

# Healthy Food Systems

*Learning About Food, Ohio's Educational Resource*



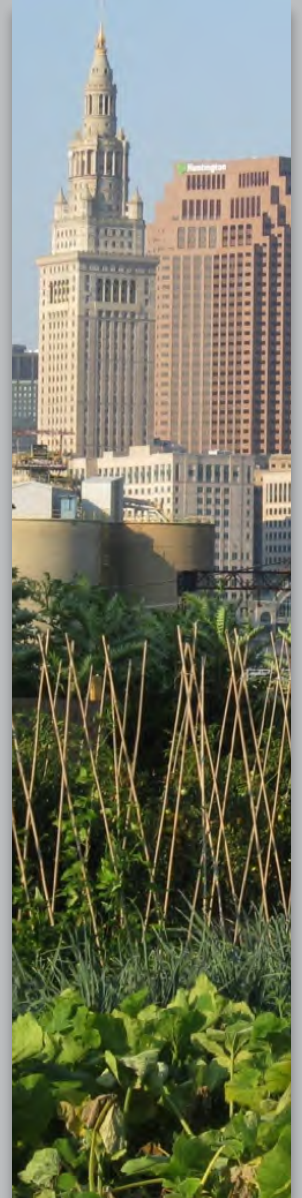
*Food Production*



*Food & Business*



*Food & Health*



*Food & Community*



**THE OHIO STATE UNIVERSITY**

COLLEGE OF FOOD, AGRICULTURAL,  
AND ENVIRONMENTAL SCIENCES

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[go.osu.edu/learnaboutfood](http://go.osu.edu/learnaboutfood)



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# Introduction

*Food systems are intentional, collaborative efforts between consumers, decision makers, and food producers in a region to build more locally-based, self-reliant food economies – where sustainable food production, processing, distribution and consumption are integrated to enhance the economic, environmental and social health (Feenstra, 2002).*



Roger Rennekamp,  
Director, Ohio State  
University Extension

## Food System

All Ohioans are part of the food system just by making daily decisions about what food to eat. We have long known that the availability of high quality food is a key to the health of individuals, families, communities, and nations. Because many of us have never had to worry about having enough to eat, we give little thought to the complex system by which food appears on our table. We simply drive to a well-stocked grocery store and buy what we need. But one in six Ohioans is food insecure and lacks access to fresh, local, healthy food. For those who lack access or are unable to afford it, navigating local food systems can be challenging. For others, navigating the food system means learning to produce fresh fruits, vegetables, and other local foods. These individuals develop a keen knowledge of the complexities of getting food from the place it is produced to the place it is consumed. Entrepreneurs throughout Ohio are navigating the food system as they grow new businesses to support a local food economy.

A food system includes the diverse array of processes that result in putting food on the table including production, harvesting, processing, distribution, marketing, selection, preparation, preservation, and the management of food waste. While agriculture is undoubtedly central to food production, how people obtain access to food and the types of food to which they have access are determined heavily by social, political, economic, and environmental influences.

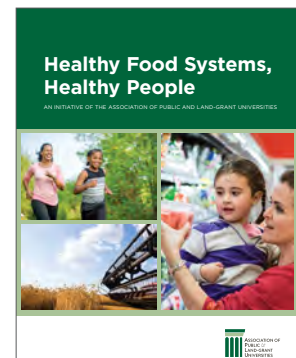
Because of the multitude of perspectives and influences in the food system, this publication links learners and leaders with resources of food production, food and business, food and health, and food and community.

## Healthy Food Systems, Healthy People

The United States spends more money on health care than any nation in the world, yet continues to fall behind on important health outcomes. For example, not long ago, American life expectancy was among the highest of any nation in the world. Today, the United States ranks 34th in the world for life expectancy, according to the United Health Foundation's 2015 Annual Report, [www.americashealthrankings.org/reports/annual](http://www.americashealthrankings.org/reports/annual) and 43rd according to the CIA's world factbook, [www.cia.gov/library/publications/resources/the-world-factbook/rankorder/2102rank.html](http://www.cia.gov/library/publications/resources/the-world-factbook/rankorder/2102rank.html).

So what seems to be at the root of our nation's deteriorating health? The Centers for Disease Control estimates that 86% of the nation's health care dollar is spent managing chronic disease. Sadly, many chronic diseases are preventable through a focus on eating healthy foods and regular exercise. For years, education about proper nutrition has been seen as the primary means of changing eating behaviors. Today we understand that value of combining education with intentional efforts to influence social and environmental determinants of health. For example, communities are engaging in initiatives to eliminate food deserts, promote school and community gardens, and increase the availability of fresh fruits and vegetables in school cafeterias.

Because health is a multidimensional issue, a group of leading experts from public universities across the U.S. unveiled a comprehensive research agenda and action plan that seeks to integrate agriculture, nutrition, food and health care systems to holistically improve human health outcomes and help prevent chronic disease. The new research agenda and action plan, *Healthy Food Systems, Healthy People* is the product of a joint initiative coordinated by the Association of Public and Land-grant Universities (APLU), which aims to convene, integrate and leverage the wide array of expertise housed at the nation's public universities.



## Ohio Agriculture – Healthy Food, Economy, Environment, and Community

Agriculture is Ohio's number one industry, contributing jobs for one in seven Ohioans, and more than \$107 billion to the state's economy, [www.ohioproud.org](http://www.ohioproud.org). The climate of Ohio is good for crop growth, with more than 400 different soil types. Ohio is one of only four states in which more than 50% of its land is classified as "prime farmland." Foods grown in Ohio include wheat, tomatoes, apples, grapes, sweet corn, mushrooms, maple syrup, honey, cheese, milk, eggs, pork, beef, and many more.

With 11.5 million residents, Ohio is the 7th most populous state in the nation. More than half of Ohio residents live in 10 of the state's 88 counties, and many more travel to cities for work, commerce, recreation, and other needs. Similarly, residents of urban and suburban communities rely upon rural areas for water, energy, raw materials and food. Food systems work offers a unique opportunity to capitalize on this interdependence. Ohio offers a unique proximity of metropolitan and micropolitan areas, linking rural and urban consumers, growers and communities to food produced on small, medium and large scale enterprises.

## OSU Extension

OSU Extension is a part of the nation's Cooperative Extension Systems created for the purpose of bringing the knowledge and resources of the nation's land-grant university system to bear on the issues and challenges of people and communities. In addition to its long history of working with farmers in traditionally rural areas of the state, OSU Extension also works with urban food consumers, policy makers, and businesses. A relatively new area of work is focused on urban agriculture. Urban agriculture is defined as the growing, processing, and distribution of food and other products through intensive cultivation methods in and around cities. OSU Extension has also assisted with the creation or management of more than a thousand school or community gardens across that state.

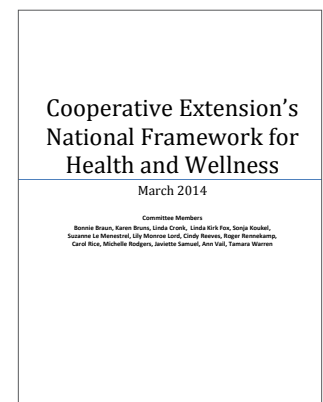
OSU Extension is uniquely positioned to lead community-based work focused on food systems. It is the only organization in the state that touches every component of the food system. These "touch points" allow the organization to facilitate meaningful dialogue and action that transcends such elements as production, distribution, and consumption. Such integrated work can result in improved access to local food and ultimately improved health and wellness. Extension personnel serve as community conveners and facilitators of dialogue focused on important community issues. Because of its reputation for impartiality and reliance on science-based information, Extension fills a unique role in catalyzing conversations that spark local action.

## Connected with Campus and National Resources

OSU Extension is a leader in the Cooperative Extension System's efforts related to food systems. As part of the national Extension and land-grant university network, OSU specialists draw upon expertise from a community of colleagues across campus and throughout the U.S. A few examples include:

- Cooperative Extension's National Framework for Health and Wellness, provides an action plan for integrated work across food systems. [www.aplu.org/members/commissions/food-environment-and-renewable-resources/CFERR\\_Library/national-framework-for-health-and-wellness/file](http://www.aplu.org/members/commissions/food-environment-and-renewable-resources/CFERR_Library/national-framework-for-health-and-wellness/file)
- The Ohio State University (OSU) Discovery Themes include Food Production and Security; and Wellness, [www.discovery.osu.edu](http://www.discovery.osu.edu)
- Researchers at OSU's College of Food, Agricultural, and Environmental Sciences, [www.cfaes.osu.edu](http://www.cfaes.osu.edu) explore linkages among food, energy, and water systems.
- The Ohio State University Extension Local Foods Signature Program, [www.localfoods.osu.edu](http://www.localfoods.osu.edu)
- The Glenn College of Public Affairs, food policy resource at The Ohio State University, [www.glenn.osu.edu/research/food-policy](http://www.glenn.osu.edu/research/food-policy)
- Ohio Local Food Policy Council Network, [www.glenn.osu.edu/food](http://www.glenn.osu.edu/food)
- OSU Food Innovation Center, [www.fic.osu.edu](http://www.fic.osu.edu)
- OSU Food Industries Center, [www.foodindustries.osu.edu](http://www.foodindustries.osu.edu)
- The OSU Office of Outreach & Engagement works in collaboration with faculty, staff, students, and units to enrich Ohio State's partnerships with the community and to embed outreach and engagement into all 15 colleges.
- The national eXtension Community of Practice Community, Local, and Regional Food Systems, [www.articles.extension.org/community\\_and\\_regional\\_food\\_systems](http://www.articles.extension.org/community_and_regional_food_systems)

This publication offers educational opportunities to advance food literacy as well as to promote action-orientated entrepreneurial activities that enhance the community's quality of food, environment, and life.



## Report Format

**Education** plays a key role in OSU's mission. This document highlights educational opportunities for those who live, work, learn or worship in Ohio to gain knowledge and skills in four main areas:

- **Food & Businesses**
- **Food & Health**
- **Food & Community**
- **Food Production**

There are connections between these areas. For example, community gardens are included in the food production section on growing for your family and also referenced in the food and community as part of community planning and development.

Within each area of Food Production, Food & Business, Food & Health, and Food & Community, a collection of some of the best educational programs and resources are presented in a consistent format to help address educational needs.

Extension programs are detailed in the following format in order to assist the reader in reviewing and selecting educational options. Additional resources are also included in each section.

### PROGRAM TITLE

**Source:**

**Teacher:** (Expert/volunteer, peer)

**Learner:**

**What:** Learning objectives, certifications, license

**How:** Lecture/activities, demonstration, individual consultation, on-the job (OJT), independent learning, field trip, informal network

**Where:** Classroom, computer lab, teaching kitchen, field/garden, offsite experience, auditorium, other


**When:**

**Cost:**

**Link:**

**Notes:**

**Topic:**

This symbol, , designates which programs involve youth.

Through Extension, learners get research-based answers from industry experts in America's largest and most comprehensive university system, land-grant universities. Created by Congress, land-grant universities study subjects relevant to everyday life. Professional educators bring the results of their research into every community, providing unbiased, research-based practical education which people can use.

## Commitment to Innovation

Ohio is rich in diversity, which provides unique opportunities for food and agriculture. Leadership from Vice President Dean McPheron of the College of Food, Agriculture, and Environmental Sciences continues Ohio State's resolve for innovation through his conversations on the future.

## Local Perspective

The programs highlighted in this publication represent the work of OSU Extension educators across the state. Each county and region operates a little differently so it doesn't mean that every single one of these programs is offered in all 88 counties, but these are all existing programs at some place in Ohio. If a community needs specific programming listed in this document, there is potential to bring it to that area. To locate an Ohio State University Extension office, please visit [extension.osu.edu](http://extension.osu.edu).

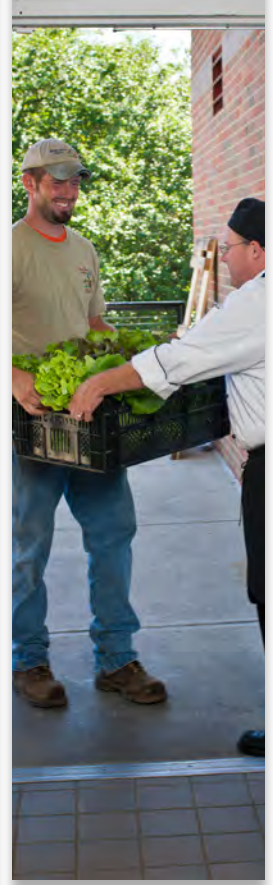
*Extension educators set the stage for stable relationships, interorganizational linkages, and feedback loops upon which localized food systems could be built (Dunning, et al., 2012; Gulati & Gargiulo, 1999; Ramasawmy & Fort, 2011; Sundkvist et al., 2005).*

[go.osu.edu/learnaboutfood](http://go.osu.edu/learnaboutfood)

# Food Production

The *Food Production* section contains a listing of many of the informal, non-credit educational programs offered by Ohio State University Extension faculty and staff for individuals, families, businesses, and communities on topics related to some aspect of food production. While some of these programs have traditionally focused on food production in rural areas of Ohio, most of these programs can also be (and have been) adapted to focus on food production in urban areas of Ohio.

*In historical terms, food production has always received extensive attention from geographers because so many elements of the sector are place-based in nature, including arable land, water, and appropriate climate. However, interest in how consumption varies across places is a more recent area of interest (Thilmany, 2015).*



This section of the publication is not intended to be an exhaustive list of all of the different educational programs which OSU Extension offers in the area of food production. Rather, it lists several programs which can be useful to communities. OSU Extension is uniquely equipped to provide very specific educational programs to address these changing needs and issues upon request.

In addition to the workshops, demonstrations, and field days listed in this section, OSU Extension provides educational materials on thousands of different food production topics, in both print and digital formats. These materials range from single-topic fact sheets on topics such as pruning apple trees, to more comprehensive bulletins on how to grow fruit crops in Ohio. Most of these educational materials are available free or for a small fee at the OSU Extension website at [extension.osu.edu](http://extension.osu.edu).

Topics covered in this section include Growing With Your Family and Community and Growing for Profit. In addition, health and wellness and food safety are covered in all sections of this publication.

## GROW YOUR OWN WORKSHOP



*OSU Extension hosted Grow Your Own Workshops in order to pilot test educational resources and gauge community interest. During one session, Dr. Tiu, OSU Aquaculture Extension Specialist, demonstrated aquaponics production techniques.*

# GROWING WITH YOUR FAMILY & COMMUNITY

## VEGETABLE GARDENING WORKSHOPS AND FIELD DAYS

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Educators

**Learner:** Individuals who want to learn how to begin or improve vegetable gardens

**What:** Various workshops and events, some with certification of course completion

**How:** Lecture/activities, demonstrations, field trips

**Where:** Classroom, field/garden, offsite experience; statewide by county

**When:** Year-round

**Cost:** Free to \$50 per person depending upon location and workshop content

**Link:** [extension.osu.edu](http://extension.osu.edu)

**Notes:**

**Topic:** Food Production and Food & Business



## DIG IN! GROWING A COMMUNITY: A GUIDE FOR STARTING A COMMUNITY GARDEN

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Educators

**Learner:** Community leaders and volunteers

**What:** Resource guide with learning objectives (see Notes)

**How:** Independent learning

**Where:** At home, in community meetings (auditorium, classroom, community center)

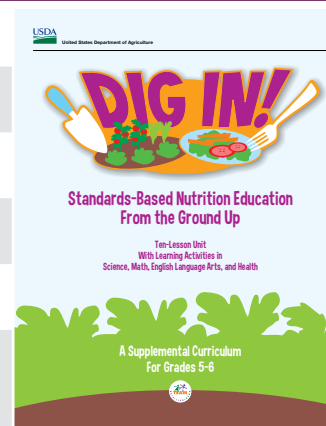
**When:** As needed

**Cost:** Free

**Link:** [fns.usda.gov/tn/dig-standards-based-nutrition-education-ground](https://fns.usda.gov/tn/dig-standards-based-nutrition-education-ground)

**Notes:** Topics include recruiting neighborhood volunteers, budgeting, fundraising, site assessment, soil testing, raised beds, healthy soil, pest management, crop types and rotation, inspiring leadership and consensus process

**Topic:** Food Production and Food & Business





## MASTER GARDENER PROGRAM

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Educators

**Learner:** Community members, gardening enthusiasts

**What:** Certification and yearly volunteer hours (application required)

**How:** Lecture/activities, demonstrations, field trips

**Where:** Statewide by county

**When:** As needed

**Cost:** Approximately \$100 to \$200 per participant

**Link:** [mastergardener.osu.edu](http://mastergardener.osu.edu)

**Notes:**

**Topic:** Food Production and Food & Community



## SCHOOL GARDENING WORKSHOPS FOR TEACHERS

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Educators, school teachers

**Learner:** Classroom teachers who desire to incorporate school gardens into classroom and extracurricular activities

**What:** Certification of course completion, continuing education credits

**How:** Lecture/activities, demonstrations, field trip

**Where:** Classroom, field/garden, off-site experience

**When:** Day-long workshop, as needed, can be customized for specific school needs

**Cost:** Approximately \$40 per participant

**Link:** [extension.osu.edu](http://extension.osu.edu)

**Notes:**


**Topic:** Food Production and Food & Community



## ACRES OF ADVENTURES

**Source:** National 4-H Mall

**Teacher:** OSU Extension Professionals, Afterschool Coordinators, Teachers

**Learner:**  Youth, primarily grades 3–5: Can be adapted for younger and older audiences.

**What:** Two books cover eight agriculturally-based units titled: All About Agriculture, Fast Food Agriculture, Mystery Agriculture, Plant Detectives, Agriculture Gone Wild, Farm Physics, Frontier Living, and Insect Invasion

**How:** Forty hands-on learning activities compiled into lesson plans that can be used as a series or independently

**Where:** Classroom or an afterschool program

**When:**

**Cost:** The curriculum is available to purchase. See web site for current cost. Each lesson plan will require various materials.

**Link:** Curriculum can be ordered here: [www.4-hmall.org](http://www.4-hmall.org)

**Notes:**

**Topic:** Food Production and Food & Health

## CHICKQUEST

**Source:** Ohio State University Extension, 4-H Curriculum

**Teacher:** Volunteer, Teacher, Afterschool Coordinator trained by OSU Extension Staff

**Learner:**  Youth ages 9–18

**What:** Youth use science, engineering, and technology to investigate the life cycle of an embryonic chicken egg.

**How:** Hands-on learning is facilitated by an adult leader

**Where:** School classrooms

**When:**

**Cost:** The cost of ChickQuest includes the curriculum. Some county programs include an incubator and related materials in the cost, while others do not.

**Link:** [projectcentral.ohio4h.org/publications/chickquest-the-scientific-journey-through-a-life-cycle-teacher-guide](http://projectcentral.ohio4h.org/publications/chickquest-the-scientific-journey-through-a-life-cycle-teacher-guide)

**Notes:**

**Topic:** Food Production



## GROWING TOGETHER

**Source:** Ohio State University Extension, 4-H Curriculum

**Teacher:** Volunteer, Teacher, Afterschool Coordinator, Parent

**Learner:** 🍷 Youth ages 9–18

**What:** Garden-based science is taught through fun, interactive activities.

**How:** Classroom or other leader-directed setting

**Where:** Any place where youth can gather and have access to outdoor growing space

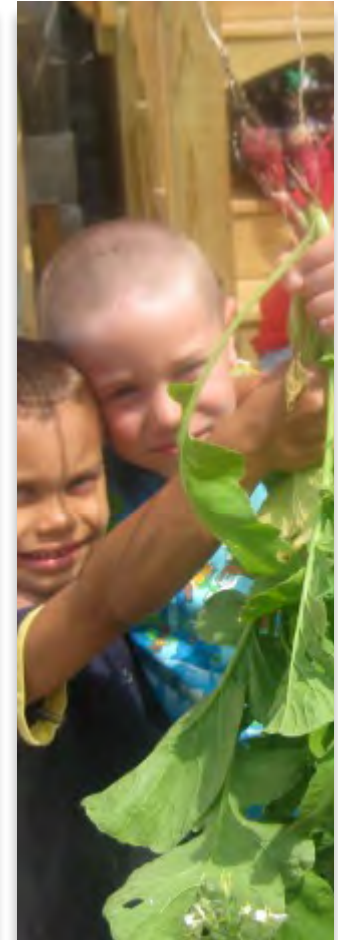
**When:**

**Cost:** Cost includes the curriculum, as well as growing materials, garden tools, and other project supplies as needed.

**Link:** [projectcentral.ohio4h.org/publications/growing-together/](http://projectcentral.ohio4h.org/publications/growing-together/)

**Notes:**

**Topic:** Food Production and Food & Health



### Youth and Food Production

The programs on the following pages are part of the Ohio 4-H Youth development curriculum provided by Ohio State University Extension. The first four are classroom enrichment programs that provide hands-on, standards-based experiences. Many of these programs are taught by OSU Extension faculty and staff.

Many classroom teachers will find individual 4-H project books and resource guides helpful to supplement classroom activities on many topics. A complete listing of individual 4-H project books can be found at [projectcentral.ohio4h.org/](http://projectcentral.ohio4h.org/). There are nearly 200 different individual 4-H projects on dozens of different subjects. A selection of these individual 4-H projects related to the food system including food production, nutrition education and food safety are listed in this section.

Publications are available through local OSU Extension offices and online at [estore.osu-extension.org/](http://estore.osu-extension.org/). Ohio residents get the best price when they order and pick up their purchases through local county Extension offices.



## 4-H BEEKEEPING PROJECT

**Source:** Ohio State University Extension, 4-H Curriculum

**Teacher:** Volunteer, Teacher, Afterschool Coordinator, Parent

**Learner:**  Youth ages 9–18

**What:** Participants learn about colony care and management

**How:** Hands-on, self-directed activities

**Where:** Classroom, outdoor space

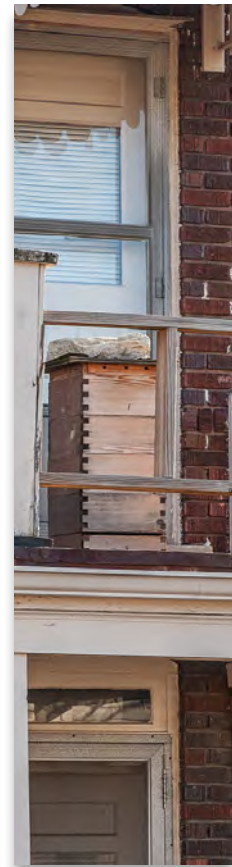
**When:**

**Cost:** Costs include the curriculum and any beekeeping supplies

**Link:** [projectcentral.ohio4h.org/publications/beekeeping-project-and-record-book/](http://projectcentral.ohio4h.org/publications/beekeeping-project-and-record-book/)

**Notes:** Additional resources available through [extension.purdue.edu/extmedia/4h/4-h-571-w.pdf](http://extension.purdue.edu/extmedia/4h/4-h-571-w.pdf)

**Topic:** Food Production and Food & Health



## 4-H JR. MASTER GARDENER PROGRAM

**Source:** Texas A & M 4-H Curriculum

**Teacher:** Volunteer, Teacher, Afterschool Coordinator (Gardening expertise is recommended. Continued contact with an Extension Professional is needed.)

**Learner:**  Youth in Grades 3–5

**What:** Youth can become certified Junior Master Gardeners by completing one group and one individual teaching concept in eight chapters of the JMG Handbook and by participating in one leadership/service learning project per chapter.

**How:** Incorporates group and individual activities, and is supported by a youth handbook and teacher/leader guide.

**Where:** Group activities can be held with a school class, club, after-school program, home school, or any place with a group of interested young gardeners. (A garden site is necessary to complete many of the activities.)

**When:**

**Cost:** The curriculum is available to purchase. See website for current cost. Each activity will require various materials and there is cost with gardening maintenance.

**Link:** Curriculum can be ordered here: [jmgkids.us](http://jmgkids.us)

**Notes:**

**Topic:** Food Production and Food & Health

## VEGETABLE GARDENING

**Source:** Ohio State University Extension, 4-H Curriculum

**Teacher:** Volunteer, Teacher, Afterschool Coordinator, Parent

**Learner:**  Youth ages 9–18

**What:** This beginner level project is designed for youth with limited or no experience in gardening.

**How:** Project completed by individual student or small group

**Where:** Classroom, any place where youth can gather

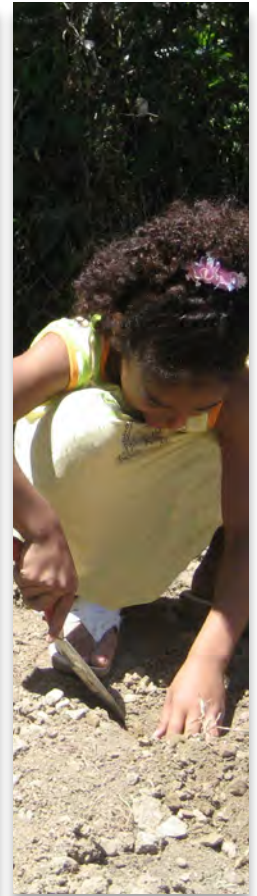
**When:**

**Cost:** Cost includes the project book from estore, as well as project supplies as needed.

**Link:** [projectcentral.ohio4h.org/publications/grow-your-own-vegetables/](http://projectcentral.ohio4h.org/publications/grow-your-own-vegetables/)

**Notes:**


**Topic:** Food Production and Food & Health



## FAST PLANTS

**Source:** University of Wisconsin – Madison

**Teachers:** Extension Professionals, Teachers, Volunteers

**Learner:**  Youth of all ages

**What:** Kindergarten through college level students who grow Fast Plants (rapid-cycling *Brassica rapa*) through a life cycle, from seed to seed, can learn many aspects of biology that are relevant to understanding themselves as individual organisms among the many others that make up the living systems on Earth.

**How:** *Exploring with Wisconsin Fast Plants* is a resource manual targeted for middle school and elementary teachers, but widely used as a source of ideas for high school and college levels. *Exploring with Wisconsin Fast Plants* takes an exploratory approach to Fast Plants. It includes complete growing information and dozens of classroom activities. Nine sections assist teachers in aligning with AAAS Benchmarks and National Research Council National Standards for Science.

**Where:** Classroom or Afterschool Program

**When:** Six to eight weeks needed to complete the lifecycle

**Cost:** Varies depending on what learning aids are selected for the program

**Link:** Many kits and supplemental learning aids are available at [fastplants.org/](http://fastplants.org/)

**Notes:**

**Topic:** Food Production and Food & Health

## OTHER RESOURCES, GROWING FOR YOUR FAMILY & COMMUNITY

**Ohio 4-H Family Guide** is designed especially for volunteers, members, and families involved in 4-H through community and project clubs, EFNEP groups, and special school and community enrichment programs. [ohio4h.org/families/family-guide](http://ohio4h.org/families/family-guide)

**Public Health Law and Policy (PHLP) and National Policy and Legal Analysis Network (NPLAP)**

Ground Rules: A legal toolkit for Community Gardens [changelabsolutions.org/publications/ground-rules](http://changelabsolutions.org/publications/ground-rules)  
and Establishing Land Use Protections for Community Gardens  
[changelabsolutions.org/publications/establishing-protections-community-gardens](http://changelabsolutions.org/publications/establishing-protections-community-gardens)

**American Community Garden Association**, [communitygarden.org/](http://communitygarden.org/)

**Center for Innovative Food Technology (CIFT)**, [ciftinnovation.org/](http://ciftinnovation.org/)

**Farm Science Review** The Molly Caren Agricultural Center (MCAC) near London, Ohio is home to the Farm Science Review and attracts upwards of 140,000 visitors from all over the United States and Canada, who come for three days each September to peruse 4,000 product lines from 600 commercial exhibitors, and learn the latest in agricultural production. [fsr.osu.edu/home](http://fsr.osu.edu/home)

Visit your local county Extension office [www.extension.osu.edu/locate-an-office](http://www.extension.osu.edu/locate-an-office)  
or [extension.osu.edu](http://extension.osu.edu) for additional resources and events.

# GROWING FOR PROFIT

## GROW YOUR OWN WORKSHOP SERIES

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Educators, Experienced Farmers

**Learner:** Individuals interested in urban local food topics and issues

**What:** Certification of course completion

**How:** Lecture/activities, demonstration, field trip

**Where:** Classroom, field/garden, offsite experience in Weinland Park neighborhood of Columbus

**When:** Year-round

**Cost:** Varies

**Link:** [franklin.osu.edu](http://franklin.osu.edu)

**Notes:**

**Topic:** Food Production and Food & Business



## MARKET GARDENER WORKSHOPS

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Educators, Experienced Gardeners

**Learner:** Individuals interested in learning how to grow and market fruits, vegetables, and other farm products

**What:** Certification of course completion

**How:** Lecture/activities, demonstration, field trip

**Where:** Series of 6 to 8 classroom, field/garden, offsite experiences; statewide by county

**When:** Winter/spring

**Cost:** \$100 to \$150

**Link:** [extension.osu.edu](http://extension.osu.edu)

**Notes:**

**Topic:** Food Production and Food & Business





## MASTER URBAN FARMER WORKSHOP

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Educators

**Learner:** Individuals interested in growing and marketing food in an urban environment

**What:** Multi-session workshop series covering many food production and marketing topics

**How:** Lecture/demonstrations/field trip

**Where:** Classroom, statewide by county

**When:** Typically late winter and early spring

**Cost:** Approximately \$100 per person

**Link:** [franklin.osu.edu](http://franklin.osu.edu)

**Notes:**

**Topic:** Food Production and Food & Business



## AQUACULTURE BOOTCAMP

**Source:** Ohio State University Extension, OSU South Centers (Piketon, OH)

**Teacher:** OSU Aquaculture Specialist

**Learner:** Individuals interested in developing aquaculture enterprises

**What:** Certification of course completion

**How:** Lecture/activities, demonstration, field trip

**Where:** OSU South Centers, Piketon, OH

**When:** 12 Saturday workshops throughout the year

**Cost:** Free (USDA beginning farmer & rancher program)

**Link:** [southcenters.osu.edu/aquaculture/aquaculture-extension/boot-camp](http://southcenters.osu.edu/aquaculture/aquaculture-extension/boot-camp)

**Notes:**

**Topic:** Food Production and Food & Business



## ANNIE'S PROJECT

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Educators, experienced farm managers, bankers, agricultural professionals

**Learner:** Women interested in managing farm businesses

**What:** Certification of course completion

**How:** Lecture/activities, demonstrations, field trip

**Where:** Classroom, statewide by county

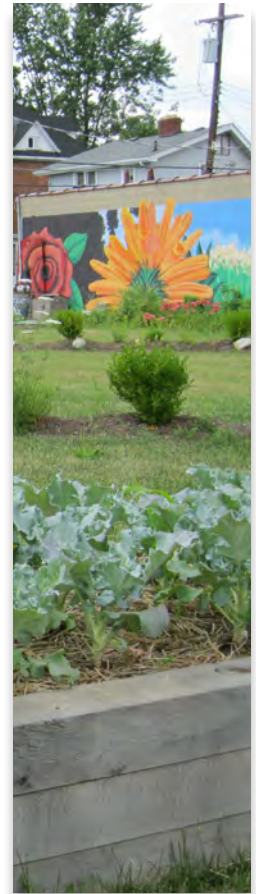
**When:** 6 – 8 weeknight evening workshops

**Cost:** \$75 to \$150 per participant

**Link:** [anniesproject.org/](http://anniesproject.org/)

**Notes:**

**Topic:** Food Production and Food & Business



## OHIO SUSTAINABLE AGRICULTURE TOUR SERIES

**Source:** Ohio State University Extension, Ohio Ecological Food and Farm Association and partners

**Teacher:** OSU Extension Educators, Experienced Farmers, Research Faculty

**Learner:** Farmers and consumers

**What:** Series of 25 different farm tours on sustainable production and marketing topics, including urban agriculture

**How:** Farm tours, field days, demonstrations

**Where:** Farms, markets, and other sites throughout all areas of Ohio

**When:** June – October

**Cost:** Varies based on tour

**Link:**

**Notes:**

**Topic:** Food Production and Food & Business





## OHIO SMALL FARM CONFERENCES

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Educators, experienced farmers and marketers, USDA personnel

**Learner:** New farmers, small farmers, rural landowners, urban farmers

**What:** One and two-day conferences on dozens of topics related to beginning and operating a small farm

**How:** Lecture/activities, demonstrations

**Where:** Classroom, Wilmington and Wooster

**When:** Mid-winter

**Cost:** Approximately \$50 per person

**Link:** [extension.osu.edu](http://extension.osu.edu)

**Notes:**

**Topic:** Food Production and Food & Business

## INCUBATOR FARMS

**Source:** Ohio Cooperative Development Center, Ohio State University South Centers

**Teacher:** On-site full-time farm manager

**Learner:** New grower-trainees

**What:** Local foods training and business development farms—Farms may support grower's skills training and business development services, education and research programs of participating community colleges, apprenticeship programs, high school career programs, community food hubs, and community education and awareness activities.

**How:** Business plan & financial worksheets, under special project information, <http://ocdc.osu.edu>

**Where:** Near training sites, trainee pools and operational resources

**When:** As needed – Serve as a classroom/lab for Certificate programs, apprenticeship training programs, and/or continuing education

**Cost:** Financed by one or more of the following: Sale of products produced on the farm, support from the community college (such as the trainer salary and supplies), employer and/or trainee tuition and fees, farm and facilities provided by a non-profit farm; one-stop center support for testing, training, etc. grants, foundations, etc.

**Link:** [ocdc.osu.edu](http://ocdc.osu.edu)

**Notes:**

**Topic:** Food Production and Food & Business

## SMALL FARM COLLEGE

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Educators, experienced farmers, USDA personnel

**Learner:** New and small farmers, rural and urban landowners who own small acreage

**What:** Learning objectives include: how to set goals, plan, budget, and where to find resources available should you choose to start a small farming operation, how to manage financial and farm records, and discover different enterprises that can be profitable on land as small as one acre.

**How:** Field trip, lecture/activities

**Where:** County Extension offices (meeting room/classroom)

**When:** 8 weeks, January through February, weekly evening meetings

**Cost:** \$150 per person, additional family members \$50, limit first 50 registrants

**Link:** [extension.osu.edu](http://extension.osu.edu)

**Notes:**

**Topic:** Food Production and Food & Business

## INTRO TO GREENHOUSE PRODUCTION

**Source:** Ohio State University Extension

**Teacher:** Text and DVDs

**Learner:** Those interested in starting greenhouses for agriculture production

**What:** An in depth guide to properly start greenhouse production, as well as many other useful facts about the growth of plants in greenhouses, and how to produce healthy and plentiful yields.

**How:** Independent learning

**Where:**

**When:**

**Cost:** The book and DVD are available for purchase online.

**Link:** [estore.osu-extension.org/Introduction-to-Greenhouse-Production-P309.aspx](http://estore.osu-extension.org/Introduction-to-Greenhouse-Production-P309.aspx)

**Notes:**

**Topic:** Food Production



## FOOD PRODUCTION HEALTH & WELLNESS RESOURCES

**Ohio AgrAbility**, Working with farmers to promote success in agriculture for Ohio's farmers and farm families who are coping with a disability or long term health condition. FactSheets on a variety of topics for farmers as well as gardeners on secondary injury prevention, physical limitation and health related concerns. [agrability.osu.edu/](http://agrability.osu.edu/)

**National Center for Farmworker Health**, [ncfh.org](http://ncfh.org)

**Simple Solutions:** Ergonomics for Farm Workers, U.S. Department of Health & Human Services, [cdc.gov/niosh/docs/2001-111/pdfs/2001-111.pdf](http://cdc.gov/niosh/docs/2001-111/pdfs/2001-111.pdf)

Visit your local county Extension office [extension.osu.edu/locate-an-office](http://extension.osu.edu/locate-an-office) or [extension.osu.edu](http://extension.osu.edu) for additional resources and events.



# SAFE FOOD PRODUCTION & HARVESTING

## GAPS FOOD SAFETY TRAINING

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Educators

**Learner:** Growers of fruits, vegetables, and other non-livestock food products

**What:** Certification of course completion

**How:** Lecture/activities

**Where:** Classroom, statewide by county

**When:** Year-round

**Cost:** Approximately \$50 per person

**Link:** [producesafety.osu.edu](http://producesafety.osu.edu)

**Notes:**

**Topic:** Food Production and Food & Business



## MIDWEST HOME FRUIT PRODUCTION GUIDE

**Source:** Ohio State University Extension

**Teacher:**

**Learner:** Home fruit producers

**What:** A printed booklet on home fruit production

**How:** Independent learning

**Where:**

**When:**

**Cost:** The cost of the book

**Link:** <http://estore.osu-extension.org/Midwest-Home-Fruit-Production-Guide-P267.aspx>

**Notes:**

**Topic:** Food Production

## OTHER RESOURCES, SAFE FOOD PRODUCTION AND HARVESTING

**OSU Produce Safety**, [producesafety.osu.edu](http://producesafety.osu.edu)

**Cornell, Good Agricultural Practices**, [gaps.cornell.edu](http://gaps.cornell.edu)

**UC Davis Good Agricultural Practices**,  
[ucfoodsafety.ucdavis.edu/UC\\_Publications/UC\\_Good\\_Agricultural\\_Practices\\_GAP](http://ucfoodsafety.ucdavis.edu/UC_Publications/UC_Good_Agricultural_Practices_GAP)

**Organic Materials Review Institute (OMRI)**, [omri.org](http://omri.org)

**FDA Food Safety Modernization Act**, [fda.gov/Food/GuidanceRegulation/FSMA/default.htm](http://fda.gov/Food/GuidanceRegulation/FSMA/default.htm)

**Good Agricultural Practices, a self-audit for growers and handlers**,  
[onfarmfoodsafety.org/wp-content/uploads/ucdavis-food-safety-audit.pdf](http://onfarmfoodsafety.org/wp-content/uploads/ucdavis-food-safety-audit.pdf)

**Brownfields and Urban Agriculture, Interim Guidelines for Safe Gardening Practices**,  
[www.epa.gov/sites/production/files/2015-09/documents/bf\\_urban\\_ag.pdf](http://www.epa.gov/sites/production/files/2015-09/documents/bf_urban_ag.pdf)

**Group Gap for Growers, USDA Good Agricultural Practices (GAP) certification**,  
[www.ams.usda.gov/publications/content/group-gap-growers](http://www.ams.usda.gov/publications/content/group-gap-growers)

**The Agricultural Safety and Health program** at The Ohio State University in the Department of Food, Agricultural and Biological Engineering, <http://agsafety.osu.edu/>

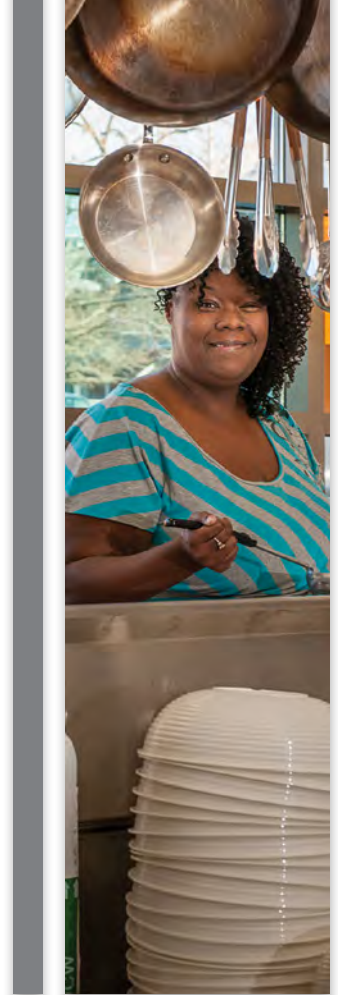
**Visit your local county Extension office** [extension.osu.edu/locate-an-office](http://extension.osu.edu/locate-an-office)  
or [extension.osu.edu](http://extension.osu.edu) for additional resources and events.

*Urban spaces for food production include vacant lots, parks, bodies of water, rooftops, walls and fences, balconies, yards, basements, hoop houses and greenhouses... (Dunnett & Kingsbury, 2004; Pilcher, 2002; Fairholm, 1998; Kaufman and Bailkey, 2000).*

# Food & Business

The *Food and Business* section focuses on educational resources for emerging and existing entrepreneurs and their employees. General business education helps food business owners and managers plan and address management, marketing and financial issues. Food industry education and workforce development training adds learning opportunities for specific food businesses, such as food retail, food service, food processing, and distribution. Food safety education in this section addresses a range of foods, from production through processing, packaging, distribution, and other business practices. Employee health and wellness education is also an important factor to consider for food business education. This section links with *Food Production* for commercial enterprises, *Food & Health* for those engaging in family business or youth entrepreneurship, and *Food and Community* as it influences business access to resources.

*Clusters of community-based food businesses are forming across Ohio, building new business ownership opportunities (Meter, 2011).*



Currently, there are some workforce development programs, new entrepreneur workshops, business development, and various food industry education offered in the community and the region. This section highlights both existing and potential resources to improve business knowledge, practices and performance, ultimately to increase economic contributions to the local economy. Whether someone wants to develop a retail stand at a community farmers' market, a small catering company, a food truck or a large food processing and fulfillment center, the resources in this section can assist them from exploration to launch and expansion.

Similar to the other sections of this Educational Resource Guide, learning opportunities may take place in existing or new community classrooms, computer labs, kitchens, production sites, and teaching centers, as well as through off-site or virtual field trips, apprenticeship programs, on-the-job training opportunities, and independent learning.

Value is redistributed along the food supply chain and creates opportunities for entrepreneurship in specialty and value-added products that incorporate feedback loops between consumers and those businesses (Bloom & Hinrichs, 2010).

For the food processing component to be sustainable it must use inputs that are sustainably grown and its transportation and distribution networks must also be sustainable (Gopalan 2001).

## NURTURING NEIGHBORHOOD ENTREPRENEURS



*To foster the development of small businesses and other enterprises in the area, OSU Extension hosts business planning and microenterprise classes.*

# BUSINESS PLANNING & MANAGEMENT

The North American Industry Classification System (NAICS) categories for the Food Industry are:

- 311 Food Manufacturing
- 312 Beverage Manufacturing
- 445 Food and Beverage Stores
- 722 Food Services and Drinking Places

This industry is also comprised of many sub-industries. The following is a sample of the data for these sub-industries from [census.gov/eos/www/naics/](https://www.census.gov/eos/www/naics/)

- 31123 Breakfast Cereal Manufacturing
- 31141 Frozen Food Manufacturing
- 31151 Dairy Product (except Frozen) Manufacturing
- 31181 Bread and Bakery Product Manufacturing
- 31211 Soft Drink and Ice Manufacturing
- 31212 Breweries
- 31214 Distilleries
- 44511 Supermarkets and Other Grocery (except Convenience) Stores
- 72211 Full-Service Restaurants
- 72221 Limited-Service Eating Places
- 72241 Drinking Places (Alcoholic Beverages)

## OHIO MARKETMAKER PROGRAM

**Source:** Ohio State University Extension

**Teacher:** Self-guided tutorials

**Learner:** Local food businesses

**What:** Free web-based resource to connect entrepreneurs involved in the food industry

**How:** Informal online network, online tutorials assist users in how to benefit from business profiles, the buy/sell forum and more

**Where:** Online

**When:** 24/7

**Cost:** Free

**Link:** [ohiomarketmaker.com](http://ohiomarketmaker.com)

**Notes:** Part of a national network, this website contains demographic, food consumption and business data which users can search to find target markets and business contacts.

**Topic:** Food & Business

## MARKETREADY

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Educators, with a team of experts have been trained and team-teach this program

**Learner:** Food producers exploring new market

**What:** Workshop and resource guide, learning objectives (see notes), network creation

**How:** Lecture/activities, informal network

**Where:** Classroom/conference space

**When:** One full day, various dates

**Cost:** \$75/person and \$25 for each additional person from the same business

**Link:** [go.osu.edu/MarketReady](http://go.osu.edu/MarketReady)

**Notes:** Prepares producers for the decisions needed for entering various marketing channels - direct to consumer and direct to wholesale buyers

**Topic:** Food & Business







## MAPS & APPS

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Educators

**Learner:** Food business owners, managers, marketers

**What:** Mobile media marketing curriculum

**How:** Meetings and resource guide, individual consultation, demonstration, online resources

**Where:** Conference site, classroom, online

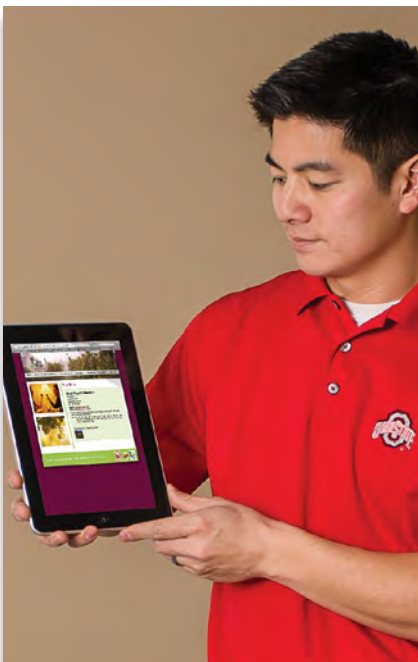
**When:** One-hour presentations and full-day workshops

**Cost:** \$75/person and \$25 for each additional person from the same business

**Link:** [go.osu.edu/MapsAndApps](http://go.osu.edu/MapsAndApps)

**Notes:** Helps businesses take advantage of free listings on Internet maps, in GPS systems, in maps linked to social media, and in mobile applications, and teaches businesses how to make corrections or get listed on popular sites

**Topic:** Food & Business



## OHIO COOPERATIVE DEVELOPMENT CENTER

**Source:** Ohio State University South Centers

**Teacher:** OSU Extension personnel and partners

**Learner:** Entrepreneurs, cooperative entities

**What:** Individual consultation, resource guides, network creation and facilitation, workshops, feasibility studies assistance

**How:** Independent learning, individual consultation, lecture/activities

**Where:** Varies

**When:** Varies

**Cost:** Varies (seed grants available)

**Link:** [southcenters.osu.edu/cooperatives](https://southcenters.osu.edu/cooperatives)

**Notes:** OCDC assists with establishing new cooperatives and strengthening existing cooperatives through technical support and linking groups with essential resources. OCDC is part of a business development, research, and Extension education team to better provide comprehensive services for new and emerging cooperatives in Ohio and West Virginia.

**Topic:** Food & Business



## OHIO FARMERS' MARKETS PROGRAM

**Source:** Ohio State University South Centers

**Teacher:** OSU Extension Educators

**Learner:** Ohio farmers' market managers, food vendors/producers, board members

**What:** Focused on the areas of business marketing, management, and money: the goal of the program is to assist entrepreneurs in increasing their knowledge, skills, and abilities to capture a greater share of the demand by consumers to have easy access to locally grown foods.

**How:** Informal network, individual consultation, technical assistance, online learning, training programs

**Where:** Online learning, annual conference

**When:** Varies

**Cost:** Varies based on event or resource

**Link:** [southcenters.osu.edu/farmers-markets](https://southcenters.osu.edu/farmers-markets)

**Notes:**

**Topic:** Food & Business and Food Production

## THE WILBUR A. GOULD FOOD INDUSTRIES CENTER AT THE OHIO STATE UNIVERSITY

**Source:** Ohio State University

**Teacher:** OSU Faculty

**Learner:** Food producers, food industry companies

**What:** Better Process Control School (BPCS), Better Process Control School (Acidified only), Total Quality Management Snack Food, HACCP Courses (also provide nutrition labeling, product development and a comprehensive food processing resource link)

**How:** Individual consultation, technical assistance, lecture/activities, demonstration, independent learning

**Where:** Fully equipped pilot plant, teaching facilities on OSU Columbus campus

**When:** As needed

**Cost:** Varies

**Link:** [foodindustries.osu.edu](http://foodindustries.osu.edu)

**Notes:** Provides technical and scientific services through education, research, and product development

**Topic:** Food & Business and Food Production



## OTHER RESOURCES, BUSINESS PLANNING & MANAGEMENT

**Ohio Business Gateway**, [business.ohio.gov/](http://business.ohio.gov/) or [business.ohio.gov/starting](http://business.ohio.gov/starting)

**Cottage Food Laws in Ohio, Ohio Department of Agriculture**,  
[agri.ohio.gov/foodsafety/docs/Cottage\\_Food\\_Rules\\_Final6-09.pdf](http://agri.ohio.gov/foodsafety/docs/Cottage_Food_Rules_Final6-09.pdf)

**Ohio Small Business Development Center (SBDC)** Since 1985, the SBDC statewide network offers a wide range of services including: Business assessment valuation, Cash flow analysis, Financial projections development, Free one-on-one business counseling, Identifying sources of capital, Inventory control assessment, Market feasibility and research, Marketing strategy development, Strategic business planning, Workshops and training programs,  
[development.ohio.gov/bs/bs\\_sbdc.htm](http://development.ohio.gov/bs/bs_sbdc.htm)

**Business Guides by Industry – Food & Beverage, Small Business Administration (SBA)**,  
[sba.gov/content/food-beverage](http://sba.gov/content/food-beverage)

**Jobs Ohio, Food Processing**, [jobs-ohio.com/food](http://jobs-ohio.com/food)

**Center for Innovative Food Technology (CIFT)**, <http://ciftinnovation.org/food-processing>

**The Appalachian Center for Economic Networks (ACEnet)**, [acenetworks.org/facilities/athens](http://acenetworks.org/facilities/athens)

**Northeast Beginning Farmers Project**, Cornell University Cooperative Extension, Cornell Small Farms Program,  
[nebeginningfarmers.org/online-courses](http://nebeginningfarmers.org/online-courses)

**Visit your local county Extension office** [extension.osu.edu/locate-an-office](http://extension.osu.edu/locate-an-office)  
or [extension.osu.edu](http://extension.osu.edu) for additional resources and events.

# WORKFORCE DEVELOPMENT

## SPECIALTY CROP GROWERS SHORT-TERM TECHNICAL CERTIFICATE

**Source:** Ohio Cooperative Development Center, Ohio State University South Centers and the Ohio-West Virginia Local Food Network Cooperative

**Teacher:** OSU Extension Educators, Mentor Farmers, College Instructors

**Learner:** Students pursuing employment in specialty crop production agriculture

**What:** Serves as an entry point to two different career pathways. Students may further their study of sustainable agriculture with Lorain County Community College's One-Year Satellite Certificate programs and continue with an Associate degree or further their education in other related fields. Also, employer farms wanting to hire an apprentice can employ students while simultaneously completing their certification and participating in a one-year or two-year apprenticeship.

**How:** Apprenticeship includes total of 2,000 or 4,000 hours of On-Job-Training and 16 credit hours of coursework

**Where:** Incubator farms (off-campus learning sites)

**When:** One or two-year apprenticeship

**Cost:** Certificate training is Pell/Title V eligible

**Link:**

**Notes:** Flyers for two year apprenticeship program

**Topic:** Food & Business and Food Production

## OTHER RESOURCES, WORKFORCE DEVELOPMENT

**Ohio Department of Jobs & Family Services**, Office of Workforce Development, [jfs.ohio.gov/owd](http://jfs.ohio.gov/owd)

**Columbus State Community College**, Culinary Apprenticeship Program, [csc.edu/academics/departments/hospitality/culinary-apprentice.shtml](http://csc.edu/academics/departments/hospitality/culinary-apprentice.shtml)

**Columbus Culinary Institute at Bradford School**, [columbusculinary.com](http://columbusculinary.com); [www.bradfordschoolcolumbus.edu/programs/culinary](http://www.bradfordschoolcolumbus.edu/programs/culinary)

**The Ohio State University, Hospitality Management** (including food service) College of Education and Human Ecology, <http://ehe.osu.edu/human-sciences/undergraduate/consumer-sciences/hospitality-management/>

**The Ohio State University, Department of Food Science and Technology**, [fst.osu.edu](http://fst.osu.edu)

**Ohio MarketMaker**, [ohiomarketmaker.com](http://ohiomarketmaker.com) OSU Extension is working with the national MarketMaker network and the Ohio Department of Jobs & Family Services to connect workers and employers focused on farming, food preparation, food production and other related occupations, [onetcodeconnector.org](http://onetcodeconnector.org)



Visit your local county Extension office [extension.osu.edu/locate-an-office](http://extension.osu.edu/locate-an-office) or [extension.osu.edu](http://extension.osu.edu) for additional resources and events.

## EMPLOYEE LOCAL FOODS SURVEY

**Source:** Ohio State University Extension

**Teacher:** Survey administered through OSU Extension

**Learner:** Businesses interested in learning about new programs or initiatives that can help improve employee health and wellness

**What:** Survey

**How:** Administered to Employees

**Where:** Work site

**When:** As needed

**Cost:** \$1,500 to \$2,500

**Link:** For more information, email Brian Raison [raison.1@osu.edu](mailto:raison.1@osu.edu)

**Notes:**

**Topic:** Food & Community, Food & Business



## DINER DETECTIVE

**Source:** Ohio State University

**Teacher:** OSU Family and Consumer Sciences Professional

**Learner:** Food Industry workers

**What:** Explaining the need for food safety and personal hygiene, preventing cross contamination, the importance of cleanliness and sanitization, proper timing and temperatures for food, and a review of HACCP rules for restaurant workers

**How:** Lecture/Activities, Demonstrations

**Where:**

**When:** As needed

**Cost:** Varies

**Link:** [estore.osu-extension.org/Diner-Detective-Education-Program-for-Food-Service-Employees-P123.aspx](http://estore.osu-extension.org/Diner-Detective-Education-Program-for-Food-Service-Employees-P123.aspx)

**Notes:**

**Topic:** Food & Business

## EMPLOYEE HEALTH & WELLNESS RESOURCES

**FCS Workplace Wellness**, [fcs.osu.edu/workplace-wellness](http://fcs.osu.edu/workplace-wellness)

**Live Healthy Live Well**, [livehealthyosu.com](http://livehealthyosu.com) – a team of OSU Extension Educators in Family and Consumer Sciences provide messages to help individuals improve their health through research based information.

**Small Business Wellness Initiative**, from a project funded by the Department of Health and Human Services, [sbwi.org](http://sbwi.org)

**Wellness for Small Business**, from the nonprofit organization, Wellness Council of America, [welcoa.org](http://welcoa.org)

## FOOD SAFETY BUSINESS RESOURCES

**Food Safety, Ohio Department of Agriculture**, [agri.ohio.gov/foodsafety](http://agri.ohio.gov/foodsafety)

**Food Safety, Ohio Department of Health**, [odh.ohio.gov/odhprograms/eh/foods/food2.aspx](http://odh.ohio.gov/odhprograms/eh/foods/food2.aspx)

**Food Safety, FDA**, [fda.gov/food](http://fda.gov/food)

**FCS Workplace Wellness**, <http://fcs.osu.edu/workplace-wellness>

**ServSafe**, <http://fcs.osu.edu/food-safety/servsafe>

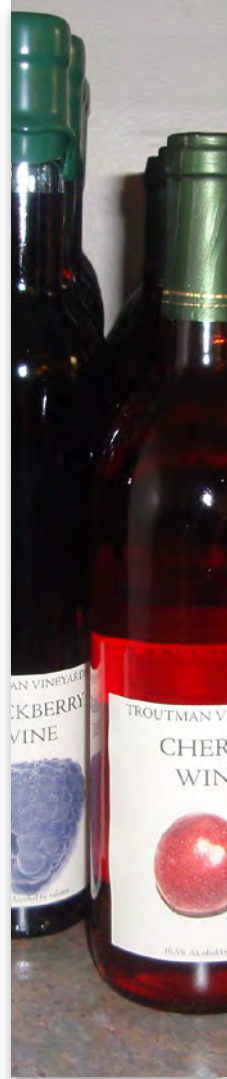
Ohio State University Extension offers ServSafe® trainings across the state that fit every organization's needs, using a variety of training methods. Targeting restaurant managers, school food service, nursing homes and other food service personnel, the ServSafe® training program is the industry standard for food safety education.

**The Agricultural Safety and Health program** at The Ohio State University in the Department of Food, Agricultural and Biological Engineering, <http://agsafety.osu.edu/>



**Visit your local county Extension office [extension.osu.edu/locate-an-office](http://extension.osu.edu/locate-an-office) or [extension.osu.edu](http://extension.osu.edu) for additional resources and events.**

*Entrepreneurial urban agriculture are commercial operations that involve the production of food in greenhouses, vacant lots and other spaces within the city (Fairholm,1998; Kaufman and Bailkey, 2000).*





# Food & Health

The *Food & Health* section focuses on educational resources for adults and youth related to food access, preparation and nutrition. Ohio State University Extension offers a wide variety of programs where participants will have the opportunity to learn how to plan and prepare healthy meals and keep their food safe; how to access healthy food and access community resources to help with their food security. Programs are offered on the most up-to-date methods to safely preserve food through canning, freezing or drying.

As residents have learned how to grow their own healthy food in their home garden or a community garden, they now can learn how that food impacts their health and wellness. According to the USDA, food security means access by all people at all times to enough food for an active, healthy life.

*Food security is a condition in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance, social justice, and democratic decision-making (Hamm & Bellows, 2003).*



In addition to in-person workshops and classes, OSU Extension provides a wide variety of educational materials related to food both on-line and in print format. Most of these educational materials are available free or at low cost at the OSU Extension web site [extension.osu.edu](http://extension.osu.edu) or through [ohioline.osu.edu](http://ohioline.osu.edu).

There are currently programs available in the community related to food and nutrition. This section highlights both existing and potential resources to improve nutrition knowledge, food preparation skills, and safe food preservation techniques.

Similar to the other sections of this report, learning opportunities may take place in existing or new community classrooms, computer labs, kitchens, production sites and teaching centers, as well as through off-site or virtual field trips, apprenticeship programs, on-the-job training opportunities, and independent learning.

## MOMS2B FOOD CLASS



*MOMS2B helps women at high risk for infant mortality learn tools that will enable them to make healthy choices and hopefully deliver healthy, full-term infants. The program was taught in Central Ohio.*

## ACCESSING, PLANNING & PREPARING HEALTHY MEALS

### DIABETES EDUCATION: DINING WITH DIABETES

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Family and Consumer Science (FCS) professional partnered with a Registered Dietitian or Certified Diabetes Educator

**Learner:** Diabetic individuals and their families

**What:** *Dining with Diabetes* is a cooking and nutrition education program designed for people with diabetes and their family members or caregivers. The lessons and recipes are presented and prepared to help people become better able to manage their diabetes through healthy eating.

**How:** Series of three (3), two-hour classes. The program includes cooking demonstrations, sampling of healthy foods, lecture from dietitian or certified diabetes educator, handouts, recipes, and a follow-up reunion class.

**Where:** Offered around the state by OSU Extension Educators

**When:** As needed

**Cost:** See website for current costs

**Link:** <http://fcs.osu.edu/programs/family-economics-and-life/healthy-people/dining-diabetes>

**Notes:**

**Topic:** Food & Health



### DIABETES EDUCATION: TAKE CHARGE OF YOUR DIABETES

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Family and Consumer Science (FCS) Educators

**Learner:** Adults

**What:** This class is designed to cover basics of diabetes management and also encourage participation in upcoming *Dining with Diabetes* class series. The class includes information about complications of diabetes, symptoms, types of diabetes, how to begin change, portion sizes, the plate method, and taste testing of healthy snacks.

**How:** One-hour class

**Where:** To Be Announced

**When:** As needed

**Cost:** To Be Announced – Please see website for current cost.

**Link:** [www.fcs.osu.edu/diabetes-education-take-charge-your-diabetes](http://www.fcs.osu.edu/diabetes-education-take-charge-your-diabetes)

**Notes:**

**Topic:** Food & Health

## DINING WITH DIABETES BEYOND THE KITCHEN ON-LINE COURSE

**Source:** Ohio State University Extension

**Teacher:** Dan Remley, Barb Hennard, Cheryl Spires, Susan Zies

**Learner:** Anyone who lives with diabetes, and caregivers

**What:** Participants learn about diabetes management and how to lower the risk for complications. The on-line class especially focuses on the role of carbohydrates, sodium and fats, fibers, vitamins and minerals in diabetes management and offers practical healthy eating on the go and shopping strategies.

**How:** Once participants enroll, they log-in and learn about various topics through interactive blogs, quizzes, educational videos, and interactive web-sites. Participants also have the opportunity to engage with Extension Educators.

**Where:** The on-line course is housed in eXtension campus.

**When:** Learners can begin at any time. The course is self-paced.

**Cost:** There is no cost to participants.

**Link:** e-mail Dan Remley at [Remley.4@osu.edu](mailto:Remley.4@osu.edu) to enroll

**Notes:** There are quarterly \$100 prize drawings for participants who complete all of the required activities.

**Topic:** Food & Health



## SCIENCE FUN WITH DAIRY FOODS: THE CASE OF THE MISSING MILK

**Source:** Ohio State University Extension

**Teacher:** OSU Extension 4-H Professional, Volunteers

**Learner:**  Youth

**What:** The science behind butter, cheese, and curds

**How:** Lecture/Activities, Demonstration, Independent learning

**Where:** Classroom for lecture, kitchen needed for demonstration

**When:** As needed – Must be scheduled well ahead of desired date.

**Cost:** The curriculum is available for purchase on the website.

**Link:** [projectcentral.ohio4h.org/publications/science-fun-with-dairy-foods-the-case-of-the-missing-milk](http://projectcentral.ohio4h.org/publications/science-fun-with-dairy-foods-the-case-of-the-missing-milk)

**Notes:**

**Topic:** Food & Health

## RACING THE CLOCK TO AWESOME MEALS

**Source:** Ohio State University Extension

**Teacher:** OSU Extension 4-H Professionals, Volunteers

**Learner:**  Youth of all ages

**What:** Knowledge and skills needed to prepare quick, nutritious, low-cost meals.

**How:** Lecture/Activities, Independent learning

**Where:** Classroom for lecture, kitchen needed for demonstration

**When:** As needed – Must be scheduled well ahead of desired date

**Cost:** The curriculum is available for purchase on the website.

**Link:** [projectcentral.ohio4h.org/publications/racing-the-clock-to-awesome-meals](http://projectcentral.ohio4h.org/publications/racing-the-clock-to-awesome-meals)

**Notes:**

**Topic:** Food & Health



*Access to healthy food at an affordable price  
is a challenge in many neighborhoods  
(Block & Kouba, 2006; Ohri-Vachaspati et al., 2009).*



## EXPANDED FOOD AND NUTRITION EDUCATION PROGRAM (EFNEP) - ADULT

**Source:** Ohio State University Extension

**Teacher:** OSU Extension EFNEP Program Assistant

**Learner:** Limited income adults with children (or pregnant)

**What:** Participants will learn basic nutrition, food safety, and food resource management. Each graduate receives a certificate of completion.

**How:** A series of eight (8) one-hour interactive classes

**Where:** Small meeting room – Location varies – local library, church, etc. Kitchen facilities are desired but not required.

**When:** As needed

**Cost:** This is a federally funded program that is free to limited resource adults with children and/or pregnant.

**Link:** <http://fcs.osu.edu/programs/family-economics-and-life/healthy-people/efnep>

**Notes:**


**Topic:** Food & Health

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## EXPANDED FOOD AND NUTRITION EDUCATION PROGRAM (EFNEP) - YOUTH

**Source:** Ohio State University Extension

**Teacher:** OSU Extension EFNEP Program Assistant

**Learner:**  Youth in grades 3–6: in schools, after school sites, and summer recreation sites with high percentage of free/reduced lunch recipients

**What:** Youth will learn the basics of good nutrition, food safety and physical activity.

**How:** Six (6) one-hour interactive lessons

**Where:** Classroom, multi-purpose room

**When:** As needed

**Cost:** This is a federally funded program free to youth in schools, afterschool sites, etc. where 50 or more of the youth are eligible for free/reduced lunch.

**Link:** <http://fcs.osu.edu/programs/family-economics-and-life/healthy-people/efnep>

**Notes:**

**Topic:** Food & Health

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**USDA**  
**Supplemental**  
**Nutrition**  
**Assistance**  
**Program**

Putting Healthy Food  
Within Reach



### SNAP-Ed

**Source:** Ohio State University Extension

**Teacher:** OSU Extension SNAP-Ed Program Assistant

**Learner:** SNAP eligible Youth, Families with/without children, Adults, Senior Citizens

**What:** Participants who are receiving SNAP benefits (formerly known as food stamps) will learn to make healthy food choices and to choose active lifestyles.

**How:** A series of at least three classes are offered.

**Where:** In schools, after school sites, adult location varies - library, church (Kitchen facility desired but not required)

**When:** As needed

**Cost:** This is a federally funded program available free of cost to SNAP eligible adults and children.

**Link:** <http://fcs.osu.edu/programs/nutrition>

**Notes:** SNAP-Ed = Supplemental Nutrition Assistance Program Education


**Topic:** Food & Health



## CHOOSE IT! USE IT!

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Educator in collaboration with Elementary School teacher and/or youth site leader

**Learner:**  Youth in grades 4–6

**What:** Youth learn about the importance of good nutrition and physical activity

**How:** The first and last classes are taught by an OSU Extension Family and Consumer Sciences professional. The classroom teacher reinforces the lessons between the two visits.

**Where:** Elementary School classroom or After-school site

**When:** As needed

**Cost:** To Be Announced

**Link:** [fcs.osu.edu/choose-it-use-it](https://fcs.osu.edu/choose-it-use-it)

**Notes:**

**Topic:** Food & Health



## OTHER RESOURCES, HEALTHY MEALS

**Food section of the OSU Extension Ohioline, [ohioline.osu.edu](https://ohioline.osu.edu)**

**Ohio 4-H Family Guide** is designed especially for volunteers, members, and families involved in 4-H through community and project clubs, EFNEP groups, and special school and community enrichment programs including projects related to food and nutrition, [ohio4h.org/families/family-guide](https://ohio4h.org/families/family-guide).



**Visit your local county Extension office [extension.osu.edu/locate-an-office](https://extension.osu.edu/locate-an-office) or [extension.osu.edu](https://extension.osu.edu) for additional resources and events.**

# PRESERVING FOOD FOR YOUR FAMILY



## PRESERVING FOOD CAN BE REWARDING

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Family & Consumer Science Professional

**Learner:** General public

**What:** This program explores the reasons why people preserve food at home while discussing the food safety issues and involved costs.

**How:** Classes are 30–45 minutes long, lecture or demonstration, can combine with other food preservation topics.

**Where:** Classroom for lecture, kitchen needed for demonstration

**When:** As needed – Must be scheduled well ahead of desired date.

**Cost:** To Be Announced – Please see website for current cost.

**Link:** <http://fcs.osu.edu/programs/family-economics-and-life/healthy-people/food-safety/home-food-preservation>

**Notes:**

**Topic:** Food & Health

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## FREEZING FRUITS AND VEGETABLES

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Family & Consumer Science Professional

**Learner:** General public

**What:** This program explores the reasons why people preserve food at home while discussing the food safety issues and involved costs.

**How:** Classes are 30–45 minutes long, lecture or demonstration, can combine with other food preservation topics.

**Where:** Classroom for lecture, kitchen needed for demonstration

**When:** As needed – Must be scheduled well ahead of desired date.

**Cost:** To Be Announced – Please see website for current cost.

**Link:** <http://fcs.osu.edu/programs/family-economics-and-life/healthy-people/food-safety/home-food-preservation>

**Notes:**

**Topic:** Food & Health

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## WATER BATH CANNING

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Family & Consumer Science Professional

**Learner:** General public

**What:** This program explores the reasons why people preserve food at home while discussing the food safety issues and involved costs.

**How:** Classes are 30–45 minutes long, lecture or demonstration, can combine with other food preservation topics.

**Where:** Classroom for lecture; kitchen needed for demonstration.

**When:** As needed – Must be scheduled well ahead of desired date.

**Cost:** To Be Announced – Please see website for current cost.

**Link:** <http://fcs.osu.edu/programs/family-economics-and-life/healthy-people/food-safety/home-food-preservation>

**Notes:**

**Topic:** Food & Health



## PRESSURE CANNING

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Family & Consumer Science Professional

**Learner:** General public

**What:** This program explores the reasons why people preserve food at home while discussing the food safety issues and involved costs.

**How:** Classes are 30–45 minutes long, lecture or demonstration, can combine with other food preservation topics.

**Where:** Classroom for lecture, kitchen needed for demonstration

**When:** As needed – Must be scheduled well ahead of desired date.

**Cost:** To Be Announced – Please see website for current cost.

**Link:** <http://fcs.osu.edu/programs/family-economics-and-life/healthy-people/food-safety/home-food-preservation>

**Notes:**

**Topic:** Food & Health



## 4-H CANNING AND FREEZING

**Source:** Ohio State University Extension, 4-H Curriculum

**Teacher:** Volunteer, Teacher, Afterschool Coordinator, Parent

**Learner:**  Youth ages 9 – 18

**What:** Participants increase knowledge, skills, and understanding of water bath canning and freezing home food preservation methods.

**How:** Hands-on, self-directed activities, project completed by individual student, project can also be used in group settings.

**Where:** Classroom, teaching kitchen, garden, youth gathering locations

**When:**

**Cost:** Cost includes the project book from estore, as well as project supplies as needed.

**Link:** [projectcentral.ohio4h.org/publications/canning-and-freezing/](http://projectcentral.ohio4h.org/publications/canning-and-freezing/)

**Notes:**

**Topic:** Food & Health



## DRYING FRUITS AND VEGETABLES

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Family & Consumer Science Professional

**Learner:** General public

**What:** This program explores the reasons why people preserve food at home while discussing the food safety issues and involved costs.

**How:** Classes are 30 – 45 minutes long, lecture or demonstration, can combine with other food preservation topics.

**Where:** Classroom for lecture, kitchen needed for demonstration

**When:** As needed – Must be scheduled well ahead of desired date.

**Cost:** To Be Announced – Please see website for current cost.

**Link:** <http://fcs.osu.edu/programs/family-economics-and-life/healthy-people/food-safety/home-food-preservation>

**Notes:**

**Topic:** Food & Health

## JAMS AND JELLIES

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Family and Consumer Science Professional

**Learner:** General public

**What:** This program explores the reasons why people preserve food at home while discussing the food safety issues and involved costs.

**How:** Classes are 30–45 minutes long, lecture or demonstration, can combine with other food preservation topics.

**Where:** Classroom for lecture, kitchen needed for demonstration

**When:** As needed – Must be scheduled well ahead of desired date.

**Cost:** To Be Announced – Please see website for current cost.

**Link:** <http://fcs.osu.edu/programs/family-economics-and-life/healthy-people/food-safety/home-food-preservation>

**Notes:**

**Topic:** Food & Health



## PICKLES

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Family & Consumer Science Professional

**Learner:** General public

**What:** This program explores the reasons why people preserve food at home while discussing the food safety issues and involved costs.

**How:** Classes are 30–45 minutes long, lecture or demonstration, can combine with other food preservation topics.

**Where:** Classroom for lecture, kitchen needed for demonstration.

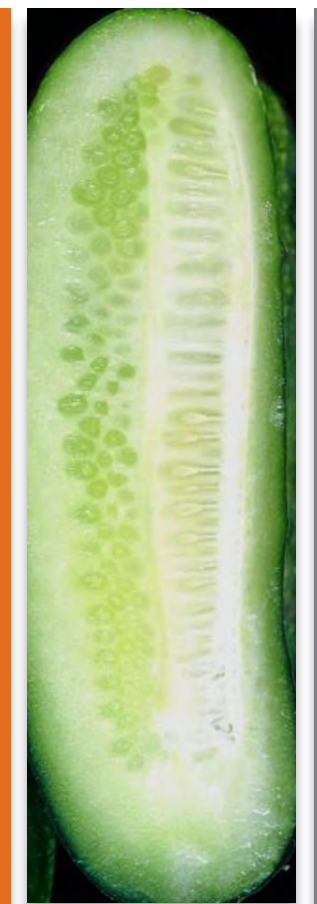
**When:** As needed – Must be scheduled well ahead of desired date.

**Cost:** To Be Announced – Please see website for current cost.

**Link:** <http://fcs.osu.edu/programs/family-economics-and-life/healthy-people/food-safety/home-food-preservation>

**Notes:**

**Topic:** Food & Health



## FAMILY HEALTH & WELLNESS

### SMART EATING FOR YOUNG CHILDREN

**Source:** Ohio State University Extension, booklet

**Teacher:** (Authors) OSU Extension Educators and Specialists

**Learner:** Parents, community leaders, child care and preschool teachers

**What:** This 26 page booklet provides professionals and families with practical information and advice to support healthy eating habits in children ages 0 – 5 years. The topics range from family meals and gardening to food safety and food insecurity.

**How:** Printed book or eBook

**Where:** At home, in classroom

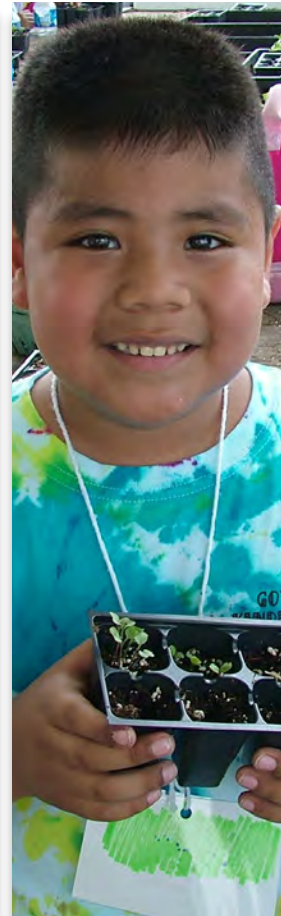
**When:**

**Cost:** \$10.25 printed book, \$4.99 eBook

**Link:** <http://estore.osu-extension.org/>

**Notes:** Ohio 4-H food and nutrition projects use MyPlate, which incorporates current USDA recommendations about eating and exercise.

**Topic:** Food & Health



## DASHBOARD DINING

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Family & Consumer Science Professional

**Learner:** General public

**What:** How to make fast food menus part of a healthy lifestyle

**How:** Lecture/Activities, Independent learning

**Where:**

**When:** As needed – Must be scheduled well ahead of desired date.

**Cost:** The curriculum is available for purchase on the website.

**Link:** [projectcentral.ohio4h.org/publications/dashboard-dining-a-4-h-guide-to-healthy-fast-food-choices](http://projectcentral.ohio4h.org/publications/dashboard-dining-a-4-h-guide-to-healthy-fast-food-choices)

**Notes:**

**Topic:** Food & Health

## LET'S START COOKING

**Source:** Ohio State University Extension

**Teacher:** OSU Extension 4-H Professional

**Learner:**  Youth

**What:** Basic cooking and baking skills, food prep, and how to read recipes and measure ingredients while using kitchen equipment. Also, how to slice and dice food, and how to cook in a microwave oven, on the stove and in a conventional oven; all while keeping safety in mind.

**How:** Lecture/Activities, Demonstrations

**Where:** Classroom for lecture, kitchen needed for demonstration

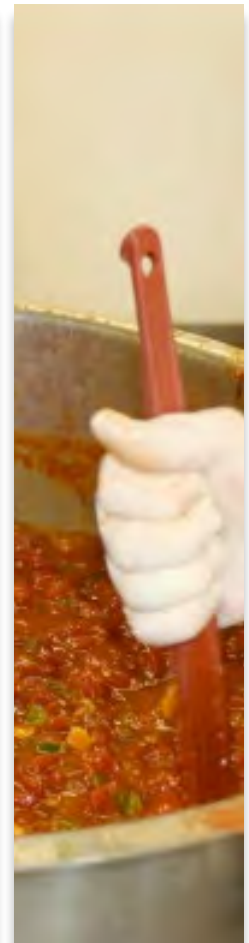
**When:** As needed – Must be scheduled well ahead of desired date.

**Cost:** The curriculum is available for purchase on the website.

**Link:** [projectcentral.ohio4h.org/publications/lets-start-cooking](http://projectcentral.ohio4h.org/publications/lets-start-cooking)

**Notes:**

**Topic:** Food & Health





## FAST BREAK FOR BREAKFAST

**Source:** Ohio State University Extension

**Teacher:** OSU Extension 4-H Professional

**Learner:**  Youth 10-12

**What:** This project focuses on the importance of starting each day with a nutritious breakfast and uses the Food Guide Pyramid as the basis for exploring breakfast options.

**How:** Lecture/Activities, Demonstrations

**Where:** Classroom for lecture

**When:** As needed – Must be scheduled well ahead of desired date.

**Cost:** The curriculum is available for purchase on the website.

**Link:** [projectcentral.ohio4h.org/publications/fast-break-for-breakfast](http://projectcentral.ohio4h.org/publications/fast-break-for-breakfast)

**Notes:**

**Topic:** Food & Health



## SNACK ATTACK

**Source:** Ohio State University Extension

**Teacher:** OSU Extension 4-H Professional

**Learner:**  Youth

**What:** How to select and prepare healthful snacks while learning the ins and outs of MyPlate

**How:** Lecture/Activities, Demonstrations

**Where:** Classroom for lecture, kitchen needed for demonstration

**When:** As needed – Must be scheduled well ahead of desired date.

**Cost:** The curriculum is available for purchase on the website.

**Link:** [projectcentral.ohio4h.org/publications/snack-attack](http://projectcentral.ohio4h.org/publications/snack-attack)

**Notes:**

**Topic:** Food & Health

# SERVING SAFE FOOD TO FAMILY & FRIENDS

## OCCASIONAL QUANTITY COOK

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Professional

**Learner:** Adult volunteers and Extension Staff. This curriculum is designed for individuals providing leadership to the preparation/serving of food at OSUE sponsored events and activities.

**What:** These materials are designed to raise awareness and increase knowledge regarding food safety.

**How:** In person or online class

**Where:**

**When:**

**Cost:** See link below for current curriculum cost.

**Link:** <http://fcs.osu.edu/programs/family-economics-and-life/healthy-people/food-safety>

**Notes:**

**Topic:** Food & Health and Food & Community

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## PANTRY PANIC

**Source:** Ohio State University Extension, 4-H Curriculum

**Teacher:** Volunteer, Teacher, Afterschool Coordinator, Parent

**Learner:**  Youth ages 9–18

**What:** Project for community-minded youth to learn about hunger and “food insecurity” in their community. Youth will develop skill and imagination to prepare healthful meals from ingredients that families might receive from an emergency food pantry.

**How:** Hands-on, self-directed activities

**Where:** Classroom, teaching kitchen, any youth gathering place

**When:**

**Cost:** Cost includes the project book from estore, as well as project supplies as needed.

**Link:** [projectcentral.ohio4h.org/publications/pantry-panic](http://projectcentral.ohio4h.org/publications/pantry-panic)

**Notes:** Mid-Ohio Food Bank Partnered on this project.

**Topic:** Food & Health and Food & Community

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## Ohio 4-H Food and Nutrition Resources

The Ohio 4-H Food and Nutrition program helps develop knowledge, skills, and understanding of nutrition, menu planning, safe food handling, kitchen equipment safety, consumer knowledge, fitness, meal and time management, and food and nutrition-related careers. Please consult your county Extension office for specific requirements related to local and state evaluation opportunities. All Ohio 4-H food and nutrition projects use MyPlate, which incorporates current USDA recommendations about eating and exercise. Depending on a project book's publication date, it may refer instead to the older MyPyramid or Food Guide Pyramid, but 4-H members should still know the MyPlate recommendations. For information about MyPlate, go to [choosemyplate.gov](http://choosemyplate.gov).

### Beginning Level

Beginning-level projects are for members of any age with little or no experience in food preparation and nutrition.

- Let's Start Cooking
- Sports Nutrition 1: On Your Mark!
- Snack Attack!
- Fast Break for Breakfast

### Intermediate Level

Intermediate-level projects are for members of any age with some experience in food preparation and nutrition.

- Let's Bake Quick Breads
- Sports Nutrition 2: Get Set!
- Grill Master
- Star Spangled Foods
- Party Planner: A 4-H Guide to Quantity Cooking
- Racing the Clock to Awesome Meals
- Dashboard Dining: A 4-H Guide to Healthful Fast Food Choices
- Canning and Freezing

### Advanced Level

Advanced-level projects are for members with substantial experience in food preparation and nutrition.

- Yeast Breads on the Rise
- You're the Chef
- Global Gourmet
- Beyond the Grill
- Explore a variety of outdoor cooking skills
- Pathways to Culinary Success



**Additional information can be found at local Extension offices [extension.osu.edu/lao](http://extension.osu.edu/lao) and in the 2016 Family Guide [www.ohio4h.org/books-and-resources/family-guide](http://www.ohio4h.org/books-and-resources/family-guide)**



## 4-H FOODS AND NUTRITION

**Source:** Ohio State University Extension, 4-H Curriculum

**Teacher:** Volunteer, Teacher, Afterschool Coordinator, Parent

**Learner:**  Youth ages 9–18

**What:** Participants increase knowledge, skills, and understanding of nutrition, menu planning, safe food handling, kitchen equipment safety, consumer knowledge, fitness, meal and time management, and food and nutrition-related careers.

**How:** Hands-on, self-directed activities, project completed by individual student, project can also be used in group settings.

**Where:** Classroom, teaching kitchen, garden, any place where youth can gather

**When:**

**Cost:** Cost includes the project book from estore, as well as project supplies as needed.

**Link:** [estore.osu-extension.org/](http://estore.osu-extension.org/)

**Notes:** All Ohio 4-H food and nutrition projects incorporate USDA recommendations about eating and exercise. Some titles, such as *Fast Break for Breakfast*, refer to the old MyPyramid instead of the newer MyPlate.

**Topic:** Food & Health

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## LOCAL FOODS: DOES IT MATTER WHAT YOU EAT?

**Source:** Ohio State University Extension, 4-H Curriculum

**Teacher:** Volunteer, Teacher, Afterschool Coordinator, Parent

**Learner:**  Youth ages 9–18

**What:** Project Idea Starter to encourage youth to question and discuss “does it matter” where their food comes from?

**How:** Hands-on, self-directed activities

**Where:** Classroom, teaching kitchen, any place where youth can gather

**When:**

**Cost:** Free download, available through link below

**Link:** [projectcentral.ohio4h.org/publications/local-food-does-it-matter-what-you-eat-project-idea-starter](http://projectcentral.ohio4h.org/publications/local-food-does-it-matter-what-you-eat-project-idea-starter)

**Notes:** To be used with a Self-Determined Project Guide

**Topic:** Food Production and Food & Health

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## KEEP FOOD SAFE

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Family & Consumer Science Professional

**Learner:** General public

**What:** Food safety information and instruction for people who prepare food at home.

**How:** Lecture/Activities, Demonstrations

**Where:** Classroom for lecture, kitchen needed for demonstration

**When:** As needed – Must be scheduled well ahead of desired date.

**Cost:** The curriculum is available for purchase on the website.

**Link:** [estore.osu-extension.org/Keep-Food-Safe-A-Complete-Curriculum-to-Help-Home-Cooks-Prepare-Food-Safely-PublicationCD-P194.aspx](http://estore.osu-extension.org/Keep-Food-Safe-A-Complete-Curriculum-to-Help-Home-Cooks-Prepare-Food-Safely-PublicationCD-P194.aspx)

**Notes:**

**Topic:** Food & Health

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### OTHER RESOURCES, Family Food Safety

**Food Safety** – Gateway to federal food safety information, [foodsafety.gov](http://foodsafety.gov)

**Ohio State University**, Food Safety, [foodsafety.osu.edu/](http://foodsafety.osu.edu/)

**The National Center for Home Food Preservation** – Your source for current research-based recommendations for most methods of home food preservation. The Center was established with funding from the Cooperative State Research, Education and Extension Service, U.S. Department of Agriculture (CSREES-USDA) to address food safety concerns for those who practice and teach home food preservation and processing methods. [nchfp.uga.edu](http://nchfp.uga.edu).

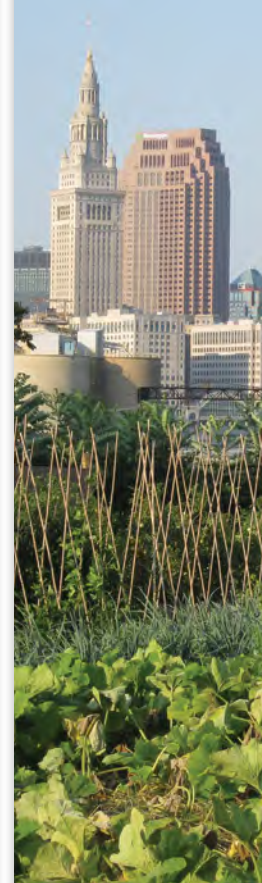
**Visit your local county Extension office [extension.osu.edu/locate-an-office](http://extension.osu.edu/locate-an-office) or [extension.osu.edu](http://extension.osu.edu) for additional resources and events.**

# Food & Community

The *Food and Community* section focuses on educational resources for community leaders involved in local and regional food policy, resource development and management. This section of the report links with *Food Production* (growing for family and community), *Food and Business*, as it influences business access to resources, and *Food & Health*, as it supports access to community wellness. Community food groups often explore food policy issues and community resources. Topics include planning and supporting community food developments, leadership, community health and wellness, and food safety at community events.

*Food citizenship is the practice of engaging in food-related behaviors that support the development of a democratic, socially and economically just, and environmentally sustainable food system (Wilkins, 2005).*

OSU Extension is uniquely positioned to lead community-based work focused on food systems. It is the only organization in the state that touches every component of the food system. These “touch points” allow the organization to facilitate meaningful dialogue and action that transcends such elements as production, distribution, and consumption. Such integrated work can result in improved access to local food and ultimately improved health and wellness. Extension personnel serve as community conveners and facilitators of dialogue focused on important community issues. Because of its reputation for impartiality and reliance on science-based information, Extension fills a unique role in catalyzing conversations that spark local action. In addition, OSU Extension also connects communities. For example, in northwest Ohio, more than 300 people from urban, suburban, and rural areas attended Breakfast on the Farm, a special event hosted less than 30 minutes from Toledo. This collaborative effort involved OSU Extension educators from multiple counties, as well as partnering organizations. Attendees learned about modern food production practices and met the farm families who work hard to produce a wholesome, safe food supply for Ohio communities and the world.



## STRATEGIC PLANNING



*An OSU Extension Community Development Educator facilitated a Strategic Planning Workshop for a Community Civic Association Business & Land Use Development Committee.*

# PLANNING & SUPPORTING COMMUNITY FOOD DEVELOPMENTS

## A Food Council Overview

A food council can have a positive impact on a local economy by expanding food-related jobs and businesses and by creating new markets for farmers. A food council addresses a community's food system by bringing together groups from across the political and food system spectrum. Councils often bridge issues that affect agriculture, health, education, energy, economic development, transportation, and other related areas. Many councils help by promoting local products, improving access to fresh and healthy foods, and by building partnerships that bridge gaps in the overall food system.

The OSU John Glenn College of Public Affairs coordinates the Ohio Local Food Policy Council Network. For a list of food councils across the state and a link to sign up on the listserv, visit <http://glenn.osu.edu/food/>.

## BUSINESS RETENTION AND EXPANSION PROGRAM

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Personnel

**Learner:** Community leaders, public officials

**What:** Objectives include: improve the business climate of the community, help to make local businesses remain competitive, increase employment, stabilize the local economy

**How:** Resources, education, training, research assistance, individual consultation, workshop

**Where:** Meeting room

**When:** As needed

**Cost:** The project costs \$2,500, inclusive of all services listed in "Starting Right" package. This amount includes Extension staff travel, training materials, and a one-year multi-user license of the Survey Gold software, which is renewable annually. Other services available for additional cost.

**Link:** <http://comdev.osu.edu/programs/economic-development/business-retention-expansion>

**Notes:** Objective is to provide the tools, training, and resources needed to develop the capacity of communities to analyze and monitor their regional and local economies and use this information as a basis for economic development action and planning.

**Topic:** Food & Community and Food & Business

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## COMMUNITY PLANNING PROGRAMS

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Personnel

**Learner:** Community members, leaders and professionals

**What:** Learning objectives (see Notes)

**How:** Online class sessions, lectures/activities, individual consultation, webinar

**Where:** Meeting room, classroom, field, online

**When:** As needed

**Cost:** Varies

**Link:** <http://comdev.osu.edu/programs/community-planning>

**Notes:** Programs include Building Entrepreneurial Communities, Community-based Watershed Protection, Local Government Tool Box, Sustainable Communities Planning, Sustainable Comprehensive Land Use Planning, Understanding Subdivision Regulations, Community Visioning

**Topic:** Food & Community

## FARM TO SCHOOL

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Educators

**Learner:** Teachers (K – College), School Administrators, Food Service Personnel, Farmers and Producers, Food Distributors

**What:** Resource guide, conference, nutrition education curriculum, objective includes sourcing cafeteria produce from local farms

**How:** Independent learning, technical assistance, lecture/activities, field trip, informal network

**Where:** Website, classroom, field/garden, offsite experience, auditorium

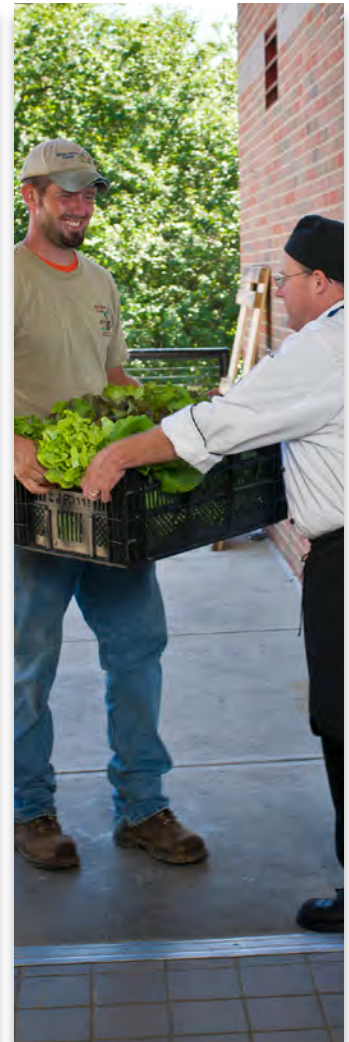
**When:** Varies by activity

**Cost:** Free (annual conference registration fee of \$50)

**Link:** [farmtoschool.osu.edu/](http://farmtoschool.osu.edu/)

**Notes:** Farm to school initiatives involve connecting schools with local farms by bringing fresh, nutritious foods from local farms into school cafeterias and by offering students experiential learning opportunities through farm visits, food and nutrition educational activities, and an incorporated nutrition education curriculum.

**Topic:** Food & Community, Food & Health, and Food & Business



## CREATING A FOOD SUMMIT EVENT

**Source:** Ohio State University Extension

**Teacher:**

**Learner:** Community leaders, members, and professionals

**What:** Two templates to use for planning a community food summit. One is for an agenda and one is for an event plan.

**How:** Resource to download

**Where:** Community meeting place

**When:** As needed

**Cost:** Resource is free, cost of hosting a food summit will vary

**Link:** <http://localfoods.osu.edu/news/planning-food-summit-our-templates-can-help>

**Notes:**

**Topic:** Food & Community



## FARM TO HEALTH SERIES: MAXIMIZE YOUR NUTRIENTS INFORMATIONAL CARDS

**Source:** Ohio State University Extension, and Ohio State University

**Teacher:** Information cards can be used by anyone

**Learner:** Community members, farmers markets

**What:** This series of over 12 informational cards provides information on nutrients and phytochemicals in Ohio produce. Each informational card gives a nutritional overview on different Ohio produce including recommendations on how to prepare it as well as a recipe.

**How:**

**Where:** At home, at community settings, at farmers markets

**When:**

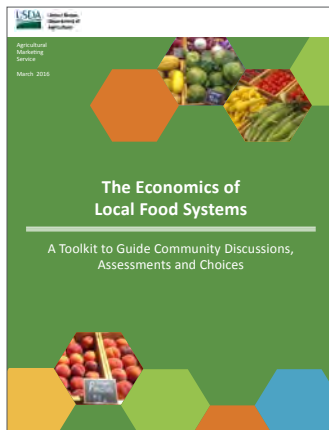
**Cost:** Free

**Link:** [localfoods.osu.edu/maximizenutrients](http://localfoods.osu.edu/maximizenutrients)

**Notes:**

**Topic:** Food & Community and Food & Health

## OTHER RESOURCES, COMMUNITY PLANNING & SUPPORT



**The Economics of Local Food Systems:** A Toolkit to Guide Community Discussions, Assessments and Choices, created by the U.S. Department of Agriculture (USDA) and Colorado State University, [www.ams.usda.gov/sites/default/files/media/Toolkit\\_Designed\\_FINAL\\_3-22-16.pdf](http://www.ams.usda.gov/sites/default/files/media/Toolkit_Designed_FINAL_3-22-16.pdf)

**OSU Food Innovations Center**, collaborating for a healthier, hunger-free world, [fic.osu.edu](http://fic.osu.edu). A campus-wide Center for Innovation linking all 14 colleges through an investment from The Ohio State University Office of Academic Affairs and the Office of Research

**OSU John Glenn School of Public Affairs**, Food Policy Councils, [glenn.osu.edu/food](http://glenn.osu.edu/food)

**Mid-Ohio Regional Planning Commission**, [morpc.org](http://morpc.org)

**Environmental Protection Agency (EPA), Urban Agriculture Resources**, [epa.gov/brownfields/urbanag/resources.htm](http://epa.gov/brownfields/urbanag/resources.htm)

**Urban Agriculture, Composting and Zoning, Ohio Environmental Protection Agency**, [ohioepapubs.custhelp.com/app/home](http://ohioepapubs.custhelp.com/app/home)

**Policy Link, Growing Urban Agriculture**, [policylink.org](http://policylink.org)

**Wallace Center, Winrock International**, [ngfn.org](http://ngfn.org) webinars and resources for people from all parts of the rapidly emerging good food system – producers, buyers, distributors, advocates, investors and funders – to create a community dedicated to scaling up good food sourcing and access.

**Healthy Food Access Portal**, [healthyfoodaccess.org](http://healthyfoodaccess.org). A collection of research and tools to help improve healthy food retail in your community. For example, *The Healthy Food Financing Handbook: From Advocacy to Implementation*

**Farmland Information Center**, [farmlandinfo.org](http://farmlandinfo.org)

**The Urban & Environmental Policy Institute** (Occidental College), [uepi.oxy.edu](http://uepi.oxy.edu)

**Know Your Farmer, Know Your Food**, [usda.gov/wps/portal/usda/](http://usda.gov/wps/portal/usda/)

**American Planning Association**, (numerous resources, search urban food), [planning.org](http://planning.org)

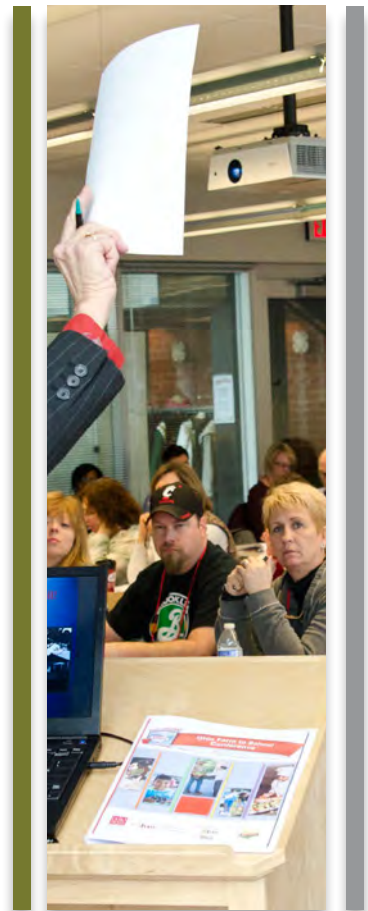
**Doing Food Policy Council Right: A Guide to Development and Action** by Michael Burgan and Mark Winne, Mark Winne Associates, Sept 2012, [markwinne.com/wp-content/uploads/2012/09/FPC-manual.pdf](http://markwinne.com/wp-content/uploads/2012/09/FPC-manual.pdf)

**Good Laws, Good Food: Putting Local Food Policy to Work for Our Communities** by The Harvard Law School Food Law and Policy Clinic, <http://blogs.harvard.edu/foodpolicyinitiative/files/2011/09/FINAL-LOCAL-TOOLKIT2.pdf>

**Johns Hopkins, Center for a Livable Future (Food Policy Networks)**, [jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-a-livable-future/projects/FPN](http://jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-a-livable-future/projects/FPN)

An excellent example of a working group can be found in The Cleveland-Cuyahoga County Food Policy Coalition that was formed in 2007 to help bring about public and private policy-based changes that foster an all-around healthier food system. [ccfoodpolicy.org](http://ccfoodpolicy.org)

**Greens to Greenbacks: the Economic Benefits of Local Food, An Agricultural Economic Development Toolkit**, [morpc.org/pdf/2014LocalFoodsToolkit.pdf](http://morpc.org/pdf/2014LocalFoodsToolkit.pdf)



Visit your local county Extension office [extension.osu.edu/locate-an-office](http://extension.osu.edu/locate-an-office) or [extension.osu.edu](http://extension.osu.edu) for additional resources and events.

# LEADERSHIP & COMMUNITY DEVELOPMENT

## LEADERSHIP DEVELOPMENT PROGRAMS

**Source:** Ohio State University Extension

**Teacher:** OSU Extension Educators

**Learner:** Community leaders, company managers, individuals serving or running for public office, teams

**What:** Learning objectives (see Notes) include encouraging healthy, effective leadership styles, and organizations

**How:** Lecture/activities, individual consultation, workshops/trainings

**Where:** Varies

**When:** As needed

**Cost:** Varies

**Link:** <http://comdev.osu.edu/programs/leadership-development>

**Notes:** Programs include Myers-Briggs Personality Type, Change, Communicating with Citizens, Conducting Effective Meetings, Emotional Intelligence, Facilitator Training, Local Government Leadership

**Topic:** Food & Community



*The Community Capitals Framework (CCF) brings a systems perspective to community development efforts by identifying the types of capital invested, the interaction and flow among the capitals, and the resulting impacts across capitals: natural, cultural, human, social, political, financial, and built capitals (Emery and Flora, 2006).*



## SIGNATURE WORKSHOPS AND 21<sup>ST</sup> CENTURY LEADERSHIP SERIES

**Source:** The Ohio State University Leadership Center

**Teacher:** OSU Extension Personnel and Partners

**Learner:** Community leaders, organization leaders

**What:** Certificates of participation for professional development hours

**How:** Lecture/activities

**Where:** Leadership Series is held on campus (auditorium), Signature workshops are held on-site (meeting room)

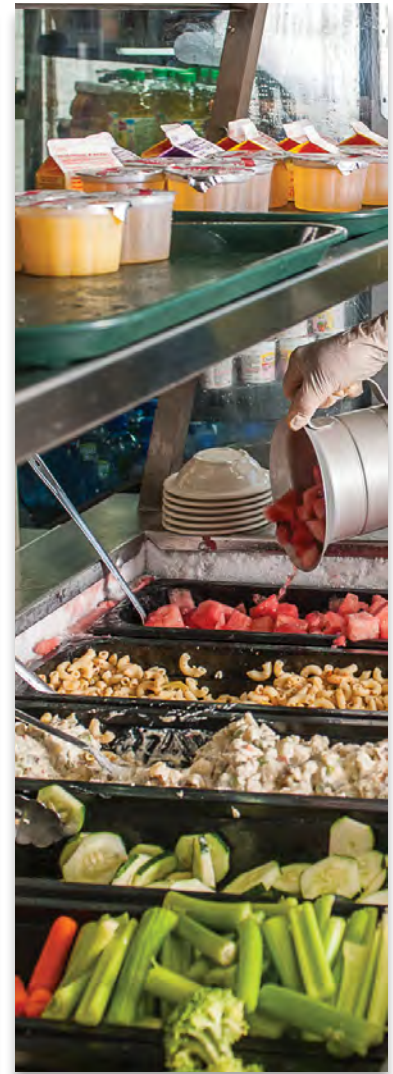
**When:** As needed

**Cost:** Free

**Link:**

**Notes:** Build the leadership capacity of your organization by inviting the OSU Leadership Center to facilitate your training workshops. Options include: Leadership Development, Team Building and Development, Conflict Management, Communication and Attitude, Ethics

**Topic:** Food & Community and Food & Business



## OTHER RESOURCES, LEADERSHIP AND COMMUNITY DEVELOPMENT

**Building Leadership Programs Management Guide**, University of Minnesota Extension, [www.extension.umn.edu/community/leadership/materials/management-guide/](http://www.extension.umn.edu/community/leadership/materials/management-guide/)

Visit your local county Extension office [extension.osu.edu/locate-an-office](http://extension.osu.edu/locate-an-office) or [extension.osu.edu](http://extension.osu.edu) for additional resources and events.

# COMMUNITY HEALTH & WELLNESS RESOURCES

## SAFE FOOD HANDLING FOR THE OCCASIONAL QUANTITY COOK

**Source:** Ohio State University Extension, and Ohio State University

**Teacher:** Instructional Video

**Learner:** Community members who cook for large audiences

**What:** An instructional video for cooks who cook for large audiences, teaching how to go about this in a safe and healthy manner

**How:** Independent learning

**Where:**

**When:** As needed

**Cost:** Cost of DVDs

**Link:** [estore.osu-extension.org/Safe-Food-Handling-for-Occasional-Quantity-Cooks-CD-P221.aspx](http://estore.osu-extension.org/Safe-Food-Handling-for-Occasional-Quantity-Cooks-CD-P221.aspx)

**Notes:**

**Topic:** Food & Community

### Health Benefits of Urban Agriculture,

[www.co.fresno.ca.us/uploadedFiles/Departments/Behavioral\\_Health/MHSA/Health Benefits of Urban Agriculture \(1-8\).pdf](http://www.co.fresno.ca.us/uploadedFiles/Departments/Behavioral_Health/MHSA/Health%20Benefits%20of%20Urban%20Agriculture%20(1-8).pdf)

**Live Healthy Live Well,** [livehealthyosu.com](http://livehealthyosu.com) – a team of OSU Extension Educators in Family and Consumer Sciences provide messages to help individuals improve their health through research based information.

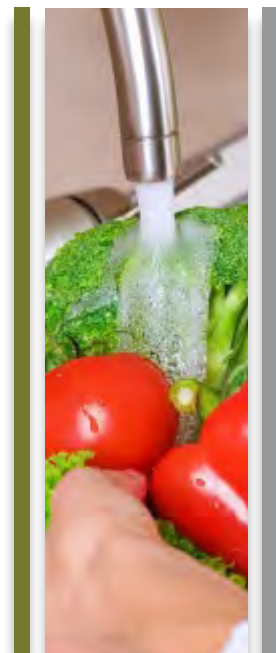
## COMMUNITY FOOD SAFETY RESOURCES

**Community Food Safety Resources,** Fact sheet from North Dakota State University Extension, [ag.ndsu.edu/pubs/yf/foods/fn619.pdf](http://ag.ndsu.edu/pubs/yf/foods/fn619.pdf)

**Food Safety at Temporary Events,** from the International Association for Food Protection, [foodprotection.org/upl/downloads/publications/other/free-pdf-file-english-2.pdf](http://foodprotection.org/upl/downloads/publications/other/free-pdf-file-english-2.pdf)

Visit your local county Extension office [extension.osu.edu/locate-an-office](http://extension.osu.edu/locate-an-office) or [extension.osu.edu](http://extension.osu.edu) for additional resources and events.

*Food touches everything and is the foundation of every economy, making social differences – an endlessly evolving enactment of family and community relationships (Counihan & Van Esterik, 2013).*



# SUMMARY



## Learning Environment

Educational spaces for these programs should focus on creating an effective learning environment, whether that be through independent learning, one-on-one consulting, classroom lecture, or hands-on education in computer labs, kitchens, fields, and other structured on-the-job training.

Educational materials should move the learner from information attention, to relevance, confidence, and satisfaction (Keller, 1987). This can be done through a variety of formats, from simple fact sheets and videos to more in-depth problem-solving, skill-building and guided instruction.

## Learning About Food and Agriculture

OSU Extension is the outreach arm of Ohio State's **College of Food, Agricultural, and Environmental Sciences**.

**The Ohio State University** has targeted **Discovery Themes** that will help shape the entire institution's research, teaching, and Extension efforts for the next several years ([discovery.osu.edu](http://discovery.osu.edu)), Discovery Themes include:

- Health and Wellness
- Food Production and Security

Tackling these complex challenges is possible at a university the size and complexity of Ohio State because breakthroughs in such areas are not possible without multiple perspectives and sources of expertise ([discovery.osu.edu](http://discovery.osu.edu)).

Additionally, the strategic plan for the OSU **College of Food, Agricultural, and Environmental Sciences** has identified three **Signature Areas** which guide the teaching, research, and Extension programs of the college. These Signature Areas are:

- Food Security, Production, and Human Health
- Environmental Quality and Sustainability
- Advanced Bioenergy and Biobased Products

Each year, **OSU Extension**, (a unit in the College of Food, Agricultural, and Environmental Sciences), identifies four to six high-profile programming thrusts called **Signature Programs**. These Signature Programs are offered statewide depending upon local needs and conditions.

## Local Foods Signature Program

The OSU Extension Local Foods Signature Program highlights the programming and interconnections of Extension work between the themes of food production, food & business, food & health, and food & community. In 2015, the Local Foods Signature Program worked with partners to initiate and coordinate the first Ohio Local Foods Week. Even during wintertime, Ohio local food is available, whether it is fresh produce grown with season extenders or crops that can be held for long periods of time in cold/cool storage as well as baked, canned, frozen, and dried foods. August is a great time to celebrate Ohio Local Foods Week because of the availability of direct-to-consumer marketing of all products including a wide variety of fresh produce. We encourage individuals, families, businesses, and communities to grow, purchase, highlight, and promote local food all the time but especially during this week. [localfoods.osu.edu](http://localfoods.osu.edu)

## Learning Community

The topic of food is quite broad, beginning with the various types of food, individuals' past experience with food and their interest in learning more about production, business, family, and community. As community food systems develop, specific areas of focus may require more specialized education.

Local food and agriculture education plans may include providing convenient transportation, financing, and access for residents to take advantage of education offered through many of the outstanding organizations in Ohio.

## Investing in Education

By leveraging a diverse funding portfolio from individuals, businesses, educational institutions, government agencies, foundations, crowd sourcing, and others, strategic resources can be invested by all partners, without creating dependency on any single contributor. Investments to advance education include time, money, expertise, equipment, facilities and other resources. Key components of getting the most from educational investments are aligning educational resources and events to key community priorities and conducting ongoing evaluation related to learning outputs and outcomes.

# APPENDIX

## *Ohio Agriculture and Food Industry Overview*

### *Acknowledgements*

### *Publication Contributors*

### *References*

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## **Ohio Agriculture and Food Industry Overview**

### **Ohio's #1 Industry**

The food and agriculture cluster is the largest sector of Ohio's economy (farms, processing, wholesaling, retailing, and food service). Ohio's food and agriculture cluster contributed \$105 billion to Ohio's economy every year and accounts for 14% of Ohio's employment, or 1 in 7 jobs (Sporleder, 2012 OHFOOD model).

### **Ohio is ideal for community food systems**

Ohio is an ideal place for local food for a number of reasons:

- Ohio has a unique proximity of metropolitan and micropolitan areas, linking rural and urban consumers, growers and communities.
- Producers in Ohio raise many species of livestock and grow more than 200 different crops that include an increasing variety of fruits, vegetables, herbs, meat, nuts, eggs, dairy products, and more. Farms that direct market these products come in all sizes (Lev & Gwin, 2010).
- Ohio ranks in the top ten states for direct-to-consumer marketing (2007 Census of Ag.).
- Ohio is among the top five states for food production of bakery, dairy, snacks, spices, maple syrup, and other products.
- Ohio has a growing number of wineries, breweries and distilleries – using local product in their production.
- Ohio has some outstanding food entrepreneurs.

For additional information, visit Farm Management Data and Statistics, [aede.osu.edu/research/osu-farm-management/data-and-statistics](http://aede.osu.edu/research/osu-farm-management/data-and-statistics).

## Acknowledgements

This publication was initially developed by an Ohio State University Extension team as part of an Urban Agriculture Overlay Project and supported by a U.S. Department of Housing and Urban Development (HUD) Community Challenge Grant.

### The Ohio State University (OSU)

The Ohio State University's mission, culture, curriculum and resources are structured to support high-impact community engagement. OSU is one of the nation's top 20 public universities, according to U.S. News & World Report rankings, and one of Washington Monthly's top 20 universities based on their contribution to the public. As a land-grant university, Ohio State has campus research centers throughout the state and Extension offices in each of Ohio's 88 counties. [osu.edu](http://osu.edu)

### College of Food, Agricultural, and Environmental Sciences (CFAES)

CFAES is one of 15 OSU colleges, supporting 10 academic units, the Ohio Agricultural Research and Development Center (OARDC), Ohio State University Extension, and two-year degree programs offered by the Agricultural Technical Institute. [cfaes.osu.edu](http://cfaes.osu.edu)

### OSU Extension

OSU Extension's mission is engaging people to strengthen their lives and communities through research-based educational programming. The four major OSU Extension program areas, and many other special topics, are continuously being evaluated and updated to meet the changing needs and issues facing people throughout Ohio. Many programs provide interdisciplinary solutions through community and campus partnerships. [extension.osu.edu](http://extension.osu.edu)

### OSU Extension Agriculture and Natural Resources (ANR)

Within OSU Extension, the Agriculture and Natural Resources team provides Ohioans resources and educational programs focusing on profitable and sustainable agriculture, a clean environment and proper stewardship of Ohio's natural resources. [agnr.osu.edu](http://agnr.osu.edu)

### OSU Extension 4-H Youth Development (4-H)

4-H is a community of young people across America who are learning leadership, citizenship, and life skills as they work in partnership with caring adults. What does that mean? In 4-H we are committed to helping young people develop skills that will help them succeed. We want to empower all youth to reach their full potential. [ohio4h.org](http://ohio4h.org)

### OSU Extension Family and Consumer Sciences (FCS)

OSU Extension Family & Consumer Sciences (FCS) serves thousands of people throughout Ohio every year. Our team of FCS professionals delivers the highest quality, research-based educational programs focused on building Healthy People, Healthy Finances, and Healthy Relationships. We help people keep healthy through good nutrition and food safety, use their money wisely, and balance the demands of life and work. [fcs.osu.edu](http://fcs.osu.edu)

### OSU Extension Community Development (CD)

OSU Extension Community Development professionals enhance communities and neighborhoods by partnering with businesses, organizations, associations, and committees; current and emerging community leaders; elected and appointed officials. Through these partnerships we apply cutting-edge research, knowledge, and innovations to help improve local businesses and communities. [comdev.osu.edu](http://comdev.osu.edu)



**THE OHIO STATE UNIVERSITY**

COLLEGE OF FOOD, AGRICULTURAL,  
AND ENVIRONMENTAL SCIENCES

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## Publication Contributors

Key contributors to this edition included Fox, Powers-Barker, and Stiving. Authors of the original edition included Fox, Colbert, Hogan, Rabe, Welch, and Haught. In addition, a diverse group of OSU Extension professionals contributed to the programs and resources selected for this publication.

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As an Associate Professor with the Ohio State University College of Food, Agricultural & Environmental Sciences, Dr. Fox serves as the OSU Extension in the City leader, Central Region Extension Director, and Associate Chair for the Department of Extension. Graduate instruction includes Strategic and Program Planning for Visionary Change for the Department of Agricultural Communication, Education, and Leadership. Working with OSU since 1998, she holds a Ph.D. in Human and Community Resource Development and a MBA in Global Management. Her background includes working in Africa, Asia, Australia, and Europe. Prior to working with OSU, she served as the executive director for an international trade association and a marketing manager for a worldwide nonprofit organization.

### Patrice Powers-Barker

Patrice is an Extension Educator for Family and Consumer Sciences in Lucas County. She has worked for OSU Extension for 16 years. Her educational background includes a B.A. in Social Justice and an M.A. in Family Life Education and she is a Certified Family Life Educator. The topic of Local Foods lends well with empowering families to learn about food and resources in their community as well as to make family goals to prepare and eat more meals together.

### James Stiving

James is a Program Assistant working on the new Extension in the City initiative. He handles administrative tasks for Julie Fox, while contributing to writing and research. He has a B.S. in City & Regional Planning, and is currently pursuing his Master's in Public Affairs.

### Michael Hogan

Mike is an Extension Educator and Associate Professor with OSU Extension. Hogan also serves as the state-wide Sustainable Agriculture Coordinator for OSU Extension and State Coordinator in Ohio for the USDA SARE program (Sustainable Agriculture Research and Education).

Hogan's work in urban agriculture in Columbus focuses on urban food system development, with particular attention on the production and management dimensions of urban farms and food based businesses. Hogan provides leadership to the Master Urban Farmer program in Columbus, which has graduated 154 Master Urban Farmers in two years.

### Susan Colbert

Susan currently serves as Community Development Program Director for OSU Extension in the University District, located in Columbus, Ohio. She began her employment with OSU Extension in 2000. Susan possesses a Bachelor of Science dual degree in Psychology and Sociology, and a Master of Science degree in Social Sciences with a focus on Applied Public Affairs Studies. She has over 20 years of experience in Community/Economic Development in the states of New York and Ohio.

### Marilyn Rabe

Marilyn is an Extension Educator for Family and Consumer Science. She has been with OSU Extension for 23 years. Her educational background is a B.S. in Elementary Education and a M.S. in Human and Community Resource Development with an emphasis on Extension Education. Her focus in this project has been to identify educational opportunities for adults and youth in relation to food and wellness.

### Christie Welch

Christie has been with the OSU South Centers Business Development Network since 2003. In this role she has worked with a variety of small businesses to provide information and education in these areas of business; money, marketing, and management. Christie currently serves as a farmers' market specialist and business development specialist with the Ohio Cooperative Development Center.

### Stacy Haught

Stacy has contributed to state and local food initiatives through her work with the OSU Extension Direct Marketing Team, Ohio Association of Foodbanks, and Ohio Farm to School. She is currently pursuing a master's degree from OSU's School of Environment and Natural Resources in Rural Sociology. Her contributions to the project include researching existing Extension programs and other educational resources to support the sustainability of the Weinland Park Food District.

## Additional Contributors

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**Brian Raison**, Assistant Professor, Community Development Educator

**Daniel T. Remley**, Assistant Professor, Field Specialist Food, Nutrition, and Wellness

## References

- Block, D., & Kouba, J. (2006). A comparison of the availability and affordability of a market basket in two communities in the Chicago area. *Public Health Nutrition*, 9(7), 837-45.
- Bloom, J. D., & Hinrichs, C.C. (2010). Moving local food through conventional food system infrastructure: Value chain framework comparisons and insights, *Renewable Agriculture and Food Systems*: 26(1), 13–23.
- Brown, K., & Carter, A. (2003). Urban Agriculture and Community Food Security in the United States: Farming From the City Center to the Urban Fringe. *A Primer Prepared by the Community Food Security Coalition*, North American Urban Agriculture Committee.
- Brown, K. H., & Jameton, A. L. (2000). Public Health Implications of Urban Agriculture. *Journal of Public Health Policy*, 21, 20-39.
- Counihan, C., & Van Esterik, P. (2013). *Food and Culture*, Third Edition, Routledge.
- Dunnett, N., & Kingsbury, N. (2004). *Planting Green Roofs and Living Walls*. Portland, OR: Timber Press.
- Dunning, R., Creamer, N., Massey Lelekacs, J., O'Sullivan, J., Thraves, T., & Wymore, T. (2012). Educator and institutional entrepreneur: Cooperative Extension and the building of localized food systems. *Journal of Agriculture, Food Systems, and Community Development*, 3(1), 99–112.
- Emery, M., & Flora, C.B. (2006). Spiraling-Up: Mapping community transformation with community capitals framework. *Journal of the Community Development Society*, 37, 19–35. [www.uvm.edu/rsenr/rm230/costarica/Emery-Flora-2006.pdf](http://www.uvm.edu/rsenr/rm230/costarica/Emery-Flora-2006.pdf)
- Fairholm, J. (1998). Urban agriculture and food security initiatives in Canada: A survey of Canadian non-governmental organizations. IDRC Cities Feeding People Series, Report 25.
- Feenstra, G. (2002). Creating space for community food systems: Lessons from the field. *Agriculture and Human Values*, 19, 99–106.
- Gopalan, R. (2001). Sustainable food production and consumption: Agenda for action, *Economic and Political Weekly*, 36 (14/15): 1207–1225.
- Gulati, R., & Gargiulo, M. (1999). Where do interorganizational networks come from? *American Journal of Sociology*, 104, 1439–93.
- Hamm, M. W., & Bellows, A.C. (2003). Community food security and nutrition educators. *Journal of Nutrition Education and Behavior*, 35(1):37–43.
- Horrigan, L., Lawrence, R., & Walker, P. (2002). How sustainable agriculture can address the Environmental and human health harms of industrial agriculture. *Environmental Health Perspectives*, 110(5), 445–456.
- Kaufman, J., & Bailkey, M. (2000). *Farming Inside Cities: Entrepreneurial Urban Agriculture in the United States*. Lincoln Institute Working Paper.
- Keller, J. M. (1987). Development and use of the ARCS model of motivational design. *Journal of Instructional Development*, 10(3), 2–10.
- Lev, L., & Gwin, L. (2010). Filling in the Gaps: Eight things to recognize about farm-direct marketing, *Choices*, 25(1).
- Meter, K. (2011). *Ohio's Food Systems – Farms At The Heart Of It All*. Retrieved from [crcworks.org/ohfood.pdf](http://crcworks.org/ohfood.pdf)
- Ohri-Vachaspati, P., Masi, B., Taggart, M., Konen, J., Kerrigan, J. (2009). City Fresh: A local collaboration for food equity, *Journal of Extension*, 47(6).
- Pilcher, M. (2002). *No garden? No problem! Design and planting ideas for the smallest of spaces: steps, walls, roof terraces, balconies, basements and courtyards*, David & Charles Publishers.
- Ramasawmy, B., & Fort, F. (2011). Can innovation be institutionally-driven? The case of institutional entrepreneurs in the restructuring of the Mauritian vegetable supply chain. *6th Proceedings of the European Conference on Innovation and Entrepreneurship*. Retrieved from [docplayer.net/2732978-Proceedings-of-the-6th-european-conference-on-innovation-and-entrepreneurship.html](http://docplayer.net/2732978-Proceedings-of-the-6th-european-conference-on-innovation-and-entrepreneurship.html)
- Sporleder, T. L. (2012). *OHFOOD: An Ohio Food Industries Input-Output Model*. Columbus, OH: The Ohio State University, Department of Agricultural, Environmental and Development Economics.
- Sundkvist, A., Milestad, R., & Jansson, A. M. (2005). On the importance of tightening feedback loops for sustainable development of food systems. *Food Policy*, 30, 224–239.
- Thilmany, D. (2015). What Do We Mean by 'Local Foods'? *Choices Magazine*, 30(1). Retrieved from [choicesmagazine.org/choices-magazine/theme-articles/community-economics-of-local-foods/what-do-we-mean-by-local-foods](http://choicesmagazine.org/choices-magazine/theme-articles/community-economics-of-local-foods/what-do-we-mean-by-local-foods)
- Wilkins, J. (2005). Eating Right Here: Moving from Consumer to Food Citizen, *Agriculture and Human Values*, 22 (3), 269-273.

