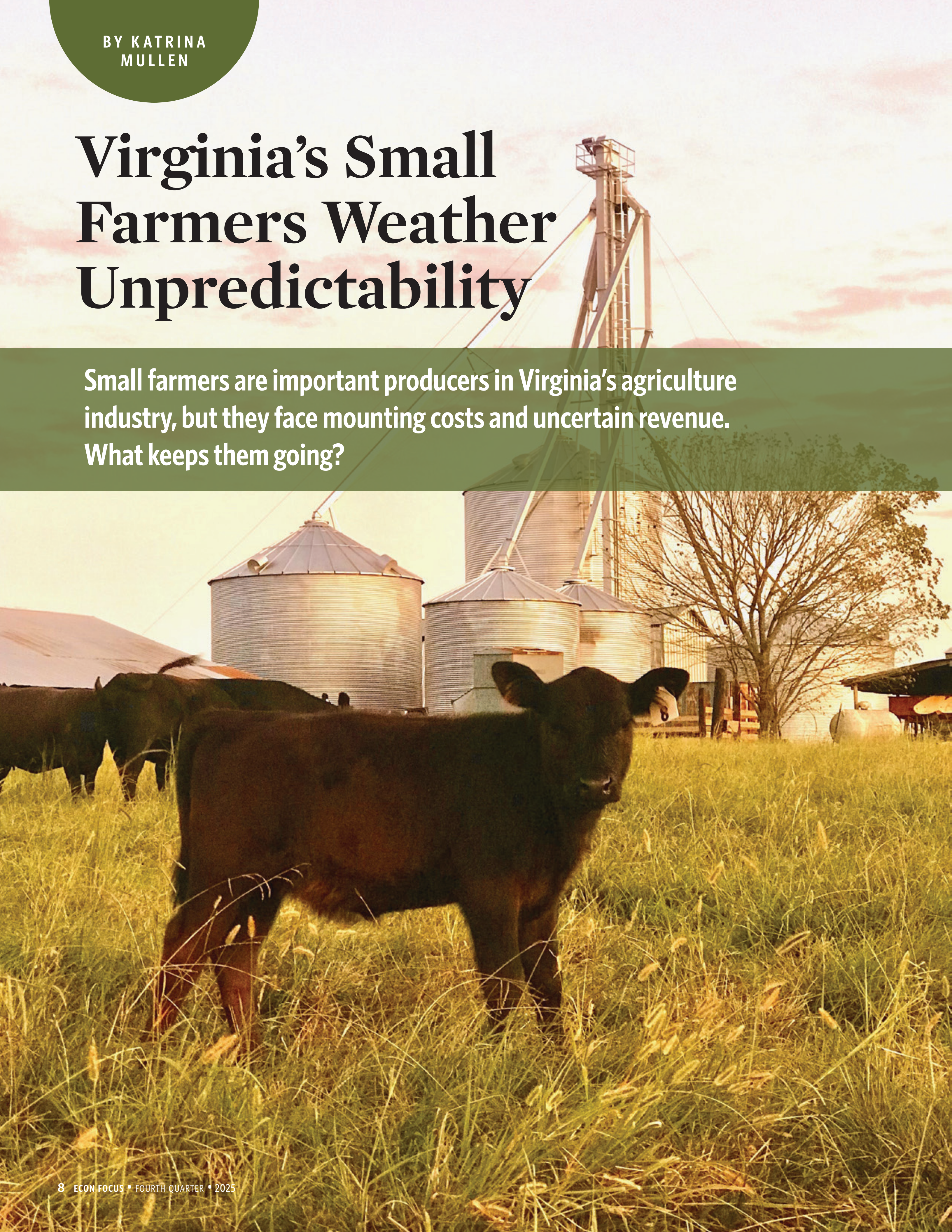
BY KATRINA MULLEN

Virginia's Small Farmers Weather Unpredictability

Small farmers are important producers in Virginia's agriculture industry, but they face mounting costs and uncertain revenue. What keeps them going?



A typical day on Oak Level Farm in Yale, Va., varies by season, but one thing remains constant: long hours. Jared Webb works 60 hours or more every week to manage and maintain the small farm that his grandfather inherited in the 1960s.

"I got to spend a lot of time riding around with my granddad on tractors. Farming here was always something that I wanted to do," says Webb, who began to operate the farm in the early 2000s after his grandfather passed away and not long after he graduated from Virginia Tech's Agricultural Technology program. Today, Webb oversees cattle, cotton, peanuts, and other crops on the 1,700-acre farm.

Oak Level is one of nearly 40,000 small farms in Virginia that together account for 83 percent of all farms in the commonwealth. Most of Virginia's small farms grow diverse specialty crops of fruits and vegetables. They contribute to the state's largest private industry, agriculture, which has an annual economic impact of more than $82 billion and creates over 380,000 jobs, based on a report from the University of Virginia. Despite this, the number of small farms is falling.

According to the Census of Agriculture, which is administered every five years by the U.S. Department of Agriculture (USDA), Virginia lost over 480,000 acres of farmland between 2017 and 2022, more than it lost during the 15-year period between 2001 and 2016.

Virginia became an agrarian colony toward the beginning of the 17th century, with tobacco as its primary crop. Since then, the agriculture industry in Virginia has become more geographically and agriculturally diverse. But the economics have long been challenging for small farmers, who now face additional headwinds from tariffs and federal funding cuts.

SMALL FARMS, SMALL INCOMES

The USDA measures farm size by gross cash farm income, or annual income before expenses, rather than number of acres. Any farm with a gross cash farm income of less than $350,000 is considered small, while large farms earn $1 million or more. In fact, the income most small farms generate from annual sales is often well below $350,000. The 2022 Census of Agriculture reported that, on average, Virginia's small farms sold less than $50,000 worth of agricultural products. This limited sales revenue means many small farmers rely on off-farm income to make ends meet. In 2023, 96 percent of farm households earned income from off-farm sources, which can include employment in another industry or passive income from government benefits or private pensions. In Webb's case, his wife works in health care, and he receives additional income from farming his neighbors' land, hauling grain, and servicing machinery. Small farms also rely on agritourism to generate supplemental income, offering recreational services to consumers such as apple picking, corn mazes, or weddings.

"Where I am from, Pulaski County, has a lot of people who raise beef cattle but have an off-farm job, such as at a factory or in local or state government," says Joe Guthrie, the Virginia Department of Agriculture and Consumer Services (VDACS) commissioner and a sixth-generation farmer from Dublin, Va. "A healthy rural economy is important to agriculture because farmers need other jobs."

Not all small farmers have off-farm jobs, however. Janet Aardema and her husband Dan Gagnon, owners of Broadfork Farm, a small organic diversified farm in Chesterfield, Va., started farming part time but gradually made it their full-time focus. They initially thought they needed off-farm income but recognized "the farm needed to be a business that would pay for itself," says Aardema. "We whittled down our family financial needs to live on the little bit that we made."

They now manage a self-serve farm stand, run a farm share program, and sell their produce at a weekly farmers market. The term "farm share program" is another name for community supported agriculture, where the consumer prepays a fixed fee for their produce, which allows the farm to receive cash before the harvest to cover expenses like fertilizer and seeds. In return, the consumer receives the available produce at predetermined dates. Aardema is aware of the farm share's purpose — to mitigate risk for the farmer — and purposefully limits the number of participating consumers to make it a fair partnership and ensure that there is enough produce each week for each farm share member.

"Managing the farm share has been something that I've always been extremely deliberate and conservative about to protect the relationship between the farmer and the consumer," says Aardema. "I think it's extremely important that a farmer get to know the soil, get to know the seasons, get to know the crops on the land, and get to know consumer demand or interest in those crops."

In many rural areas, the production values of crops and agricultural products are relatively low. According to Guthrie, a small percentage of the outputs are production agriculture — the crops and livestock itself — whereas the majority are value-added agriculture, where the crops are converted into products like jams and sauces. He acknowledges that while most of Virginia's farms are small and bring in a low percentage of total agricultural sales, they are important because they help to preserve farmland and provide essential goods and services.

"We could all get paid more by doing pretty much anything else. We're doing it because we're prioritizing the experience of the people who eat this food that we grow," says Aardema. "It's challenging working at the farmers market every Saturday, but the benefit is that people tell me, 'My life is better because you've made this food for me to access and purchase.'"

Research suggests intangible benefits such as these are a big draw for farmers. In a 2020 *American Economic Review* article, John Bailey Jones of the Richmond Fed and Sangeeta Pratap of Hunter College at the City University of New York examined data from New York dairy farmers and found that many small farms stay in business despite having very low incomes. This suggests that many farmers operate because of intangible benefits such as being one's own boss. Contained within the USDA's broad definition of a farm — an operation with more than $1,000 in

IMAGE: COURTESY OF OAK LEVEL FARM

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agricultural product sales during a given year — are many small farms that provide hobbies for their owners.

NAVIGATING RISING COSTS

In recent years, the median farm income has trended upward, but so have costs. "It's very expensive to buy land in Virginia. In most places, farmers can't afford to buy land and farm it to pay for it," says Guthrie. "Farmland that's owned is often inherited; it's intergenerational. Larger farms usually include a large percentage of rented land since it is usually much cheaper to rent farmland than to buy it."

The USDA reported that in 2022 about 33 percent of farmland in Virginia was rented. "Farmers suffer the same outcomes that a lot of residents do," says Parker Agelasto, executive director of the Capital Region Land Conservancy (CRLC), a nonprofit land trust that helps to permanently protect land through conservation easements in perpetuity. "As property values and rents rise, farmers lose tenure, or control over the land. They lose access to the land when an owner can no longer avoid developmental pressures impacting land values and real estate taxes, and the farmer can't afford the higher rents charged." For small farmers who own their land, a lot of their equity or net worth is tied to that land. They often find themselves having to sell off portions of the farm to cover medical bills, retirement, or other major expenses. Some landowners opt to donate conservation easements to preserve their farm, reducing its development potential and land value and receiving tax incentives and cash to compensate for extinguishing certain rights.

Regardless of ownership, the CRLC protects land in the Richmond region from industrial, commercial, or residential development. In addition to conservation easements, the nonprofit also protects land through acquisition. According to the 2022 Census of Agriculture, the Richmond region lost almost 10,000 acres, or more than 13 percent of its farms, between 2017 and 2022.

The demand for housing in recent years — exacerbated by the COVID-19 pandemic — has put more pressure on farmland. "The developers go after the low-hanging fruit, greenfield development, mostly farms that are already cleared and pad ready in many cases," says Agelasto. "It's very frustrating because it takes so long to get agricultural lands to be productive. Our prime soils are really something we cherish."

In addition, the proliferation of data centers, especially in Central and Northern Virginia, has increased the incentives to convert farmland to other uses. While the agriculture industry employs more people, data centers are a growing economic force in the state. A 2024 report by Virginia's Joint Legislative Audit and Review Commission found that the data center industry added 74,000 jobs and $9.1 billion in GDP in Virginia annually. (See "Virginia's Data Centers and Economic Development," *Econ Focus*, Second Quarter 2023.)

When farmland gets converted to nonagricultural uses, it lengthens the food supply chain and reduces access to local foods, which can have negative consequences for local health. In a 2021 *Agricultural Systems* article, Goedele Van den Broeck of the University of Louvain and Laura Enthoven of University of Antwerp found that community supported agriculture encouraged consumers to select healthier foods. Since VDACS has a mission to support the economic growth of agriculture in Virginia and provide consumer protection, the agency developed two brands to assist Virginia consumers in choosing Virginia food products. The Virginia Grown brand is mostly for fresh products from the field, like produce at a farmers' market. The Virginia's Finest label is for value-added products, such as jams and sauces, that are produced and processed in the commonwealth. VDACS assists companies using these brands gain new markets and customers by promoting their products at food trade shows and other events as well as through a searchable directory on the agency's website.

In addition to land loss, the commonwealth has lost much of its infrastructure over the years for many agricultural commodities, such as beef. Guthrie remembers when Virginia used to have all stages of the beef cattle industry, but it has now largely become a cow-calf state, where a calf is raised to half size and sold to a feedlot in Pennsylvania or in the Midwest where it's finished, processed, and returned to Virginia. In an effort to incentivize keeping more cattle in Virginia from production through processing, VDACS recently began working with the Virginia Cattlemen's Association to develop a Virginia Verified Beef brand for products from cattle that were bred, born, raised, and processed in Virginia. This brand assures Virginia consumers that they purchased a local product, which can be sold at a premium. Similar brands may be developed for pork, sheep, and goats.

Cattle and calves are the second largest commodity in Virginia, behind poultry. For beef production, which is expensive and facing rising costs, small farms have found it harder to stay profitable, which is why many operate through direct-to-consumer sales instead of wholesale or retail. In a recent *Journal of Agricultural and Resource Economics* article, former USDA Economic Research Service economist Nigel Key acknowledged that while the direct-to-consumer model is still risky since input and output prices can vary year to year, new farms benefit from the model because it offers "a more predictable source of income." Despite making less money and having slower growth, new farms using this model are more likely to survive.

NEW HEADWINDS ON THE HORIZON

Another challenge for farmers is institutional risk, when governmental decisions impact farm operations. This year's changes to tariffs, or taxes on imported goods, have been wide-ranging. For example, the U.S. tariffs on Canada range from 10 percent to 50 percent and apply to common farm inputs like fertilizer. While tariffs are meant to encourage consumers to buy locally, farmers depend on many inputs from outside of the United States. Small farmers, many with low net incomes, may struggle to afford higher input prices if tariff costs are passed on to them.

Farmers like Aardema and Webb have already felt the effect of tariffs on inputs like fertilizer. "Agriculture is facing some of the hardest times right now that we've ever faced with the tariffs and rising input costs," says Webb. "My granddad farmed in the '60s and sold his commodities for more than I'm selling them now. Everything costs so much; it's unreal."

In a recent letter in the journal *Science*, Asim Biswas of the University of Guelph noted that the 50 percent tariff on imported steel greatly affects the cost of equipment used in precision agriculture. According to Guthrie, many farmers in Virginia rely on precision agriculture to determine the exact amounts of fertilizer, seeds, and pesticide that will reduce their inputs and increase their efficiency. Many farmers in the commonwealth, and the programs that support them, have also felt the effects of federal funding cuts, many of which reversed COVID-19 era policies. This year, the USDA canceled two programs — the Local Food Purchase Assistance (LFPA) Cooperative Agreement and LFPA Plus — that gave schools and food banks more than $1 billion to buy food from local farmers. In the last few years, Virginia received more than $13.6 million from LFPA and LFPA Plus. Another approximately $660 million was cut from the Local Foods for School Cooperative Agreement Program, which addressed supply chain resilience and supported small farmers through the National School Lunch program, a federal program that subsidizes food in public schools, nonprofit private schools, and residential child care centers.

THE VALUE (AND FUTURE) OF AGRICULTURE

Another long-standing challenge facing Virginia farmers is finding successors to take over their work. The average age of a Virginia farmer is 59, and it has increased in the last two decades. Moreover, the average age of a new Virginia farmer is only about 10 years younger. In light of the many challenges facing the industry, how can Virginia recruit new farmers to maintain the commonwealth's small farms?

William Crutchfield, the director of the Small Farm Outreach Program at Virginia State University (VSU) in Ettrick, Va., which is both a land-grant institution designated by Congress to teach and offer agricultural research and a historically black college and university, touts that "it's the small farmers who make big impacts; the large farmers cannot do it all." VSU's Small Farm Outreach Program offers technical and educational assistance for small and beginning farmers. It operates as part of the Virginia Cooperative Extension, an agricultural partnership with Virginia Tech, a fellow land-grant institution located in Blacksburg, Va.

VSU's Small Farm Outreach Program is one way to help farmers whether they are seasoned or just starting out. The program begins with an orientation, then the farmer is paired with a program assistant from their area who guides them through workshops and an online agribusiness class that covers topics like production, financial planning, and risk management. The centerpiece of the program is Randolph Farm, a 416-acre learning center near VSU's campus, which hosts demonstrations and workshops. The Small Farm Outreach Program, along with its nationally recognized NUag Initiative to support urban agriculture, has relied on federal funding provided by the USDA to achieve success. But without any notice, Crutchfield received an email in March saying that the university's grants from five different USDA agencies, estimated at more than $3 million annually, had been terminated. He and others quickly pivoted and shifted employees and resources, but he says it has been hard. He worries that the funding cuts will hurt efforts to recruit future generations of farmers because the resources to educate and support them are no longer available.

"First, you have to find young people who want to farm. It's one thing to have the farmland, but if you don't have anybody who wants to farm it, what are you going to do?" says Crutchfield. "When you take away all of the vocational agriculture from the rural schools, there's nobody interested in farming."

State and local communities understand the impact small farmers have on the local food supply and the economy, and small farmers value the contributions they make to produce local foods for their communities. "We feed 500 households every week. We're a very small farm, but that number is big," says Aardema.

While small farming has its challenges, Crutchfield wants the younger generations to understand that "this is not your grandfather's farm anymore." Instead of driving a tractor, raising livestock, or producing grain, there are other ways to support Virginia's agriculture industry, perhaps as a drone pilot or as an agricultural engineer.

"I think there's a great future for agriculture in Virginia," says VDACS's Guthrie. "I have never heard a farmer say, 'I wish I'd never bought that farm.'" **EF**

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