

V(A). Planned Program (Summary)

Program # 4

1. Name of the Planned Program

Nutrition, Food Safety and Security, and Obesity Prevention

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
303	Genetic Improvement of Animals	0%		1%	
311	Animal Diseases	0%		25%	
313	Internal Parasites in Animals	0%		2%	
315	Animal Welfare/Well-Being and Protection	0%		4%	
405	Drainage and Irrigation Systems and Facilities	0%		3%	
502	New and Improved Food Products	5%		4%	
603	Market Economics	0%		2%	
607	Consumer Economics	0%		1%	
701	Nutrient Composition of Food	15%		1%	
702	Requirements and Function of Nutrients and Other Food Components	15%		6%	
703	Nutrition Education and Behavior	40%		8%	
704	Nutrition and Hunger in the Population	0%		2%	
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	0%		5%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	0%		16%	
721	Insects and Other Pests Affecting Humans	0%		6%	
722	Zoonotic Diseases and Parasites Affecting Humans	0%		3%	
723	Hazards to Human Health and Safety	0%		5%	
724	Healthy Lifestyle	25%		5%	
903	Communication, Education, and Information Delivery	0%		1%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Cornell University

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	321.0	0.0	2.0	0.0
Actual Paid	190.0	0.0	8.0	0.0
Actual Volunteer	30160.0	0.0	0.0	0.0

NY State Agricultural Experiment Station

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	321.0	0.0	2.0	0.0
Actual Paid	0.0	0.0	0.0	0.0
Actual Volunteer	0.0	0.0	0.0	0.0

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
1565454	0	1072601	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
1565454	0	1888741	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	0	37405	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	34942	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Programs that are framed by this plan include research and extension linked to childhood obesity; youth, family and community nutrition; food security and food safety.

Childhood Obesity Prevention: Childhood obesity prevention research and education are based on an ecological approach, focusing on individuals and their interactions among the multiple environments that surround them. This approach recognizes that there are inherent multiple levels of influence that affect a child's body weight. Research topics include nutrition and hunger, nutrition education and behavior, built and natural environments, food psychology, physical activity promotion, and child nutrition in low wage working families.

Cornell Cooperative Extension (CCE) programs are designed to 1) connect research and practice, 2) result in behavior change, 3) build on the strengths of families and youth, 4) develop strong collaborations resulting in community changes for optimal health promotion and 5) provide policymakers with the knowledge to develop appropriate policies to promote healthy lifestyles. Extension programs target children, families and the community at large, with an emphasis on low-income audiences. The programs are collaborative and work directly with key community organizations.

Food Security: CCE programs address access to food, certainty of availability and access to food, sufficiency of food, social and cultural acceptability of food, and nutritional quality and safety of food. Work in this program area ties well with our work in agriculture, and youth, families and communities.

Food Safety: Cornell's statewide food safety research and education program serves a broad constituency including food producers, processors and retailers, as well as consumers and research scientists. The program encompasses the National Institute of Food and Agriculture food safety components: investigating causes of microbiological contamination and microbiological resistance; educating producers, consumers and food safety professionals; and developing food processing and storage technologies.

Programs are developed and delivered through many channels, including workshops, research-based publications and ongoing, technical support for policy makers and regulators.

For example, Cornell's National Good Agricultural Practices Program provides growers, packing house operators, government officials and industry trade association personnel with information and strategies to

protect consumer health and reduce hazards and risks in the production of fresh fruits and vegetables. Educational materials designed and developed at Cornell are being used by collaborators in 25 states to provide farmers with a better understanding of good agricultural practices related to food safety.

2. Brief description of the target audience

Childhood obesity prevention program audiences reached include: low-income families; 4-H youth; children in and out of school; nutrition and health professionals; school food service staff; community leaders; and government and agency leaders at the local, state, and national levels.

Food security program audiences reached include: low-income individuals and families; caregivers, nutritionists, community leaders, human service providers and food policy makers at the local, state, and national levels.

Food safety program audiences reached include: food processors, producers and consumers with targeted programs for low- and moderate- income families; 4-H youth; nutrition and health professionals; food service and food production staff and their managers and directors; and government and agency leaders at the local, state, and national levels.

3. How was eXtension used?

Cornell Cooperative Extension supports and promotes eXtension communities of practice, the eXtension public site and the professional development offered through eXtension.org. Staff across the state are encouraged to be involved in COPs, and the link to eXtension is promoted on the front page of the Cornell Cooperative Extension public staff site. Currently 365 staff are registered active users of eXtension, 62 of which are faculty members.

Examples of participation in COPs in this plan of work area include:

- Childhood Obesity and Nutrition
- Creating Healthy Communities
- Families, Food, and Fitness
- Food Safety
- Healthy Food Choices in Schools

V(E). Planned Program (Outputs)

1. Standard output measures

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	753294	3946543	549137	2876955

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2014
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2014	Extension	Research	Total
Actual	155	247	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- {No Data Entered}

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	(4.1d1) of children and youth who demonstrate knowledge or skill gains related to healthy eating and active living
2	(4.1g) # of youth program participants documented to have applied healthy eating and/or active living, recommendations
3	(4.1h) # of adult program participants documented to have applied healthy eating and/or active living, recommendations
4	(4.2c) # of program participants who adopt food resource management and/or food security practices
5	(4.2d) # of program participants documented to have improved food resource management and/or food security
6	(4.3c) # of program participants documented to have increased involvement in public/community childhood obesity prevention actions
7	(4.3d) # of participating schools and/or communities documented to have made practice and/or policy changes to promote healthy eating and active living
8	(4.1d2) # parents/caregivers and other adults who demonstrate knowledge or skill gains related to healthy eating and active living
9	(4.4e) # of program participants who have acted to improve their food security status.
10	(4.4f) # of community action plans implemented as a result of community based assessment.
11	(4.4g) # of individuals or households documented to have improved food security status.
12	(4.5b) # of consumers who demonstrate knowledge or skill gains related to reducing food safety and/or foodborne risks and illnesses including recommended purchasing, handling, storage, and preparation practices
13	(4.5c) # of consumers documented to have implemented new and/or increased application of ongoing safe food purchasing, handling, storage, and preparation practices.
14	(4.6c) # of producers/ processors/food service providers documented to have implemented new and/or increased application of ongoing safe food production, processing, storage, handling, marketing, and preparation practices.
15	(4.7c) # of communities/ firms/or organizations documented to have assessed practices or food safety policies as a result of participating in relevant educational programs.
16	(4.7d) # of communities/ firms/or organizations documented to have implemented improved practices or food safety policies as a result of participating in relevant educational programs.

17	ECOLOGICAL APPROACH TO OBESITY
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Outcome #1

1. Outcome Measures

(4.1d1) of children and youth who demonstrate knowledge or skill gains related to healthy eating and active living

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	40245

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
701	Nutrient Composition of Food
702	Requirements and Function of Nutrients and Other Food Components
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #2

1. Outcome Measures

(4.1g) # of youth program participants documented to have applied healthy eating and/or active living, recommendations

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	31369

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
701	Nutrient Composition of Food
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #3

1. Outcome Measures

(4.1h) # of adult program participants documented to have applied healthy eating and/or active living, recommendations

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	21711

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
701	Nutrient Composition of Food
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #4

1. Outcome Measures

(4.2c) # of program participants who adopt food resource management and/or food security practices

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	17650

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
701	Nutrient Composition of Food
703	Nutrition Education and Behavior

Outcome #5

1. Outcome Measures

(4.2d) # of program participants documented to have improved food resource management and/or food security

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	13557

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
701	Nutrient Composition of Food
703	Nutrition Education and Behavior

Outcome #6

1. Outcome Measures

(4.3c) # of program participants documented to have increased involvement in public/community childhood obesity prevention actions

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	511

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #7

1. Outcome Measures

(4.3d) # of participating schools and/or communities documented to have made practice and/or policy changes to promote healthy eating and active living

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	67

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
701	Nutrient Composition of Food
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #8

1. Outcome Measures

(4.1d2) # parents/caregivers and other adults who demonstrate knowledge or skill gains related to healthy eating and active living

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	31817

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
701	Nutrient Composition of Food
702	Requirements and Function of Nutrients and Other Food Components
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #9

1. Outcome Measures

(4.4e) # of program participants who have acted to improve their food security status.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	5689

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
702	Requirements and Function of Nutrients and Other Food Components

Outcome #10

1. Outcome Measures

(4.4f) # of community action plans implemented as a result of community based assessment.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	32

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
702	Requirements and Function of Nutrients and Other Food Components

Outcome #11

1. Outcome Measures

(4.4g) # of individuals or households documented to have improved food security status.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	9431

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
702	Requirements and Function of Nutrients and Other Food Components

Outcome #12

1. Outcome Measures

(4.5b) # of consumers who demonstrate knowledge or skill gains related to reducing food safety and/or foodborne risks and illnesses including recommended purchasing, handling, storage, and preparation practices

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	11880

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #13

1. Outcome Measures

(4.5c) # of consumers documented to have implemented new and/or increased application of ongoing safe food purchasing, handling, storage, and preparation practices.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	7682

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
502	New and Improved Food Products
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #14

1. Outcome Measures

(4.6c) # of producers/ processors/food service providers documented to have implemented new and/or increased application of ongoing safe food production, processing, storage, handling, marketing, and preparation practices.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	260

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
502	New and Improved Food Products
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #15

1. Outcome Measures

(4.7c) # of communities/ firms/or organizations documented to have assessed practices or food safety policies as a result of participating in relevant educational programs.

Not Reporting on this Outcome Measure

Outcome #16

1. Outcome Measures

(4.7d) # of communities/ firms/or organizations documented to have implemented improved practices or food safety policies as a result of participating in relevant educational programs.

Not Reporting on this Outcome Measure

Outcome #17

1. Outcome Measures

ECOLOGICAL APPROACH TO OBESITY

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Childhood obesity rates have more than doubled in the past 30 years. In 2012, more than one third of children and adolescents were overweight or obese. Obesity in children has immediate and long-term effects on health, including increasing their risk of heart disease, high blood pressure, diabetes, some types of cancer, and stroke, as well as social and psychological problems. Traditional obesity prevention efforts have focused on providing information and education aimed at changing individual behavior. A new approach, called an ecological approach, focuses not only on the individual, but also on addressing factors in the multiple environments that influence individual behavior. This approach aims to create community environments that better support healthy eating and active living behaviors. For many extension and health professionals, taking an ecological approach to obesity prevention requires a new way of thinking and working.

What has been done

Through the Cornell NutritionWorks online professional development program, Stark and colleagues developed and evaluated eight sessions of a 6-week course entitled, Preventing Childhood Obesity: An Ecological Approach. The in-depth online course was designed for professionals in nutrition, health, and youth development (e.g., Cooperative Extension nutrition and 4-H educators, WIC nutritionists, public health practitioners). 380 professionals from 44 states and 11 countries, including 52 individuals from New York State completed the course. Participants were surveyed to assess the underlying causes of excessive weight gain in children in their own communities. By the end of the course, participants developed action plans describing a collaborative, ecological approach to addressing childhood obesity at the local level. Course participants completed pre-, post-, and six-month course surveys designed to evaluate if the course improved knowledge, skills, and confidence in using an ecological approach.

Results

Overall, the project provided a better understanding of the factors that influence the use of an ecological approach to childhood obesity prevention at the local level. In post event surveys 95% of participants stated that they intended to apply what they learned to their work. After six months, 79% reported actually applying their new knowledge, as well as implementing at least part of their local action plans. The surveys also indicated statistically significant, positive increases in knowledge, skills, and confidence in using an ecological approach to prevent childhood obesity. In

examining which personal characteristics influenced the application of an ecological approach, a preliminary analysis found that participants who were registered dietitians (RDs) and who had more than 15 years of work experience were less likely to have applied what they learned in the course than those who were not RDs or who had 15 years or less of work experience. Future work will examine the relationship between applying an ecological approach and organizational factors, such as job scope, job demands, and salary support.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle
903	Communication, Education, and Information Delivery

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

The scope and scale of outcomes is greatly enhanced by augmenting Federal Capacity Funds with external sources of support. However, external grant funds may only support certain activities or aspects of this plan. Local governments, an important funder for local extension staff, face diminished revenues and increased mandated costs outside of the non-mandated extension programs. Thus having professionals available to implement new research-based programming is not always possible.

A very slow recovery from the recession and pockets of high unemployment in the state affect how public and private funds are allocated to educational activities. In some instances, family subsistence will be a higher priority than improved nutrition and physical activity behaviors, or improved access to healthy food and activity opportunities. As an example of the latter, in New York State, cost cutting proposals include closing some public parks and reducing recreational physical activity programs. In addition, some decision-makers and others in the community may not agree with all aspects of an ecological approach to childhood obesity prevention. They may disagree with community or institutional policy changes such as eliminating non-nutritious snacks from after school activities and place all responsibility on the individual and the family, disregarding environmental influences outside the family.

In 2014, the NYS Office of Temporary and Disability Assistance released an RFA to competitively fund SNAP-Ed. Previously about half the state SNAP-Ed funding had supported CCE programs on a non-competitive basis. Seven regions across the state

outside of NYC received awards and will continue to deliver SNAP-Ed programming. However, the approach has shifted dramatically in two ways: (1) The focus has shifted to include major efforts to address policy, systems and environmental approaches. Direct education of participants is still required but at a reduced effort. (2) Educators must have degrees in nutrition, public health, or health education and we are no longer able to employ paraprofessional nutrition educators to conduct nutrition programming.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Evaluation Capacity Building: Cornell Cooperative Extension has worked with the Cornell Office of Research and Evaluation (CORE) to strengthen evaluation practice and build evaluation capacity. CORE has developed a Protocol for evaluation that takes a systems approach, recognizing that individual programs and their evaluations are part of larger program portfolios and are shaped by needs and context at multiple levels of the Extension system. CORE has tested and refined this Protocol in partnership with CCE programs since 2006. A key step in the Protocol is to develop program models, in both familiar columnar form as logic models and in a visual form called pathway models. These models form have helped focus evaluation efforts in Extension programs.

Beginning in 2013 and through 2014, CORE and CCE partnered to initiate program modeling and evaluation planning at the level of the statewide Plans of Work. This effort contributed to the review of near and midterm program outcomes and to the review and planning of several evaluation projects currently underway.

The Protocol has been integrated into professional development in CCE, to promote consistent approaches to evaluation of county-based, regional, and statewide programs.

Regional/Statewide documentation examples. Many of our regional and statewide programs are receiving federal capacity funds. Documentation of outcomes is a requirement of funding. Results shape future program efforts and impact program design. **An example evaluation practice can be found in the section below.**

There is also a requirement for our local and regional programs to report on statewide outcomes/indicators: Program documentation results are aggregated in a statewide accountability database that includes both qualitative and quantitative data for reporting and helping us to better understand impacts.

Key Items of Evaluation

Example - from Good Agricultural Practices (GAPs) Training and Implementation - use of mid-event and post-event survey and follow-up event survey

New York has had an active GAPs training program for produce farmers since 1999, but as with research and technology, our training evolved to meet growers' needs for having a farm food safety plan. Developing a written farm food safety plan is valuable because it helps guide the implementation of GAPs and is required if the farm needs to have a third party audit to meet buyer demands. In December of 2009, personnel from the National GAPs Program at Cornell University in collaboration with Cornell Cooperative Extension

Regional Fruit and Vegetable Teams and the New York State Department of Agriculture and Markets began a new multi-day GAPs training program for produce growers in New York. To date, 689 individuals representing over 350 farms, fruit and vegetable processors, marketers, crop consultants, and extension educators from New York as well as other states, have attended the trainings.

Given the time, effort, and expense of both conducting and attending the trainings, it was critically important to evaluate the trainings to make sure they were productive and valuable. Every training was evaluated after each day of instruction to determine if growers found the information valuable and made some progress towards understanding GAPs and developing a written farm food safety plan. A long term evaluation was completed by surveying training participants at least 6 months after they finished the multi-day course to determine what progress they had made, costs they had incurred, market access impacts, and assess other indicators to determine the long term impact of attending the training.

In the spring of 2014, 80 past participants, each representing a different farm, were asked to complete a 20 question survey administered by Cornell Cooperative Extension personnel. Though a formal research paper will be written, this summary is intended to share some preliminary findings from both the training evaluations and the long-term survey with growers since there will be additional GAPs training opportunities this winter throughout New York and the information may be valuable to growers attempting to decide if attending a GAPs training would benefit them and their farms.

Evaluations completed by participants after the first day of the GAPs trainings indicated that 13% (39/289) of participants had a written farm food safety plan. By the end of day two, 48% (230/479) of participants report having 50-100% of their farm food safety plans written. At the end of day two, participants were asked if they would recommend the training to others. Of those who completed the evaluations, all except one say they would recommend the training to others, with the one individual reporting "maybe".

Of those responding to the long-term survey 63% (50/80) report having a written farm food safety plan and 38% (30/80) have completed a third party audit. Growers responding to the long-term survey had farms that varied in size from 0.25 acres to 4000 acres in fruit and vegetable production with a median size of 70 acres. They also reported having operations that included animals (28%) and having the public on their farm (32%), showing that growers from diversified farms and farms that direct market to consumers participated in both the GAPs trainings and the survey. This data highlights the progress that growers make during and after attending the workshop as well as the diversity of growers who have attended the multi-day trainings.

Thirty five (43%) growers reported level sales valued from \$14,000 to \$2,000,000, while 14 (18%) growers reported expanded sales valued at \$15,000 to \$300,000. The three top reasons growers report for implementing GAPs are their personal commitment to food safety (24%), maintaining market access (20%), and reducing liability (17%).

Based on the evaluations, both short and long-term, the multi-day GAPs training programs are helping growers increase their understanding of produce safety issues, develop a written farm food safety plan, and implement practices to reduce microbial risks.

www.gaps.cornell.edu.