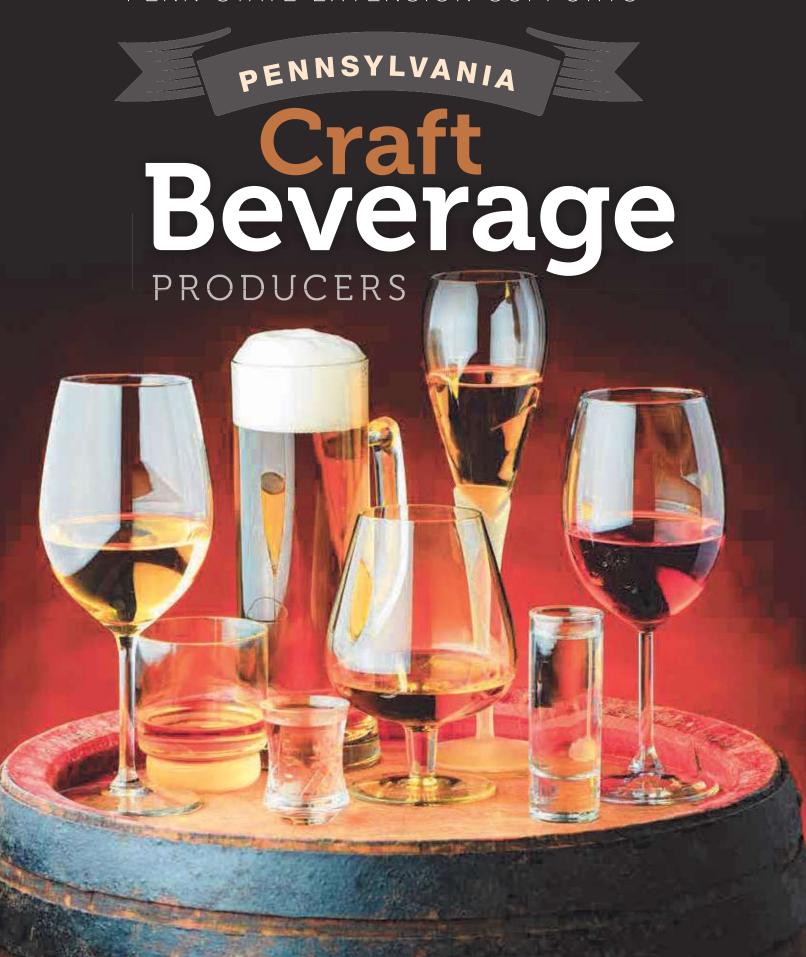
PENN STATE EXTENSION SUPPORTS



The local foods movement is going strong in Pennsylvania, & the "eat local" mindset has expanded into "drink local" as well.

Interest in producing and consuming locally sourced fermented beverages—from wine to beer to hard cider to spirits—is growing throughout the commonwealth, and Penn State Extension provides educational support to both emerging and established businesses in the industry.

Extension's support ranges from educating producers and consumers, using the same research-based food-science principles that are applied to food safety programs, to helping local businesses create new job opportunities.

"As many counties across the state face economic challenges, fermented beverage businesses are becoming more and more integrated into their local agriculture and communities," says Denise Gardner, enology extension associate. "We're seeing a push for breweries and distilleries to source local grains, the cider industry wants to use local apples, and wineries want to create a local brand name. And that's where extension comes into play."



WINE PRODUCTION

Gardner travels throughout the state to meet with groups of winery owners, addressing production questions. If a particular winery has a problem or question, Gardner, who has expertise in identifying wine defects based on taste, will visit the winery and taste the wines to help troubleshoot the problem.

As well as individual visits to wineries, Gardner presents defect identification and remediation and prevention workshops to the wine industry throughout the state and beyond. Last year, for example, she conducted a workshop at Rutgers University as well as at the Eastern Winery Expo, where attendance was more than 200.

Each January, Gardner leads a wine quality improvement workshop at Penn State's University Park campus. "This is one of our primary programs, and we have people coming in from all over the country," she says. "Participants learn how to train themselves, as well as their winery cellar staff, in identifying problems."

One of the challenges for Pennsylvania wine producers, Gardner says, is the variable weather. "Each year we deal with different climatic conditions, and you have to adapt. That creates challenges, but it also results in some unique products that you couldn't get anywhere else. The most interesting wines in the world, I think, are made in regions that are not consistent. To me, Pennsylvania wine makers who make premium wines are the most talented in the world."

Gardner is excited to see growing interest in Pennsylvania wines even beyond the state's borders. Following a speech last year in Washington, DC, Gardener stated, "The energy was amazing. Once wine consumers develop an appreciation for not only the agricultural component, but also the unique qualities of our Pennsylvania wines, it just catches on from there."





HARD CIDER GROWTH

Pennsylvania ranks sixth in the nation in hard cider production, and over the last four years the industry has grown 80 percent.
Clearly, hard cider is an expanding industry in the commonwealth. Carla Snyder, a marketing and agricultural entrepreneurship extension educator in Adams County, is working to provide support and education for everyone involved in the hard cider industry: from growers to consumers.

"We are developing a well-rounded, holistic program that addresses the entire range of educational and research needs," Snyder says. Extension's hard cider program includes workshops, tours for producers, and education for consumers as well as support for

industry members, such as bar and restaurant owners, distributors, and sommeliers. A guidebook for hard cider producers in Pennsylvania is available, as well as fact sheets, videos, and online information. Hard cider also was an apple industry highlight at the 100th Farm Show in January, representing cider producers from across Pennsylvania.

Snyder and her colleagues have seen great success with extension workshops: 75 percent of participants indicated their business increased profitability by 25 percent after completing a workshop, and 13 percent reported that the knowledge and information they gained allowed them to create at least one new job.

"These are big economic boosts for the industry in Pennsylvania," Snyder says. "And because large producers such as Angry Orchard make up only 56 percent of the hard cider market, there's a significant opportunity for small-scale producers to enter the market. It's very enticing to some folks, even those who are not traditional apple growers. We have new people getting into agriculture through the hard cider avenue."

In 2014, Snyder was instrumental in forming the Pennsylvania Cider Guild, a trade organization that brings together cider makers, cideries, cider enthusiasts, and associated businesses to promote, represent, and educate its members and consumers.



BEER AND SPIRITS

Although Pennsylvania is a large producer of barley, currently very little barley is used for malting. "It's ironic that we have a lot of microbreweries, but most of them get barley from Germany, England, and western states like North Dakota and Idaho," says Greg Roth, extension grain crops specialist. "Recently I was touring Victory Brewing in Chester County and noticed that right next to the brewery were barley fields. Then a truck showed up with a load of malted barley from Germany. Several entrepreneurs have noticed this situation as well and have started malt houses."

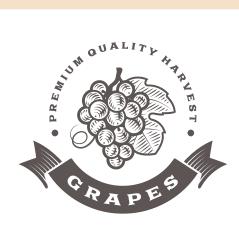
Last year, Roth says, farmers who grew malting barley experienced problems because many varieties did not overwinter well. Roth and cooperating growers are experimenting with different varieties, including some from Europe, that are hardier and have higher yields. Barley acreage has expanded during the past year, and Roth continues to provide feedback to growers on best strategies for success. "Growers are contracting and there's a good premium in producing malting barley," he says.

Extension educators also work with Penn State research colleagues on hops production, and extension programs inform both current and prospective hops growers on site selection, nutrient management, pest management, harvesting and processing of hops, and how to work with local brewers to market hops. With recent funding from the U.S. Department of Agriculture to study hops, extension will initiate a hops variety and production trial at the Rock Springs Research Farm in Centre County in the spring.

Roth also fields inquiries from growers and agribusiness about potential rye varieties for distilled spirits.

"Distilleries throughout Pennsylvania are looking to source local rye, and I'm in communication with folks making distilled spirits from every corner of the state," he says. "In these specialty grain markets we're seeing relationships growing between local growers and local distilleries."

Distilleries throughout Pennsylvania are looking to source local rye.







"This is an exciting time for extension," says Jeff Hyde, assistant to the director for special program initiatives. "Extension has been involved in wine and grapes for some time, but interest in hard cider production and grains is creating new opportunities. We see the entire fermented beverage industry as an entrepreneurial opportunity for producers. There's a lot on the horizon, and extension remains committed to putting the best information forward for everyone involved."