

**PROGRAM REVIEW IMPLEMENTATION  
PLAN PROGRESS REPORT  
Department of Plant and Soil  
Sciences 2018 - 2019**

**Recommendation 1.**

Develop an overall vision and direction for the HPLS undergraduate degree considering future opportunities that will allow the department to compete successfully for potential students. Plan to engage stakeholders in this process.

**Assessment method:** We will use student metrics (incoming student numbers, student retention, graduation rates, graduation exit surveys, and employer surveys) to gauge how our new undergraduate degree program (Agricultural Ecosystem Sciences; AES) is performing.

**Results:** Our new undergraduate degree program (AES) was created by PSS faculty last year, guided by market research and interactions with stakeholders, and approved at the College level in May 2019 to be offered as an option within the Ag Individualized Curriculum 'incubator program.' We began recruiting for AES summer 2019. As of now, Fall 2019, we have 8 incoming freshman enrolled in the new program, and we are actively recruiting from undecided and transfer student pools at the moment.

**Analysis of results and reflection:** PSS faculty are broadly supportive of the new AES degree program, as a much better representation of what we all do and where agriculture is headed than the old HPLS degree. We are excited that student recruitment seems to be off to a strong start and cautiously optimistic that these numbers suggest we have created something that is attractive to students and will produce solid employees for various agricultural sectors.

**Ongoing improvement actions:** We are working with Horticulture to eliminate the old HPLS degree program within the system. We are working to get three new AES courses approved and official. We will continue to engage with stakeholders and tweak the curriculum, as the first cohort of students move through.

**Recommendation 2.**

Explore ways to enhance scientific collaboration and transformative ideas by facilitating faculty interactions, particularly with extension faculty and new faculty hires.

**Assessment method:** The Chair will annually request that faculty self-report new collaborative efforts they are involved in within our Department. The Chair will attempt to assess how these collaborative efforts came about, so that enhancement of these activities might occur in the future.

**Results:** Since the Department Review, the Department has supported two faculty retreats, the seminar series, and a phosphorus workshop which included PSS and other stakeholders. From the workshop, several 'Edge-of-Field' and 'Blue Water Farm' successful grants have emerged that include new

collaborations within the Department and beyond. Similarly, the Department contributed to the Southeastern Grain Gathering this Fall, where it seems probable that new collaborations also emerged.

**Analysis of results and reflection:** This is going to be a challenging thing to track, and the connections between Departmental support and new developing initiatives may be somewhat tenuous, but it seems worth it to try to estimate the return on investment as best as possible.

**Ongoing improvement actions:** The Chair will continue to look for opportunities to stimulate and support scientific collaboration amongst the faculty.

### **Recommendation 3.**

Construct a management plan and process for North Farm operations that will allow all faculty to have access to plots, equipment, and personnel.

**Assessment method:** In 2018-19, the Chair convened an 'ad-hoc' North Farm committee of relevant and diverse faculty and staff to figure out how best to move forward with this recommendation. Several priorities and actions came from this committee, which are detailed below. Moving forward, faculty and staff perceptions regarding the improvements at the North Farm will be obtained from periodic surveys.

**Results:** The Chair reconstituted the Land Use Management committee, and this group has developed and begun to use an online 'land use request' form that aims to streamline aspects of planning and process at the North Farm. We have gone through one growing cycle with the new land use request form. Complaints have been minimal and it appears to be functioning. The retirement of a long-time staff member allowed for a re-shuffling of farm staff to create a new position – PSS North Farm Coordinator. This position is 70% herbicide testing and 30% PSS farm coordination, but we are working to make this person the 'point' person for our people at the North Farm. We have not had a point person in over a decade, so hopefully, this will improve process, management, and access. We have created a transition plan for the long-term no-till plots at the Farm (Blevins 50-yr no-till plots) that includes broadening inclusion and transparency for how this Departmental resource is managed and its availability for research.

**Analysis of results and reflection:** We are breaking down some of the barriers that existed at the Farm for new faculty and staff. We are actively working to improve the culture of the Farm: to have greater buy-in and regard for safety, to eliminate exclusionary practices, to improve access and transparency of various processes, and to correct a variety of farm employee issues that stem from limited supervision/oversight. We are improving our communication with Matt Peake and William Sympson. We are cautiously optimistic that things are heading in the right direction, but this will be a long-term project.

**Ongoing improvement actions:** We will continue to have issues regarding shared use equipment and buy-in on safety remains challenging. The Chair and the new PSS North Farm Coordinator will work closely together over the next

year to try to find solutions.

#### **Recommendation 4.**

Devise a departmental strategy for providing all staff with the opportunity for professional development, including participation in scientific meetings where appropriate.

**Assessment method:** Internally monitor the number of staff applying for the College-level staff professional development awards.

**Results:** In the first year of the College-level staff professional development program (2017), our Department had only one application, which was granted, to attend and present at a scientific meeting. In 2018, we had three staff members apply (and receive funds) for a diverse set of experiences: learning new techniques, better communication skills, and how to lead a state-wide water quality program. In 2019, we have had four staff members apply for a similarly diverse set of professional development opportunities and receive awards. We also received four staff-led Research Activity Awards this year.

**Analysis of results and reflection:** We are increasing participation in the College-level staff development and research programs by advertising to the staff and matching staff funding requests. At some point, participation in these programs may level-out, as motivation wanes and given that Departmental match support is finite.

**Ongoing improvement actions:** The Department will continue to support staff that apply for the College-level awards as well as other opportunities that arise.

#### **Recommendation 5.**

Explore opportunities for developing online courses for Extension Agents interested in pursuing master's degrees.

**Assessment method:** We worked with the Assoc. Dean for Instruction's office to help support the College-level effort to create an online MS in Agriculture – STO.

**Results:** We had two faculty respond to the call for online course proposals put forward by the new online STO program. Drs. Henning and C. Lee will be developing online Forage Management & Use and Grain Crops courses, respectively, for the STO program. Henning's course proposal has been submitted to Curriculum and is working through the system for deployment in Spring 2020. Several other online ideas are floating amongst the PSS faculty.

**Analysis of results and reflection:** The Chair is pleased that a few faculty have decided to take the plunge in online course development. She is hopeful that they will have positive experiences and encourage others to follow suit. Certainly, the University providing seed money has helped substantially in recruiting faculty to this effort.

**Ongoing improvement actions:** We will stay involved in the College- and University-wide discussions regarding online education and try to think

creatively about what additional offerings we can create.

### **Recommendation 6.**

Evaluate departmental committee structure and improve procedural transparency.

**Assessment method:** Every year, the Chair reviews the Departmental committee structure, checks with various committees to see whether they were still functioning or not, solicits input from faculty and staff, and makes appropriate revisions. The Chair also modifies and creates new policies, as needed, with input from faculty and staff, to improve procedural transparency. As part of our Departmental response to the UK@Work effort, we deployed a survey to staff asking a variety of questions regarding communication of information. The Chair has made efforts to increase procedural transparency by explaining things at both faculty and staff meetings.

**Results:** We now have fewer Departmental committees (only those that are active and serving a real purpose), and faculty and staff appear pleased with improved communication and procedural transparency.

**Analysis of results and reflection:** Some of the feedback from the staff survey was quite complimentary of the Chair's communication, which is nice of them because communication is easy to mess up. The Chair spends considerable effort trying to get it right, but mistakes/errors are made. She will continue to work on communication.

**Ongoing improvement actions:** One idea that came out of our recent survey was for the Chair to create a 'staff advisory committee' that advises the Chair on staff-related issues. The PSS Chair has long had a faculty advisory committee. The Chair created this staff committee this fiscal year. We will see whether it is useful.

### **Recommendation 7.**

Continue to evaluate space and equipment needs for the program and develop a long-term strategy for improving these aspects of the program.

**Assessment method:** The Chair works with various faculty-led efforts to improve space utilization and access to equipment. This includes holding spring calls for internal equipment proposals, when the budget allows.

**Results:** Last year, we acquired two large pieces of new equipment purchased via a VPR grant and other sources, which faculty initiated. These moved into S-104 of Ag Science North and are part of the overhaul in capacity, structure, and organization of that unit. The Chair is continuing to support that Departmental shared-use lab by re-filling the Crutchfield position (lab manager for the space). The Chair supported acquisition of several other large pieces of equipment in PSB and elsewhere through a spring internal grant process. The Chair also supported the renovation and uniting of all soils faculty into the N-122 space and remote teleconferencing capabilities in N-224, both at faculty requests. Funds were much tighter this past year, due to College-level budget cuts. The Chair supported a variety of equipment maintenance costs and repairs but could not

afford to support new equipment purchases the past FY.

**Analysis of results and reflection:** Bringing the soils faculty into one space in Ag Science North has improved the collaboration and research capacity of this group within our Department. It remains to be seen whether the changes in S-104 are also going to improve our function and capacity.

**Ongoing improvement actions:** The Chair will continue to help the faculty achieve their goals with regard to equipment acquisition and space utilization. Long-term planning remains a major challenge, as the budget situation is so volatile and funds are getting tighter.

### **Recommendation 8.**

Work with the Office of Philanthropy and Alumni to develop specific goals and objectives for future philanthropic efforts.

**Assessment method:** Track gifts to the Department.

**Results:** The Department has not gotten a lot of traction with the Office of Philanthropy, in part perhaps due to the large focus on fund-raising for the Grain & Forage Center, which is about to conclude, and because the Chair has not been aggressive in seeking their engagement. PSS has several faculty that have been very involved (and successful) at fund-raising for the Grain & Forage Center, but those gifts are obviously not the Department's.

**Analysis of results and reflection:** The Chair has started to track the gifts to the Department but has otherwise not actively pursued this recommendation. More could be done to establish some basic goals, particularly engaging with our recent graduate alumni, etc.

**Ongoing improvement actions:** Continue discussions with Philanthropy and Alumni and watch for opportunities. Develop a plan to attempt to engage with recent graduate alumni – e.g., develop a glossy flyer, host an alumni event, etc.

### **Recommendation 9.**

Consult with current and past graduate students on ways to improve the overall graduate student experience in the program.

**Assessment method:** We conducted a satisfaction survey of current IPSS graduate students in 2018 and created an exit survey to extract similar information from students moving forward. The exit survey has been deployed for a full year now. Last year, we engaged in in-depth conversations with IPSS faculty and students regarding strengths and weaknesses of the degree program and potential changes.

**Results:** This year, the PSS Chair created a formal IPSS Steering Committee, which has representation from all IPSS Departments (PSS, Hort, FNR), one outside Department (EES), and current graduate students. This committee has revised the IPSS handbook and is in the process of completing several major curricula changes: eliminating the Forestry Science specialty area and replacing

it with an Environmental Science and Ecosystem Science specialty, increasing the MS-thesis total credit hour minimum requirement (24 to 30 hrs), and altering the structure of the IPSS Graduate Student Symposium. We also created a new IPSS GSA Alumni Early Career Award to recognize the achievements of a recent IPSS graduate. This award is being administered by the IPSS Graduate Student Association and occurs as part of the PSS seminar series.

**Analysis of results and reflection:** The IPSS Steering Committee is functioning very well and making major strides in addressing student and faculty concerns. By purposefully increasing our communication and including the other Departments associated with the degree program in various IPSS events, we hope to make IPSS more true to its 'Interdisciplinary' name. The IPSS Graduate Student Association is remarkably organized and active. The PSS Chair and IPSS DGS support their activities in a variety of ways, including financially.

**Ongoing improvement actions:** The Chair will continue to support the efforts of the IPSS Steering Committee and Graduate Student Association moving forward. We will compile the first synthesis of the exit survey responses once we hit n=20 on respondents for those, which should happen this up-coming year. We will share these findings with both faculty and student groups.