

Horticultural Science

The Department offers graduate programs leading to the Master of Horticultural Science (non-thesis), Master of Science (thesis) and Doctor of Philosophy (thesis) degrees. Completion of the respective requirements normally takes 2 to 2 ½ years for the Masters and 3 to 3 ½ years for the Doctor of Philosophy. Studies may be oriented to floriculture, ornamental and landscape horticulture, pomology (fruit crops) or olericulture (vegetables). A variety of areas for study and research are available: plant physiology, breeding and genetics, herbicide physiology, nutrition, propagation, plant molecular biology and biotechnology, genomics, growth regulators, postharvest physiology, sustainable and organic agriculture, fruits, vegetables, floriculture, woody ornamentals, and landscape horticulture.

Facilities for graduate studies include 40,500 square feet of greenhouse space; the University Phytotron (available for controlled environmental studies on horticultural crops); 19 well-equipped laboratories; 14 controlled temperature storage rooms, an extensive collection of plant materials, both living and preserved; and a variety of climates and soils from coast to mountains in North Carolina on eighteen outlying research stations.

Admission to The Graduate School and the Department is competitive.

Admission is usually limited to students with a grade point average of 3.00 or higher. Horticultural Science candidates should have completed course work in physics, mathematics (preferably calculus and statistics), chemistry, biochemistry, soils, plant pathology, genetics, plant physiology, entomology, genomics/bioinformatics, botany/plant biology, cellular biology, molecular biology and several courses in horticulture. Landscape Horticulture candidates should have a complete landscape design background. An applicant deficient in course work may be admitted on a provisional basis until the deficiency is made up. Applicants must provide the basic Graduate Record Examination (GRE) scores, three letters of reference, an unofficial transcript for each previous degree, a personal statement and resume/CV. Applicants from other countries must also furnish evidence of proficiency in English (TOEFL or IELTS). TOEFL or IELTS test date must be no older than two years (24 months) prior to the beginning of the requested entry term.

Financial assistance in the form of a Graduate Assistantship may be available for students accepted into the program. However, funding is limited and positions are highly competitive within a major professor's program area. You should contact the faculty within the department that are working in your area of interest to inquire about assistantship availability. Students must have a confirmed advisor for admission to the program.

Degrees

- Horticultural Science (MR) (<http://catalog.ncsu.edu/graduate/agriculture-life-sciences/horticultural-science/horticultural-science-mr/>)
- Horticultural Science (MS) (<http://catalog.ncsu.edu/graduate/agriculture-life-sciences/horticultural-science/horticultural-science-ms/>)
- Horticultural Science (PhD) (<http://catalog.ncsu.edu/graduate/agriculture-life-sciences/horticultural-science/horticultural-science-phd/>)

- Horticultural Science (Certificate) (<http://catalog.ncsu.edu/graduate/agriculture-life-sciences/horticultural-science/horticultural-science-certificate/>)
- Horticultural Science (Minor) (<http://catalog.ncsu.edu/graduate/agriculture-life-sciences/horticultural-science/horticultural-science-minor/>)

Faculty

Full Professors

Lucy K. Bradley

Wayne G. Buhler

Nancy G. Creamer

John Martin Dole

Gina E. Fernandez

William Carl Fonteno III

Christopher Gunter

Julia L. Kornegay

David W. Monks

Joseph C. Neal

Penelope M Perkins-Veazie

Thomas G. Ranney

Jonathan R. Schultheis

Todd Craig Wehner

Brian E Whipker

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Associate Professors

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Brian Eugene Jackson

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Helen Tyler Kraus

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Michael L. Parker

Julieta Trevino Sherk

Anne McCombe Spafford

Assistant Professors

Hamid Ashrafi

Ricardo Hernandez

Mark Hoffmann

Massimo Iorizzo

Thomas Matthew Kon

Wusheng Liu

Practice/Research/Teaching Professors

Danesha Gita Seth Carley

Rebecca Diane Dunning