He serves the essential nature of soil

CFAES soil scientist Rattan Lal has worked on five continents during his 50-plus-year career.

He has advised experts and dignitaries including the presidents of Iceland and Bangladesh, and France’s and Morocco’s ministers of agriculture. And this year, he received one of the most distinguished global honors in science and technology. But he remains a literal man of the Earth whose research benefits what’s under your feet.

As Distinguished University Professor of Soil Science in the School of Environment and Natural Resources (SENR), Lal studies how the soil functions, how it can be degraded (such as by water erosion or depletion of soil organic matter), how to protect and restore it (including by adding organic matter), and the benefits of healthy soil to people and the planet. Sufficient food for Earth’s growing population, a stable climate, and clean water (from less soil and nutrient runoff) are some of those benefits.

“Soil is the basis of all terrestrial life,” Lal said, but he noted that it’s “finite, fragile, and easily degraded.”

As director of SENR’s Carbon Management and Sequestration Center, Lal leads the exploration of how sequestering, or storing, carbon in the soil—in the form of organic matter—
such as living or dead plants, compost, or manure—affects soil health, crop yields, and carbon dioxide in the atmosphere. The topics connect to the big-picture issues of food security and climate change.

As an international figure in soil science, Lal speaks and advises around the world, recently completed his term as president of the 60,000-member International Union of Soil Sciences, ranks as one of the most cited scientists in the world, and has trained hundreds of graduate students and visiting scholars during his time with CFAES.

He received the prestigious Japan Prize in January and the World Soil Prize and World Agriculture Prize in 2018.

His work helps CFAES address food security and water quality, and helps the college prepare future scientists and leaders.

He says soil is a universal connector.

“I strongly believe,” Lal said, “that health of soil, plants, animals, people, and ecosystems is one and indivisible.”

Read more at go.osu.edu/SoilRockStar and go.osu.edu/JapanPrize.

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Ohioline: Extension’s free information resource

*Predators of poultry. Protecting pollinators. Facilitating positive behavior in 4-H.*

These are just a smattering of topics covered on Ohioline, OSU Extension’s free online information resource, found at ohioline.osu.edu.

Ohioline fact sheets cover everything from gardening to energy, from farming to forestry, and from community development to youth development.

“Ohioline is continually updated with information that farmers, families, homeowners, and businesses need,” said Roger Rennekamp, director of OSU Extension and associate dean of CFAES. “It covers contemporary issues as well as those challenges that face Ohioans every year.”

The cutting-edge, scientifically based information is generated from research conducted by Extension educators and other CFAES faculty and staff. These professionals often collaborate with other land-grant universities as well.

The electronic resource is mobile-friendly so Ohioans can carry the fact sheets out to their gardens or fields via smartphones and tablets, or find the information on their computers. Visitors to the website can find more than 900 fact sheets to review.

Here are some recent additions to Ohioline:

- **Selecting Hydrangeas for the Home Landscape.** In this fact sheet, learn how to choose the right plant, how to choose a location where your plant will thrive, how to prepare the soil, and how to keep your hydrangea healthy and beautiful.

- **Making and Preserving BBQ and Hot Sauces.** Whether you like it sweet, spicy, or smoky, this fact sheet will tell you how to make your favorite sauces with safety in mind.

- **Estimated Return of Variable vs. Uniform Corn Seeding Rates.** Here, farmers can review field research from Ohio and Illinois to determine whether variable seeding rates would benefit their bottom line.

In addition to the free information on Ohioline, OSU Extension offers more in-depth books and bulletins for sale at extensionpubs.osu.edu. These publications can be ordered online or purchased from county offices of Extension.

“The free fact sheets on Ohioline and our for-sale publications are key components in our educational mission to create opportunities for people to explore how science-based knowledge can improve social, economic, and environmental conditions,” Rennekamp said.
Nestled in the heart of the oldest neighborhood in Columbus sits a farm that, in 2017, grew $50,000 worth of produce. The 2.5-acre farm is spread across 12 sites throughout the city’s urban landscape.

Franklinton Farms—named after the neighborhood in which it sits—is a network of urban farming plots where traditional farming techniques are used to produce enough vegetables, fruits, and herbs to supply a 40-member community-supported agriculture (CSA) program.

Franklinton Farms is just one of hundreds of farms that have sprouted up in recent years in formerly vacant lots in cities across Ohio, thanks in part to OSU Extension.

Agriculture is now a booming industry in many urban centers across Ohio and nationwide, said Mike Hogan, educator, agriculture and natural resources, OSU Extension. For example, Columbus was home to only five urban farms just four years ago, he said.

“Now, there are at least 30 urban farms throughout the city,” he said. “Not only have entrepreneurs been able to benefit from starting their own farm businesses in the heart of city neighborhoods, but people in the neighborhoods have benefited from having access to fresh, healthy foods grown nearly in their backyards.”

That is significant considering that, in Ohio, nearly 1 in 7 households experiences food insecurity, meaning the household cannot afford balanced meals on a regular basis. That’s higher than the national average, according to the U.S. Department of Agriculture.

“Urban agriculture and local food production address food insecurity, create economic enterprises, support community building, and offer job training for young people and others,” Hogan said.

OSU Extension offers training and resources to help urban farmers get their farms up and running, and then sell produce. Extension also works to establish and support community gardens, which are similar to urban farms, but instead of selling produce, members of community gardens take home or donate what they produce.

Extension also helps growers identify land for community gardens and perform soil testing to ensure the soil is safe to grow on. It also offers technical assistance for urban farmers, including how to plan an urban farm, how to control pests, and how to market and sell products.

For Mark VanFleet, the idea of “down on the farm” is a formerly vacant lot in a residential Columbus neighborhood. The lot provides enough for him to sell produce to 15 local restaurants and three farmers markets.

VanFleet is one of several growers who has graduated from the Ohio Master Urban Farmer workshop series offered by OSU Extension.

The intensive course teaches the basics of farming in an urban environment. Topics include soil testing, choosing a farm location, basic plant science, marketing produce, and most importantly, zoning and legal issues associated with farming in urban and residential areas.

OSU Extension also provides training to Ohioans who want to learn about gardening and then share their horticultural knowledge with others. These Master Gardener Volunteer training opportunities are offered statewide throughout the year. If you’d like to know more about Extension’s Master Gardener Volunteer program, visit mastergardener.osu.edu/about.
Ohio Farm Bureau Federation founding is celebrated

CFAES celebrated Ohio Farm Bureau’s 100th anniversary and the partnership between the two organizations on a cold, blustery day in January. A historical marker was unveiled outside of Jennings Hall on the Ohio State Columbus campus, documenting the first Ohio Farm Bureau meeting held at the site.

On Jan. 27, 1919, Farm Bureau members representing 76 counties, along with many OSU Extension educators, gathered on campus during Ohio State’s Farm and Home Week. On that day, Farm Bureau adopted its first resolution, pledging to support farm legislation, press for the organization of a national Farm Bureau, support the expansion of county Extension agent work, and cooperate with Ohio State’s College of Agriculture and Experiment Stations.

Specht had strong showing in discussion meet

Ohio was well represented by Annie Specht, an assistant professor with the CFAES Department of Agricultural Communication, Education, and Leadership, at the 100th American Farm Bureau Federation Annual Convention. The Tuscarawas County Farm Bureau member advanced to the Sweet 16 round of the national discussion meet competition. Specht, of Columbus, received an expense-paid trip to the New Orleans national convention after winning the 2018 Ohio Farm Bureau Young Ag Professionals Discussion Meet. The discussion meet contest tests participants’ subject knowledge, problem-solving abilities, and personal and small group communications skills.

Swine scholarships

Please consider a gift to The Fine Swine Scholarship (#315789), which awards scholarships to students majoring in the Department of Agricultural, Environmental, and Development Economics or the Department of Animal Sciences. Preference is given to candidates from the state of Ohio who demonstrate financial need. Contact the CFAES Office of Advancement at 614-292-0473 or faesdevcom@osu.edu for details.

Spring into plant sales

You can get a jump on planting this spring with help from CFAES’ two arboretums. By doing so, you can help the arboretums in turn.

The Secrest Arboretum at the Wooster campus and the Chadwick Arboretum & Learning Gardens at the Columbus campus have popular plant sales planned: Secrest’s Plant Discovery Day is May 11 (member presale, May 10); Chadwick’s Plant Sale and Auction Fundraiser is May 10–12. You can buy trees, shrubs, and more. You can also find experts to answer your questions. Proceeds help support the two facilities.

Find full details including hours at go.osu.edu/secrestplantsale2019 and go.osu.edu/chadwickplantsale2.