



Department of Horticulture
College of Agricultural & Environmental Sciences
UNIVERSITY OF GEORGIA

GRADUATE PROGRAM HANDBOOK



Graduate Coordinator: Dr. Dayton Wilde (E-mail: dwilde@uga.edu)
Graduate Program Assistant: Mr. Josh Rubin (E-mail: hort@uga.edu)
Department Head: Dr. Leo Lombardini (E-mail: lombardini@uga.edu)

Updated November 2022

Table of Contents

I.	Introduction	4
II.	Program Overview	5
III.	Admission.....	6
	Application Materials	6
	International Students.....	6
	Admission Standards	7
	Application Deadlines.....	7
IV.	General Information	8
	Financial Assistance.....	8
	Graduate Coordinator	9
	Major Professor	9
	Proficiency Course Requirements	10
	Course Registration	10
	Annual Progress Evaluations	11
	Graduate Student Files	11
	Record of Research Data	11
	Departmental Seminar	11
	Travel	11
	Academic Honesty	12
V.	The Master of Science (M.S.) Degree Program.....	13
	Advisory Committee.....	13
	Program of Study.....	13
	Research Prospectus and Proposal Seminar	15
	Residency Requirement.....	15
	Grade Point Average	15
	Thesis Approval	16
	Final Examination	16
	Submission of Thesis	16
	Department Exit Seminar	16
	Switching from the M.S. to the Ph.D. program	17
	Checklist for the M.S. Degree.....	17
	Graduation.....	17
	Graduate School Forms	20
VI.	The Ph.D. Degree Program	22
	Advisory Committee.....	22
	Program of Study.....	22

	Research Prospectus and Proposal Seminar	24
	Residency Requirement.....	24
	Comprehensive Examinations	24
	Admission to Candidacy	26
	Application for Graduation.....	26
	Department Dissertation Seminar	26
	Dissertation Approval and Defense.....	26
	Checklist for the Ph.D. Degree	28
	Graduate School Forms	32
VII.	The Proposal Seminar	33
VIII.	Outreach / Extension Experience	34
IX.	Graduate Faculty.....	36

I. Introduction

This document was compiled to serve as an introduction and guide to the Graduate Program of the Department of Horticulture at The University of Georgia. Within this document are instructions for admission and the operational procedures and requirements of the department. Included is a checklist describing the steps needed for completing degree requirements. Although some general aspects of admission procedures and graduation requirements are described, it is the responsibility of each graduate student to refer to [The University of Georgia Graduate Bulletin](#). Information in the *Graduate Bulletin* includes the academic calendar, general university information, degrees, and course listings. In addition, a wealth of information can be obtained by accessing the [Graduate School web page](#), which provides information on admissions, applications, records and graduation, graduate school forms, and financial aid and awards. Guidelines for Theses and Dissertations can be found [here](#). The [Department of Horticulture web page](#) provides further information about the department and the graduate program.

The University of Georgia has a rich history with the distinction of being the oldest state-chartered university in the United States. Located 70 miles northeast of downtown Atlanta, total enrollment at the university is about 38,000 students (with approx. 8,500 of those being Graduate/Professional students). A profile of the University can be accessed at www.uga.edu, where information on the mission, history, facts, and visitor information can be obtained.

II. Program Overview

The Department of Horticulture offers graduate education leading to the Master of Science (M.S.) and the Doctor of Philosophy (Ph.D.) degrees. The department has about 32 full-time faculty members located at the Athens, Tifton, and Griffin campuses, and the Georgia State Botanical Garden (in Athens). Research interests among the faculty span Georgia's horticultural commodities and the various disciplines of Horticulture. Students can focus on areas of specialization that include plant breeding, plant physiology, plant development, biotechnology, postharvest physiology, nutrition, plant conservation, biochemistry, integrated pest management, weed control, water relations, crop production and management, and product utilization. Active teaching and research programs are conducted in ornamental horticulture, controlled environment agriculture, medicinal plants, fruits, vegetables, and nut crops. More information on specific research and teaching interests of the departmental faculty is available on the [Department of Horticulture web page](#).

The facilities available for graduate training include plot land, greenhouses, and laboratories at three well-equipped Experiment stations, the State Botanical Garden, and several field research centers that represent the climatic areas of the state. The department has strong interdisciplinary research programs with other departments in the University, and cooperative work is also available with several federal research laboratories.

Graduate work in Horticulture is designed to develop a high order of independent thought, broad knowledge, and technical skills. The programs for both graduate degrees are planned on an individual basis by the student and his or her advisory committee to complement previous experience and career objectives. The emphasis in graduate work is placed on research, supplemented by courses and seminars. Students are encouraged to participate in the Department's resident instruction and assist faculty in teaching various aspects of our Undergraduate curriculum through class lectures, as classroom assistants, or as laboratory assistants.

Admission status, credit requirements, transfer credits accepted, academic standards, residence requirements, and time limits conform to regulations as given by the Graduate School and the College of Agricultural and Environmental Sciences. Students with strong backgrounds in the biological and/or plant sciences are encouraged to apply. Students who complete the Horticulture graduate program are targeted to fill positions in academia, government, international programs, or the private sector.

III. Admission

Application Materials

The Graduate School at the University of Georgia encourages potential applicants to obtain informational materials or apply to graduate programs on-line at the following websites:

- Information for domestic applicants: <http://grad.uga.edu/index.php/prospective-students/domestic-application-information/requirements/>
- Information for international applicants: <http://grad.uga.edu/index.php/prospective-students/international-application-information/>.
- A link to the actual application website is at: <https://grad.uga.edu/index.php/prospective-students/apply-now/> . Applications must be submitted on-line.

The following information must be submitted to the Graduate School:

- Graduate School application form
- Application-processing fee (non-refundable): \$75 for domestic applicants, \$100 for international applicants.
- Applicants should submit unofficial transcripts from all institutions attended as part of the online application. Official transcripts are not required during the review process and will only be required for applicants who are admitted.
- At least three letters of recommendation. These letters should be submitted using the online application system.
- Note that we do NOT require the GRE, though scores may be submitted if an applicant wishes to do so.

The following can be sent directly to the Department of Horticulture:

- A statement of purpose which outlines the reasons for wishing to pursue an advanced degree, interests, and goals.

International Students

If the student's primary language is not English, the results of the TOEFL or IELTS are required to show proficiency in English. The graduate school has the following minimum requirements for TOEFL scores: 213 for the computer-based test 213, 550 for the paper-based test, 80 for the internet-based test (with at least scores of 20 on both the IBT-Speak and IBT-Write). If an applicant is submitting the IELTS, a minimum overall bandwidth of 6.5, with no single band (score) below 6.0 is required. For more information see:

<http://grad.uga.edu/index.php/prospective-students/international-application-information/international-supplement/english-language-proficiency-requirement/>.

Please see the following graduate school web page <http://grad.uga.edu/index.php/prospective-students/international-application-information/international-supplement/> for detailed, supplemental information regarding international applications and admissions.

The International Student Life Office at UGA helps international students to get settled in and assists in visa matters. For their web page, please see: <http://isl.uga.edu/>.

Admission Standards

Applicants for the M.S. degree are expected to hold a bachelor's degree from an accredited institution. Applicants should have ranked in the upper half of their undergraduate class. Students entering the Ph.D. program need to have an M.S. degree prior to entering our program (or show they have equivalent experience, including scientific publications). Graduates of international institutions must hold a degree equivalent of an undergraduate major in the field in which they propose to study.

When an application is received in the Office of Graduate Admissions, a copy of the application and related documents are sent to the Department of Horticulture. Once all relevant materials are received and the application is complete, the applicant's admission packet is circulated among the Graduate Faculty of the department for evaluation. The Graduate Coordinator then sends to the Graduate School a recommendation of admission or non-admission. The Office of Graduate Admissions has the responsibility of reviewing the recommendation and notifying the applicant that he or she is either approved or denied admission. The Dean of the Graduate School makes the final decision of acceptance or non-acceptance. Upon acceptance by the Graduate School and notification of the Department, a letter will be sent to the successful candidate by the department head indicating the name of his or her advisor and other pertinent information.

Successful admission into the Department of Horticulture is dependent upon meeting the admission requirements, available space, and the willingness of a Graduate Faculty member to serve as the student's Major Professor. It is, therefore, in the applicant's best interest to review the projects and research interests of the Department's Graduate Faculty and begin corresponding with them if an appropriate match is found. Contacting faculty members before applying to our graduate program is strongly recommended. Applicants should indicate a specialty of interest and state their reasons and goals for pursuing an advanced degree in horticulture.

Application Deadlines

The Graduate School sets deadline dates for the receipt of applications and supporting credentials. It is recommended that applicants apply as early as possible, up to one year in advance of the desired matriculation date. This timeline is particularly critical for international students. Supplemental material (such as test scores) can be submitted after the deadline. We accommodate late applications the best we can.

Applicants, who wish to be considered for University-Wide Graduate School assistantship competition, must be admitted as prospective degree candidates by February 15. Therefore, all application admission materials must be received by the Office of Graduate Admissions by January 1 to ensure that they are processed in time for the competition.

Deadline Dates

<u>Start Semester</u>	<u>Domestic Applicants</u>	<u>International Applicants</u>
Fall	July 1	April 15
Spring	November 15	October 15
Summer (pre-session)	April 1	----
Summer	May 1	February 15

IV. General Information

Financial Assistance

Financial aid is available to graduate students on a competitive basis in the form of graduate research and teaching assistantships. Stipends are set by the Graduate School and department. Students holding at least 1/3-time assistantships get a tuition waiver and pay a reduced matriculation fee of only \$25 but do need to pay university fees (<https://busfin.uga.edu/bursar/>). In addition, nonresident fees are waived for graduate assistants.

Funds for graduate student support come from various sources and are available on a competitive basis. Sources include general university awards, departmental assistantships, and sponsored research programs. After acceptance into the graduate program, a student chosen to receive a departmental assistantship will be contacted by their Major Professor. Grant funds are a potential source of funding for graduate students. It is recommended that prospective students make direct contact with faculty working in their areas of interest regarding potential sources of funding.

Each year the Graduate School selects university-wide graduate assistants from a list of highly qualified departmental nominees. Selections are held in early March for the next academic year. Thus applicants, who wish to be considered for the Graduate School assistantship competition, must be admitted as prospective degree candidates by February 15. Retention of an assistantship is contingent on a graduate student remaining in good academic standing and the availability of budgeted funds.

The graduate school maintains a website listing fellowships, scholarships, and grant opportunities which can be accessed from <http://grad.uga.edu/index.php/current-students/financial-information/>.

Under what circumstances can you waive your student "package" fees?

The student “**Package**” includes Activity, Recreation, Athletic, Health, and Facilities fees. These fees are bundled together and may not be separated. The Package fees may be waived by those over the age of 62 and full-time, benefits eligible employees utilizing the Tuition Assistance Program (TAP). Additionally, students taking less than half-time (6 hours) and students taking internship, directed study, thesis, practicum, or dissertation hours may be eligible to waive the package. To see if you meet the criteria to waive your student package fees, log into Athena (<https://athena.uga.edu>).

Campuses such as Griffin, Tifton, Buckhead, and Gwinnett have different fee package structures. To better gauge how much you will pay in tuition and fees please click on the following link https://busfin.uga.edu/bursar/bursar_fees_1920/

Graduate Coordinator

The Graduate Coordinator is appointed by the Dean of the Graduate School upon the recommendation and approval of the department head and academic dean. The coordinator acts as a liaison between the Graduate School and Department of Horticulture. The Graduate Coordinators’ duties are to:

- Make recommendations concerning admission to the Graduate School.
- Make recommendations for Graduate School assistantships, dissertation completion assistantships, scholarships, etc., and assist in rating other applications for financial aid.
- Maintain current records on all departmental graduate students.
- Keep graduate students and faculty informed of deadline dates and policies of the Graduate School.
- Recommend appointment of Advisory Committee for Master of Science and Doctoral students.
- Notify the Graduate School of the date, time, and place of Oral Preliminary Examinations and Final Defenses of Doctoral Dissertations.
- Make recommendations on all petitions submitted to both the Administrative Committee and Admission and Retention Committee of the Graduate Council.
- Countersign with the Major Professor on all requests for Degree Objective Changes, Programs of Study, Recommended Changes in Programs of Study, Requests for Transfer Credit, and Applications for Admission to Candidacy.

Major Professor

A faculty member is assigned by the Graduate Coordinator to serve as Major Professor for each graduate student. The Major Professor must be a member of the Department of Horticulture Graduate Faculty. If a student is assigned to a temporary Major Professor, a permanent Major Professor must be assigned by the beginning of the second semester of residence.

The responsibilities of the Major Professor are to:

- Orient the student upon arrival on campus.
- Explain general requirements to the student and plan his/her program for the first semester.
- Explain all policies regarding seminars, office assignments and laboratory procedures.
- Ensure that the student follows rules and regulations as established by the Graduate School and Department, and that the Program of Study and thesis/dissertation research as approved by the Advisory Committee are followed.
- Monitor the progress of the student and preside over periodic meetings of the Advisory Committee to assess the graduate student's progress.
- Assist the student with planning the thesis or dissertation research project.
- Schedule necessary meetings of the Advisory Committee for all required examinations.

Proficiency Course Requirements

All students admitted to the graduate program are expected to acquire competence in several areas of general horticulture prior to completion of degree requirements. As a minimum requirement, all students must take or must have taken the following courses at some point during their undergraduate/graduate career:

- One graduate or undergraduate course in a commodity area. Examples of courses satisfying this requirement are as follows:
 - Fruit HORT 3020, 4020/6020
 - Vegetable HORT 3010
 - Ornamental HORT 3140, 3500, 3720, 4050/6050, 4060/6060
- One graduate or undergraduate course in a minimum of 4 of the following 6 subject areas: soils, plant pathology, entomology, genetics, botany, and plant physiology. Previous coursework will suffice at the discretion of the Advisory Committee.

Course Registration

The graduate school considers 12 hours per semester during the academic year and 9 hours during the summer semester to be a full-time course load. The maximum semester course load for any student is 18 hours per semester (6 hours during Maymester session, which graduate students typically do not register for). The minimum course load that a graduate student must enroll in is affected by whether the student is on a graduate assistantship or not. Students who do not have an assistantship must register for a minimum of 3 hours. The policy of the Horticulture Department is that students who are on a graduate assistantship must register for 18 hours during Fall, Spring, and Summer semesters.

Students need to be cleared for registration by their Major Professor. That process involves filling out an advisement slip (available in room 1111, Plant Sciences or [online](#)) that needs to be signed by the Major Professor. Alternatively, the major advisor can send an e-mail to hort@uga.edu, listing the students name, UGA ID#, and a list of courses to be taken. Students are required to take the courses recommended by the Major Professor.

Annual Progress Evaluations

All graduate students are required to have an annual evaluation of progress towards accomplishing their degree objectives. This evaluation typically will be conducted after the end of the spring semester or more frequently if requested by the student or Major Professor. If requested by the student or the Major Professor, the Graduate Coordinator or Department Head may be present at this evaluation.

If the Major Professor intends to rate the student's progress as unsatisfactory, the Major Professor must alert the Graduate Coordinator and department head in advance and request the presence of one of them during the evaluation. In case of an 'unsatisfactory' evaluation, clear guidelines need to be specified as to what the student needs to do to get back on track. This can include specific research tasks to be completed, courses to be taken, and grades to be achieved in particular courses. There also needs to be a clear timeline specifying the period in which the student must show adequate progress.

After the evaluation, the Major Professor and student will sign the evaluation form and send a copy to the Graduate Coordinator to be included in the student's file.

If a student receives a grade of 'U' in any course, the student will be required to report this to the Major Professor and Graduate Coordinator. Any grade of 'U' will be followed by a progress evaluation in the first month of the following semester. Failure by the graduate student to report a 'U' to the Major Professor and Graduate Coordinator is grounds for immediate dismissal from the graduate program.

Graduate Student Files

Graduate student files are maintained in the Horticulture main office in Athens. The Graduate Coordinator and Degree Program Assistant are responsible for their safekeeping.

Record of Research Data

All research data obtained by graduate students are the permanent property of the Department of Horticulture and should be so regarded. Methods of recording and filing data should be specified in the research proposal.

Departmental Seminar

All graduate students are expected to attend the regularly scheduled departmental seminar series. Those students who have a conflict due to class scheduling or research-related duties during the departmental seminar time, may be excused from attending the seminar. However, efforts should be made to avoid or minimize these conflicts. Students who cannot attend seminar should notify the Graduate Coordinator.

Travel

All students should consult with their advisor before planning any business-related trip. For out-of-state travel (excluding areas bordering Georgia) students need to request a travel authorization at least two weeks before the travel. Travel authorizations are needed for insurance purposes, so it is important to submit them whether students expect to be

reimbursed for the costs incurred or not. The following information must be provided: date(s), destination(s) and purpose(s) of the trip (if the purpose is to give a presentation, include title and event), estimated cost (it is recommended to slightly overbudget the cost, as it is easier to get reimbursed if the actual cost is less than the initial estimate), and which account will be used to pay for it. The account will be provided by the Major Professor. You will need to use UGA's OneSource system (<https://onesource.uga.edu/>) to file this information. For international travel (including Hawaii and Alaska), you need to register with the Office of International Education (<http://oie.uga.edu/international-travel-authority/>). Airfares can be reimbursed soon after purchasing, with no need to wait until after the travel. The complete travel policy can be found at <https://policies.uga.edu/Travel/Travel-Policy/>.

Academic Honesty

According to UGA's [Academic Honesty Policy](#), "academic honesty is vital to the very fabric and integrity of the university." This policy defines what constitutes academic honesty and describes the process to be followed when suspected violations of academic honesty occur. Violations generally fall into one of three categories:

1. Plagiarism
2. Unauthorized assistance (e.g. cheating)
3. Falsifying data/results

If academic dishonesty is suspected, instructors have a responsibility to report it to the Office of Academic Honesty within fifteen days of the alleged violation. A discussion between the instructor, student, and a facilitator from the Office of Academic Honesty is then scheduled to determine whether a violation had occurred and, if so, the consequences. If a tentative agreement is reached during the facilitated discussion, the student has five days to sign an agreement document describing the consequences of the violation. As part of the agreement, the student would also permit his/her advisor to be notified of the situation. If an agreement is not reached or the document is not signed within five days, there will be a Continued Discussion with an Academic Honesty Panel to determine the outcome.

The consequences for academic dishonesty are determined by the instructor and they can vary depending on the infraction. The Academic Honesty Policy recommends that "sanctions should be educational for the student that violated the policy, but fair to the students that completed the work honestly." Educational remedies include repeating the work correctly (e.g. for plagiarism) or taking a class that addresses academic honesty. The GradFIRST seminar covers academic honesty in some detail, although not until the fall semester. For some first-time violations, consequences could also include the retaking of tests, a lowered course grade, or suspension from the graduate program, depending on the nature of the violation. A second violation could lead to dismissal.

V. The Master of Science (M.S.) Degree Program

Advisory Committee

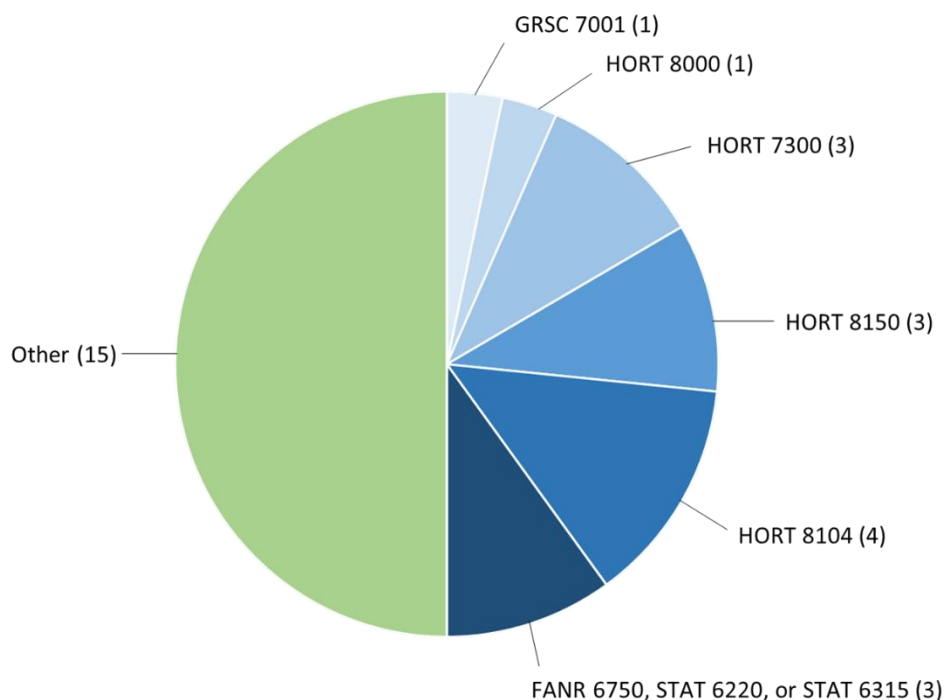
An advisory committee for each graduate student must be appointed before the end of the first semester of residency. The advisory committee must be approved by the Graduate Coordinator and is appointed by the Dean of the Graduate School. The advisory committee will consist of the Major Professor (who will act as chairperson) and two additional members. The Major Professor and at least one other committee person must be members of the Graduate Faculty of the University of Georgia. At least one member of the committee must reside outside of the Department of Horticulture.

For appointment of the Advisory Committee, an official form (“[The Advisory Committee for Master of Arts and Master of Science Candidates](#)”) must be filed with the Graduate School. Following deliberations with the Major Professor, the student should verify that selected faculty members are willing to serve on the advisory committee. The form must be filled out by the student, and then signed by the Graduate Coordinator who will submit it to the Graduate School. If any changes are made in the composition of the Advisory Committee, the Graduate School must be notified by filing a revised [Advisory Committee form](#) (see page 18).

The Advisory Committee is required to hold a meeting before the end of the first year of residency. Other functions of the committee include planning and approving the Program of Study, reading and approving the thesis, and administering the final examination.

Program of Study

Each student must complete a program of study that constitutes a logical whole. The program of study must consist of at least 30 credit hours of graduate credit. Of the 30-hour total, at least 24 credit hours must be in coursework with at least 12 credit hours in courses open only to graduate students. These hours cannot be satisfied by transfer credit, master’s research, or independent study courses.



Required Courses:

- 1 credit hour of GRSC 7001 (GradFIRST). This course is offered through many departments at the University of Georgia, but one section is taught through our department and will be most relevant for our students.
- 1 credit hour of HORT 8000 (Seminar). This course is offered during the spring semester and includes aspects of effective seminar presentation. Horticulture graduate students are allowed to take CRSS 8100 or CRSS(HORT) 8861 instead of HORT 8000 if HORT 8000 is not offered during that spring semester.
- 3 credit hours of HORT 7300 (Master’s Thesis)
- Plant Growth and Development (HORT 8150)
- Advanced Plant Physiology (HORT 8104) or a graduate level course in chemistry/biochemistry
- Graduate-level statistics (FANR 6750, STAT 6220, or STAT 6315)

Optional Courses:

- A maximum of 6 hours of research (HORT 7000 or 7300) can be included in the 30-hour total.
- A maximum of 3 hours of HORT 6070/6080 (Special Problems in Horticulture) or HORT 8080 (Horticulture Research) can be applied to the coursework. These courses need to be taken under the direction of a faculty member other than the student’s Major Professor.
- Depending on the content, certain courses may not be counted towards the program of study. For example, PBIO 8830 will not be accepted for the program of study in our

department. If there is doubt as to whether a course can be counted towards the program of study, please contact the Graduate Coordinator.

- Completion of [proficiency course requirements](#) for students lacking previous horticulture experience.

The Program of Study should be submitted using the appropriate on-line form (<https://gradstatus.uga.edu/Forms/G138>). The program of study must be approved by the student's Major Professor, advisory committee, departmental Graduate Coordinator and Dean of the Graduate School. This must be completed by Friday of the second full week of classes of the semester in which degree requirements are completed. Courses should be listed in the order taken. 6000- and 7000- level courses open only to graduate students should be designated by an asterisk. No grade below "C" is acceptable for a course included on a program of study. (Note the Advisory Committee form must be submitted before or with this program of study). Changes made in the Program of Study should be reported to the Graduate School (see "Recommended Change in Program of Study" form on page 20).

Research Prospectus and Proposal Seminar

Each student is required to prepare a written research prospectus describing the proposed independent research to be conducted for the thesis work. The prospectus must be shared with and approved by the Advisory Committee. The prospectus must be completed before significant research is undertaken, and no later than the end of the first year of residency. Students also are required to give a departmental seminar outlining their research plans (see **Error! Reference source not found.** section on page 47). The purpose of this seminar is two-fold: 1) to inform the rest of the department about the research topic and 2) to get input from the department. This seminar is meant to be informal and should stimulate discussion about the planned research.

Residency Requirement

Minimum residency requirement is one academic year (two consecutive semesters of full-time study).

Grade Point Average

A student must maintain a 3.0 (B) average on the graduate transcript and a 3.0 (B) average on the program of study. Courses with a grade below 'C' do not count towards the program of study.

Thesis Approval

The fully corrected thesis must be prepared in accordance with the guidelines established by the Graduate School and submitted to the Dean of the Graduate School for signing. The thesis must be written under the guidance of the student's Major Professor and may be written in either traditional or manuscript style. With both styles, there must be an introduction and a literature review with the purposes of defining problems, presenting hypotheses or theories, stating objectives, and thoroughly reviewing pertinent literature. Both styles also require a concluding chapter or section which unifies preceding chapters or sections. Complete guidelines for thesis preparation (and a template) can be found at <http://grad.uga.edu/index.php/current-students/policies-procedures/theses-dissertations-guidelines/theses-and-dissertations-overview/>.

Approval and processing of the thesis should proceed as in the parts designated in the "Approval Form for Master's Thesis, Defense, and Final Examination Master of Arts and Master of Science Candidates" (see Graduate School Forms on page 20). Upon approval by the Major Professor, copies of the thesis will be distributed to the rest of the Advisory Committee. The Advisory Committee must approve the thesis with no more than one dissenting vote and must certify their approval in writing. Abstention is not an acceptable vote for the thesis.

Final Examination

A final examination on both the program of study and the thesis is required and will be administered by the Advisory Committee. Defense of the thesis will be by an oral examination. All members of the advisory committee must participate in the entire defense, and the committee must approve the defense with no more than one dissenting vote. If a committee member cannot be physically present, the absentee member may participate via a teleconference in which all participants can hear each person's comments. The chair of the committee must register the vote and indicate that this member's participation was by teleconference. The graduate school must receive the Final Defense Approval form no later than two weeks prior to graduation. The thesis will obtain final approval after suggested changes are completed.

Submission of Thesis

One complete formatted copy of the thesis must be electronically submitted to the Graduate School no later than four weeks prior to graduation for a format check. All requirements for the thesis must be complete no later than one full week prior to graduation. The graduate school will not accept theses for format checking or the Dean's approval between the last day of classes and late registration of the following term. An Electronic Thesis and Dissertation (ETD) Submission Approval Form must be completed by the student and Major Professor regarding different release options of the thesis on the web.

Department Exit Seminar

Students are required to present an exit seminar on their thesis research. The seminar is to be scheduled and notification given to the Graduate Coordinator at least two weeks prior to presentation. The seminar will be announced to all students, faculty, and staff members of the

department. Students are encouraged to present their exit seminar as part of the Horticulture Department seminar series if possible.

Switching from the M.S. to the Ph.D. program

Outstanding M.S. students may be allowed to change their degree objective from an M.S. to a Ph.D. The student's advisory committee will evaluate the M.S. student's potential to bypass the M.S. degree and pursue a Ph.D. degree instead. In case the advisory committee unanimously agrees that the student is qualified to bypass the M.S. degree and instead pursue a Ph.D., the committee needs to write a letter in support of the change in degree objective. The letter should clearly spell out why the student should be allowed to change her/his degree objective. This letter, along with the student's CV and unofficial transcript needs to be sent to the Graduate Coordinator. (S)he will then share this information with the departmental graduate admissions committee. If a majority of the committee votes in favor of the change in degree objective, the student will be allowed to enter the Ph.D. program (pending approval from the graduate school). To request the change in degree objective, the student needs to fill this [online form](#). Note that strong performance in the M.S. program does not guarantee that the student will be allowed to change the degree objective to a Ph.D.

Checklist for the M.S. Degree

A checklist has been provided to assist each student in the steps required to complete their degree program (see pg. 20-21). An up-to-date version of the checklist should be maintained in the graduate student's departmental file with the date of completion for each of the requirements filled in. The checklist is not meant to be all-inclusive. It is the student's final responsibility to refer to the Graduate Bulletin and to comply with all regulations as defined by the Graduate School.

Graduation

Application for Graduation. A student must apply for graduation no later than Friday of the second full week (the first full week for summer) of classes in the semester of the anticipated graduation date to permit the Graduate School to review the student's file. These deadlines are published on the Graduate School Website for three semesters in advance, <http://grad.uga.edu/index.php/current-students/important-dates-deadlines/>. Students must enroll for a minimum of three hours during the semester in which degree requirements are completed. The application for graduation is submitted electronically through [ATHENA](#).

Late Filing for Graduation. A student who misses a graduation deadline by failing to file the "Application for Graduation Form," "Advisory Committee Form", and/or "Program of Study Form" will have the option of paying a single fee of \$50 (check or money order in U.S. dollars) for the late processing of all required forms. A completed "Late Filing for Graduation Form," all required graduation forms, and the late fee payment must be submitted to the Graduate School Office of Enrolled Student Services within 45 calendar days of the original

deadline. After the 45-day late period, no students will be added to the commencement roster for the current semester.

Change in Graduation Date. If a student cannot complete the degree requirements in the semester for which a graduation application was submitted, the student should notify the Graduate School of the new date of intended graduation by sending an email to Enrolled Student Services (gradinfo@uga.edu). The Major Professor or Graduate Coordinator may also notify the Graduate School by letter or e-mail of the student's intent. If the Graduate School does not hear from the student, the Major Professor, or the Graduate Coordinator, the student's name is placed on the graduation list for the subsequent semester. Should a student neglect to notify the Graduate School a second time of failure to complete degree requirements, the student's name may be removed from graduation status. The student and Graduate Coordinator will be notified of this action. It will then be necessary for the student to reapply for graduation.

CHECKLIST for M.S.

Name _____ First semester of residence _____

Major Professor _____

Date completed	Check Requirements Completed	Deadline
_____	Appointment of Major Professor	First semester
_____	Appointment of Advisory Committee (<i>form required</i>) _____ Composed of Major Professor who serves as chair, and 2 other faculty (one must be from a different department). _____ The chair and at least one other member of the committee must be regular or provisional members of the graduate faculty. (If more than three members are appointed to the committee, a majority of Graduate faculty members must be maintained).	Before the end of the first semester of residence
_____	First Committee Meeting	Before the end of the second semester
_____	Program of Study (<i>form required</i>) _____ 30 hours of graduate credit. No more than 6 hours of research (7000 or 7300) can be applied to the 30-hour total. _____ At least 12 hours must be in courses open only to graduate students. (These hours cannot be satisfied by Master's research or independent study). _____ 1 credit hour of GRSC 7001 (GradFIRST) _____ 1 credit hour of HORT 8000 (Seminar) _____ 3 credit hours of HORT 7300 (Master's Thesis) _____ HORT 8150 (Plant Growth and Development) _____ HORT 8104 (Advanced Plant Physiology) or a graduate level chemistry course. _____ Graduate-level statistics (FANR 6750, STAT 6220, or STAT 6315). _____ Completes any required courses for students without a B.S. in Horticulture or its equivalent. _____ Is approved by the advisory committee, Major Professor, Graduate Coordinator & graduate school.	By the end of the second week of classes during the semester degree requirements are completed
_____	Research Prospectus and Proposal Seminar _____ Approval of a written research proposal by the Advisory Committee _____ Departmental proposal seminar	By the end of the first year of residency

_____	<p>Residency Requirement</p> <p>_____ Minimum residence requirement is one academic year (two semesters of full-time study).</p>	
_____	<p>Application for Graduation (<i>form required</i>)</p>	Prior to the deadline of the semester that you are graduating.
_____	<p>Thesis</p> <p>_____ Approved by Major Professor and distributed to advisory committee at least two weeks prior to exam.</p> <p>_____ Approved by advisory committee.</p> <p>_____ Format approved by Graduate School.</p> <p>_____ Registration requirement of at least 3 hr during the semester thesis is completed and submitted.</p> <p>_____ Submission of an Electronic Thesis and Submission approval form.</p>	Final version must be electronically submitted to the Graduate School at least two weeks prior to graduation. Graduate school templates can be found HERE .
_____	<p>Final Oral Exam (<i>form required</i>)</p> <p>_____ Scheduled with department at least two weeks prior to exam.</p> <p>_____ Registration requirement of at least 3 hr during the semester the exam is taken and reported.</p>	Results reported to the Graduate School at least one week prior to graduation.
_____	<p>Departmental Thesis Seminar</p> <p>_____ Scheduled with department at least two weeks prior to presentation.</p>	Prior to graduation.

Graduate School Forms

All official Graduate School forms are accessible electronically at http://www.uga.edu/gradschool/forms&publications/currentstudent_forms.html or at <https://gradstatus.uga.edu/Forms/>.

- [Advisory Committee.](#)
- [Program of study form.](#)
- [Recommended Change in Program of Study.](#)
- Application for Graduation (through ATHENA).
- Graduation Change Form (email gradinfo@uga.edu).
- Approval Form for Master’s Thesis, Defense, and Final Examination [Thesis Defense & Final Examination Approval \(M.A. & M.S.\)](#) Master of Arts and Master of Science Candidates [includes a page for Electronic Thesis and Dissertation (ETD) Submission Approval Form].
- [Electronic thesis and dissertation \(ETD\) submission approval form.](#)

VI. The Ph.D. Degree Program

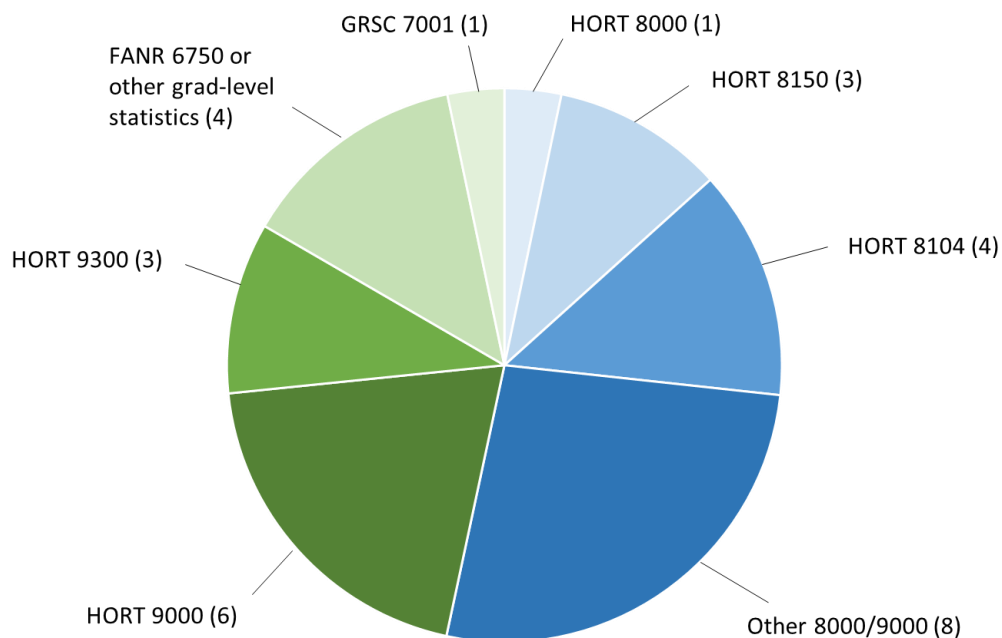
Advisory Committee

An Advisory Committee must be appointed by the end of the first year of residence. The Horticulture Department requires the advisory committee to be composed of at least five members. A minimum of three members must be graduate faculty, including the student's Major Professor who will serve as the chair of the committee. Two members must be from outside the Horticulture Department. The committee may include one non-UGA faculty, who must hold the Ph.D. degree. The Advisory Committee, in consultation with the student, is responsible for planning the student's program, choosing a subject for the dissertation, and arranging and administering preliminary written and oral examinations.

For appointment of the Advisory Committee, an official form must be filed with the Graduate School ("[Advisory Committee \[Instructions\]](#)"). Following deliberations with the Major Professor, the student should verify that selected faculty members are willing to serve. The form must be filled out by the student, and then signed by the Graduate Coordinator who will submit it to the Graduate School. If any changes are made in the composition of the Advisory Committee, the Graduate School must be notified by filing a revised Advisory Committee form.

Program of Study

The program of study must consist of 30 credit hours of graduate credit. At least 16 hours of coursework (shown in blue) must be taken at the 8000- or 9000- level. HORT 9300 (doctoral dissertation) and HORT 9000 (research) may be included in the program of study, but do not count towards the 16 hours of 8000- or 9000- level coursework.



Required Courses:

NOTE: these requirements are satisfied if taken during the master's degree.

- 1 credit hour of HORT 8000 (Seminar). This course is offered during the spring semester and includes aspects of effective seminar presentation. Horticulture graduate students are allowed to take CRSS 8100 or CRSS(HORT) 8861 instead of HORT 8000 if HORT 8000 is not offered during that spring semester.
- Plant Growth and Development (HORT 8150)
- Advanced Plant Physiology (HORT 8104) or a graduate level course in chemistry/biochemistry
- 1 credit hour of GRSC 7001 (GradFIRST). This course is offered through many departments at the University of Georgia, but one section is taught through our department and will be most relevant for our students.
- Graduate-level statistics (FANR 6750, STAT 6220, or STAT 6315)

Optional Courses:

- A maximum of 3 hours of HORT 6070/6080 (Special Problems in Horticulture) or HORT 8080 (Horticulture Research) can be applied to the coursework. These courses need to be taken under the direction of a faculty member other than the student's Major Professor.
- Depending on the content, certain courses may not be counted towards the program of study. For example, PBIO 8830 will not be accepted for the program of study in our department. If there is doubt as to whether a course can be counted towards the program of study, please contact the Graduate Coordinator.
- Completion of [proficiency course requirements](#) for students lacking previous horticulture experience.

Note: since Ph.D. students have already taken several graduate courses before starting the program, there is some leeway in the above requirements. Certain course requirements may be waived if the student has already taken a similar course during her/his M.S. program.

Course requirements for Ph.D. students who do not have a master's degree are a bit different: The program of study for a student who bypasses the master's degree must contain 4 semester hours of University of Georgia courses open only to graduate students in addition to 16 semester hours of 8000 and 9000 level courses. Doctoral research (9000), independent study courses, and dissertation writing (9300) may not be counted in these 20 hours.

A *preliminary* Program of Study, developed by the Major Professor and the doctoral student and approved by a majority of the Advisory Committee, will be filed by the department by the end of the student's first year of residence. The program of study is a list of the proposed courses the student plans to take to support his or her research. All students are expected to acquire competence in general horticulture and are required to have satisfied proficiency course requirements (to be determined by the student's committee). The "Preliminary Doctoral

Program of Study” form (see pg. 26) requires approval signatures from the Advisory Committee members. This form is for departmental use only and should not be sent to the Graduate School. A copy is kept in the student’s departmental file.

A *final* Program of Study must be submitted to the Graduate School for approval of the Dean of the graduate school by the time the notification of the oral comprehensive examination is given. The final Program of Study must be submitted on the proper online form (<https://gradstatus.uga.edu/Forms/G138>) for approval by the Advisory Committee, Graduate Coordinator, and the Dean of the Graduate School. The final Program of Study must show all graduate courses **required** for the doctoral program (including courses from the master's degree and courses transferred from other universities). Courses should be listed in the order taken. No grade below a “C” is acceptable for a course included in the program of study. To be eligible to graduate, a student must maintain a 3.0 grade point average on all courses on the Program of Study and on all graduate courses taken. Changes made in the Program of Study should be reported to the Graduate School ([“Recommended Change in Program of Study”](#)).

Research Prospectus and Proposal Seminar

The dissertation must represent originality in research, independent thinking, scholarly ability, and technical mastery of a field of study. The Major Professor and Advisory Committee shall guide the student in dissertation planning. The student is required to prepare a dissertation prospectus which provides an introduction, rationale, and description of the proposed research to be conducted. The prospectus must be formally considered by the Advisory Committee in a meeting with the student. Approval of the dissertation prospectus signifies that members of the Advisory Committee believe that it proposes a satisfactory research study. The prospectus must be presented to and approved by the Advisory Committee before significant research is undertaken.

Students also are required to give a [departmental seminar outlining their research plans](#). The purpose of this seminar is two-fold: 1) to inform the rest of the departmental what your research topic is and 2) to gain input from the department. This seminar is meant to be informal and should stimulate discussion about the planned research. This is an opportunity for the student to request input from the rest of the department.

Residency Requirement

At least two consecutive semesters of full-time work must be spent in resident study on campus (i.e., enrollment for a minimum of 30 hours of *consecutive* work included on the program of study).

Comprehensive Examinations

A student must pass comprehensive written and oral examinations before being admitted to candidacy. The written comprehensive examination consists of questions submitted by each of the Advisory Committee members. The Major Professor is responsible for administering the exam. Typically, the student will answer the sections of the exam from each of the committee members on successive days. Answers will be evaluated by the individual questioners. Each

committee member will indicate to the Major Professor whether the exam questions were passed or failed. The committee must approve the exam with no more than one dissenting vote.

The Preliminary Oral Examination is given following the successful completion of the written examination. At least two weeks prior to the examination, The Graduate Coordinator must notify the Graduate School by letter of the date, time, and place of the Oral Preliminary Examination. The Graduate Coordinator will notify the Graduate School and the Department upon instruction of the Major Professor. Ph.D. students need to fill out the form on the last page of this document to provide the Graduate Coordinator with the required information. All members of the advisory committee must be present for the entire defense. If necessary, a committee member may participate by teleconference in which all participants can hear each person's comments. The chair of the committee must register the vote and indicate that member's participation was by teleconference. The examination is open to all members of the faculty and shall be announced by the Graduate School. The committee must approve the examination with no more than one dissenting vote.

The Graduate School will provide an official form, "Report of the Written and Oral Comprehensive Examination" after the Graduate Coordinator notifies the Graduate School of the time and place of the oral examination. The results of both examinations must be reported to the Graduate School on this form within two weeks after the date of the oral exam.

Admission to Candidacy

The student is responsible for initiating the application for admission to candidacy <https://gradstatus.uga.edu/Forms/G162>. The application should be filed with the work in his or her field. In addition, the following criteria must be met:

- The final Program of Study has been officially approved by the Advisory Committee, Graduate Coordinator and graduate dean.
- An average of 3.0 (B) or higher has been maintained on all graduate courses taken, and that no course with a grade below C has been accepted as part of the Program of Study.
- The Research Skills requirement has been met.
- All prerequisites set as a condition to admission and proficiency course requirements have been completed.
- Written and Oral Examinations have been passed and reported to the Graduate School.
- The Advisory Committee, including any changes in the membership, is confirmed.
- The Residency requirement has been met.

The appropriate form to file with the Graduate School is the Application for Admission to Candidacy for Doctoral Degrees “Application for Admission to Candidacy for Doctoral Degrees” <https://gradstatus.uga.edu/Forms/G162>.

After Admission to Candidacy, the student must register for at least one more semester and a total minimum of ten hours of dissertation or other appropriate credit. A student must register for a minimum of 3 hours credit in any semester when using University facilities and/or staff time.

Application for Graduation

A student must complete the application for graduation with the Graduate School at least two *full semesters* prior to graduation, using ATHENA. If a student does not graduate in the semester designated on the graduation application, Enrolled Student Services should be notified of the new date intended for graduation at gradinfo@uga.edu.

Department Dissertation Seminar

Students are required to present an exit seminar on their dissertation research. The seminar is to be scheduled and notification given to the Graduate Coordinator at least two weeks prior to presentation. The seminar will be announced to all students, faculty, and staff members of the department. Students are encouraged to present their exit seminar as part of the Horticulture Department seminar series.

Dissertation Approval and Defense

The dissertation must be prepared in accordance with the guidelines established by the graduate school and submitted to the Graduate Dean for signing. The dissertation shall be written under the guidance of the student’s Major Professor and may be written in either traditional or manuscript style. With both styles, there must be an introduction and a literature review with the purposes of defining problems, presenting hypotheses or theories, stating

objectives, and thoroughly reviewing pertinent literature. Both styles also require a concluding chapter or section which unifies preceding chapters or sections. Complete guidelines for thesis preparation can be found at <http://grad.uga.edu/index.php/current-students/policies-procedures/theses-dissertations-guidelines/theses-and-dissertations-overview/>.

Approval and processing of the dissertation should proceed as designated in the “[Approval Form for Doctoral Dissertation and Final Oral Examination](#)”. Upon approval by the Major Professor, copies of the dissertation will be distributed to the rest of the Advisory Committee (Part I of the form), and the Major Professor will schedule a final oral defense and notify the Graduate School. Ph.D. students need to fill out the form on the last page of this document to provide the Graduate Coordinator with the required information. Two weeks must be allowed for members of the Advisory Committee to read the dissertation. The Graduate School will subsequently notify the University community of the date, time and location of the defense.

The Advisory Committee members must approve the dissertation with no more than one dissenting vote, and must certify their approval in writing, before a dissertation will be deemed as ready for a final defense (Part II of the form). If the advisory committee declines to approve the dissertation, the Major Professor will notify the student and the Graduate School.

Oral Defense and Final Examination.

The final defense of the dissertation will be chaired by the Major Professor and attended by all members of the Advisory Committee. The committee must approve the oral defense and examination with no more than one dissenting vote (Part III). All members of the advisory committee must be present for the entire defense. If necessary, a committee member may participate by teleconference in which all participants can hear each person’s comments. The chair of the committee must register the vote and indicate that member’s participation was by teleconference.

Final approval of the dissertation is complete when the suggested changes of the Advisory Committee have been incorporated. The dissertation must be submitted to the Graduate School for final approval no later than the last day of classes of the following semester. If this deadline is missed, the dissertation must be defended again and re-approved by the Advisory Committee.

One complete formatted copy of the dissertation must be electronically submitted to the graduate school for a format check no later than four weeks prior to graduation. The Graduate School will not accept dissertations for format checking or the Dean’s approval between the last day of classes and late registration of the following term. The graduate school must receive the Final Defense Approval form and an electronic submission of the corrected dissertation no later than two weeks prior to graduation.

An [Electronic Thesis and Dissertation \(ETD\) Submission Approval](#) Form must be completed by the student and Major Professor regarding different release options of the thesis on the web. The Graduate School will electronically submit the official copy of the dissertation to the main

library for archiving. A student must enroll for a minimum of three hours of credit the semester in which graduation requirements are met.

Checklist for the Ph.D. Degree

A checklist has been provided to assist each student in the steps required to complete their degree program (see pg. 27-29). An up-to-date version of the checklist should be maintained in the graduate student's departmental file with the date of completion for each of the requirements filled in. The checklist is not meant to be all-inclusive. It is the student's final responsibility to refer to the Graduate Bulletin and to comply with all regulations as defined by the Graduate School.

CHECKLIST FOR Ph.D.

Name _____ First semester of residence _____

Major Professor _____

Date	Check Requirements Completed	Deadline
_____	Appointment of Major Professor	Within the first semester of residence
_____	Appointment of Advisory Committee <i>(form required)</i> _____ Composed of Major Professor who serves as chair, and 4 other faculty. _____ Chair must be a regular member of the graduate faculty, and at least two other members of the committee must be regular or provisional members of the graduate faculty. Faculty must be in the rank of Assistant Professor or above.	Before the end of the first year of residence
_____	First Committee Meeting	Before the end of the first year in residence
_____	Preliminary Program of Study <i>(form required)</i> _____ A minimum of 30 hr of coursework, three hours of which are dissertation (9300). _____ At least 16 hours must be at the 8000 or 9000 level (not counting research, independent study, or dissertation hours). _____ 1 credit hour of GRSC 7001 (GradFIRST) _____ 1 credit hour of HORT 8000 (Seminar) _____ 3 credit hours of HORT 7300 (Master's Thesis) _____ HORT 8150 (Plant Growth and Development) _____ HORT 8104 (Advanced Plant Physiology) or a graduate level chemistry course. _____ Graduate-level statistics (FANR 6750, STAT 6220, or STAT 6315). _____ Completes any required courses for students without a B.S. in Horticulture or its equivalent. _____ Must show all graduate courses relevant to the doctoral program (including courses for the master's degree and transferred courses). _____ Is approved by the advisory committee, Major Professor, Graduate Coordinator & graduate school.	Before the end of the first year in residence

<p>_____</p>	<p>Research Prospectus and Proposal Seminar</p> <p>_____ Approval of a written research proposal by the Advisory Committee.</p> <p>_____ Departmental proposal seminar</p>	<p>Before the end of the first year in residence</p>
--------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------

_____	<p>Residency Requirement</p> <p>_____ At least two consecutive semesters of full-time work must be spent in resident study on this campus (i.e., enrollment for a minimum of 30 hr of <i>consecutive</i> coursework included on the program of study)</p>	
_____	<p>Final Program of Study (<i>form required</i>)</p>	By the time comprehensive exam have been scheduled
_____	<p>Comprehensive Examination (<i>form required</i>)</p> <p>_____ Oral portion scheduled with Grad Coordinator so Records and Graduation office has at least 2 weeks' notice. Oral is announced by Grad School (open to all university faculty).</p> <p>_____ Written portion administered by the Advisory Committee and successfully completed.</p> <p>_____ All members of the Advisory Committee are present to administer the oral exam.</p>	Results must be reported to the Graduate School within 2 weeks of the examination.
_____	<p>Application for Admission to Candidacy (<i>form required</i>)</p> <p>_____ A 3.0 average maintained on all graduate courses taken.</p> <p>_____ All prerequisites set as a condition to admission completed.</p> <p>_____ Research skills requirement met.</p> <p>_____ Final Program of study approved by the Grad school.</p> <p>_____ Written and oral comprehensive examinations passed and reported to Graduate School.</p> <p>_____ Residency requirement met.</p> <p>_____ Advisory Committee is confirmed with any changes reported to the Graduate School.</p>	Immediately after successful completion of the oral exam and all other conditions for candidacy.
_____	<p>One Semester Minimum</p> <p>After admittance to Candidacy, at least one additional semester has been completed with a total minimum of 10 hr dissertation or other appropriate credit.</p>	
_____	<p>Application for Graduation (<i>form required</i>)</p>	Submit no later than Friday of the second full week (the first full week for summer) of classes in the semester that you plan to graduate.

	<p>Dissertation Approval & Defense <i>(form required)</i></p> <p>_____ Dissertation approved by Major Professor and distributed to advisory committee at least 3 weeks prior to exam.</p> <p>_____ Final oral defense scheduled with department and Graduate School at least 2 weeks prior to exam. Notify Graduate Coordinator about exam date, time, and location, dissertation title, and committee members.</p> <p>_____ Dissertation approved by advisory committee.</p> <p>_____ Oral defense approved by advisory committee.</p> <p>_____ Final approval of dissertation by Major Professor; format approved by Graduate School.</p> <p>_____ Submission of an Electronic Thesis and Dissertation (ETD) Submission Approval Form</p> <p>_____ Registration requirement of at least 3 hr during the semester thesis is completed and submitted.</p>	<p>Results of the defense must be reported to the Graduate School at least 1 week prior to graduation.</p> <p>Graduate school template for dissertations: http://www.grad.uga.edu/academics/thesis/thesis_template.html</p>
	<p>Departmental Dissertation Seminar</p> <p>_____ Scheduled with department 2 weeks prior to presentation. (May be combined with final oral examination).</p>	<p>Prior to graduation.</p>

Graduate School Forms

All official Graduate School forms are accessible electronically at <https://grad.uga.edu/index.php/current-students/forms/> or at <https://gradstatus.uga.edu/Forms/>.

- [Advisory Committee for Doctoral Candidates](#)
- [Preliminary Program of Study](#)
- [Program of Study](#) form
- [Recommended Change in Program of Study](#)
- [Application for Admission to Candidacy](#)
- Application for Graduation (ATHENA)
- [Late Filing for Graduation](#) [[Instructions](#)]
- Graduation Change (email gradinfo@uga.edu)
- [Oral Comps & Dissertation Defenses](#)
- [Dissertation and Final Examination Approval](#)
- [Electronic Thesis and Dissertation \(ETD\) Submission Approval Form](#)
- [Doctoral commencement information](#) (Required if you plan to go to graduation)

VII. The Proposal Seminar

Graduate students are required to give a departmental seminar outlining their research plans. The purpose of this seminar is two-fold: 1) to inform the rest of the departmental what your research topic is and 2) to get input from the department. This seminar is meant to be informal and should stimulate discussion about the planned research. This is an opportunity for the student to request input from the rest of the department. The major advisor and student should work together in developing the seminar and make a list of issues to be discussed as part of the seminar. Because it is an important goal of these seminars to gather input into the research plans, these seminars need to be given early in a student's program. Students who start in Fall need to give this seminar by the end of the next Spring semester. Students who start in Spring or Summer need to give the proposal by the end of the next fall semester.

The suggested format is as follows:

1. Provide a general introduction into your research area. Explain why the research matters.
2. Outline the research plans. You can include preliminary data to illustrate your plans. Keep in mind that this seminar is NOT about your data, it is about the planned research. So, lots of data and interpretation of the data is not needed (or wanted).
3. Raise questions about aspects of your research plan that you are not certain about. These questions can raise any issue (experimental design, what model species to use, appropriate techniques, etc.). You can scatter such questions throughout your presentation. The more questions you bring up, the better, since it will stimulate discussion.

Do not try to cover too much. Since the goal of these seminars is to stimulate discussion, your presentation should not take more than 20 minutes. That leaves 30 minutes for discussion and questions.

VIII. Outreach / Extension Experience

An outreach experience has the same educational value to a graduate student as teaching and research experiences. It gives the student exposure to another area of potential employment (Cooperative Extension and/or industry) and an opportunity to assess this type of work. It also adds to the student's expertise in Horticulture and disseminating information. Equally important is the empathy gained for the industry and public we serve. However, graduate students often get little exposure to outreach/extension activities. The goal of this experience is to strengthen that part of our graduate program. Guidelines for the outreach experience are given below.

Students may participate in an outreach experience during their graduate degree program. The M.S. or Ph.D. student will participate in at least two of the three general categories listed below. The student may undertake an extension activity not described herein, subject to approval by his or her major advisor and advisory committee. Students can sign up for an outreach/extension experience under HORT 6070 (Special problems). The number of credit hours is to be determined by the faculty member. This course will not count towards the required coursework on the program of study of the student.

Developing and Communicating Information

1. Present research-generated information in a form and in a medium designed to reach either the general public or industry.
2. Prepare and present a talk on a horticultural topic to an audience of non-scientists. Examples are master gardeners, garden clubs, commodity groups, and extension meetings. Contact Sheri Dorn, the state master gardener coordinator (sdorn@uga.edu) to get involved in a master gardener activity.
3. Use an alternative or creative medium to deliver information. Examples are web sites, mass media (e.g. television or radio), blogs, on-farm or other demonstrations or materials that can be delivered electronically.

Interacting with the Public

1. Assist in developing and conducting a commodity or other meeting designed to attract a large and diverse audience. Assisting only with clerical duties, lights or audiovisuals during a session will not fulfill this requirement.
2. Participate in the planning and execution of a tour. This could involve a facility tour (botanical garden, greenhouse, horticulture farm, research facilities, etc.) or it could involve scheduling and guiding visits for a group of horticulturists.
3. Travel with an extension specialist on assignment for at least 3 days. The 3 days need not be consecutive. One of the days may be spent with an extension agent in the field and/or in the office. The student may choose to participate in county programs (e.g. lunch-and-learn) and present a topic of his or her interest.

4. Assist in responding to requests for horticultural information from extension agents.

Public Service

2. Presenting horticultural programs or developing materials for preschool, elementary, middle, or high schools. This could be through established programs such as Project Focus (<http://www.caes.uga.edu/academics/focus/>) or through contacts made personally by the graduate student, advisor, or other faculty member.
3. Presenting horticultural programs or developing materials for other educational institutions or groups. Examples: museums, state historical sites, the Georgia State Fair, and 4-H.
4. Conducting horticultural programs at institutions where the objective of the activity is therapeutic as well as educational. Examples: hospitals, retirement communities, and public housing.
5. Assist in planning or judging in the 4-H program. Contact the assistant dean for extension to get involved in this activity.

IX. Graduate Faculty

To serve as a Major Professor of a graduate student, a faculty member must be a member of the Graduate Faculty. Faculty in the Department of Horticulture currently holding Graduate Faculty appointments are listed below with a brief description of their research interests.

AFFOLTER, JAMES M.

Ph.D., University of Michigan, 1983

Professor, Director of Research for the State Botanical Garden

The State Botanical Garden of Georgia

2450 South Milledge Avenue

Athens, GA 30605-1624

Phone: 706-542-6144; Fax: 706-542-3091; E-mail: affolter@uga.edu

Dr. Affolter's research interests include plant conservation, medicinal and aromatic plants, and systematics of the Apiaceae (parsley) family. In addition to working with rare and endangered species native to the southeastern United States, he maintains a long-term collaboration with a botanical garden in Cordoba, Argentina to promote sustainable harvest and production of herbs endangered by over-collection for commercial use.

BERLE, DAVID C.

MLA, University of Georgia, 2001

Associate Professor

Department of Horticulture

1111 Plant Science Building

Athens, GA 30602-7273

Phone: 706-542-0771; Fax: 706-542-0624; E-mail: dberle@uga.edu

*Mr. Berle teaches courses in general horticulture, GPS/GIS applications, and landscape design. Most of his research work includes GPS/GIS technology in support of other research. Currently, he is working on projects and grants that include a statewide urban tree inventory system, site evaluation and mapping for endangered native plants (*Elliotia racemosa*), and UGA campus tree inventory. He is also interested in 3-D modeling of urban trees using GIS. Other research interests include cemetery landscape design (primarily African-American) and landscape design trends.*

CAMPBELL, JULIE

Ph.D., University of Connecticut, 2017

Assistant Research Scientist, Marketing

Department of Horticulture

1111 Miller Plant Science
Athens, GA 30602

Phone: 706-542-2471; E-mail: julie.campbell@uga.edu

Dr. Campbell's research interests include horticultural marketing and consumer behavior. Her research intersects a wide variety of academic disciplines to explore why consumers buy what they buy. She strives to help producers/businesses target potential buyers more effectively, and serves as a bridge between consumers, retailers, and producers. She has implemented research projects on a variety of edible, ornamental, and value-added products. She teaches Horticulture Science Perspectives of Sustainable Plant Production and Floral Design and Management.

CASSITY-DUFFEY, KATE

Ph.D., University of Georgia, 2014

Assistant Professor, Organic Horticulture
Department of Horticulture
1111 Miller Plant Science
Athens, GA 30602

Phone: 706-542-2471; E-mail: katecass@uga.edu

Dr. Cassity-Duffey's research program will focus on a multi-disciplinary approach to address the many challenges facing organic growers, especially challenges specific to the Southeast. Her program focuses on weeds, disease, and pests in organic production, with special focus on soil nutrient cycling. Her work hopes to better address soil fertility for growers using organic materials such as organic fertilizers, composts, manures, and cover crops. She teaches both graduate and undergraduate level courses focusing on organic practices and food production.

CHAVEZ, DARIO

Ph.D., University of Florida, 2013

Associate Professor in Peach Research and Extension
Department of Horticulture, Griffin Campus
1109 Experiment Street
Griffin, GA 30223

Phone: 770-229-3369; E-mail: dchavez@uga.edu

Dr. Chavez's main area of interest is peach research and extension with focus on orchard management, tree longevity, irrigation practices, root interaction with tree health, production, and plant breeding and genetics. His main objective is to study the plant production based on the plant's genetic potential, orchard management practices, growing environment, and their interactions. His aim is to identify the optimal interaction of the plant and the environment, having the highest potential of plant production and profit for the growers and the industry.

CHU, Ye

Ph.D., University of Georgia, 2002

Associate Professor in Blueberry Research
Department of Horticulture, Tifton Campus
2360 Rainwater Road
Tifton, GA 31793
Phone: 229-386-3583; E-mail: ychu@uga.edu

Dr. Chu's blueberry breeding program focuses on developing blueberry cultivars adapted to the southeast Georgia growing environment and ornamental varieties for home gardening. The main objective is to produce new blueberry cultivars with a high and reliable crop production sustaining early season freeze and disease/pest challenges. This program is seeking to develop genomic and genetic tools for both rabbiteye and southern highbush blueberries. Genetic mapping population construction and marker development for disease resistance to phytophthora root rot and Botryosphaeria stem slight will be explored.

CONNER, JOANN A.

Ph.D., Cornell University, 1997

Associate Research Scientist, Molecular Biology
Department of Horticulture, Tifton Campus
2360 Rainwater Road
Tifton, GA 31793
Phone: 229-391-2594; Fax: 229-386-7371; E-mail: jconner@uga.edu

Dr. J. Conner's research focuses on apomixis or asexual reproduction through seed. The main goal of this research is to identify the genes required for apomixis using plants from the Pennisetum/Cenchrus genera where this trait has naturally evolved.

CONNER, PATRICK J.

Ph.D., Cornell University, 1996

Professor, Fruit Breeding
Department of Horticulture, Tifton Campus
2360 Rainwater Road
Tifton, GA 31793
Phone: 229-386-3903; Fax: 229-386-3356; E-mail: pconner@uga.edu

Dr. Conner's research focuses on the breeding and genetics of pecan, muscadine grapes, and peaches. The main goal of the breeding program is to produce new cultivars with high levels of

disease and insect resistance combined with improved horticultural characteristics. The program is exploring the use of molecular markers as a selection tool on juvenile seedlings and as a method to elucidate the inheritance of traits. Research is also being conducted on race-specific resistance to the fungal disease pecan scab.

COOLONG, TIMOTHY

Ph.D., University of Georgia, 2007

Professor, Vegetables

Department of Horticulture

1111 Miller Plant Science Building

Athens, GA 30602-7273

Phone: 706-542-0786; Fax: 706-542-0624; E-mail: tcoolong@uga.edu

Dr. Coolong has an extension 80% and research 20% appointment in vegetable production for the Department of Horticulture. His extension program focuses on providing information for vegetable growers primarily in southwest Georgia. His primary research focuses on improving water and nutrient use in vegetable crops as well as germplasm evaluation. Specific interests include improving drip irrigation, using soil moisture sensors, and evaluating calcium fertility in plants. Crops researched include watermelon, onion, cantaloupe, sweet corn, squash, cucumber, pepper, leafy greens, cabbage, broccoli, and carrots.

CZARNOTA, MARK A.

Ph.D., Cornell University, 2001

Associate Professor, Weed Science

Department of Horticulture, Griffin Campus

1109 Experiment Street

Griffin, GA 30223

Phone: 770-228-7398; Fax: 770-412-4764; E-mail: mac@griffin.uga.edu

Dr. Czarnota has a 75% extension and 25% research position, and is responsible for weed control in ornamental, Christmas trees, and Floriculture. His extension and research program are involved in answering important weed control issues in the nursery / landscape, Christmas tree, and floriculture industries. Research interests also include herbicide development, allelopathy, adjuvant technology, invasive weeds, and weed control issues in the blueberry industry.

DELSIDIS, ANGELOS

Ph.D., University of Florida, 2015

Assistant Professor, Postharvest Physiology

Department of Horticulture, Tifton Campus

2360 Rainwater Road
Tifton, GA, 31793
Office: 229-386-7495, E-mail: adeltsidis@uga.edu

Dr. Deltsidis' research focuses on the postharvest physiology of fresh fruits and vegetables. The main research objectives of his program are to evaluate the quality of produce, as well as to study the nutritional value and health-enhancing properties at harvest, during storage, and during shelf life. Furthermore, modern technologies such as cooling, modified/controlled atmospheres and novel packaging materials are being employed to promote produce quality and extend shelf life. The overarching goal of the program is to identify and support the regional and worldwide food supply chains by reducing postharvest losses of fresh fruits and vegetables.

DIAZ PEREZ, JUAN CARLOS

Ph.D., University of California, Davis, 1994

Professor, Vegetable Crops
Department of Horticulture, Tifton Campus
2360 Rainwater Road
Tifton, GA 31793
Phone: 229-391-6861; Fax: 229-386-7415; E-mail: jcdiaz@uga.edu

Dr. Diaz Perez conducts research on cultural practices of vegetable crops. Emphasis is on plasticulture (drip irrigation management and plant responses to plastic film mulches), sustainable/organic production of vegetables, crop-environmental interactions, and transplant production.

DORN, SHERI

Ph.D., University of Georgia, 2019

Public Service Associate, Master Gardener Consumer Ornamentals
Department of Horticulture, Griffin Campus
1109 Experiment Street
Griffin, GA 30223
Phone: 770-412-4766; E-mail: sdorn@uga.edu

Dr. Dorn's research focuses on the human dimension of plants. Within the overarching goal of increasing participation in gardening at some level, a main research goal is to quantify engagement with plants and to describe underlying motivations and benefits for doing so. Dr. Dorn's research approach is primarily quantitative, using survey methodology.

FERRAREZI, RHUANITO

Ph.D., Universidade Estadual de Campinas, Brazil, 2013

Controlled Environment Horticulturist
Department of Horticulture
1111 Miller Plant Sciences
Athens, GA-30602-7273
E-mail: ferrarezi@uga.edu

Dr. Ferrarezi's research focuses on controlled environment horticulture. The main goal of the CEA @ UGA program is to focus on irrigation, plant nutrition, and cropping systems with an emphasis on improved horticultural characteristics. The program is exploring the use of hydroponics, sap analysis, and fertilizer solution management as a method to reduce the potential for environmental contamination and enhance produce quality. Dr. Ferrarezi teaches Greenhouse Management and Hydroponics & Controlled Environment Agriculture.

ITLE, RACHEL

Ph.D., University of Florida, 2010

Assistant Research Scientist, Fruit Production and Genetics
Department of Horticulture, Griffin Campus
1109 Experiment Street
Griffin, GA 30223
Phone: 770-233-6113; E-mail: ritle@uga.edu

Dr. Itle conducts research in fruit production and genetics, with an emphasis on physicochemical fruit quality traits and understanding the genetics behind them. The focus of her research program is on perennial fruit crops such as blueberry. Her program also conducts research on overall plant growth in response to different cultural management techniques including freeze protection strategies, biostimulant applications, and trellising systems, among others. Additionally, Dr. Itle is working to breed and to develop additional fruit cultivars better suited for the southeast including table grape. The overall goal of her program is to help the fruit industry in Georgia and the southeast maintain and increase their market share and overall profitability.

KON, THOMAS M.

Ph.D., The Pennsylvania State University, 2016

Assistant Professor, Pomology
Mountain Horticultural Crops Research and Extension Center
455 Research Drive
Mills River, NC 28759-3423
Phone: [828-684-3562](tel:828-684-3562); Fax: [828-684-8715](tel:828-684-8715); E-mail: tom_kon@ncsu.edu

The overarching goal of Dr. Kon's program is to improve orchard practices and enhance the economic and environmental sustainability of the southeastern apple industry. Research

interests include crop load and canopy management, pruning and training systems, rootstock evaluations, mechanization of orchard practices, pre-harvest drop control, and cultural/chemical practices to improve fruit quality. To address specific production challenges, efforts to develop an understanding of physiological effects, environmental interactions, and/or economic consequences of orchard management practices is required. Dr. Kon holds an 80% research and 20% extension appointment and has multi-state responsibilities (GA, NC, and SC).

MALLADI, ANISH

Ph.D., Purdue University, 2005

Associate Professor, Pomology

Department of Horticulture

1111 Miller Plant Sciences

Athens, GA-30602-7273

Phone: 706-542-0783; Fax: 706-542-0624; E-mail: malladi@uga.edu

Dr. Malladi conducts research on fruit growth and developmental physiology. His research focuses on: 1) understanding molecular regulation of early fruit growth and final fruit size in apple and blueberry; and 2) understanding the physiology of fruit abscission in rabbiteye and southern highbush blueberries to improve mechanical harvesting practices. He teaches Introduction to Fruit Crops, Soil Fertility and Plant Nutrition, and Fertility and Pest Management in Organic Agriculture.

MCAVOY, TED

Ph.D., Virginia Tech, 2012

Assistant Professor, Vegetable Production

Department of Horticulture, Tifton Campus

2360 Rainwater Road

Tifton, GA 31793

Phone: 229-386-3806; E-mail: ted.mcavoy@uga.edu

Dr. Ted McAvoy's applied field research focuses on all aspects of vegetable production in Georgia. Areas of interest include variety performance, disease resistance, fertilizer, irrigation, and alternative crops. His extension goal is to serve the vegetable industry by disseminating relevant information and providing practical data driven recommendations that increase productivity, sustainability, and profitability.

MCGREGOR, CECILIA

Ph.D., Louisiana State University, 2008

Associate Professor, Vegetables

Department of Horticulture
1111 Plant Science Building
Athens, GA 30602-7273
Phone: 706-542-0782; Fax 706-542-0624; E-mail: cmcgre1@uga.edu

Dr. McGregor conducts breeding, genetics, and genomics research on vegetable crops. Current research topics focus on disease resistance in cucurbits and bell peppers and ranges from applied research for cultivar improvement to basic research on the response of plants to pathogen attack. She teaches Introduction to Plant Breeding.

MERKLE, SCOTT A.

Ph.D., Virginia Polytechnic Institute and State University, 1982

Professor, Forest Biology, adjunct appointment in Horticulture
School of Forestry and Natural Resources
Forest Resources Building
Athens, GA 30602
Phone: 706-542-6112; Fax 706-542-8356; E-mail: merkle@warnell.uga.edu; Web:
<http://www.warnell.uga.edu/Members/merkle>

Dr. Merkle's research is in in vitro propagation and genetic transformation of forest trees. The focus of the research is currently on the use of somatic embryogenesis for mass propagation, genetic transformation, germplasm conservation and restoration of southeastern U.S. forest trees. Recent work has also included engineering forest trees for heavy metal phytoremediation. Merkle's lab has developed tissue culture propagation systems for over a dozen forest tree species and hybrids. Primary species currently under investigation in the lab include American chestnut, sweetgum, yellow-poplar, and eastern and Carolina hemlocks.

NAMBEESAN, SAVITHRI

Ph.D., Purdue University, 2009

Assistant Research Scientist, Ripening and postharvest
Department of Horticulture
1111 Miller Plant Sciences Building
Athens, GA 30602
Phone: 706-542-0777; Fax 706-542-0624; E-mail: sunamb@uga.edu; Web:
<http://www.hort.uga.edu/personnel/faculty/profile/FacSavithriNambeesan.html>

Dr. Nambeesan's research is primarily focused on investigating mechanisms that regulate fruit and vegetable ripening and postharvest shelf-life using molecular and genomic approaches. She is also interested in studying the role of growth regulators such as abscisic acid, ethylene and brassinosteroids on ripening and postharvest storage. Her research integrates aspects of fruit/vegetable quality attributes (for e.g., phytonutrient levels) during postharvest storage.

OZIAS-AKINS, PEGGY

Ph.D., University of Florida, 1981

Professor, Molecular Biology and Tissue Culture
Department of Horticulture, Tifton Campus
2360 Rainwater Road
Tifton, GA 31793-5401
Phone: 229-386-3902; Fax: 229-386-7371; E-mail: pozias@uga.edu

The research program in Dr. Peggy Ozias-Akins's lab focuses on female reproduction and gene transfer in plants. She has an ongoing molecular marker program to tag and clone the gene(s) for apomixis, asexual reproduction through seed, in order to assist the conventional transfer of apomixis into pearl millet as well as enhance the potential for introduction of this trait across taxonomic boundaries through gene transfer. For more information on Dr. Ozias-Akins' program, see: <http://www.nespal.org/oziasakinslab/>

PENNISI, BODIE

Ph.D., University of Florida, 1999

Professor, *Extension Landscape Specialist*
Department of Horticulture, Griffin Campus
1109 Experiment Street
Griffin, GA 30223
Phone: 770-228-7244; Fax: 770-412-4764; E-mail: bpennisi@griffin.uga.edu

Dr. Pennisi has statewide extension responsibilities for the Georgia landscape industry. She teaches two undergraduate courses, Plant Propagation, and Herbs, Spices, and Medicinal Plants, on the UGA's Griffin campus. Her major areas of research have included landscape applications of tropical plants as means to develop niche markets for producers; evaluating the cold hardiness of tropical perennials, the use of plant growth retardants as means to improve post-harvest performance of interiorscape plants; and developing cultural guidelines for foliage plants. Most recently, Dr. Pennisi has been researching phytoremediation removal of volatile organic compounds by interiorscape plants and quantifying carbon dioxide assimilation in interiorscape plants.

ROBACKER, CAROL D.

Ph.D., University of Minnesota, 1981

Associate Professor, Tissue Culture and Genetics
Department of Horticulture, Griffin Campus
1109 Experiment Street

Griffin, GA 30223

Phone: 770-412-4763; Fax: 770-412-4764; E-mail: croback@griffin.uga.edu

Dr. Robacker's research area is breeding and genetics of ornamental plants. One of her goals is to develop new cultivars of deciduous and evergreen azaleas with resistance to azalea lace bug, cranberry rootworm, and other pests. She is also evaluating landscape plants for tolerance to environmental conditions in Georgia, including heat, cold, and pests. Techniques used to evaluate and develop new cultivars include interspecific hybridization, genetic analysis of segregating progenies from crosses, identification of molecular markers linked to resistance, determination of physiological or morphological basis of resistance, in vitro screening and selection, and mutation breeding techniques.

RUBIO AMES, ZILFINA

Ph.D., University of Florida, 2019

Assistant Professor, Small Fruit Extension Specialist

Department of Horticulture, Tifton Campus

2360 Rainwater Road

Tifton, GA 31793-5766

Phone: 229-386-3449; E-mail: zilfina.rubioames@uga.edu

Dr. Rubio Ames' program focuses on whole plant physiology and production management practices in blueberry, blackberry, and other small fruits. The main goal of the small fruit program is to improve production managements practices to allow growers to have a more efficient and sustainable production system, while remaining economically viable. The small fruit program studies how the diverse production management practices affect plant physiology and determines yield and postharvest quality

RUTER, JOHN M.

Ph.D., University of Florida, 1989

Professor, Ornamentals

Department of Horticulture

221 Hoke Smith Building

Athens, GA 30602

Phone: 706-542-9059; E-mail: ruter@uga.edu

Dr. Ruter's research and extension activities are focused on nursery crop production and plant breeding and selection for the southeastern United States. Production research focuses on reducing phosphorus losses and water use in container nurseries, micronutrient nutrition (nickel and copper deficiencies), controlled release fertilizers, plant growth regulation and heat stress physiology. Current research objectives for plant breeding and selection are 1) to develop and evaluate new plants for southeastern landscapes which have novel horticultural characteristics

or improved environmental tolerances, 2) to develop sterile forms of popular ornamental plants which are not invasive, and 3) to develop Camellia oleifera, Tea oil, as a new high-oleic acid oil crop for the southeastern United States.

VAN DER KNAAP, ESTHER

Ph.D., Michigan State University, 1998

Professor, Genetics and Molecular Biology

Department of Horticulture

Center for Applied Genetic Technologies

111 Riverbend Road

Athens, GA 30602

Phone: 706-542-4682; E-mail: EsthervanderKnaap@uga.edu, Web:

<http://www.plantbreeding.uga.edu/people/Esther-vanderKnaap.html>.

The research in the van der Knaap laboratory focuses on the regulation of fruit shape and size in Solanaceous crops. The main focus is on tomato where selections resulted in a wide variety in fruit form. This morphological diversity provides excellent resources for studies in plant genetics, development, and organ patterning. The understanding of the molecular bases of diversity in fruit form also offers novel insights in the evolutionary processes that underlined vegetable crop domestication and selection.

VAN IERSEL, MARC W.

Ph.D., The University of Arkansas, 1994

Professor, horticultural physiology and nutrition

Department of Horticulture

1111 Plant Science Building

Athens, GA 30602-7273

Phone: 706-583-0284; Fax 706-542-0624; E-mail: mvanier@uga.edu, Web:

<http://hortphys.uga.edu/>.

Dr. van Iersel conducts research in whole plant physiology and nutrition with an emphasis on greenhouse lighting and photosynthesis. Although the focus of his research is on floricultural crops, Dr. van Iersel also works on perennials, woody ornamentals, and vegetables. The overarching goal of his research is to make production more sustainable by making more efficient use of resources such as light, water, and fertilizers. He teaches Advanced Plant Physiology and Measurement and Control in Plant and Soil Science.

WELLS, LENNY

Ph.D., University of Georgia, 1999

Professor, Pecan Horticulture
 Department of Horticulture, Tifton Campus
 4604 Research Way
 Tifton, GA 31793
 Phone: 229-386-3424; Fax 229-386-7133; E-mail: lwells@uga.edu

Dr. Wells' applied research is focused on improving pecan production through the management of various cultural practices, including nutritional management, orchard soil health, and crop load management. The goal of Dr. Wells' research is to make pecan production more sustainable and cost efficient.

WILDE, H. DAYTON

Ph.D., Texas A&M University, 1988

Professor, molecular biology of ornamental plants
 Department of Horticulture
 1111 Plant Science Building
 Athens, GA 30602-7273
 Phone: 706-542-5816; Fax 706-542-0624; E-mail: dwilde@uga.edu

The goal of Dr. Wilde's research is to use genomic information to improve woody ornamental plants. He works on the development of transgenic plants and on increasing the efficiency of mutation breeding. He teaches a course on translational genomics.

YU, PING

Ph.D., Texas A&M University, 2021

Assistant Professor, Ornamental Extension Specialist
 Department of Horticulture, Griffin Campus
 1109 Experiment Street
 Griffin, GA 30223
 Phone: 770-233-5558; Fax 770-412-4764; E-mail: pingyu@uga.edu

Dr. Yu's focuses on incorporating innovative technologies, such as sensor-based facilities and automation into plant production systems to reduce labor intensity and improve water/nutrient use efficiency. Also, her research concentrates on ornamental and nursery plants productions, new cultivar selections and promotions; exploring the environmental and economic benefits of using alternative substrate and weed control methods; evaluating horticulture substrate effects on plant production and physiology; untangling plant nutrition, microbes, and plant disease interactions, and developing the best practice of nutrients and water management for plants.

ZHANG, DONGLIN

Ph.D., University of Georgia, 1998

Professor, Woody Ornamental Plants

Department of Horticulture

1111 Plant Science Building

Athens, GA 30602-7273

Phone: 706-542-0776; Fax: 706-542-0624; E-mail: donglin@uga.edu

To select and breed new and better woody ornamental plants for our landscape and daily gardens is the primary responsibility of Dr. Zhang. He develops new and improved cultivars with technology of traditional hybridization, molecular aided breeding, and rapid regeneration (embryogenesis). Graduate students are encouraged to participate his research projects and work on new plant exploration at home and abroad, the mutation breeding via EMS and colchicine as well as sterility from molecular and other approaches, development of procedures for new cultivar propagation, evaluation, and production techniques.