

## Department of Plant and Soil Sciences 2015-2016 Implementation Plan Report

**Recommendation 1** - The department should develop a strategic planning process that would foster engagement with larger, longer-term issues in order to have guidelines for making the more immediate decisions on where to invest their resources.

**Assessment method:** Determine whether planning has begun

**Results:** Planning has begun; the advisory committee suggested metrics to use for measuring department progress and has suggested potential targets for the next strategic plan. The metrics plan was fully discussed by the faculty and returned to the advisory committee for re-evaluation. It was recommended that we concentrate on our next periodic review (2017-2018) before returning to writing a strategic plan.

**Analysis of results and reflection:** Most of our metrics were focused on defining our department in light of a strict metrics based budget model. As the budget model has changed away from a strict metrics based model, the department will revisit the metrics to create accomplishment based metrics that fit our department goals.

**Ongoing improvement actions:** We have begun work on our self-study document for our 2017-2018 periodic program review.

**Recommendation 2** - The entire Department needs to discuss and resolve several major issues facing the Department. The College of Agriculture and the Department of PSS are getting smaller – what areas and/or responsibilities will be given up? Examples of the long-range type of issues that need to be discussed include the undergraduate HPLS curriculum, research foci within the Department given reduced number of faculty, extension foci given reduction in Extension FTEs. The review committee suggests that the new IPSS graduate program might serve as a mechanism to integrate the various sub-disciplines (crops, soils, and plant biology) within the Department.

**Assessment method:** Create the next five-year strategic plan

**Results:** The potential targets in a strategic plan have been proposed by the advisory committee. We have held much discussion of the HPLS program. A Modern Agronomic Crop Production individualized curriculum has been established. A recruiting position was created and filled to recruit HPLS students. The department, influenced by state stakeholder groups, will maintain as broad an array of extension specialist programs as possible.

**Analysis of results and reflection:** Discussions of undergraduate programs have proceeded most quickly because our direct costs associated with those programs are lower than the costs associated with the extension and research programs, and the

budget model was focused on tuition division. With the reduction in emphasis on a metrics driven budget model, our strategic planning focus will change.

**Ongoing improvement actions:** The department discussions will focus on exploring new or continued faculty hiring needs. These were discussed at the January and August 2016 faculty meetings. This continues our discussions of research foci in the department. It was recommended that we concentrate on our next periodic review (2017-2018) before returning to writing a strategic plan.

**Recommendation 3** - As part of the above process and discussions (1 and 2 above), the department should develop interdisciplinary research clusters encompassing both research and extension faculty focused on strengths, and informally or formally designate these clusters as areas of research foci that can be used to recruit graduate students.

**Assessment method:** Count research clusters which recruit graduate students. Analyze GRE scores of students accepted for assistantships.

**Results:** A forage interest group and a rhizosphere interest group meet monthly. A grain crops interest group meets weekly. Two graduate students are being co-advised by a grain crops extension specialist at Princeton and two soil science researchers at Lexington. One of these is funded by an external grant. One graduate student is being co-advised by the tobacco extension specialist at Princeton. This student received a graduate fellowship. Two students conducting research on industrial hemp are co-advised by a crop scientist and a plant biochemist. GRE scores of students in the IPSS program have increased slightly through Fall 2014, but the data for Fall 2015 are no longer available to me on the Graduate School web site.

Mean percentile rank of IPSS students with GRE scores			
	Fall 2012 n-13	Fall 2013 n-17	Fall 2014 n-16
GRE verbal rank	42	45	50
GRE quantitative rank	39	43	47

**Analysis of results and reflection:** We are trying to enhance graduate student quality by providing departmental funding for assistantships to those applicants with the highest GRE scores. As we turnover about 25% of our students each year, the scores of our applicants have changed slightly.

**Ongoing improvement actions:** The Department is now encouraging specific recruiting of graduate students by promising assistantships to a program one year ahead of enrollment and charging the faculty member with recruiting a high quality student. Four graduate students have been recruited under this plan; two are Ph.D. candidates, one is an M.S. student, and one M.S. student has withdrawn.

**Recommendation 4** - The department should establish a committee to examine combining all seminar series into one departmental seminar series to enhance integration within the Department.

**Assessment method:** Count the activities established to enhance the graduate program.

**Results:** The seminar committee was established, one departmental seminar series was established, a graduate student symposium has been held three times each year, and \$5,000 was allocated to fund external seminar speakers. The Department continues to fund the Graduate Program Outstanding Alumnus program and award and to select the Peaslee Outstanding Graduate Student Award each year.

**Analysis of results and reflection:** This recommendation has been successfully implemented. Attendance at departmental seminars has increased, particularly among graduate students. Graduate student participation in the Graduate Student Symposia is strong. The symposia have promoted camaraderie among graduate students with different research interests. Graduate students have assumed responsibility for identifying, inviting, and hosting seminar speakers during 2014-2016.

**Ongoing improvement actions:** Continue promoting and improving the graduate student symposia.

**Recommendation 5** - The faculty and staff should discuss and develop departmental guidelines to facilitate professional development for staff, and to recognize contributions of technical staff to patents and publications.

**Assessment method:** Note the number of times staff development is on the agenda for our semi-annual staff meetings.

**Results:** Staff development was discussed once in 2013-14 and was not discussed in 2014-15 or 2015-16. The department created a staff recognition plaque with recognition going back to 1998. The department shows a staff service award ppt slide show each year at a staff meeting and at a faculty meeting to recognize staff receiving service awards.

**Analysis of results and reflection:** This improvement action has been forgotten. It has not been suggested as an agenda topic by staff for any of our staff meetings the past three years. If it is to move back to active consideration, that will need to come from the department chair.

**Ongoing improvement actions:** None current

**Recommendation 6** - The review committee strongly recommends that the graduate students re-establish the graduate student organization and include faculty advisors in this organization.

**Assessment method:** Note leadership of the graduate student organization

**Results:** David Van Sanford was appointed faculty advisor for the group. The group has been active since 2012-2013. In 2015-2016 the group was led by Andrea Sanchez Barrios and William Serson.

**Analysis of results and reflection:** Participation depends on the interests of the graduate students. The department has provided resources for student activities, including a trip in 2016 to visit Monsanto, and promotes graduate student activities on the department's Facebook page.

**Ongoing improvement actions:** Encourage the PSS GSA to choose leaders during each fall semester.