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Food

UDC's research farm embraces multiple missions: grow, teach and discover

By Tim Carman June 16

The farm grows apples, Asian pears and tiny crimson strawberries as sweet as truffles, but few outside the neediest Washingtonians will ever eat the fruit. The farm grows waterleaf, garden eggs and peppers as hot as glowing charcoal, but you won't find the West African and Caribbean produce at farmers markets in the District. And the farm grows greenhouse microgreens, but the fragrant little leaves grace the plates of only one D.C. restaurant.

Muirkirk Research Farm clearly isn't hung up on sales. It has an altogether different mission.

Located in Beltsville, miles from the University of the District of Columbia's Van Ness campus, the 143-acre Muirkirk is part of UDC's relatively new College of Agriculture, Urban Sustainability and Environmental Sciences (CAUSES). The college's dean, Sabine O'Hara, decided it was time for the farm itself to grow: Muirkirk needed to expand beyond its community outreach work, like training master gardeners, and move into research and academics.

In the two years since she started at UDC, O'Hara has transformed the farm into the organic embodiment of that old maxim: Give a man a fish, and you feed him for a day;

show him how to catch fish, and you feed him for a lifetime. Sabine has embraced UDC's unique status as an urban land-grant school and broadened Muirkirk's ambitions to include growing healthy, sustainable foods in an urban setting — and passing that knowledge on to those who live in the District.

"I checked, and we're not likely to grow corn and soybeans in the District of Columbia," O'Hara jokes. "Higher education needs to be relevant to the lives of people" in its community.

William Hare, associate dean for land-grant programs in CAUSES, expands on that idea.

"We want to increase the number of food producers in the District. We want to increase the number of people [who] are consuming healthy crops in the District," says Hare. "So how do you do that?. . . First, building the model so that you have a demonstration system so that you can train [people] and you can do research."

Muirkirk is an oasis of greenery located just across Old Baltimore Pike from a seemingly endless stretch of faceless industrial buildings. The man in charge of Muirkirk is Mchezaji "Che'"Axum, director of the Center for Urban Agriculture and Gardening Education. An environmental agronomist with more than 20 years experience with the Agricultural Research Service for the U.S. Department of Agriculture, Axum now oversees a farm that, just a few growing seasons ago, planted crops on around three acres.

Today, the area under seed approaches 15 acres, thanks in part to USDA block grants that have helped fund the farm's expansion into specialty and so-called "ethnic" crops. Crews have cleared acres of trees to open up farmland for Axum and his small team of assistants, contractors, volunteers and students to go about their work. They've planted seeds in plots large and small, whether inside a massive moveable greenhouse called

Rolling Thunder or in tiny elevated beds. They're even experimenting with aquaponics to create nutrient-dense waste water to potentially irrigate crops.

As a research farm with an agenda larger than selling fruits and vegetables for a profit, Muirkirk strives to answer questions about agriculture grown in the D.C. area's specific climate. Among the current projects, Axum and team are testing crops that require little light as well as a low-growing variety of corn that doesn't require as much space as traditional stalks, which can reach the height of your average NBA center. They're also testing what approach works best to cultivate dryland rice: drip irrigation tape placed on the surface of the soil or buried three inches below?

Axum is particularly keen on a project to test crop nutrient densities based on different growing methods. For example, Axum says, he might spray one row of apple trees with a foliage-based fertilizer and then leave another row dry. When the harvest arrives, he says, students could then test apples from each row to see which has absorbed more nutrients.

"What's the point of growing food if it can't be nutritious?" he asks.

Nutrition isn't the first thing that comes to mind when Jaime Montes de Oca discusses the produce from Muirkirk. Montes de Oca is senior executive sous chef at the Hay-Adams, and thanks to Hans Bruland, vice president and general manager of the historic hotel, the chef has direct access to the farm's crops. Bruland met O'Hara, the UDC dean, at a Goethe-Institut reception, and before long, the pair hammered out an agreement. The contract would allow the chef to create his own farm-to-table menu, Bruland says, to "add a little more excitement" to the hotel's staid Lafayette restaurant and Off the Record bar.

Every week, Montes de Oca receives (or picks up himself) many pounds of produce from the farm. It might be microgreens grown exclusively for the Hay-Adams or it might be

kale, which the chef uses for a "farmhouse" salad dressed with a vinaigrette infused with dehydrated kaffir lime leaves, also grown at Muirkirk. Or it might be the Swiss chard that Montes de Oca, on his hands and knees, harvested in early June.

"That's the beauty of this farm," Montes de Oca says. "I picked this [Swiss chard], and I have had this for almost seven days. And it's almost pristine." Swiss chard from his other vendors, he adds, will "break down after a couple of days."

Montes de Oca has, on occasion, even tapped into the West African and Caribbean produce grown on a section of Muirkirk run by Togo native Yao Afantchao, the ethnic crop development specialist for UDC. Afantchao's goal in growing garden eggs (also known as African eggplant) or super hot chiles such as ghost peppers or Congo chocolates is not necessarily to supply chefs. It's to educate small immigrant farmers, such as those in southern Maryland who once grew tobacco, on how to plant and market their native crops to Americans and fellow immigrants.

"Every one of these crops will grow well" in the mid-Atlantic, says Afantchao. "To me, I think they do even better in this weather than they did in Africa. I grow some very good stuff here in the soil. I think it may be too hot for them in Africa. Here it's a little temperate, and they love it."

One small section of Muirkirk is basically off limits to chefs, whether Montes de Oca or even UDC cooks who want to harvest their own produce for the campus cafeteria. The nearly three-acre patch is calledCity Orchard, and it's dedicated to all kinds of fruit, from those growing on trees (apples, Asian pears, persimmons) to those huddled closer to the earth (strawberries, blackberries). The crops are grown exclusively for the nonprofit organization Bread for the City, which distributes the fruit to nearly 9,000 needy District residents and families each month via two food pantries.

City Orchard is a way for Bread for the City to have a steady supply of fruit, says Ryan Hill, associate director of development. Fruits have historically been hard to come by, at least when compared to vegetables, which are donated at a higher volume, Hill says. “Fruit is tremendously popular,” he adds. “On our shelves, it goes quickly.”

Like the rest of Muirkirk Farm, City Orchard also has an educational component, teaching the District’s poorest residents about fruits that many take for granted. To some children, Hill says, persimmons and blueberries are as foreign as garden eggs are to many Americans; for this younger generation of Washingtonians, both orchard and the greater Muirkirk Research Farm could play a role in improving not only their knowledge of fruits and vegetables, but also their consumption of them.

“You’ve got an 8-year-old kid who’s never tasted a strawberry,” Hill says, clicking off some real-life interactions. “Or another kid who asks, ‘Where’s the chicken nugget tree?’”

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