

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); the Plant Sciences Building (which houses state-of-the-art labs and greenhouses); 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 the coast to the mountains in North Carolina on fifteen outlying research stations.

Financial Assistance

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.

More Information

Horticultural Science Program Website (<https://cals.ncsu.edu/horticultural-science/students/graduate/>)

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 submit an application (<https://grad.ncsu.edu/>) and provide 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, IELTS or Duolingo). TOEFL or IELTS test date must be no older than two years (24 months) prior to the beginning of the requested entry term. Visit go.ncsu.edu/intl-admissions (<http://go.ncsu.edu/intl-admissions/>) for details.

Applicant Information

Horticultural Science (MS and PhD)

- **Delivery Method:** On-Campus
- **Entrance Exam:** None
- **Interview Required:** None

Horticultural Science (MR)

- **Delivery Method:** On-Campus, Online, Hybrid
- **Entrance Exam:** None
- **Interview Required:** None

Application Deadlines

- **Fall:** January 1 (US and Intl)
- **Spring:** August 1 (US and Intl)
- **Summer 1:** January 1 (US and Intl)
- **Summer 2:** January 1 (US and Intl)

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

Lucy K. Bradley

Wayne G. Buhler

Angel Elisa Cruz

Kedong Da

John Martin Dole

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Brian Eugene Jackson

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