

The horticulture industry's age problem is bigger than you think

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Nora Palmer, 21, works at Hershey Gardens in Hershey, Pa., on July 19. "Everything you do in horticulture is wonderful," Palmer said. "Almost magical." (Jim Graham/For The Washington Post)

HERSHEY, Pa. — Nora Palmer is a gardener who toils happily in breezy Hershey Gardens, a playground of roses, herbs, old trees and leafy spaces that welcomes, among others, field-tripping grade-schoolers. "I've just finished weeding and mulching here," she says as she walks through a children's garden where three fountains, formed as Hershey's Kisses, whistle as they spout.

The gardens of candy magnate Milton S. Hershey don't quite have the surreal power of Willy Wonka's Chocolate Factory, but Palmer's workplace is still a realm of fantasy outside the quotidian slog. The re-created formal rose garden, with hundreds of flowering hybrid teas, is a blast from the past. Above it towers the Spanish-style Hotel Hershey, a voluptuous riposte to the Great Depression. If she listens closely when the wind dies, Palmer can hear the muffled joy-screams of riders on the roller coasters at Hersheypark.

Palmer, 21, seems to have gotten off the roller coaster of young adulthood a long time ago, if she ever was on it. She decided in high school, to the bemusement of her guidance counselors, that she was going to be a professional gardener. All is going to plan.



Palmer spends the summer before her last semester at Delaware Valley University, where she is pursuing a horticulture degree, toiling at Hershey Gardens (Jim Graham/For The Washington Post)

In late August, she begins her last semester at Delaware Valley University, a private school north of Philadelphia, where she will graduate with a degree in horticulture. Next stop will be graduate school and, in time, a PhD related to plant science. She hopes to teach and at some point have her own fruit farm.

For now, she is working as a summer gardener at Hershey Gardens near her hometown of Palmyra, immersing herself in the practice of public horticulture by day and joining her mom, dad and two sisters for dinner at night.

The Hershey visitor may miss this amid the aroma of shredded mulch, but Palmer is living her dream. “Everything you do in horticulture is wonderful,” she said. “Almost magical.”



Palmer weeds, mulches and deadheads, among other tasks, at the property which has a rose garden with hundreds of flowering hybrid teas. (Jim Graham/For The Washington Post)

The middle of three daughters to a pharmacist and a stay-at-home mom, she was working in the family's yard and garden as far back as she can remember. As a third-grader, she grew a prizewinning cabbage, and as a teenager, she paid for her first car by mowing lawns.

There is something so timeless about Palmer's course that it's tempting to think of her story as a reminder that outside the chaos of the Washington political circus, life in this country goes on in its quiet, ordered fashion.

But horticulture is facing its own crisis. As older plant growers, nursery managers and groundskeepers reach retirement age, there are too few Nora Palmers arriving to replace them.

And to state something so apparent it seems forgotten: Everyone needs plants. Plants feed us, oxygenate us, heal us, shade us and clothe us. Plants are the stuff of legal booze and illicit drugs, and, perhaps more obviously, they simply delight us. Despite this reliance, most Americans are said to be able to identify no more than 10 species growing around them. This indifference seems to be one of the woes facing the green industry.

"There's an age gap in commercial horticulture, a drastic and obvious lack of people under the age of 40," said Cole Mangum, vice president of production at Bell Nursery in Burtonsville, Md. The company furnishes millions of plants in the spring to almost 300 Home Depot garden centers in the Mid-Atlantic and Midwest.

"Our largest concern," Mangum says, "is in finding that next generation of greenhouse growers." The grandson of the company's founder, he is, at 32, an outlier in his own field.

"We have more employers calling us than we have students to fill the jobs," said John Dole, associate dean of the College of Agriculture and Life Sciences at North Carolina State University. "We aren't meeting the needs of the industry."

According to a 2015 study, nearly 58,000 jobs become available each year in agriculture-related fields, but only 61 percent are filled by qualified graduates.

The gulf between jobs and takers is so obvious and alarming to insiders that more than 150 green industry employers, colleges, botanical gardens and others in April launched a national initiative seeking to reverse the decline.

One selling point to teenagers: Horticulturists can directly work on a host of cool environmental and social issues, including the effects of climate change and extreme weather and the lack of access to fresh food in poor city neighborhoods.

"If you want to save the planet, one of the best ways to do it is through horticulture," said Angus Murphy, chair of the Department of Plant Science and Landscape Architecture at the University of Maryland at College Park.

The nonprofit group Seed Your Future has spent almost five years defining the problem and devising a strategic plan to address it. In focus groups, researchers for Seed Your Future found

that no middle-schoolers they quizzed had even heard of horticulture. (The word comes from the Latin for garden, Hortus, and dictionaries generally define it as the art, science and practice of growing garden and orchard plants. The field overlaps with agriculture, with many horticulturists becoming farmers of specialty vegetables, fruits, cut flowers and herbs.)

Another problem went deeper: Many young Americans lack a basic awareness of plants and their value.

“Kids aren’t even going to consider a career in horticulture if they don’t know the impact of plants in our world,” said Susan Yoder, Seed Your Future’s executive director.

Its new “Bloom!” campaign uses social media platforms and personalities to make the connection between plants and topics that interest sixth-, seventh- and eighth-graders, including sports, fashion, food, cosmetics and wellness. The effort includes YouTube shorts featuring the head groundskeeper for the Baltimore Orioles and a horticulturist at the Jacksonville Zoo and Gardens in Florida. Other spots highlight the need for drone operators in horticulture, the value of florists and the cool life of a greenhouse grower, bathed in purple LED grow lights. (The group is avoiding one obvious growth area in the industry: commercial marijuana production.) Organizers are also trying to reach parents and youth group leaders, believing that their misperceptions are steering kids away from an occupation that is more than pushing a lawn mower at minimum wage. Seed Your Future has produced a list of 100 occupations that rely on horticultural expertise, including ethnobotanists, hydroponic growers, arborists and landscape architects.

The industry divides into three tiers, said Scott Sheely, special assistant for workforce development in the Pennsylvania Department of Agriculture. The top level includes undergraduates and graduates who become scientists, experts serving large-scale greenhouse operations and entrepreneurs. The middle tier is one of technicians with two- or four-year degrees and the skills to keep operations running in an increasingly electronic environment. At the bottom are landscape crews and workers in production and distribution networks. Many in the last group are foreign-born, and industry observers believe a number of them could move into the technical tier with training, Sheely said, but “we have a lot of issues at the federal government level about immigration,” making it harder to employ foreign workers. “People we talk to in general agriculture are very concerned about it.” He said there is an expected shortfall of 75,000 jobs in Pennsylvania agriculture, including horticulture, over the next decade.

Compounding the problem nationally has been turmoil and loss of horticulture programs in land grant colleges and universities in response to declining enrollment. Fewer than one-third of 54 schools surveyed in 2015 still had separate departments of horticulture.

Palmer said she and her classmates at Delaware Valley are so cloistered in their lectures, labs and hands-on gardening that she hasn’t dwelt on the increasing rarity of what she does. “It kind of masks what’s going on outside,” she said. The university, founded as an agricultural school in 1896, has a 570-acre campus in Doylestown, Pa. Full tuition is approximately \$38,000 a year.

Anna Palmer said her daughter's degree represents a significant investment — but in Nora, not her job prospects.

“It's something that's she's passionate about, and when you see a passion deepening in your child, cultivate it,” she said. Beyond imparting technical knowledge, college gives her the space to explore her interests and finish forming as a decision-making adult.

“She said, ‘Mom, I'm just walking around constantly opening doors.’ And that's what you need to do, open those doors and see where they lead,” Anna Palmer said.

Her daughter is also a musician and an artist as well as an outdoorswoman, into hiking, kayaking, fly-fishing and hunting with her dad, Andy Palmer.

For her father, it's not hard to connect the dots. Nora the artist and Nora the gardener are one and the same. “It's all about creating. I think the concept of propagating a plant or planting seeds and watching them grow, or drawing and music, it all ties together,” he said.

But what about his daughter entering a field that has become not just unfashionable but forgotten? “Education is about learning, and sometimes we are too focused on the end game, like getting a job that pays a lot of money,” Andy Palmer said. “But when people are passionate about something, the job and the money will come.”

To which his daughter added: “Money can't buy you happiness. You can be extremely wealthy and not be happy.”

Climate change and environmental degradation are “big issues,” said Nora Palmer, but her primary motivation is more basic, and comes down to a need to touch and nurture plants and watch them grow. When I asked her what facet of horticulture she likes most, she moved even farther from the madding crowd. “Pomology,” she said, conjuring the time-encrusted term for the science of fruit cultivation.

In a three-hour visit, she produced a smartphone not once.

But to think of her as a quiet, ordinary country girl is to misread Nora Palmer. Rather, she has clung to something that our hyperactive, hyperbolic, message-spewing digital age has lost, namely the virtue of a plain life based on knowledge, work and constancy.

Palmer has figured out what many of her age cohort may be missing, that through the humble act of cultivating plants, she has found a way to nurture herself.