

DEPARTMENT OF PLANT AND SOIL SCIENCE

STRATEGIC PLAN (2008-2013) MISSION STATEMENT

The mission of the Department of Plant and Soil Science is to improve plants for human use, increase knowledge about our environment, and enhance sustainable practices in plant production and value-added processing through education, research, and outreach.

VISION STATEMENT

Our vision is that the Department of Plant and Soil Science will be recognized as one of the top departments of its kind in the nation. This recognition will be based on excellence in teaching, discovery and application of knowledge, and engagement regarding current and emerging aspects of the plant and soil sciences.

The Department of Plant and Soil Science will:

- be recognized as a top department in the plant and soil sciences in the nation;
- educate students to become global leaders in plant and soil sciences;
- discover and apply new knowledge through research; and
- through engagement, create positive change in our community, state, nation, and the world.

Department of Plant and Soil Science is committed to a culture that values:

- mutual respect, trust, and a supportive environment;
- open communication, teamwork, and partnership;
- creativity, innovation, and pursuit of excellence;
- community service, leadership, and public accountability; and
- diversity and academic and intellectual freedom.

GOALS, BENCHMARKS, OBJECTIVES AND STRATEGIES

Goal 1. People First: Foster an environment that encourages recruitment and retention of an excellent and diverse faculty, staff, and students.

Benchmarks:

- 16 budgeted tenure-track faculty position FTEs (2007 FTE: 14.75)
- 6 endowed professorships/chairs. (2007: 5)
- Raise \$3.5 million in donations, \$1 million to be used to increase scholarship endowments to \$2.4 million (2008: \$1.37M). The balance will be used toward funding a new building for PSS.
- Enrollment of 150 undergraduate (2007: 93) and 85 graduate students. (2007: 65)
- \$108K PSS scholarships awarded annually. (2007: \$60K)
- 50% undergraduate students on scholarship. (2007: 50%)
- 6 faculty fellows in national societies. (2007: 4)

Objectives:

Objective 1.1: Recruit, retain, recognize, and reward outstanding faculty and staff.

Strategies:

- Provide departmental resources and secure additional resources from the college and university to recruit and retain outstanding and diverse faculty and staff.
- Provide financial resources from the department to encourage participation of new faculty in professional development opportunities.
- Secure partial budgeted university salary support and tenure-track status for current Research Faculty at FBRI.
- Create two new Research Associate (Ph.D.-level) positions at FBRI (soft money)
- When faculty positions are vacated through retirement or resignation, determine whether to a) retain the current position orientation, or b) fill with a priority hire (see below).
- Priority hires for new faculty positions:
 - Plant molecular biochemistry/physiology
 - Precision agriculture specialist
 - Pest genetics/ecology
 - Forage/turfgrass breeding

Objective 1.2: Increase numbers and academic excellence of our students.

Strategies:

- Develop and implement a comprehensive strategy for student recruiting
 - Increase PSS student participation in CASNR organizations, including AgriTechsans, Ag Pals, Congressional Internships, Ag Council

- Increase participation of faculty and staff in events such as State FFA contests, science fairs, FFA workshops, Upward Bound, etc.
- Create annual PSS events for recruiting potential undergraduate students
- Website enhancement:
 - Increase the visual and interactive aspect. Create an interactive “prospective students” page.
 - Enhance the research page to improve graduate student recruitment
- Develop articulation agreements with additional community colleges
- Recruit in science programs in Lubbock and other area high schools
- Increase outreach to local high school agricultural science programs
- Recruit at selected trade/scientific meetings (ASA/CSSA/SSSA, TNLA, etc.)
- Develop/maintain current recruiting materials
- Recruit graduate students from Angelo State University
- Identify and mentor promising undergraduates toward graduate school
- Develop and implement a comprehensive strategy for student retention
 - Facilitate internships for students

Objective 1.3: Improve physical facilities for PSS and FBRI.

Strategies:

- Secure resources/support for a new building with at least 35000 ft² of assignable space. Raise at least \$2.5 million toward this building.
- Secure resources from cost savings, grants, and private support to 1) further equip the Biopolymer Research Laboratory at FBRI, and 2) Establish a small-scale knitting and weaving lab at FBRI.

Objective 1.4: Develop additional resources for faculty and student development.

Strategies:

- Increase efforts to expand departmental endowments for scholarships in concert with the upcoming TTU campaign.
 - Raise funds to increase endowments for undergraduate scholarships by \$500,000
 - Raise funds to increase endowments for graduate scholarships by \$500,000
- Set aside funds to encourage faculty development leaves

Objective 1.5: Encourage effective communication among faculty, staff, and students.

Strategies:

- Hold annual meetings of the PSS and FBRI Advisory Councils.
- Schedule an annual, full-day faculty retreat on “dead day” each fall semester.
- Increase attendance of faculty, research staff, and graduate students at weekly seminars

Goal 2. Excellence in Education: Increase impact and recognition of our academic programs.

Benchmarks:

- 50% of undergraduates involved in internships. (2007: 8%)
- 5 undergraduates in study abroad and international experiences per year. (2007: 0)
- 30 undergraduates involved in research per year. (2007: 30)
- 100 students enrolled in distance courses per year. (2007: 41)
- Offer 12 undergraduate distance courses. (2007: 8)
- Offer 5 graduate certificate programs through distance learning (2007: 4)
- Offer 16 graduate distance courses. (2007: 13)
- Sponsor or participate in 5 professional education programs per year. (2007: 4)
- Ensure that each of our distance courses passes the “Quality Matters” certification

Objectives:

Objective 2.1: Ensure that our academic programs are relevant for current employment opportunities and for the global economies of today and tomorrow.

Strategies:

- Survey professional societies, etc. to determine job opportunities for our students.
- Solicit from the PSS Advisory Council how best to prepare our students for the future.
- Review course offerings during 2008. Add, delete, or revise to ensure relevance.
- Rename the “Agronomy” Ph.D. degree to “Plant and Soil Science”.
- Develop a database of graduates, including salaries and jobs

Objective 2.2: Increase national recognition of students.

Strategies:

- Identify and mentor students with potential for national recognition.
- Increase student participation in collegiate judging teams and bowl competitions by providing financial support from department resources.

Objective 2.3: Increase our impact through increasing distance learning activities.

Strategies:

- Devote one graduate assistantship from departmental funds for distance course support and development.
- Develop a leadership role in the Great Plains IDEA (Interactive Distance Education Alliance) by offering courses in Horticultural and Turfgrass Sciences
- Offer 12 undergraduate and 16 graduate courses via distance education.
- Submit three distance courses each year for the “Quality Matters” certification

Objective 2.4: Develop new undergraduate and graduate focal areas and programs.

Strategies:

- Partner with the Dept. of Agricultural and Applied Economics, College of Human Sciences, Rawls College of Business, and the Rawls Golf Course to develop a new Professional Golf Management (PGM) program. Secure external funds (at least \$60,000/yr) to facilitate our participation in such a program.
- Develop and deliver a new focal area in Viticulture/Enology within the Horticultural and Turfgrass Sciences major by fall 2010.
- Develop and deliver two new courses in viticulture and three new courses in enology and wine appreciation.
- Develop and deliver a new certificate program in enology
- Explore the development of at least one new course focused on bioproduct development from biopolymers.
- Explore development of an M.S. in Bioproducts

Objective 2.5: Further Develop the Texas International Cotton School.

Strategies:

- Structure an intensive, two-week program to give a comprehensive overview of the global cotton/textile complex to managers in all industry segments.
- Obtain national experts to handle other subject areas of the School; e.g., cotton breeding and biotechnology, harvesting, ginning, domestic and export marketing, risk management, government policy, etc.
- Recruit students from across the U.S. and the world; have at least 10 students in each school.

Goal 3. Excellence in Research: Increase the research impact of the department in Texas, the U.S., and the world.

Benchmarks:

- \$4M total research grant funding. (2007: \$1.8M PSS, \$0.84M ITC)
- 100 proposals submitted for external funding (2007: 57.4 PSS, 22.6 ITC, 80 total)
- 100% of faculty generating sponsored research funding through ORS (2007: 65%)
- 4:1 leveraging of state funds. (2007: 4.33)

Objective 3.1: Increase the amount of research funding from competitive grants.

Strategies:

- Increase the number of proposals submitted to competitive grant programs.
- Provide timely information about funding opportunities to faculty.

Objective 3.2: Expand our research programs into new, critical, and emerging areas.

Strategies:

- Identify new and emerging research priorities through intra-departmental discussions.
- Hire new faculty able to address new and emerging research priorities.

Objective 3.3: Strengthen critical areas of current research focus.

Strategies:

- Develop a center/institute of excellence for Cotton Science. Build a public/private partnership to bring new research resources to the department.
- Develop a center/institute of excellence in Viticulture and Enology.
- Secure funds through public or private sources to provide a sustained funding base for ongoing long-term cropping/livestock systems research.
- Expand critical research areas at FBRI:
 - Research program on bioproducts development from biopolymers.
 - Development of a research methodology to investigate the impact of candidate genes on cotton fiber structure and microstructure
 - Development of reference methods and instruments for fiber, yarn, and fabric quality measurements (metrology)

Objective 3.4: Increase visibility of research.

Strategies:

- Promote technology transfer and license agreements.
- Host two research field days annually at the Quaker Ave. Research Farm, and one at the New Deal Research Farm.

Objective 3.5: Enhance facilities for research.

Strategies:

- Increase the amount of subsurface drip irrigation at the Quaker Ave. Research Farm.
- Set aside and physically upgrade greenhouses 6 and 7 for research at the PSS Horticulture Greenhouse facility.

Goal 4. Partnerships: Strengthen and develop key partnerships to increase our impact in teaching, research, and outreach.

Benchmarks:

- 5 workshops, symposia, or other events per year sponsored and supported for governmental agencies, non-governmental organizations, industry groups, trade associations and consumers. (2007: 4)
- 12 joint appointments between PSS and Texas AgriLife Research (2008: 12)
- 4 joint appointments between PSS and Texas AgriLife Extension (2008: 4)

Objectives:

Objective 4.1: Enhance existing partnerships.

Strategies:

- Involve the PSS and FBRI Advisory Councils in evaluation and advisement on strategic issues and programmatic directions.

Objective 4.2: Develop new partnerships.

Strategies:

- Develop partnerships and articulation agreements with community colleges to enhance enrollment in our undergraduate programs.
- Develop agreements with employers to increase internship opportunities for our students.

Goal 5. Tradition and Pride: Build awareness and appreciation of departmental accomplishments among alumni and local and national constituencies.

Benchmarks:

- 10 newscasts per year on local, regional, or national print news, radio and television media. (2007: 6)
- 2 alumni functions sponsored per year. (2007: 0)
- 250 on mailing list for departmental newsletter. (2005: 140)
- 250 on mailing list for Textile Topics (2007: 170)
- Active participation with all segments of the fiber and textile industries for assistance in planning, development, and conflict resolution.

Objectives:

Objective 5.1: Enhance public awareness of PSS and FBRI.

Strategies:

- Strengthen ties with TTU Marketing and Communications to promote departmental personnel, programs and activities.
- Make personal contacts with local media representatives to increase awareness of PSS and FBRI.

Objective 5.2: Encourage alumni to be ambassadors for PSS and FBRI.

Strategies:

- Develop closer ties with the TTU Alumni Association to promote departmental personnel, programs, and activities.
- Help our advisory councils to become effective advocates for PSS and FBRI.
- Add more alumni to our newsletter mailing list.