

# Horticultural Careers:

## A GROWTH INDUSTRY

By D'Lyn Ford

**H**orticulture, the business of people and plants, flourishes in the sunny Southwest.

A burgeoning population creates demand for more parks, yards, flowering plants, landscapes and golf courses—and a corresponding need for horticultural graduates.

“Horticultural products are the second-most valuable crop in New Mexico, behind alfalfa,” says Geno Picchioni, assistant professor of horticulture. “It’s the fastest-growing segment of New Mexico’s agricultural economy.”

Ivy Rose Wrye can see the growth as head of the commercial design division for the state’s largest landscape firm, Albuquerque-based Hilltop Landscape Architects and Contractors. Hilltop’s 400 employees draft and install close to \$15 million worth of landscape projects for residential and commercial clients each year.

Wrye, a 1998 NMSU horticulture graduate, creates landscapes for pro-

jects ranging from small shopping centers to large apartment complexes. She works exclusively on a computerized AUTOCAD system, helping clients comply with Albuquerque’s strict landscaping requirements for various commercial construction projects.

“Only 20 percent of the landscape can be in sod, so we do a lot of work with xeric and native plants—a lot of the plants I learned about in plant identification class,” Wrye says.

Another valuable course was the plant disorders class taught by Natalie Goldberg, a plant pathologist with NMSU’s Cooperative Extension Service, whom Wrye still consults when she sees an unfamiliar plant problem.

With a name like Ivy Rose, Wrye’s career choice seems fitting. However, Wrye initially planned a career in wildlife biology when she came to NMSU from a graduating class of 37 at Jemez Valley High School.

“At the time, I was working as a



**Hands-on horticulture:** Ivy Rose Wrye, left, an NMSU horticulture graduate who leads the commercial design division of the state's largest landscaping firm, visits a park she designed for Albuquerque's new Ventana Ranch subdivision. Assistant professor Geno Picchioni, right, helps Jennifer Grimes tend geraniums and other floral crops in preparation for an upcoming sale.

florist at Jewel-Osco, and I started to like what I was doing. I asked a friend what he was majoring in, and he said, 'Horticulture.' I said, 'You can major in that?'"

Pleased with her horticultural options and with finding a mentor in Picchioni, Wrye switched majors. To supplement her classes, she worked for The Greenhouse, a landscaping business owned by Randy and Cindy Farmer. The two graduates of NMSU's horticulture program met on a floral team judging trip.

After two and a half years at The Greenhouse, Wrye started her job search with a portfolio of landscape design samples and a list of potential employers from Picchioni. One firm was slow to respond, so Wrye took her designs to the competition. The next day, co-owner Jim Deflon offered her a job at Hilltop, where she's worked since a few weeks after graduating in December 1998.

"The most rewarding part of my work is seeing the final product,"

Wrye says. She's particularly pleased with four parks she designed for the Ventana Ranch subdivision.

To prepare students for success like Wrye's, NMSU's horticulture program stresses both solid science and practical experience. Chris Cramer, plant breeder and assistant professor, teaches a course on herbaceous ornamentals and perennials. Rolston St. Hilaire, assistant professor, covers landscape design and woody ornamentals in landscapes. Professor John Mexal teaches tree courses and does international forestry research. Picchioni focuses on floriculture.

"What employers say to us is, 'We can teach workers how to pinch poinsettias in September, but we need employees who know how to read a balance sheet and make a profit. We want to hire employees who can solve problems and work on a team, whether it's in the greenhouse, in offices or on the ninth tee,'" Picchioni says.



**Artistic arrangements:** Michele Hudson arranges tropical flowers during a practice session for the floral quality evaluation and design team. Hudson placed fourth in the designer's choice professional division at the 2001 national competition in San Luis Obispo, Calif.

Golfers across the country also benefit from the skill of NMSU horticulture graduates who worked their way up from raking sand traps to doing reconstruction work for Superintendent Bruce Erhard at the University Golf Course.

"Our first name is University, so we try to offer education and practical experience in management while providing quality golf," says Erhard, who teaches a turfgrass management course and a landscaping class on golf course design and reconstruction. "The philosophy has always been one of trying to give the students practical experience as a valuable part of the curriculum. The combination has served us well."

A number of horticulture graduates are now golf course superintendents: Louise Valdez works at

Spanish Hills in Ventura, Calif., Charlie Costello is at Desert Mountain near Phoenix. Louis Lawrence manages a country club course in Atlanta. Todd Huslig oversees the Santa Ana and Twin Warriors courses in Bernalillo County. Erhard's first student assistant, Dan Turnham, has been head superintendent at Albuquerque's Tanoan course for almost 20 years.

Whether their interest is in greenhouse production or the retail floral business, students can gain hands-on experience through Horticulture 240 and 241, floral quality evaluation and design. Each week, students rank cut flowers, potted plants and dried materials, thanks to the generosity of alums who lend specimens to the class.

Class members have regular design assignments that range from

tropical arrangements to carnation corsages. The best students are selected for a judging and design team that represents NMSU at national competitions each year.

"The competition is directly tied to the horticultural industry, because plants are judged according to industry standards that determine how much growers get for their crops," Picchioni says.

To raise travel money, students sell cut flowers and greenhouse crops they grow themselves: pots of flowers in the spring and poinsettias in the fall.

Keeley Muncrief, a 2001 graduate working for a retail florist, reveled in the judging team. She placed third nationally in asymmetrical design and first in round design, before returning to the team as an assistant coach and Horticulture Forum president.

## Professor and students beautify southern

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NMSU horticulture students are giving some Southern New Mexico landscapes a face-lift. Students in an introduction to landscape design class are required to design a landscape for a residence or community service project.

"We do it in a real-world setting where we meet with clients and work with their budgets," assistant professor Rolston St. Hilaire says. "We assess the site and try to capitalize on the landscape that exists,

**Teamwork:** Assistant professor Rolston St. Hilaire, second from left, helps students Jason Casey Haggard, Alex Petermeier and Daniel Anaya and teaching assistant Cathy Feser install trees at Casa del Sol.



**Decisions and design:** Rafael Borquez-Olguin, left, and Eric Behrens rank a table of cut tropical flowers during a practice session for the floral quality evaluation and design team. Former team member Keeley Muncrief, right, a 2001 graduate working at Casa de Flores in Albuquerque, followed her interest in people and plants to a career in floral design.

## New Mexico communities

By Anna María Pérez-Wright

working with the parts that are worth retaining and protecting.”

Former student Frank Mueschke had the demanding assignment of designing a landscape for Habitat for Humanity, a nonprofit group that provides affordable housing for families.

“There were very tight budgetary constraints that he had to keep in mind,” St. Hilaire explains. “He was also able to help implement his design by coordinating the donation of all the landscape materials with Habitat for Humanity’s landscape committee. He also coordinated volunteers who installed the landscape in one day.”

St. Hilaire learned that the Habitat for Humanity landscape committee liked the design so much the group

plans to use it as a template.

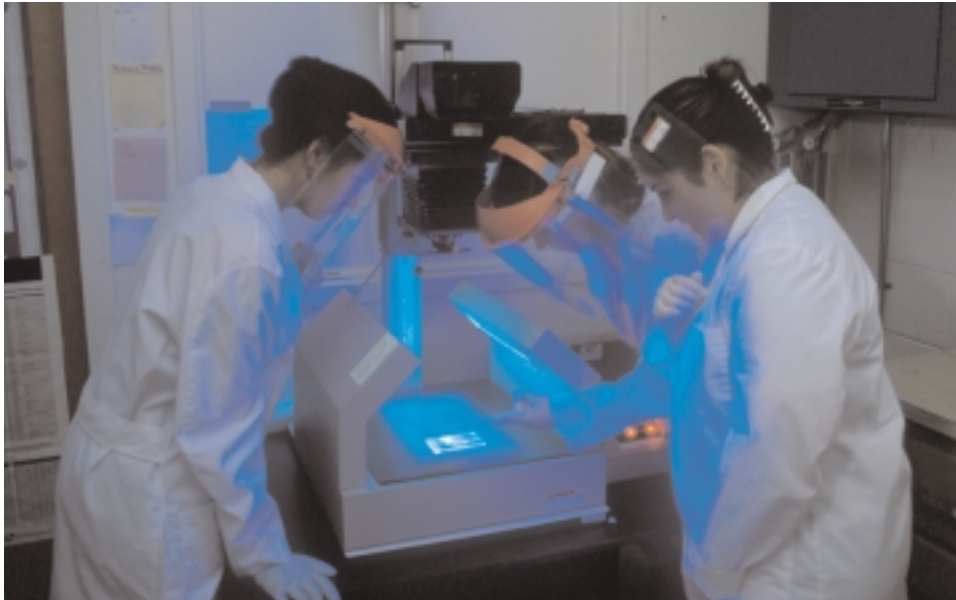
In St. Hilaire’s follow-up landscape construction class, students get hands-on field experience. At NMSU’s Landscape Garden in Las Cruces, they put in a walkway, constructed an irrigation system and built a wall. One class installed plants in the Xeriscape garden at Las Cruces City Hall. The largest project involved helping staff install trees, shrubs, grasses and a drip irrigation system at Casa del Sol, which provides health education and community outreach from NMSU’s health sciences department.

“The students did all the work during class time,” St. Hilaire says. “It involved a lot of effort—the trees were large.”

In addition to class projects, St. Hilaire and student assistant Rocio Chavez have worked on several projects in small communities south of Las Cruces with funding from the Paso del Norte Health Foundation. The grant funds a mentoring program for young people aged 12 to 18.

“It encourages youth and adults working together on landscape projects,” St. Hilaire says. “The idea is to have the entire community involved.”

St. Hilaire also is helping Boy Scout Troop 88 in Anthony renovate the old fire station. He and Chavez previously coordinated improvements at baseball parks in Chamberino and Mesquite, and they plan to help develop a play area at the Anthony ballpark this year.



**Alive with possibilities:** From left, NMSU graduate student Andrea Medina, high school student Michelle Gallus of Las Cruces and undergraduate Alice Nevarez look at pieces of DNA before cutting plant genes from the gel to isolate them.

“I don’t know what I would have done if NMSU hadn’t had a strong floriculture program,” says Muncrief, whose interest in floral judging stems from her experiences at Las Cruces High School. In FFA, she completed her proficiency in floriculture and won first in state floral judging.

As a sophomore at NMSU, Muncrief was one of nine students in the nation selected for an internship in commercial flower production as a recipient of the American Floral Endowment’s Vic and Margaret Ball internship. For six months, Muncrief’s life revolved around the fate of 100,000 poinsettia cuttings at Alex R. Masson Inc., a wholesale greenhouse in Linwood, Kan.

“I know everything you ever—or never—wanted to know about poinsettias,” she jokes. “But a lightbulb goes on with so many employers when they see that internship through the American Floral Endowment.”

Though she hasn’t ruled out working in greenhouse production,

Muncrief enjoys customers. “The plants don’t talk back,” she says. “I missed the interaction with the public.”

She’s a designer for Casa de Flores in Albuquerque, one of several shops owned by Albuquerque Florists.

“Careers in horticulture involve a combination of people and plants,” says Jim Fisher, head of the agronomy and horticulture department. “A student who’s very plant-oriented might enjoy being a crop consultant or greenhouse manager. Those who are more people-oriented gravitate toward having their own businesses or doing horticultural therapy.”

Horticultural therapy offers high-touch work designing handicapped-accessible gardens for senior centers or teaching inmates to raise greenhouse crops.

On the other end of the spectrum, high-tech horticultural research at NMSU is attracting a new generation of minority scientists to biomedical careers.

Forty students came to campus

last summer to root out the secrets of ancient plants as part of the four-year Medicinal Plants of the Southwest project, funded by the National Institutes of Health. They extracted plant DNA, created chemical profiles of seven Southwestern plants and tested plant extracts that inhibit bacterial growth.

“These students are not only getting trained, but they’re also generating lots of useful scientific data,” says Mary O’Connell, a horticulture professor who leads the project. “Their results are posted on the World Wide Web, and during the academic year, a smaller group of students continue the research.”

Summer participants include high school and college students, ages 17 to 47. Students are Hispanic, Asian-American, Native American and Caucasian. Their interests range from agronomy to medicine.

“Every single student lends something to the project,” says Andrea Medina, a graduate student doing her master’s research on the biochemistry of yerba mansa, a popular medicinal herb. “They bring different ways of thinking to science. The more different thinkers we have, the more science and humanity are going to benefit.”

Evonne Manybeads of Shiprock, who is studying public health and biology at NMSU, felt a cultural connection to medicinal plants. “Our tribe works with plants that way, so I’ve enjoyed learning about plants. The (chemical) extractions were my actual favorite part. It was a crash course in chemistry and biochemistry.”

Near the end of the summer session, students who succeeded in isolating the plants’ DNA could later view the fluorescing pink veins under an ultraviolet light in the darkroom. It gave their expectant faces a glow, proving the power of people and plants. **R**