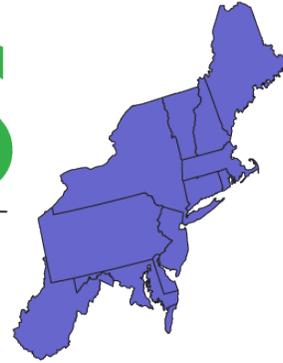




NECAFS

The Northeast Center to
Advance Food Safety



State Summary Report

February 2019





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As part of a regional effort, NECAFS works alongside the National Coordination Center (NCC), other Regional Centers (RCs) and training alliances on education and outreach efforts related to food safety and compliance with the Food Safety Modernization Act.

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the United States Department of Agriculture. University of Vermont Extension, Burlington, Vermont.

University of Vermont Extension, and U.S. Department of Agriculture, cooperating, offer education and employment to everyone without regard to race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or familial status.



CONNECTICUT

- Buyer outreach through educational programs
- PSA trainings attended by most exempt growers

OUTREACH & EDUCATION

Conformance with Produce Safety Rule

Connecticut has developed a state program “Connecticut GAP” or “CGAP.” It is a regulatory, public health inspection program that verifies conformance to federal and state Produce Safety Laws and includes a market access piece. We are currently meeting with industry stakeholders to roll out our plans as we firm up the details.

Buyer Education

UConn Extension took the lead to organize and present a half-day informational program for retail, foodservice and restaurant produce buyers regarding implementation of the PSR. Massachusetts and Rhode Island collaborated in this effort that involved both regulatory and extension personnel.

Additional Outreach

Conn. Small Fruit and Vegetable Meeting, Conn. Water Well Association

IMPACTS & STORIES

“Your PSA course format was especially useful as it was over a two day period, allowing for feedback activities and more grower participation.”

- N.Y. Regulator

The majority of farms attending our PSA courses are **exempt** from training requirements.

UConn, URI and UMass **collaborate** to offer PSA and PCQI Trainings.

PSA Trainings	PSA Training Participants	PCQI Trainings	PCQI Training Participants	On Farm Readiness Review	Other Educational Programs	TOTAL PARTICIPANTS REACHED
4	94	1	13	11	2	368



DELAWARE

- Working with growers to convert poultry houses
- FDA Commissioned study of BSAOs

OUTREACH & EDUCATION

IMPACTS & STORIES

Grant Offsets Cost for Growers

University of Delaware has a USDA Specialty Crop Block Grant that reimburses 80% up to \$1,000 of the associated costs of a successful third-party food safety audit (both USDA harmonized and commercial) as well as 80% up to \$500 of the associated water testing fees. Water testing reimbursement is contingent upon successful completion of a third-party food safety audit and must include receipts.

“ I need advice on buying new packing equipment to best address produce food safety. ”

- Delaware Grower

PSA Grower Trainings Remain Popular

Delaware continues to have new attendees at PSA trainings. This is in part due to turnover, but more often due to the growing numbers of new producers entering the produce production field and interested in produce safety. Another targeted audience has been remaining large growers (mostly watermelon) who have not attended PSA training. Once watermelon growers attend, a majority of these producers make valuable changes to their packing houses, including removal of carpeted areas.

Modifications have been made to existing packing equipment to be better able to clean and sanitize.

OFRRs have included great discussions on farm during the process.

PSA Trainings	PSA Training Participants	On Farm Readiness Review	TOTAL PARTICIPANTS REACHED
4	84	3	88



MAINE

- Creating new collaborative network
- 60% PCQI participants start plan within 6 months

OUTREACH & EDUCATION

IMPACTS & STORIES

Educational Material Developed

Educational partners created and updated more than 25 templates for farmers brand new to record-keeping. These, along with other resources, are distributed on a thumb drive to all PSA training participants. For preventive controls, Maine developed in-depth overview of process validation.

Technical Assistance Follow-up to Trainings

When needed, University of Maine works with companies after a PCQI trainings on PC process validation and plan completion. Therefore, addressing their confusion and helping with implementation of supply-chain controls. OFRR follow-up technical assistance resulted in very small farmer installing new roof over washing station; another adopting a new practices around cleaning, sanitizing, and transporting knives to the field; and another improving how he cleans harvesting bins.

Additional Outreach

FSMA introduction for farmers and producers, FSMA Update at state Ag Trade Show, FSMA Update at Organic Producers Conference (MOFGA), FSMA Overview Maine Dept. of Ag, Conservation and Forestry annual workshop

*“ You present ... in such a way that it is not only **interesting** but just naturally **brings up all kinds of questions**. ... People are actually thinking about what you’re saying ... And that combination makes for a successful presentation. ”*
 - Farmer Participant

Produce Safety knowledge **increased 16%** (from 72% to 88%) in pre- and post-tests.

OFRRs are overwhelmingly **positive** and farmers are highly **satisfied** with their farm review.

PSA Trainings	PSA Training Participants	PCQI Trainings	PCQI Training Participants	On Farm Readiness Review	Other Educational Programs	TOTAL PARTICIPANTS REACHED
7	150	3	70	29	4	413



MARYLAND

- Water testing lab list, note taking sheets developed
- Survey documents behavior change in producers

OUTREACH & EDUCATION

IMPACTS & STORIES

Grants Further FSMA Research & Education

A Specialty Crop Block Grant funded the Maryland Department of Agriculture’s GAP food safety plan and audit to be aligned with the Produce Safety Rule. Research assesses the impact of water sample source (tidal, reclaimed, pond, non-tidal fresh) and holding time on generic *e. coli* numbers. Through another Specialty Crop Block Grant, UMD completed three years of on-farm environmental sampling, “Sampling on Maryland’s Eastern Shore Farms: Keeping an Eye Out for Pathogens and Providing a Service to Produce Growers.” A SARE Grant funded UMD Extension to work with UMD Agriculture Law Education Initiative to provide targeted GAP and recall readiness workshops and webinars to pick-your-own farms, CSA’s, and farmer’s market growers. Draft recall plan templates were created as part of this grant. Food Safety Outreach Program Grant “Develop and Implement a Hybrid Workshop in FSMA Produce Safety and Preventive Controls Rules for Stakeholders Growing and Processing High-Risk Produce” was completed this year.

Additional Outreach

Meetings: Central Maryland Vegetable, Southern Maryland Vegetable, Western Maryland Fruit and Vegetable

Produce Safety knowledge **increased** among 87% of participants in pre- and post-tests.

After completing the reviews, MDA inspectors noticed areas of the Rule where almost every grower was **struggling**, including: how to conduct water system inspections, covered and non-covered items/ supplies need to be kept separate, how to properly train workers for specific tasks. They are now working on training docs/videos/in-person in Spanish and English to **address** these issues.

PSA Trainings	PSA Training Participants	PCQI Trainings	On Farm Readiness Review	Other Educational Programs	TOTAL PARTICIPANTS REACHED
3	60	3	11	11	194



MASSACHUSETTS

- Unique approach to farm registration
- Extensive collaborative efforts in Mass.

OUTREACH & EDUCATION

Grants Further FSMA Education in Mass.

The University of Massachusetts has two Food Safety Outreach Program Grants. The first, “Food Safety Management Training for Small and Emerging Food Businesses: Integrating a Food Safety Culture from Concept to Commercialization,” has developed a database of 94 shared-use facilities and was used to distribute needs assessment to stakeholders, currently in the response period. Existing product development and food safety curriculum was analyzed with the advisory board to determine strengths, weaknesses, and areas for improvement. The second, “Expanding Food Safety Education in Massachusetts and Shifting from Voluntary to Regulatory Compliance,” has a goal to expand the audience for farm food safety information and training, in part by collaborating with community organizations to reach new growers. Most (68%) in attendance at the PSA trainings in 2018 had never received any food safety training previously.

Lastly, UMass has a Mass. Dept. of Ag Grant to “Establish FDA approved scheduled processes for acidified shelf stable foods to increase usage of specialty crops” with the goal of increasing the production of specialty crops

Continued on reverse ...

IMPACTS & STORIES

“ *This was a great course and I feel ready to dive into working on a food safety plan for my organization.* ”
 - PCQI Training Participant

The majority of farms attending our PSA courses are **exempt** from training requirements.

UConn, URI and UMass **collaborate** to offer PSA and PCQI Trainings.

PSA Trainings	PSA Training Participants	PCQI Trainings	PCQI Training Participants	Other Educational Programs	TOTAL PARTICIPANTS REACHED
5	164	3	57	6	227



through value-added processing. This project provides the necessary product development processes required to manufacturer acidified shelf-stable foods which will help increase the value, and help extend the season of specialty crops including recipe development, standard operating procedures, and required regulatory scheduled processes for 12 products.

Educational Materials Developed

Seven food safety related publications in UMass *Vegetable Notes* newsletter. Food Safety for Farmers Web Tool; sections on each of the major food safety risk areas, and resources and information to help growers comply with the FSMA Produce Rule and good agricultural practices. “Do I Need to Comply with the FSMA Produce Rule?” interactive PSR compliance tool for growers.

MDAR Projects

State Program CQP:

Checklist includes requirement of the PSR. CQP served as OFRR in 2018. Total CQP audits conducted in 2018: 85

Collaboration with buyers:

Meeting with regional buyers (annually) for an overview of Mass. Produce Safety Program. Buyers accepting CQP for market access. On-going direct relationship with all major retailers, wholesalers-distributors and cooperatives in the Commonwealth and greater region procuring product from produce farms in Mass.

Collaboration with buy-locals:

Collaboration with buy-locals for education, outreach and support, and delivery of technical assistance and grower/buyer inquiries. Conducting joint workshops in 2018. Regionally based meetings with buy-locals in 2018 + quarterly calls scheduled for 2019 for updates and collaboration.

Participation in FDA Workgroups:

Farm Inventory Aggregate Data
Inspection Prioritization

Inspection Prioritization Tool: Mass. participated in the Beta testing of the platform.

“ Overall, completely painless, concise, and clear instruction. Very supportive and understanding environment. I left feeling empowered to create a food safety plan instead of anxious, stressed, and discouraged. Thanks! ”

- PSA Training Participant

Instances of behavior change or adoption of practices:

- Training farm workers on food safety.
- Helping grower identify if sanitizer addition is necessary during post-harvest .
- Developing and supporting grower Food Safety Plan.
- Cleaning and sanitizing harvest bins, helping grower choose a sanitizer, testing sanitizer concentration, and keeping logs.
- Helping grower determine work flow, proper storage of personal belongings, and proper storage of packaging material.
- Eliminating debris, which harbor pests, surrounding buildings.
- Replacing rusted and hard-to-clean packing equipment.
- Keeping domestic animals out of fields and packing areas.
- Adding handwashing stations next to portable restrooms in production acreage.



NEW HAMPSHIRE

- Behavior change seen from many types of programming
- NHDAMF expanding outreach efforts quickly

OUTREACH & EDUCATION

Grants Further FSMA Education in N.H.

The University of New Hampshire was awarded two Food Safety Outreach Program (FSOP) grants to provide additional FSMA education and assistance throughout the state. Titled: "Assisting Maple Syrup Producers to Comply with the Preventive Controls for Human Food Rule of FSMA" and "Expanding the reach of New Hampshire's food safety education and FSMA programs to include value added processors."

OFRRs Identify Educational Needs

Areas of farming practices needing improvement are identified during farm visits resulting in planning around additional educational programming to assist with: employee training records, health and hygiene education, water source management and future testing requirements.

Additional Outreach

N.H. Maple producers, Maple Producer Events, Small and Beginning Farmers/Processors, USDA FSA, and Farm and Forest Expo N.H. Vegetable and Berry Growers

IMPACTS & STORIES

“The personal interest [and] offer to work with each of us independently to help us get it right, is both generous and gracious.”

- FSOP Workshop Participants

65% of participants rated FSOP grant workshop as “very useful” or “I’ll put this to use immediately.”

Collaborated with URI on PCQI training and Vt. Ag/UVM and NE Farmer’s Union on PSA trainings.

PSA Trainings	PSA Training Participants	On Farm Readiness Review	Other Educational Programs	TOTAL PARTICIPANTS REACHED
1	25	13	10	298



NEW JERSEY

- OFRRs heavily emphasized in N.J.
- Lookback evaluation work began Dec. 2018

OUTREACH & EDUCATION

IMPACTS & STORIES

New Website Developed

A new website was created, onfarmfoodsafety.rutgers.edu to house educational materials for producers, information on upcoming training sessions as well as the latest updates on the Produce Safety Rule. In addition, regular posts to the Rutgers on Farm Food Safety Facebook page and regular food safety blog posts on the Rutgers Plant and Pest Advisory.

Instructional Materials Created

FSMA Produce Safety modifications were reviewed and program content was finalized ensuring existing educational materials cover rule. Informational packets with new factsheets and handouts were created for training sessions and meetings with producers. Presentations are being videotaped to be used in conjunction with voice over PowerPoint for use as a refresher for growers.

Additional Outreach

Eastern Produce Council Meeting to educate buyers on FSMA

The OFRRs provided feedback and helpful tips to almost every grower covering health and hygiene, pre- and post-harvest procedures and worker training.

These reviews have been **great experience for both parties involved.**

PSA Trainings	PSA Training Participants	PCQI Trainings	PCQI Training Participants	On Farm Readiness Review	TOTAL PARTICIPANTS REACHED
6	179	12	211	78	468



NEW YORK

- 1,104 manufactures received resources on FSMA
- Updating inspection program includes PC and PS

OUTREACH & EDUCATION

IMPACTS & STORIES

Grants Further FSMA Education

Food Safety Outreach Project Grants include “Fruits, Vegetables and FSMA Compliance: Multilingual Audiovisual Food Safety Training for Farms and Packinghouses”; “ Expanding Food Safety Outreach and Education to Small and Mid-Sized Farms in New York and Vermont”; and “Artisan Food Safety Coaching Workshops.”

Educational Material Developed

Cornell Vegetable Program completed a research project to determine the best ways to clean some common produce washing equipment and developed factsheets on “Cleaning Produce Washing Equipment: Conveyor Washing System” and a “Root Barrel Washer Checklist.”

Additional Outreach

NYSDAM is conducting educational phone calls and visits with growers in their farm inventory. Empire State Producer’s Expo, Empire Farm Days, Long Island Ag Forum, and the N.Y. State Agricultural Society’s Forum.

“ I thought because I had a Harmonized GAP Audit done I wouldn’t need an inspection. ”
 - N.Y. Grower

NYSDAM and Cornell are collaborating to create a mentorship program to ensure team comfort and knowledge when conducting OFRRs.

PSA Trainings	PSA Training Participants	PCQI Trainings	PCQI Training Participants	On Farm Readiness Review	Other Educational Programs	TOTAL PARTICIPANTS REACHED
15	357	5	93	1	7	505



PENNSYLVANIA

- “Tool Box” created to distribute at OFRRs
- \$45K saved by growers with reduced training costs

OUTREACH & EDUCATION

IMPACTS & STORIES

Grants Further FSMA Education in Pa.

Penn State has received two Food Safety Outreach Program Grants, including “Development of an alternative FSMA compliant produce safety curriculum for plain sect and other smaller fresh produce growers” and “Bilingual Produce Safety Educational Programming for Hispanic/Latino Fresh Produce Growers and Farmworkers in Pennsylvania.”

Materials Developed through Grants

Completed Amish slide set book. Developed and translated existing "Reducing Risk Ag Fact Sheets series" (Safe Uses of Agricultural Water, Worker Health and Hygiene, Reducing Risks from Animals and Manure, Reducing Food Safety Risks During Harvest, Reducing Food Safety Risks in the Packhouse). PowerPoints on A) Basics of GAP; B) Workers Health and Personal Hygiene; C) Introduction to Pathogens in the Environment - Pre and Post Sources of Contamination. Creation of spiral book and fact-sheets, and translation to Spanish, on A) Basics of GAP; B) Workers Health and Personal Hygiene; C) Introduction to Pathogens in the Environment - Pre and Post Sources of Contamination.

“ Our OFRR program has helped us to debunk all their fears and we now see the ‘sigh of relief’ from our farmers after our OFRRs. ”

- Pa. Regulator

Working together with Penn State, FDA and selected Pennsylvania farmers, an article highlighting the OFRR program will be published in the winter addition of the Penn State “AgScience” magazine.

PSA Trainings	PSA Training Participants	PCQI Trainings	PCQI Training Participants	On Farm Readiness Review	Other Educational Programs	TOTAL PARTICIPANTS REACHED
17	529	8	190	151	7	1048



RHODE ISLAND

- Unique grants serve R.I. producers and processors
- Development of educational materials underway

OUTREACH & EDUCATION

Grants Further FSMA Education in R.I.

URI has several grants supporting the produce and processing industries in the state, including an FSOP grant, “Food safety management training for small and emerging food businesses: Integrating a food safety culture from concept to commercialization”; an AFRI grant, “Defining and overcoming economic factors hindering adoption of food safety practices by small and medium sized farms in the New England region”; a Specialty Crop grant, “Rhode Island Good Agricultural Practices: Produce Safety Alliance”; and a USDA Regional Project, “Enhancing microbial food safety by risk analysis.”

Educational Material Developed

Produce Safety Program is currently in the process of developing rack cards (designed for farm staff), a qualified exemption calculator™, on-farm food safety signage, and multi-lingual resources.

Additional Outreach

PSR for Buyers, PSR Update with RIDOH for public health work group at RIDOH, Yankee Conference for Environmental Health Produce Safety Rule and PCHF review, Post-Harvest Handling and Storage

IMPACTS & STORIES

“ I plan to install one water pump instead of two to simplify my water testing regime. ”

- R.I. Produce Grower

R.I. GAP audits and OFRR reviews show an **increase** in practices to improve food safety, such as adding a division between the designated employee break and packing area, and multiple handwashing stations for U-pick.

PSA Trainings	PSA Training Participants	PCQI Trainings	PCQI Training Participants	On Farm Readiness Review	Other Educational Programs	TOTAL PARTICIPANTS REACHED
3	53	3	76	8	5	343



VERMONT

- Awarded \$74K in produce safety improvement grants
- Tested surface and ground water on produce farms

OUTREACH & EDUCATION

IMPACTS & STORIES

Produce Safety Improvement Grant Program Addresses Risks

Vt. produce growers have addressed numerous produce safety risks and adopted practices that have improved food safety on the farm including, but not limited to: enclosed wash/pack facilities to reduce the risk of pest intrusion; upgraded to stainless-steel and easy-to-clean surfaces to improve cleaning and sanitization of equipment; added floor drains to reduce standing water; increased produce safety hygiene signage around the farm to inform employees and visitors on where to access hand-washing stations.

Educational Material Developed

Post Harvest Case Studies at Mighty Food and Footprint, Factsheet/Blog posts on equipment including: Hoses, Bins, Floors, Spinners, Rats and Rodents, and Surfaces

“This grant was an incredible boon for us. We had been really hoping to do this project and looking for the money to make it happen, so more grants of this type would be great. The feedback that we have gotten from our customers has been so positive.”

- Sweetland Farm, Vt.

Following **direct technical assistance on-farm**, 31 producers have clarified plans for upgrades to their packsheds.

The VT-CAPS program provides an **early entry point produce safety** program which benefits from **voluntary, peer review and support**.

PSA Trainings	PSA Training Participants	PCQI Trainings	PCQI Training Participants	On Farm Readiness Review	TOTAL PARTICIPANTS REACHED
2	46	6	130	18	144



Direct Technical Assistance Results in On-Farm Changes

Multiple farmers, following direct technical assistance, have implemented many upgrades to their packsheds in the realm of produce safety including: concrete floors, floor drains, durable/cleanable walls, rinse conveyors, and increased pest control plans. A few examples include:

During a wash-pack shed planning consult, we outlined a rough plan for a wash-pack shed on their home farm. At that time, they were washing and packing out in the open with mud and poor drainage. This visit prompted them to apply for and receive a \$10K VAAFPM PSIG grant. A follow-up call helped them refine the plan and they are currently under construction. Based on this visit, they also intend to complete VT-CAPS Plus, and schedule an OFRR in the summer or fall.

Direct technical assistance with one producer enabled conversations between them and their builder/concrete contractor regarding trench drain design in their new facility. This specific application required some nuanced consideration for flow and elevation as well as attention to details regarding planning for cleaning.

Direct technical assistance during another farm visit helped alleviate producer concerns about the need for a total tear-down and rebuild of their cooler. The existing conditions were reviewed with the producer and relatively minor improvement recommendations were made.

Finally, technical assistance helped the farmer design and plan for a new, covered loading dock on the west side of current barn that was installed this fall.

Grants Further FSMA Education in Vt.

USDA FSOP “Expanding Food Safety Outreach and Education to Small And Mid-Sized Farms in New York and Vermont.” USDA SCRI Eastern Broccoli Project in collaboration with Cornell and others. As part of the Eastern Broccoli Project, extension educators attended hygienic design of equipment training, which will be used to develop future factsheets tailored to the produce industry.

“ I’ll say that [the grant] was the impetus for finally tackling issues that we wanted to address but kept putting off. Increasing our awareness of food safety issues has made us a better farm, and now we have the tools to do the job right. ”
- Cate Farm, Vt.

“ The new structure eliminates the risk of contamination from overhead and the stainless-steel sink and counters can be thoroughly cleaned and sanitized. ”
- New Leaf CSA, Vt.





WEST VIRGINIA

- SPGP funding leveraged into additional work
- Seeing increase in new farmers passing audits

OUTREACH & EDUCATION

IMPACTS & STORIES

FSMA Educational Efforts Merge with other Programs

West Virginia Department of Agriculture offers Writing Your Farm Food Safety Plan trainings with the goal to provide an efficient and regulatory-accepted recordkeeping system to follow up PSA Grower Training and dual usage—FSMA/GAP while providing framework for additional audits/inspections including Organic certification and GAP-Harmonized Plus. WV Dept. of Ag is also providing a training called “Responding to Food Emergencies” (ICS Course) with the goal to interface with the state emergency response system and local EMS coordinators to incorporate produce/food safety resources by the Department and the WV Farm Food Safety Training Team in the event of a food-/water-based outbreak scenario.

Additional Outreach

Sprouter Training, Emergency service providers (100) at ICS training, Farm Bureau, State Fair, Pumpkin Festival, County Meetings, Small Farm Conference, and Mountain State Art and Craft Fair

“There are areas within West Virginia where nutritious snacks may be hard to find, so by helping a local farmer consistently and safely produce a desirable product that they can sell within the community helps everyone take the right step forward.”

- Litha Sivanandan, WVU

A student who attended WVU fruits and vegetables drying workshop has **successfully established** his own business in dried foods for pets.

PSA Trainings	PSA Training Participants	PCQI Trainings	PCQI Training Participants	Other Educational Programs	TOTAL PARTICIPANTS REACHED
8	87	3	50	8	255



Publications

The W.Va. Dept. of Ag has dedicated six columns in the *Market Bulletin*, a newsletter for farmers and those interested in farming, to food safety. They have also published a catalog of decision trees.

Resulting from Special Project Grant Program funding, WVU published two peer-reviewed research papers: 1.) "Effects of liquid smoke infusion on osmotic dehydration kinetic and microstructural characteristics of apple cubes," published in the *Journal of Food Engineering*; and 2.) "Microbial shelf stability assessment of osmotically dehydrated smoky apples," published in *Food Science and Technology*.

Grants Further FSMA Education in WV

WVU was recently awarded an AFRI Grant "Improving Manufacturing Method for Production of a New Smoky Dried Apple Snack and Promoting Small-Scale Fruit Drying Businesses to Process Unsold Apples in West Virginia."

Formal subawards to WVU from WV Dept. of Ag for programming and OFRRs are expected in 2019.



"At first I did not want to do a virtual class, but I actually really enjoyed it and felt like it was a real classroom experience where I was able to interact with other participants and the instructors on lots of examples."

- PCQI Course Participant

The state has seen an increase in **new and beginning farmers** successfully **passing a GAP audit**.

Visit from **Produce Safety Network** staff resulted in the development of programming unique to WV, including working relationship with other agencies and the building of program technical capacity.

**TOGETHER, in 2018
the NECAFS Network...**

**DELIVERED
TRAININGS 503**

**REACHED
PARTICIPANTS 4,291**

NECAFS

The Northeast Center to
Advance Food Safety



PSA Trainings	PSA Training Participants	PCQI Trainings	PCQI Training Participants	On Farm Readiness Review	Other Educational Programs
75	1,828	45	840	323	60



NECAFS

The Northeast Center to
Advance Food Safety



The Northeast Center to Advance Food Safety is a collaboration among 12 states and the District of Columbia which aims to jointly advance understanding and practice of improved food safety among the region's small and medium sized produce growers and processors.

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