Penn State Extension’s Start Farming program supports beginning and aspiring farmers. Courses, online resources, farmer-to-farmer networking opportunities, and hands-on training help aspiring farmers decide if farming is for them and successfully start farming for profit.
Why New Farmers?

One in five Americans live within an eight hour drive of Pennsylvania and its rich soils and temperate growing conditions. Nearby cities include locavore-savvy New York, Washington DC, Philadelphia and Boston. Residents of the region have expressed a strong and growing demand for local, sustainably-produced food.

Pennsylvania is also home to prime farmland, yet it lost over 102 square miles of farmland (65,500 acres) in just six counties between 1997 and 2007.

With five times more farmers over the age of 55 than under the age of 35 in Pennsylvania, we need successful new farmers to keep this land in production (2007 Ag Census).

Enthusiastic career changers, young idealists, and next generation farmers recognize this growing need and burgeoning opportunity. A deep-seeded passion motivates many to start farming.

About the Program

Penn State Extension Educators launched the Start Farming Program in 2009, responding to increasing interest in farm start-up businesses from community members. The Program aims to enhance the success of beginning farmers by providing education and hands-on training in: production, marketing, financial management, land acquisition, and other resource acquisition.

Resources include more than 19 different multi-session courses which combine presentations by Penn State Extension Educators and expert farmers with discussion, hands-on exercises and farm visits. The program also offers single session workshops, field days and online learning opportunities. The Start Farming website offers 258 pages of resources and videos written specifically for new farmers.

Partner The Seed Farm offers a new farmer training program consisting of an apprenticeship program, a stewardship program, a market garden demonstration, and specialized vegetable production equipment trials. The one-year apprenticeship program features both formal courses taught by Penn State Extension and hands-on training in business and crop planning, equipment use, crop management, and marketing. The stewardship program, open to apprenticeship program graduates, provides beginning farmers with access to land and equipment rental at reduced rates, as well as continued mentoring from The Seed Farm manager and other local farmers.

Partner Pennsylvania Farm Link offers a one-day, intensive workshop entitled, "Breaking the Barriers -- Land, Equipment and Capital" to help beginning and aspiring farmers overcome the challenges to starting and sustaining new farm enterprises.

Penn State University, College of Agricultural Sciences, Cooperative Extension; and the Beginning Farmer and Rancher Development Program of the National Institute of Food and Agriculture, USDA, Grant #2009-49400-05869 provide funding for the Penn State Start Farming Program.

A New Farmer said:

“I learned what questions to ask myself and where to find the resources to answer them.”

-Exploring the Small Farm Dream, 2010
Helping New Farmers Succeed

Project Summary

Face-to-Face
Penn State Extension Start Farming has helped 1,384 new and aspiring farmers through the 53 courses it offered between 2009 and 2012.

Reaching Out Online
The website has been visited 36,098 times by 27,438 unique viewers.

They keep coming back: 39% are return visitors with 20% having visited 9 to 200 times.

Delving into content: Readers spend an average of two minutes per page on blog articles.

Monthly visits average 7,000 with 143 to 370 visits per day.

Start Farming participants increased their knowledge.
Based on self assessments directly after the course.
- 84% learned a good or a great deal (n=680).

Participants in intensive courses took key concept quizzes before and after course participation.
- The average score on pre-tests was 46%, after the course scores averaged 80%, representing an increase in real knowledge.

Participants plan to implement their new skills.
- 84% plan to adopt one or more new practices (n=521).

One year later. . . .
- 83% had adopted new practices, three on average (n=162).
- 55% saw improved productivity due to new practices (n=112).
- More than half, 67%, noted their new practice had improved their products’ quality (n=124).
- 80% increased their environmental sustainability (n=101).

Penn State Extension’s Start Farming is funded in part by the Beginning Farmer and Rancher Development Program of the National Institute of Food and Agriculture, USDA, Grant #2009-49400-05869.
New Farmer Success

Ben and Karah Davies started Schlegel Run Growers in 2010. Their farm now feeds 60 CSA members. They plan to move to a new 40 acre farm next year.

Ben has participated in several Start Farming classes including Introduction to Soils and thinks they have contributed to his success, “I think how well the season went this year was because of the soils class. I calculated my amendments, applied the right amounts and the plants grew really well.” - Ben Davies, Soils 2010

Course Highlights: Hands-on Learning

Introduction to Soils
87 new and aspiring farmers learned basic soil science and management in this new course taught in Montgomery and Lehigh Counties.
- On a key concepts quiz, participants scored 55% on average before the course and 79% after the course, representing a 24% gain in real knowledge (n=59; 2010-2012).
- 98% planned to adopt one or more new practices (n=59) such as soil testing, growing cover crops, and calculating nutrient requirements and application rates.

Introduction to Organic Vegetable Production
79 prospective new organic vegetable growers (2010-2012).
- 100% of participants learned a good or a great deal. For example on key concepts quizzes for organic disease management, students scored only 17%, on average, before taking the course. After the course, they scored 72%, increasing three letter grades (n=47).
- 100% of participants planned to adopt what they learned such as taking soil samples and setting up weed management plans. One year after the class, 93% had adopted an average of three new practices.

One Farmer said, “I gained an incredible amount of information through the class . . . I learned several strategies for managing insects that I was able to implement this season.”

Students see the benefits of soil aggregates.

An OUTREACH program of the College of Agricultural Sciences
Pasture Management Short Course
78 beginning farmers attended one of three four-session courses which helped them manage their pastures for optimum production. They acquired the knowledge to develop a sustainable grazing plan for their farms.

- 99% of participants (n=71) felt their knowledge of pasture management increased a moderate amount to a great deal as a result of this class.
- On a key concept quiz taken before and after the course on stocking rates, soil fertility and weed identification, 70 participants, managing almost 1,232 total acres, jumped an average of 33%, or about three letter grades.

Living on a Few Acres
263 new and aspiring farmers attended this introduction to small-scale agriculture. Fruit, vegetable and meat production were discussed.

- 80 participants felt they had moderate or considerable knowledge in the seven key areas after this course (n=138).
- 96% of participants plan to adopt at least one practice (including IPM, soil tests and raising fruits, vegetables, or livestock) as a result of the course (n=106).

One student said, “This class made me more confident to grow and manage my small farm.”

ABC’s of Beekeeping
87 participants learned beekeeping basics in sessions of this four-class workshop.

- 95% of participants are more confident about starting or managing honeybees as a result of this workshop (n=35, 2010-2011).
- 75% of participants plan to obtain bees and manage bee behavior as a result of the workshop (n=59).

A participant said, “I implemented a new business/farm plan and new marketing strategy that helped me have and retain more customers and sell more to each customer.”

Rob Arcidiacono grew up outside of Camden, New Jersey, but came to love growing plants through his neighbor and mentor. His love of growing lead to his fascination with honeybees. After receiving a hive as a gift, he looked to Penn State Extension Start Farming’s ABC’s of Beekeeping course and local beekeepers to teach him the art of raising bees. Still in his first year, Rob is hoping to manage his bees to survive the winter, and is looking forward to producing honey in the coming years. His advice to new beekeepers? Get involved in the community by taking courses and learning from others – beekeepers are some of the most helpful people he knows!
Anton Shannon and Sarah Edmonds graduated from The Seed Farm apprenticeship including three Penn State Extension courses in 2010. After successfully completing their farm plan, they were accepted to The Seed Farm Incubator. They operate Good Work Farm providing food for 75 vegetable subscription (CSA) members and a farmers’ market.

“Sarah says what she learned in The Seed Farm program “was all so important and most every venture showed me how much I didn’t know about the various stages of full farm planning.”

Anton says, “All of the things that capital lenders are looking for are things The Seed Farm is helping us achieve: a proven business history, paying bills, marketing our crops, tracking our yields and our sales, exploring market potential, managing labor and time, coming up with production plans and production contingencies. The Seed Farm is providing GWF with a living laboratory for us to test our production and sales techniques with scalable resource access.”

“Our farm made a net profit in a year that included a drought, a hurricane, prolonged flooding, and October snowfall. That very may well have finished off our new farm, if not for The Seed Farm.”
Course Highlights: Learning in the Classroom

Poultry
101 small-scale meat and egg producers learned the basics of breeds, health, nutrition and housing.

- Fly control, nutrition and health were topics of great interest. 69% of participants learned a moderate or a great deal of information in these areas (n=72).
- Participants plan to increase bio-security, increase fly control, start mortality composting, pasture their poultry and change litter more often.

Food for Profit
114 prospective or beginning food business entrepreneurs attended this intensive one-day workshop (2010-2012).

- 68% of participants increased their knowledge of steps to start a food enterprise, understanding of the food business idea, liability issues, and marketing food businesses a moderate to a great deal.
- 93% of participants planned to adopt at least one of the skills or tools taught in the workshop, and 70% planned to adopt two or more (n=84).

One year later participants said,
“I learned the steps to license my kitchen and I know better options than using my own kitchen and what to consider when I start my new business venture.”

“[It is] going well -- working on getting our products into Giant and Whole Foods.”

Fruit Short Course – First offered in 2011, 21 participants learned more about managing fruit trees and producing small fruits.

- 100% of participants increased their knowledge of fruit tree and small fruit management (n=21).
- 100% of participants will use Penn State production guides to manage fruit crops (n=21).
- 100% will use a soil test to make management decisions (n=21).

Sheep Shearing School
38 participants plan to begin shearing sheep after this two-day course in 2010, 2011 and 2012.

- 11 participants will shear their own sheep instead of paying someone to do it, saving them about $3 per head per year.
- All participants who plan to shear (n=30) will use the six shearing positions and the proper way to remove a fleece.

Farmers said, Now I can...
“... begin shearing my own sheep, instead of having it done.”
—Sheep Shearing student, 2011

“Shear my own sheep, and maybe somebody else’s.”
—Sheep Shearing student, 2011

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Deep Roots Valley Farm

When the conversation came up – who would continue the family farm – Kelly turned to husband, Will, and popped the question: Do you want to start farming?

Two years later, the couple and their three children moved back to the 150 acre home farm, and now have broilers, laying hens, and turkeys, and their first batch of pigs and steers. While Kelly grew up on the farm, Will had no agricultural experience or training. From mentors, courses, and reading, they have learned a great deal about raising poultry and livestock.

Will and Kelly, along with parents Larry and Cathy, attended Penn State Extension’s Grazing School held in March 2012. After attending Grazing School, Will and Kelly took a look at their pastures and decided to make some changes. This spring, Larry seeded a pasture mix with at least seven species of grasses and legumes onto the hillside to bump up the protein and production for their broilers and layers. Will takes time to move the coops once or twice a day, depending on the number of birds and the grass’s height.

Will and Kelly are excited about the new opportunities farming presents for them and their family, and continue to learn every day from the farm and their customers.

Course Highlights: Participatory Learning

Grazing School - 92 grazers participated in four grazing schools designed for individuals who would like to transition part or their entire livestock farm to management intensive grazing.

- 95% of participants learned a moderate or a great deal from this class (n=63).

As a result of this course, participants planned to:

“Try different forages. Hope to better maintain pastures.”

“Change type of animals on property.”

Mob Grazing workshop at Harvest Home Meats.

Exploring the Small Farm Dream

117 aspiring farmers explored the question, “Is starting an agricultural business right for me?” Participants learned through discussion, farmer interviews, self-evaluation and participatory learning during seven courses in Lehigh, Philadelphia and Wayne Counties.

- 93% of students felt they learned a good or a great deal from the course (n=65).
- 91% feel they are better able to answer the question, “Am I ready to start an agricultural business?” (2010, 2012, n=32).