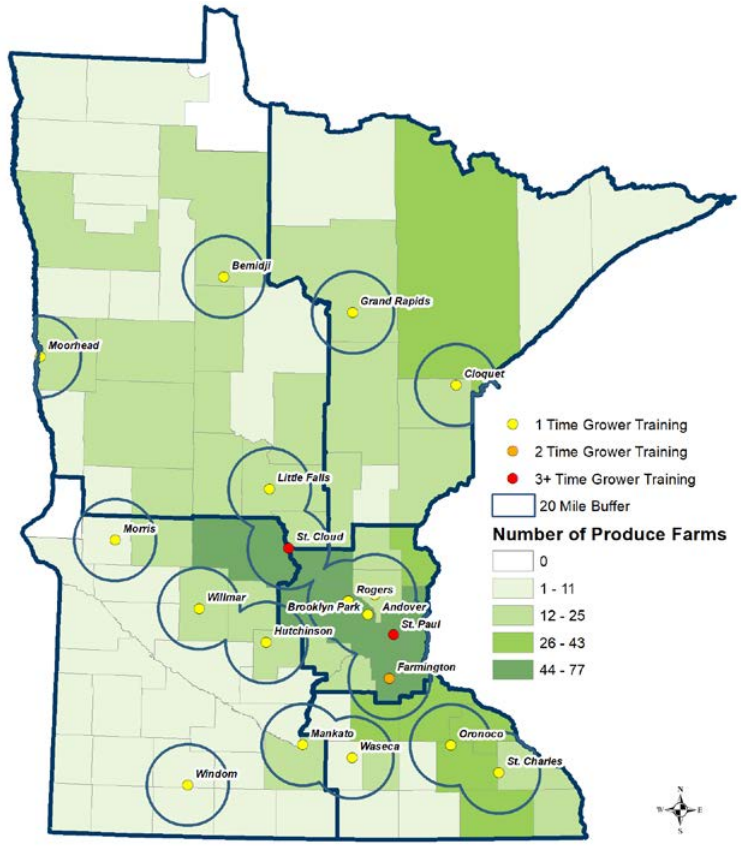


Figure 3

Opportunities based on survey results

The following are in progress with UMN Extension based on Produce Safety Rule Grower Training assessment results:

- Continued trainings for farmers who identify as Black, Indigenous and People of Color (BIPOC) and Plain communities
- Video series showing practices farmer-trainers use on their farms
- Consistent communication through a variety of channels
- On-going assessment of trainings

FARM INVENTORY DATA

This is an analysis of data collected with the 2020 Grower Questionnaire. This is used to build our produce farm inventory and is a requirement of our cooperative agreement with the FDA. All data were gathered by the PSP through the annual Grower Questionnaire, unless otherwise stated.

What data are we highlighting and why?

Current farm inventory totals are the number of farms that verify they grow produce under the PSR.

Farm status determines what if any requirements apply to a farm business under the PSR.

Grower Questionnaire response tracks the change over time in responses to the questionnaire. This helps measure progress in verifying farms and building the farm inventory.

Location of produce farms helps us identify where to host grower trainings, plan for timely and efficient inspections and develop a general awareness of where produce is grown in Minnesota.

Acreage of produce farms helps identify appropriate education and needed resources for farms of a variety of sizes and shows the amount of land dedicated to specialty crop production.

Sales and market data determine a farms status under the PSR and whether inspection is required. This data demonstrates the scale of produce farming and shows contributions to the agricultural economy.

Crop data tracks what is being grown and identifies how much has a history of being linked to foodborne illness outbreaks.

Demographic data sheds light on who is growing produce. It highlights diverse farming populations and indicates barriers that produce farms face because of race, gender, age, and number of years farming.

These data enhance our overall understanding of produce farming in Minnesota. We maintain an accurate inventory of Minnesota produce farms to design services that work for the farms we serve. Using these data, we can efficiently conduct on-farm inspections, plan strategically for developing accessible and inclusive education, and be accountable to serve all produce farms.

Data limitations

It is important to note that the results presented here are based on self-reported information from produce growers and are not representative of all produce growers in Minnesota. To date, we estimate only about one-third to one-half of the state's produce farmers have provided their data. Additionally, we do not collect data regarding produce farms on tribal land. As sovereign nations, the eleven tribal nations in Minnesota are not under state jurisdiction for PSR regulation.

Comparing MDA and USDA data

Why we need the farm inventory

The USDA NASS Census of Agriculture, referred to as the Ag Census, has historically been the most complete source of information about farms in Minnesota. Aggregate data from the census indicates there are over 3,000 produce farms in the state. However, the Ag Census provides general data about farms and is not designed to provide specific analysis of how farms are impacted by the PSR. Therefore, the FDA has required each state to develop a farm inventory that verifies the number of produce farms in each state, including each farm's status under the PSR. Eventually, our verified farm totals in the inventory will be the only measurement of produce farms, with respect to the PSR, that the FDA recognizes. The farm inventory data is important because it will be the most comprehensive collection of information about produce farming in Minnesota.

Farm verification is done through the annual Grower Questionnaire. Farmers that respond receive an official confirmation of their farm's status under the PSR. We do annual verification because we know that changes to farming practices can impact a farm's status under the rule. Not all farms in the inventory are verified. Only farms that complete a Grower Questionnaire are considered verified for that calendar year. Table 1 shows total farms in the inventory as compared to farm estimates from the Ag Census.

Current farm inventory numbers

Table 1

Produce farms per PSR status categories: current MDA data vs. USDA Ag Census estimates			
Category	**Minnesota inventory**	**Ag Census estimates**	**% verified through Grower Questionnaire**
Potential Produce Farms identified to date in MN	1,694	3,628	47%
Produce Farms that verified their data for 2020	725	3,628	20%

Farm status – totals for 2020

Farm status determines requirements under the PSR and whether a routine inspection is required. A farm's status can change from year to year based on marketing and sales data. Table 2 shows the total number of farms for each of the major PSR status.

Table 2

Total produce farms: current MDA data vs. Ag Census data				
	Status Requirements	**Minnesota Farm Inventory**	**USDA estimate**	**% verified of USDA estimate**
COVERED	• Must follow full standards of the rule • Farms are subject to routine inspection	48	308	16%
ELIGIBLE FOR EXEMPTIONS	• Must keep certain records • Farms not subject to routine inspection	195	1183	16%
EXCLUDED	• Rule doesn't apply • Farms are not subject to routine inspection	482	2137	23%

Grower Questionnaire response over time

Data in Figure 4 shows Grower Questionnaire responses from 2019 to 2020. As more farmers respond and verify their status under the PSR, the better we can adapt programing to meet their needs. Though responses significantly increased in 2020, more than half of the farms in the inventory have not yet responded, as seen in figure 4.

The 2022 Grower Questionnaire will be released in December 2021. Stay tuned for more information!

Grower Questionnaire Response Over Time

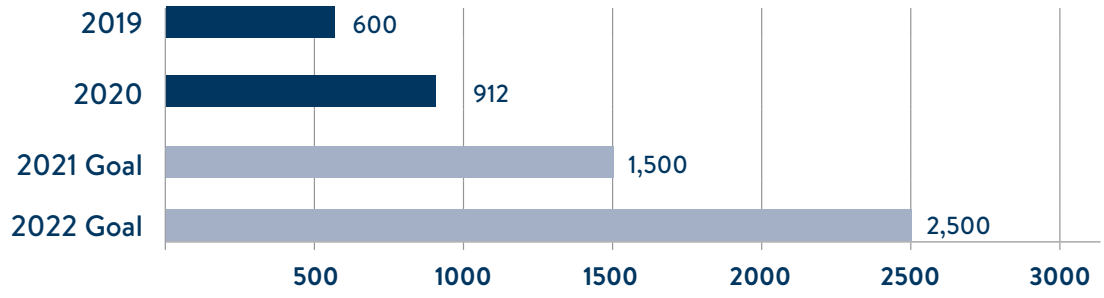


Figure 4

52%
increase in response from 2019 to 2020

In 2020 we received 912 responses of which only 725 were verified as active produce growers. The remainder were either incomplete or submitted by farms that are excluded from the rule for various reasons. Note that some data are reported for all farms, regardless of verification status. For example, 1,068 farms have reported produce acreage data but have not been fully verified.

Location of produce farms

This map (Figure5) shows the location of farms in the current inventory broken down by region and where they are concentrated. This data is used in ongoing planning of services including inspections, trainings, and outreach/ engagement activities.

Produce farms by Minnesota Grown regions

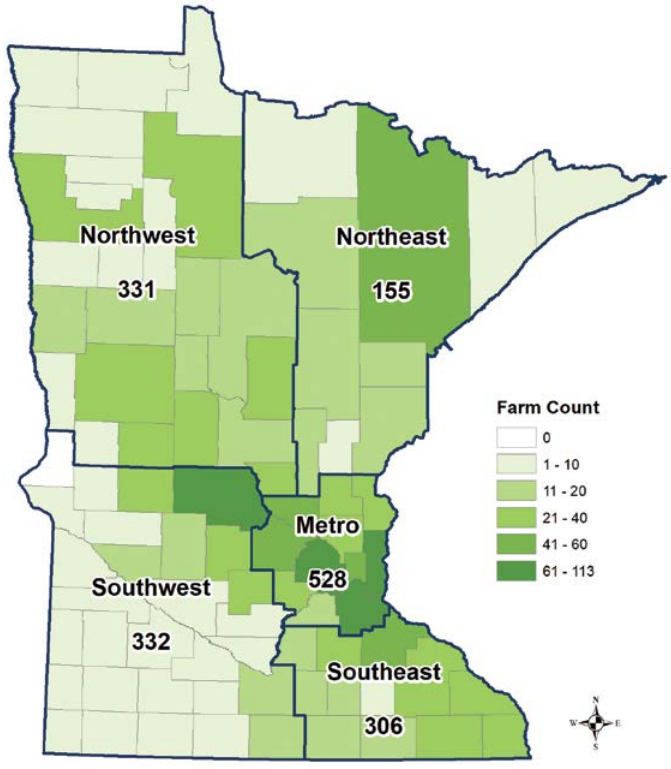


Figure 5

Opportunity:

In the future, location data could be used to support farms in risk analysis and management for threats such as flooding, erosion, or the contamination of water sources.

Acreage of produce crops in Minnesota

Farm size can be defined by both acreage and sales. We collect acreage data by range to help us determine the average amount of land most Minnesota produce farmers cultivate and the scale at which on-farm food safety implementation occurs.

It's estimated that at least 79,500 acres of land are dedicated to specialty crop production in the state, based on a total of 1,068 farms providing acreage data as seen in Figure 6. The real number is likely larger but would require additional farm data for confirmation.

Of 1,068 farms reporting, over 50% are growing on 10 acres or less.

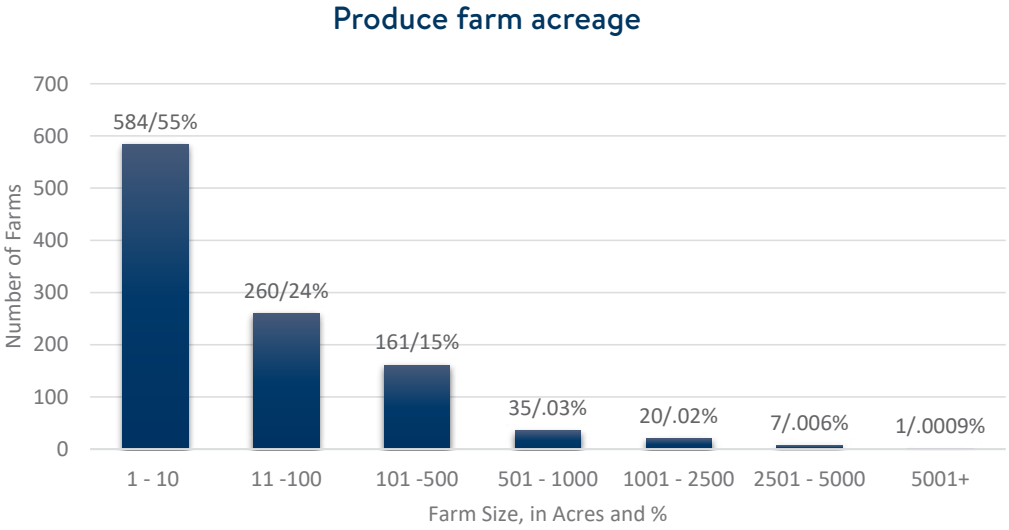


Figure 6

On-farm food safety implementation requires farmers to review their entire operations and determine areas of potential contamination and risk. This can be a large and laborious task for many produce farmers. The costs associated with implementation of food safety measures such as new equipment, water testing, and employee training may seem insurmountable. Therefore, collecting data on farm size, and evaluating PSP educational services and resources is critical for the PSP to determine how to best serve Minnesota produce farmers regardless of how many acres they grow.

Opportunity

Implementation of FSMA and the PSR is still occurring in the U.S. and globally. Therefore, it will require time to fully understand the impact these new regulations have on farms. The PSR has presented challenges all along the produce supply chain but this is not unlike implementation of other federal initiatives that address risks to human health. It is evident that more data is needed to determine the true cost of farm implementation of the PSR and provide a more accurate estimate of a farmer's return on investment into food safety measures.

Minnesota produce sales

Sales data is also used to measure farm size as it, along with market outlets, determines a farm's status under the PSR. From acreage data we know that most produce farms in the state are cultivating between one and ten acres. However, Table 3 shows that a farmer cultivating less than ten acres could make more than $500,000 in sales and be a large covered farm subject to a full inspection under the rule. This indicates that cultivated acreage cannot be used to predict total produce sales or PSR coverage. Only 654 farms have provided both acreage and sales information and Table 3 indicates the number of farms in each acreage category and their corresponding sales. While Figure 7 shows the total number of farms in each sales category based on the 828 farms that provided sales data. The comparison between acreage and sales allows us to better understand produce farming in our state and customize our work to accommodate farms of all sizes.

Table 3

Cross tabulation of total acreage and annual sales				
Acres	**Under $27,528**	**$27,528 - $250,000**	**$250,000 - $500,000**	**>$500,000**
1 - 10	366	86	2	6
11 - 100	44	70	8	5
101 - 500	1	13	3	17
501 - 1000	0	2	3	12
1001 - 2500	0	3	0	11
2501 - 5000	0	0	1	1
> 5000	0	0	0	0

Annual produce sales

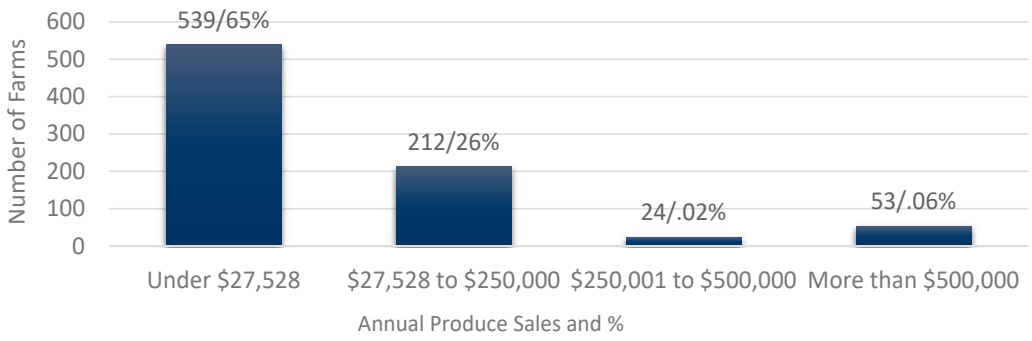
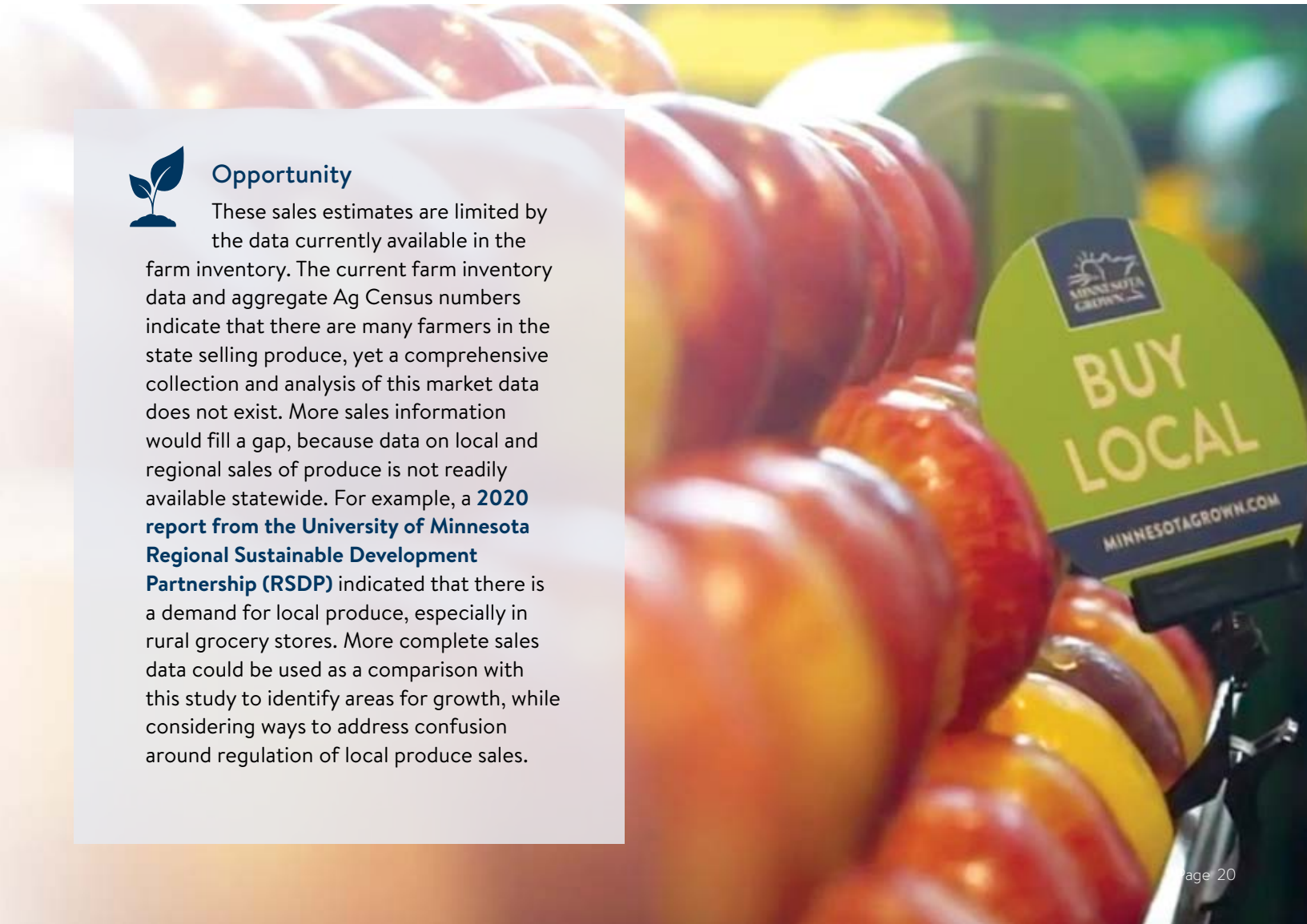


Figure 7

Visit our **Statewide Cooperative Partnership for Local and Regional Markets** website for info on how the MDA is working to collect data to better support local and regional markets.

www.mda.state.mn.us/marketing/local-regional-partnership



Opportunity

These sales estimates are limited by the data currently available in the farm inventory. The current farm inventory data and aggregate Ag Census numbers indicate that there are many farmers in the state selling produce, yet a comprehensive collection and analysis of this market data does not exist. More sales information would fill a gap, because data on local and regional sales of produce is not readily available statewide. For example, a **2020 report from the University of Minnesota Regional Sustainable Development Partnership (RSDP)** indicated that there is a demand for local produce, especially in rural grocery stores. More complete sales data could be used as a comparison with this study to identify areas for growth, while considering ways to address confusion around regulation of local produce sales.

Produce crop data

FSMA and the PSR center around a proactive approach to minimizing the risk of food borne outbreaks from produce. Each year, the FDA updates a list of priority focus specialty crops that have been linked to serious food borne illness outbreaks and therefore pose a greater risk to public health. The program collects crop data on the annual Grower Questionnaire to learn about farmers in Minnesota. Inspectors use crop data to prioritize inspections for farmers that grow priority commodities. Table 4 shows the priority crops identified for 2020 and the number of farmers who reported growing them in Minnesota.

Table 4

2020 FDA priority commodities	Number of farms
Tomatoes	477
Cucumber	415
Peppers, Sweet	406
Lettuce	292
Kale	275
Spinach	197
Melon, Cantaloupe	193
Melon, Honeydew	85
Mustards	126

Opportunity

As with sales data, there is no comprehensive collection of specialty crop data in Minnesota. Current farm inventory data indicate that there is no "average" produce farm, and the types and quantity of crops that are grown varies greatly from farm to farm. Figure 8 shows ranges for the total number of produce crops that farmers reported growing in 2020. Better understanding of the types of crops commonly grown in the state will help focus education and regulatory efforts.

% of farms growing in each crop range

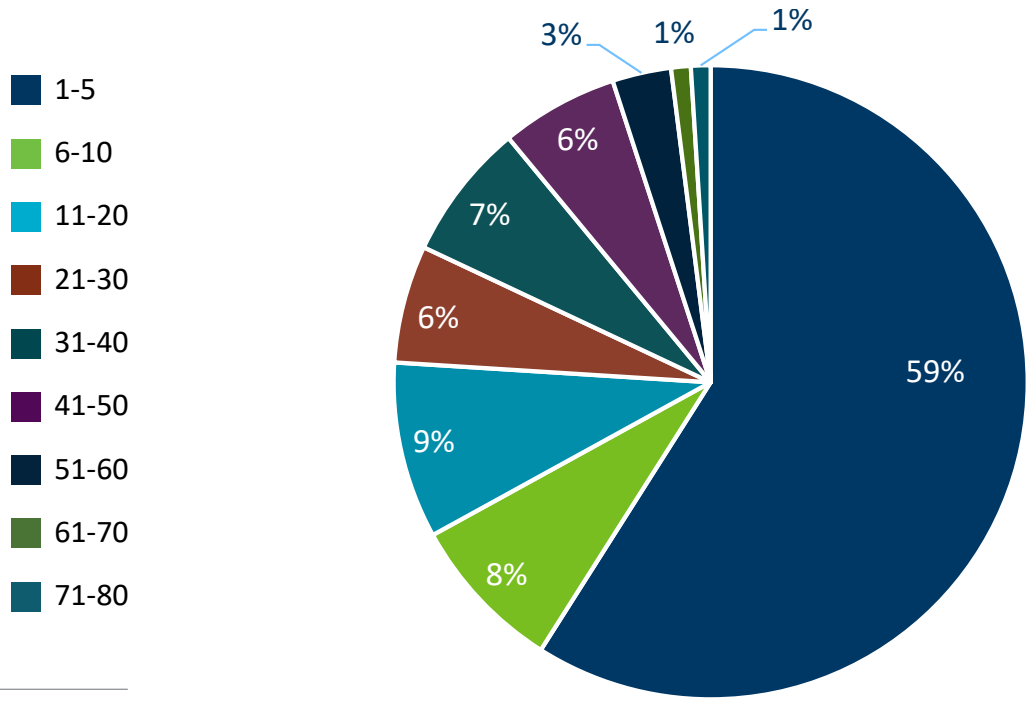


Figure 8

Most grown vegetable and fruit crops

Table 5

Most Grown Vegetables	Number of Farms
Tomatoes	477
Squash, Winter*	442
Cucumber	415
Corn, Sweet*	411
Peppers, Sweet	406
Pumpkin*	396
Peas	392
Peppers, Hot (Chili)	384
Beans, Green	365
Onion	363

**Crop is not covered under the Produce Safety Rule*

Table 6

Most Grown Fruits	Number of Farms
Apples	295
Strawberries	243
Raspberries	220
Melons, Cantaloupe	193
Watermelons	177
Grapes	107
Blueberries	89
Melons, Honeydew	85
Plums	77
Pears	68

Apples are known to be a large produce crop in Minnesota. The program has worked with the Minnesota Apple Growers Association to provide information and presentations on the PSR.

Minnesota Apple Growers Association: reflections on the 2020 growing season

Co-written with Charlie Johnson of Whistling Well Farm

2020 was a bumper-crop year for apple orchards across the state, but increased demand comes with challenges for apple growers. In search of safe outdoor activities, crowds of Minnesotans flocked to apple orchards this season. Orchards across the state rose to the occasion implementing Covid-19 response plans and making significant updates to their business to safely accommodate the demand.

Chad Johnson of Whistling Well Farm, processing apples

Despite the boom in sales, Minnesota apple growers struggle to compete with imported apples from other states. For example, apples imported from the North Western US can wholesale for as low as $25 per bushel undercutting local Minnesota growers who can't afford to sell their apples at such a low cost.

"There is a difference between Minnesota grown apples as compared to Washington apples…they simply are a better apple" says Charlie Johnson of Whistling Well Farms and the Minnesota Apple Growers Association. "It's evident that early sales in Minnesota make a big difference for growers because it gives us an extra week or more of marketing" noted Johnson, who praised the Minnesota Grown program and research on early varieties coming out of the University of Minnesota, noting without them, there would not be an apple industry in Minnesota.

The next time you buy an apple, check to see if it's Minnesota grown and look for the First Kiss variety, developed by the University of Minnesota. These apples are juicy, tart and they ripen mid-late August kicking off the apple season. They store well too so you can stock up for the fall!

Produce farm demographics

The PSP annual Grower Questionnaire does not collect demographic information from farms. However, we do have demographic data from grower training evaluations that provide some indication of who produce farmers are in Minnesota. Though the sample size is small (365 farmers), the data clearly shows that of the farms that attended the trainings, most participants are younger, are often in their first ten years of farming, and are more likely to identify as a woman, and/or as Black, Indigenous or as a person of color (BIPOC). Figure 9 displays demographic data from the USDA Ag census which is voluntarily collected from farms as compared to MDA data collected from attendees of the Produce Safety Grower Trainings. This comparison indicates that the PSP should identify needs of emerging farmers and develop resources that will meet those needs.

Ag Census Estimates for Minnesota Farms	MDA Produce Program Estimates for Minnesota Farms
26.7% farming 5 years or less	52% beginning farmers (0-10 years)
	37% farming 5 years or less
56.6, average Minnesota farmer age	61% below age 55 36% below age 40
25% are women	44% are women
1% identify as Black, Indigenous, or as a person of color (BIPOC)	10% identify as Black, Indigenous, or as a person of color (BIPOC)

Figure 9

The term *Emerging Farmer* reflects the diversity and intersectionality of farmers, and the way that barriers affect multiple communities at the same time. It encompasses several historically underserved communities including women, veterans, persons with disabilities, Native American/Alaska Native, communities of color, young and beginning farmers, LGBTQ+ farmers and more.

Opportunity

A recent MDA legislative report on emerging farmers in Minnesota demonstrates that all emerging farmers in our state, not just emerging produce farmers, face barriers such as access to land, education, health insurance, and tools to ensure farm profitability. For BIPOC farmers, these barriers are compounded by institutional and structural racism in the food system. As the report indicates, identifying solutions to overcome these barriers should be a priority, because of the significant role that agriculture plays in Minnesota's economy.

The MDA has begun to prioritize support for emerging farmers through the creation of the Emerging Farmers' Working Group (EFWG). On-farm food safety is a topic that can be included in discussions on how the MDA and the PSP can collaborate with the work group to leverage support for produce farmers and particularly BIPOC produce farmers, recognizing that these communities are a part of agriculture that has historically been overlooked in our state.

For more information about the EFWG and to read the legislative report please visit this website:

www.mda.state.mn.us/emerging-farmers-working-group

CONCLUSION

Our program exists to support farmers in implementing on-farm food safety. The data we collect helps farmers identify their status under the PSR and any food safety requirements that apply to their farm business. As this report has shown, the data is also integral in shaping program development, understanding the scope of produce farming in Minnesota, and illuminating the challenges and barriers produce farmers face when required to comply with new food safety regulations.

We appreciate the hundreds of produce farmers across the state who responded to the 2020 annual Grower Questionnaire, provided an assessment of our grower trainings, and filled out customer service surveys. We also thank the many partners both within and outside of MDA who contributed knowledge, stories, and data.

This report demonstrates a significant amount of data on produce farms and identifies opportunities for future development. There is still much to be learned to successfully support produce farms in implementing on-farm food safety and achieve the end-result that all produce from Minnesota is safe to eat and 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.

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