



“I thought I knew a few things about oil and gas development, but I didn’t know a fraction. That’s where Extension comes in. ... This drilling pad will probably be here for 25 years, and this land will be here when we’re gone. We want to make sure everything is done right for the next generation.”

— Kaye Clay, landowner and farmer, Harrison County

Landowners and farmers Kaye and Dick Clay, left to right, followed Extension’s guidance regarding their shale development agreement, giving them confidence to ask questions and make informed decisions.

Facing decisions on shale

OSU Extension expanding its educational offerings to address Ohioans’ concerns

When it comes to shale development, “Knowledge is gold,” says Kaye Clay. The Clays and thousands of other Ohioans consider Ohio State University Extension their go-to source for such information.

In 2012, Ohio had 215 horizontal wells drilled and 85 producing. Expect more to come. By July 2013, more than 800 drilling permits had been issued, and the number grows weekly.

Since 2010, the OSU Extension Shale Energy Workgroup has provided unbiased, reliable information to landowners like the Clays who were approached to lease some of their land for shale development. So far, more than 14,000 Ohioans have attended Extension-sponsored shale meetings, learning about the process and ensuring their concerns are addressed.

“Extension has a well-deserved reputation as an honest broker,” said Mike Lloyd, Extension educator and the workgroup’s co-leader. “By developing new research and delving into the issues, we can help bring different viewpoints into the discussion and help Ohioans make better and more informed decisions.”

More: go.osu.edu/shale_indownr

Essentials

- Extension’s Shale Energy Workgroup is expanding its focus beyond landowner concerns to include community, wealth management and environmental issues. “We saw the need and the opportunity to explore issues that are important to people in the region,” said Mike Lloyd, the team’s co-leader.
- The team has created a website, shalegas.osu.edu, as part of the university’s Subsurface Energy Resource Center. Through the site, Ohioans can get information about leasing, taxation issues, pipelines, water resources, community impacts and other issues related to shale development.



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Engaging people to strengthen their lives and communities through research-based educational programming



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Strengthening the Economy

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Advancing Employment and Income Opportunities

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Gary Thompson of JobsOhio sees OSU Extension's training on renewable energy development as important to retaining jobs and making Ohio businesses more competitive.

"This program presented critical information on energy efficiency, energy cost savings and utilizing existing green sources of energy. The lower energy costs make Ohio a more competitive state, which helps retain and attract jobs, especially in the manufacturing sector."

— Gary Thompson, director,
JobsOhio Northwest Region

Reducing the cost of doing business

OSU Extension, JobsOhio partner to show benefits of on-site energy projects

A growing number of Ohio companies, schools and agribusinesses are turning to on-site renewable energy generation projects to meet their electricity needs. That's why Ohio State University Extension offers training and educational resources to help businesses make informed decisions on energy investments.

In partnership with JobsOhio, the state's economic development arm, OSU Extension's Energize Ohio signature program organized a workshop in 2013 focused on the development and financing of on-site green energy projects. The workshop provided participants with information from a panel of experts including representatives from The Ohio State University, the Public Utilities Commission of Ohio, the Ohio Treasurer's Office and renewable energy companies. OSU Extension and JobsOhio are planning similar workshops in other regions of the state, and more educational resources are being developed.

A successful example of on-site energy generation is Cooper Farms, which installed three 1.5-megawatt wind turbines at its Van Wert location. This system offsets 80 percent of the facility's electric usage and was built by a local company using 90 percent Ohio labor.

More: energizeohio.osu.edu

Essentials

- On-site renewable energy production is part of a larger trend called distributed energy, which involves the generation of power through small, modular, decentralized energy systems located in or near the place where the energy will be used.
- Ohio is one of three states in the U.S. that has no capacity limit on net-metering systems. This allows Ohio businesses to neutralize the amount of electricity they purchase from a utility by investing in on-site energy projects.
- These projects offer increased reliability, reduction of peak power demand, improvements in power quality, reduced emissions and decreased price volatility.
- Because they are built for the long-term, renewable energy projects also demonstrate a company's investment in a location, which benefits local Ohio communities.

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Tracie Hanzel is a successful participant and an enthusiastic booster of OSU Extension's SNAP-Ed program, which covers everything from food shopping on a budget to food safety and healthy eating.

Giving nutrition a boost

OSU Extension helping low-income families eat healthier

In 1998, Tracie Hanzel was a pregnant mother of two, barely making ends meet, when she and her husband moved to Medina County. She soon discovered Ohio State University Extension's nutrition programs.

"I was so excited to learn about healthy cooking, I passed the information along to young mothers I was helping as a volunteer. I even took them to the classes," Hanzel recalls.

Participating in the program prompted Hanzel to return to school and earn her bachelor's degree. Now a family resource specialist with Solutions Behavioral Health Care, Hanzel works with low-income families and continues to make referrals to Extension's resources. Among them is SNAP-Ed, reaching more than 67,000 Ohioans in 66 counties, which helps Supplemental Nutrition Assistance Program recipients make healthier choices.

Evaluations show that more than half of Ohio SNAP-Ed participants choose low-fat dairy products more often, eat more vegetables and fruits as snacks, and spend their food dollars more wisely.

More: fcs.osu.edu/nutrition

"If you don't have food, you don't think right. You don't function right. You go into crisis mode. You can go to food banks, but do you know what to do with the food you get at a food bank? That's how Extension helped me."

— Tracie Hanzel, family resource specialist and community volunteer, Medina County

Essentials

- OSU Extension's Carolyn Gunther created the Simple Suppers program to help low-income families prepare healthy, home-cooked meals. In a 10-month pilot at a Columbus childcare center, researchers found that participating children decreased consumption of sugar-sweetened beverages and ate much more produce. And, the families enjoyed many more home-cooked meals.
- Kansas State University, South Dakota State University and OSU Extension are helping communities battle childhood obesity. The Ignite: Sparking Youth to Create Healthy Communities project is researching local access to healthy food and physical activity, then working with parents, kids, school districts and others to help low-income sixth- through eighth-graders eat healthier and exercise more. For more information, visit go.osu.edu/ignite_project.



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Strengthening Families and Communities

OSU Extension teaches people how to apply research in their daily lives in order to make informed choices about everything from finances to healthy living to food safety.



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School districts are having to include more fruits and vegetables to students, so having access to Farm to School expertise and additional resources has been beneficial, said Jill Merolla of Warren City Schools.

Local Foods program freshens school lunches with fruits, vegetables

Increases access to healthy, locally grown foods

Ohio's school lunchrooms provide opportunities for Ohio farmers and food producers to tap into the demand for pre-K through college students to have access to fresh, healthy, local foods. All of this is thanks to the national Farm to School program, led in Ohio by Ohio State University Extension. Farm to School is just one way that OSU Extension works to increase Ohioans' access to fresh, local foods.

Extension's Local Foods signature program focuses on food production, business, family and community through programs such as Farm to School farmers' markets and Extension's four program areas: community development, agriculture and natural resources, family and consumer sciences and 4-H youth development.

Farmers who participate in Farm to School gain access to a committed market with steady demand and reliable product prices, market diversity and increased community support. For instance, the Granville School District buys organic potatoes, vegetables and apples from local growers facilitated through the program. The effort promotes the growth of independent businesses through connecting private sellers (growers) with buyers (school districts).

More: farmtoschool.osu.edu

"Extension has helped us introduce students to healthier foods by helping them develop a taste for the foods, particularly those who are from homes where they are eating more processed foods. It's beneficial for the district, and I see the partnership growing."

— Jill Merolla, community outreach and grant development supervisor, Warren City Schools

Essentials

- Farm to School promotes healthy food access and hands-on education through a diverse, statewide advisory group and partnerships in all 88 Ohio counties.
- Thirty percent of Ohioans are obese, and the state spends more than \$3 billion annually treating obesity-related health consequences. Farm to School seeks to address childhood obesity and its impacts.
- OSU Extension awarded Farm to School an innovative grant to strengthen statewide outreach and support.
- In March 2013, The Ohio State University hosted the Farm to School conference, which drew some 300 attendees and highlighted opportunities for farmers, schools and community leaders to work together.
- The Ohio Farm to School website has now logged more than 2,500 visits.



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Major Angela Bailey, second from left, with husband Joe and kids Madison, Reagan and Lincoln, from left to right. “It’s an experience like no other,” says Angela of OMK.

Supporting Ohio’s military families

OSU Extension helping service members critical to national security

Angela Bailey, a major in the Ohio National Guard, was in officer training in Georgia on Sept. 11, 2001: “I knew immediately we would be deployed.”

Over the years, it wasn’t unusual for Bailey to be called away unexpectedly to manage missions in Ohio. In 2011, however, the Zanesville mother of three and, at that time, commander of the 1484th Transportation Company received orders for Afghanistan; her company was to depart in 90 days. Her company’s unusually quick deployment “didn’t give our families much of an opportunity to get things settled,” Bailey said. Still, her family was ready thanks to Ohio’s Operation: Military Kids (OMK), a partnership between Ohio State University Extension’s 4-H youth development program and the Ohio National Guard’s Family Readiness program.

Bailey especially appreciates the networks her husband and children have been able to build with other military families thanks to OMK camps. She is also grateful for the youth activities geared toward building resiliency: “Knowing my family is being well taken care of through OMK, I can focus on what I’m trained to do,” Bailey said. “Not having to worry about my family during a deployment — that’s pretty powerful.”

More: go.osu.edu/OMK

“With OMK, our kids see there are other families who live the same kind of military lifestyle we do. A lot of times, the only thing they experience is the negative — that mom has to go away again. This gives them an opportunity to celebrate being part of a military family.”

— Major Angela Bailey, 147th Regional Training Institute, Ohio National Guard

Essentials

- Operation: Military Kids is a national initiative that provides a network to help families connect with each other and with resources that can assist before, during and after deployment. In Ohio, nearly 33,000 children, who live in every county of the state, are members of military families.
- The heart of Ohio’s OMK program are daylong, weekend and weeklong camps. Starting with just one weekend camp in 2005, Ohio’s OMK organized or supported 17 camp opportunities for military youth and families in 2013.
- The programs are designed to help kids cope with stress and thrive in the face of challenges, said Theresa Ferrari, OSU Extension 4-H specialist and OMK project director: “You may not be able to change a situation, but you can learn to carry on.”



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Preparing Youth for Success

OSU Extension's 4-H youth development program delivers skills in leadership, communications, math, science and research to more than 250,000 young Ohioans. 4-H extends its reach through special in-school, after-school and summer programs.



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The JET program provides meaningful public service by helping youths like Jerome Scott, right, see that they can make a difference. The program provides youths with the skills to succeed in their future careers.

JET program helps urban youth soar

Employment training promotes workforce preparation, 21st century workforce skills

The Job Experience and Training (JET) program offered through Adventure Central, a collaboration between Ohio 4-H and Five Rivers MetroParks in Dayton, was more than a summer activity for Jerome Scott: It was life-defining. “From teaching me how to shake hands and how to carry myself, to putting an urban kid in nature, it’s changed my life and led me on my path to a degree at Ohio State,” said Scott.

JET is a six-month program that culminates in a summer job with the parks district. “JET teaches the 21st-century skills employers are looking for: problem-solving, critical thinking, teamwork, leadership, diversity, dependability,” said Nate Arnett, center director for Adventure Central.

Rebecca Benná, executive director of Five Rivers MetroParks, praised the professionalism of JET students: “We’re amazed by their leadership potential and how it helps them gain self-confidence and improved communication skills, which will carry through into adulthood and to other jobs.”

More: go.osu.edu/JETreport

“The five summers I worked in the JET program boosted my confidence to try new things. The program left me wanting to continue my education and feeling like I can be successful in whatever I do with my life. It’s made me a better man.”

— Jerome Scott, former JET participant and sophomore, The Ohio State University

Essentials

- Employers nationwide say many entrants to the job market lack basic skills for success. JET teaches job interview and application skills, offers job interviews and placements, and provides performance reviews.
- JET offers students jobs in education, nutrition, clerical work and parks and recreation.
- JET has reached 20–22 urban youths ages 12–18 annually since 2003, with 111 jobs filled. Participants reported growth in self-motivation, problem-solving, responsibility and understanding organizational systems.
- Youth Outdoors, an adventure program in partnership with Cleveland Metroparks, is designed to promote growth, responsibility and a relationship with nature for urban youth ages 8–18. It has had similar success, with 6,768 youths performing service-learning projects and participating in nature-related activities.



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Garden manager Evelyn Van Til says endeavors such as Fourth Street Farms provide the opportunity to engage, educate and empower communities that can last for decades.

Urban gardens get results

Safer neighborhoods, healthier food and a sense of community

The corner of Fourth Avenue and Eighth Street in Columbus flows with fruit trees and rows of berries, tomatoes, cucumbers, greens and herbs. It's a far cry from what used to be there: a burned, abandoned home that not only reduced the beauty and value of the surrounding homes, but also attracted vagrants and crime.

Thanks to the efforts of Ohio State University Extension and its partnerships with area civic organizations and community members, the former eyesore is now Fourth Street Farms, which boasts access to fresh, local foods. Located immediately southeast of Ohio State's main campus, the garden has helped grow a strong sense of community in an urban neighborhood of 4,600 residents with an average household income of \$18,613. The economically challenged area comprises residents and businesses that continually demonstrate resiliency.

Extension uses "local food system development on a micro-level in the neighborhood to positively impact the neighborhood, both economically and socially," said Mike Hogan, an OSU Extension educator who also works with the Weinland Park Food District.

More: localfoods.osu.edu

"OSU Extension has been a great force in Weinland Park through community gardens, weed and seed programs, litter cleanup, workshops, support, consulting and the willingness to share resources. All of that is helpful in building a neighborhood, and to counteract inter-generational poverty."

— Evelyn Van Til, community member and garden manager, Fourth Street Farms

Essentials

- Goals of the Weinland Park Food District include advancing food literacy and entrepreneurial activities to enhance the quality of food, environment and life for the community.
- From 2011 to 2013, 900 people attended 18 Grow Your Own OSU Extension workshops in the neighborhood.
- Other workshops offered include growing and raising food that is safe and tastes good, cooking and preserving nutritious food, creating food businesses and job opportunities and involving youth in healthy food decisions.
- Urban agriculture can be a tool to redevelop urban areas and develop local economies. In fact, 80 percent of Cleveland's 3,000 acres of vacant, urban land could produce 50 percent of the fruits and vegetables, 25 percent of the poultry and eggs and 100 percent of the honey for its urban residents.



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Captain Dave Spangler says of Lake Erie, if invasive Asian carp get in, nearly 120,000 Ohio tourism jobs, including his own, would be in jeopardy.

OSU Extension leads the fight against invasive species

Stopping Asian carp and others starts with education

Dave Spangler runs Dr. Bugs Charters, a Lake Erie fishing guide service. He minces no words about Asian carp. “These fish present a very real threat to Lake Erie and would probably destroy the lake as we know it (if left unchecked),” said Spangler, president of the Lake Erie Waterkeeper program and a board member of the Lake Erie Charter Boat Association. “We have to do everything possible to keep them out.”

He said stopping invasive species starts with educating the public. And he relies on Ohio State University Extension to do just that. Extension delivers a wide range of outreach designed to teach Ohioans about invasive species — and to sound the alarm when needed.

OSU Extension experts recently released a smartphone app that lets people report invasive species. The app speeds up detection, which cuts eradication costs and ups the chance for prevention.

“Invasive species can impact our food, landscapes, communities, and pocketbooks,” said OSU Extension’s Amy Stone, app co-developer and an invasive-tree-pest expert. “The sooner we can identify them, the lower the damage, and the lower the cost to manage them.”

More: go.osu.edu/invasivespecies

“Ohioans are more aware of invasive species thanks to OSU Extension. The education leads to earlier detection and hopefully keeping a species out in the first place. In Lake Erie, once an invasive species gets in, you can’t get it out, so money spent on prevention is money well-spent.”

— Captain Dave Spangler,
owner of Dr. Bugs Charters,
Oak Harbor

Essentials

- Ohio’s invasive threats also include feral pigs, giant hogweed, and Asian longhorned beetles, to name a few.
- Experts say Asian carp would likely decimate Lake Erie’s sport fishing industry, which contributes \$680 million a year to Ohio’s economy.
- Asian carp also would affect Ohio’s \$11.5-billion-a-year Lake Erie tourism industry. Just a 10 percent drop due to Asian carp would cost Ohio more than \$1 billion annually.
- Emerald ash borer, a tree pest, has cost Ohio businesses and communities \$8 billion to date. If unchecked, it could kill every native ash tree in Ohio and North America.



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