I. General Purpose
To support instruction and research at M.S. and Ph.D. levels in Plant and Environmental Sciences.
Link to the Plant and Environmental Sciences Graduate Handbook.

A. Curriculum
1. Description of the graduate Plant and Environmental Sciences Program.
The following text is from the Clemson University Graduate School.

The College of Agriculture, Forestry, and Life Sciences houses departments that participate in the graduate degree programs in Plant and Environmental Sciences (PES). The PES faculty recognize their responsibility to the mission of a Land Grant Institution and provides exemplary academic and research mentoring and public service. The Master’s (MS) and Doctoral (PhD) degree programs offer rigorous education and a solid foundation in basic and applied plant and environmental sciences, and educate individuals who will continue research or serve as professionals enhancing agriculture, horticulture, and environmental and economic sustainability of biological resources.

The MS and PhD degree programs are offered by faculty representing a broad range of disciplines including botany, crop science, ecology, molecular genetics, horticulture, plant pathology, plant breeding, plant physiology, weed science, turfgrass and soil sciences. Applicants should have a strong undergraduate background in the biological, agricultural and/or related sciences. Undergraduate curricula that may provide this background are botany, biology, chemistry, geology, physics, plant science, soil science, agronomy, plant pathology, entomology, horticulture, forestry or environmental sciences. We welcome motivated students with non-traditional backgrounds, who may be required to take undergraduate prerequisite courses relevant to their research area.

Graduate Program Coursework -
MS in Plant and Environmental Sciences, thesis and non-thesis options
PhD in Plant and Environmental Sciences

B. Users
1. Primary Users
   a. Plant and Environmental Sciences Faculty, 2011-2012
   b. Graduate Students in Plant and Environmental Sciences
   c. Staff in Plant and Environmental Sciences

2. Secondary Users
   a. Undergraduate or graduate students in horticulture, microbiology, or other biological sciences majors that refer to plants and their environment.
   b. Persons from the community interested in plant and plant environmental topics.
II. Scope of the Library Collection

A. The Plant and Environmental Sciences collections made accessible by the Clemson University Libraries will primarily support the teaching and research needs of the faculty, students, and staff in Plant and Environmental Sciences.

B. Since the accessible materials are also used by many Clemson faculty and students outside Plant and Environmental Sciences and by members of the community, selection will include some quality popular materials as well as plant environmental materials supportive of the life sciences in general.

C. Efforts are aimed at maintaining a well rounded collection, including digital materials, with special strengths in the areas of current research at Clemson University and in areas where degrees are given, but which also provides materials for the undergraduate in all areas of Sustainable Agriculture and Biological Science, with emphasis on plants and their environment, and which will in the future provide an adequate basic collection as research interests change.

D. The subjects are cataloged in the following Library of Congress call number ranges. There is considerable interdisciplinary coverage with other degree areas in the life science areas.

<table>
<thead>
<tr>
<th>Call Number Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SB 599-608</td>
<td>Pest and Diseases **</td>
</tr>
<tr>
<td>SB 621-795</td>
<td>Plant pathology</td>
</tr>
<tr>
<td>SB 818-945</td>
<td>Economic entomology</td>
</tr>
<tr>
<td>SB 950-990</td>
<td>Pest control and treatment of diseases. Plant protection</td>
</tr>
<tr>
<td>SB 990.5-998</td>
<td>Economic zoology applied to crops. Agricultural zoology.</td>
</tr>
<tr>
<td>QK 710-715</td>
<td>Plant Physiology</td>
</tr>
<tr>
<td>QK 720-753</td>
<td>Physical Plant physiology</td>
</tr>
<tr>
<td>QK 754-845</td>
<td>Physical agents affecting plants</td>
</tr>
<tr>
<td>QK 861-866</td>
<td>Phytochemistry**</td>
</tr>
<tr>
<td>QK 867-899</td>
<td>Nutrition</td>
</tr>
</tbody>
</table>

**Pests and diseases is one subject area showing the heaviest use. It is also heavily used by horticulture students and faculty as well as by the public. Biochemistry of plants (phytochemistry) is one of the most heavily used areas in plant physiology.
E. Journals
The preference will be for online journals. As new faculty are hired and new research interests arise, there will be an effort to support these new areas by purchasing any requested journals. The following are important plant science journals that should be subscribed to if funding is available.

```
ANNU REV PLANT BIOL
ANNU REV PHYTOPATHOL
TRENDS PLANT SCI
CURR OPIN PLANT BIOL
PLANT CELL
PLANT J
NEW PHYTOL
PLANT PHYSIOL
J ECOL
PLANT CELL ENVIRON
PLANT BIOTECHNOL J
J EXP BOT
PERSPECT PLANT ECOL
MOL PLANT
PLANT CELL PHYSIOL
PLANT MOL BIOL
BMC PLANT BIOL
MOL PLANT MICROBE IN
CRIT REV PLANT SCI
MOL PLANT PATHOL
ANN BOT-LONDON
PLANT METHODS
THEOR APPL GENET
PHYTOCHEMISTRY
PLANTA
PHYSIOL PLANTARUM
AM J BOT
J NAT PROD
PRESLIA
PLANT SOIL
ENVIRON EXP BOT
SEX PLANT REPROD
J PLANT PHYSIOL
PHYTOMEDICINE
BOT REV
PLANT SCI
J ETHNOPHARMACOL
PLANT FOOD HUM NUTR
J VEG SCI
PHYTOPATHOLOGY
PHOTOSYNTH RES
PLANT BIOLOGY
PLANT PHYSIOLOG RES
PLANT DIS
PLANTA MED
INT J PLANT SCI
TAXON
ADV BOT RES
PLANT PATHOL
J PHYCOL
MOL BREEDING
FUNCT PLANT BIOL
AQUAT BOT
PHYCOLOGIA
J PLANT GROWTH REGUL
PLANT ECOL DIVERS
REV PALAEOBOT PALYNO
J PLANT NUTR SOIL SC
BOT J LINN SOC
```

F. Other Resources Available

1. R.M. Cooper Library also provides free interlibrary loan service (ILL) to students, faculty, and staff.

2. The PASCAL system allows us to borrow book material from other colleges and universities in South Carolina with courier delivery within 2 or 3 days.

3. Commercial Document Suppliers
   Document Delivery via Commercial Document Suppliers will be offered free of charge to Clemson University students, faculty, or staff if the needed information is not available from interlibrary loan sources.
4. Important indexes and abstracts to be retained if possible.

- AGRICOLA
- Biological and Agricultural Index Plus
- BIOSIS
- Conference Papers Index
- Current Contents
- Dissertation Abstracts
- General Business File
- Lexis/Nexis
- Medline (PubMed)
- PAIS
- ProQuest Deep Indexing: Environmental Sciences
- ProQuest Dissertations & Theses - Full Text
- PubMed (Medline)
- Science Citation Index
- SciFinder Scholar
- Toxline
- TOXNET
- Web of Knowledge
- Web of Science
- Zoological Record

III. Collection Management and Parameters

A. Languages
   English is the predominant language. If materials in other languages are collected they must generally contain information not readily available in English.

B. Geographic Areas
   Plant and Environmental Sciences materials concerning topics in South Carolina, the Southeastern United States, and North America will be emphasized. Other geographic areas will be targeted as research and teaching interests dictate.

C. Chronological Boundaries
   Most materials considered for purchase are current; materials published prior to the most recent five years are purchased very selectively and usually at the request of faculty or students.

D. Format of Materials Collected
   Monographic material purchased will primarily be English language print sources and in electronic format, if electronic is available. Journals, handbooks, manuals, and encyclopedias will be in electronic format, if available. Materials in languages other than English will be collected only upon specific request. Scholarly, technical and professional treatments are emphasized. DVDs will be purchased as requested by faculty.

E. The following materials will be excluded unless there is an extraordinary need and/or a specific request.
   1. Workbooks
   2. Computer software
   3. Rare materials
   4. Textbooks

F. Weeding Guidelines
   Monographic material, with an imprint of 1997 or earlier, which has not circulated for the last ten years, will be reviewed for weeding. Statistical reports are available for review of these titles. If a book has not circulated and is historically important, Special Collections will be asked to house it. If Special Collections does not take the item, storage will be considered if the item is rare or unique to Clemson.
IV. Selection Tools and Review Sources

A. List of courses offered each semester.
B. Major plant and environmental journals
C. Publishers websites and catalogs
D. Plant and environmental society websites and catalogs
E. An approval plan if funds are available
F. The students and faculty are most helpful in suggesting resources to purchase. While working with students at the reference desk or through class contacts, one learns what topics are of interest. Co-workers are also extremely helpful in suggesting areas that may need more coverage. Looking at the ILLs requested also helps in the selection process.
G. If faculty members fail to recommend material, the librarian will encourage them to take a more active part in selection. If this encouragement fails, the librarian will make the selections based on the research being done by faculty.
H. The librarian is also responsible for the selection of general materials not specifically related to the curriculum and for maintaining a balance between the various subject areas and between standard and current works.

V. Evaluation Tools

A. “Use studies” involving circulation and browsing data from our online catalog, databases, and journal vendors will show the areas of highest use.
B. Journal Citation Reports purport to pinpoint the most influential journals in any science discipline in several quantitative methods.

VI. Assessment and Planning

A. Qualitative Measures
   1. The information access policy for this major will be reviewed every five years.
   2. Appropriate bibliographies will be checked against our holdings.
   3. Benchmarking projects to be determined.
B. Quantitative Measures
   1. Interlibrary Loan and PASCAL activities will be monitored to see what subject areas are lacking and what type materials are being requested most.
   2. Circulation statistics, both for print and electronic resources, will be reviewed to see which areas of the collection are most heavily used.