



# WALTER

*The Art & Soul of Raleigh*

DECEMBER 2021  
waltermagazine.com

## *A Musical Journey*

FEAST OF THE SEVEN FISHES  
WEARABLE PAPER PROJECT  
POINSETTIA POWER  
+ MUSICIAN KATE RHUDY





# *poinsettia* **POWER**

Dr. Brian Jackson's soil research colors our holiday world

by **ILINA EWAN** photography by **S.P. MURRAY**







**A**round the holidays, you can find poinsettias just about anywhere, from grocery stores to big box outlets to nurseries and florists. But in Raleigh, they flourish in the greenhouses at North Carolina State University. And while most folks enjoy poinsettias for their lovely holiday colors, horticulture professor Dr. Brian Jackson grows more than 29 varieties of the plant for soil research — their beauty just happens to be a colorful complement to hard science.

A respite from the chill of winter, Jackson's greenhouse is a delight to the senses, warm and humid with rows upon rows of colors from ruby red and brilliant fuchsia to a lime-tinged ivory and delicate pink, all connected by a tidy network of hoses. For eight years, Jackson has started seedlings in July to experiment with different soil properties. And each December, he's ended up with an array of grown plants as a byproduct of his research. "I've always loved poinsettias as a horticultural crop, and it's a great indicator plant," says Jackson. "It tells you if the soil has the right properties or if there are any toxicity problems."

Fellow researchers study the poinsettias themselves, developing new colors and more aesthetically pleasing varieties. But Jackson uses the plants as the basis for his research into new organic materials that can be used to grow plants. "Dr. Jackson's poinsettia research helps the plant industry understand optimal conditions to grow and to make potted plants beautiful," says Dr. Richard Linton, dean of the College of Agricultural and Life Sciences.

"I find ways to use local materials to grow plants more efficiently and more abundantly," Jackson says. When pressed, he'll tell you it's his favorite project of the year, which can often be filled with the administrative aspects of working as a professor and running research projects. "It's nice to do what I've been trained to do, to get my hands in the dirt. This is my

outlet to do that, because I know it serves the industry, serves my program, and it is just a beautiful, fun crop to grow."

Once that year's plants have served their purpose, Jackson finds the 800 or so poinsettias new homes, giving them away to friends, family, and members of the campus community, as well as small businesses, public schools, and nursing homes. His friend Rusty Sutton, owner of the Green Monkey, has had the pleasure of using them in his shop windows.

"I love the classic red ones because red is my mom's favorite color," says Sutton. "I'm always excited to add color and natural beauty to our store windows and to our home." Jackson's poinsettias have even graced the Executive Mansion, becoming part of its celebratory holiday display. "I call Brian the Poinsettia Prince because he reigns over those two greenhouses full of poinsettias that seem to go on forever," says Jere Stevens, a longtime friend from horticulture class. "It's a sight that takes your breath away and makes you anticipate a happy holiday."

Jackson has had his hands in the dirt since his early years in Lumberton, where he worked on his grandfather and uncle's tobacco farms during the summer months. "I had incredible parents; they instilled a tremendous work ethic," he says. "Back then, the only access to the world I had was the encyclopedia set."

Jackson came to NC State as an undergraduate student, the first in his family to go to college. He had his eye on studying agronomy soil for a career in agriculture, but a scheduling glitch landed him in an introduction to horticulture class, where an esteemed educator changed his mind. There, he says, "Professor Bryce Lane was so passionate that he lit the spark in me

about this discipline. I switched majors the second week of my freshman year." It was through this course of study that Jackson learned that he loved growing plants and sharing that knowledge with people. That propelled him to earn a masters from Auburn University, where he studied growing tomatoes in compost, his first encounter in growing plants without typical soil. From there he went on to earn a PhD in horticultural science from Virginia Tech, where he

worked with a professor who had the idea of engineering pine wood fiber to use as a local renewable, sustainable growing medium.

While he left his home state to study, Jackson was drawn back to his roots, and soon returned to NC

State, where he and Lane are now close friends and colleagues. In addition to his research, Jackson teaches both undergraduate and graduate students about horticulture, soil, and soilless media, igniting the same fire he experienced years ago. "He is magical in the classroom — I wish I could take his class!" says Linton. Students bond in the greenhouse as they help tend to the plants as tenderly as their professor does.

Jackson finds joy in these vibrant plants that peak just before the holidays, but also in what they represent: the months of careful work and collaboration with students who share his passion. Each growing season brings new discoveries that inform his research and influence his plans for future poinsettia projects. As Jackson says: "I love that my research can impact the lives of people, the climate, and global society." 🌿

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**— Dr. Brian Jackson**





*Clockwise from top left:* Dr. Brian Jackson in his greenhouse; the most vibrant part of the poinsettia is actually not a flower, it's a type of leaf called a bract that changes color; Jackson points out the flowers in the center of a poinsettia; Jackson points out a bract in the process of changing colors, which he says is his favorite part of the growing process.















## POINSETTIAS: A BRIEF HISTORY

The *Euphorbia pulcherrima*, known commonly as poinsettia, is a photoperiodic plant that blooms during times of shorter daylight. Its colorful petals are actually foliage, called bracts, that change from green to another color in cooler temperatures. In addition to the traditional red poinsettia, there are more than 100 varieties of the plant, in shades from deep aubergine to golden yellow to hot pink.

The plant is native to Mexico, where there's a holiday legend to it: a long time ago, there was a girl who could only offer simple weeds as a gift to Jesus on Christmas Eve. When she brought them into church, they blossomed into the plants we know as poinsettias, or *Flores de Noche Buena*, Spanish for "flowers of the holy night." In addition, the bright yellow flower in the middle is often considered a symbol of the Star of Bethlehem.

The plant was first introduced to the United States in 1828 by Joel Roberts Poinsett, the U.S. minister to Mexico, but a California nurseryman, Paul Ecke, is regarded as the father of the American poinsettia. His family's nursery developed a grafting technique that made the plants grow fuller and bushier — and also made the smart decision to send poinsettias to television stations to serve as set decor during the holiday season. By the late 1980s, the plant even made its way onto the *Tonight Show Starring Johnny Carson* as part of his opening monologue, fueling the debate of the proper pronunciation of "poinsettia." Are you team *poyn-seh-tee-uh* or *poyn-set-uh*?

Today, the poinsettia is the top selling flowering plant in America, with about 70 million sold, on average, in the six weeks leading up to Christmas.