

**PROGRAM REVIEW IMPLEMENTATION
PLAN PROGRESS REPORT
Department of Plant and Soil Sciences
2019 - 2020**

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: We launched our new undergraduate degree program (AES) in Fall 2019, as an option within the Agriculture Individualized Curriculum 'incubator program' within the College. The freshman class had 8 students. We are getting the necessary new courses approved and we are actively recruiting students.

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 still working with Horticulture to eliminate the old HPLS degree program within the system. We need to get two more AES classes approved. We are also refining our recruitment strategy. 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 and beyond that were initiated through Departmentally sponsored events.

Results: Since the Department Review, the Department has supported three faculty retreats, three academic calendar year seminar series, and occasional workshops and field days for PSS folks and other stakeholders. From these efforts, several successful grants have emerged that include new collaborations within the Department and beyond.

Analysis of results and reflection: This is a challenging thing to track, and the

connections between Departmental support and new developing initiatives may be somewhat tenuous and take time to turn into successful collaborations, but it seems worth it to try to estimate the return on investment as best as possible.

Ongoing improvement actions: The Chair is constructing a database of Departmentally stimulated new collaborations, in an attempt to gauge effectiveness of different strategies. 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 two growing cycles with the new land use request form. Complaints have been minimal and it appears to be functioning well. 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 person has become the 'point' person for our people at the North Farm and is widely viewed as contributing to the improvement of process, management, and access. In 2019, we successfully transitioned the long-term no-till plots at the Farm from single PI control to committee control, effectively broadening inclusion and transparency for how this Departmental resource is managed and is available for research.

Analysis of results and reflection: We have dismantled many of the barriers that existed at the Farm for new faculty and staff. We continue to actively work 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 have improved our communication with Matt Peake and William Sympton. Things are changing at the farm - for the better.

Ongoing improvement actions: We continue to have issues regarding shared use equipment and buy-in on safety practices and training remains challenging. The Chair and the PSS North Farm Coordinator will continue to 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 profession 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. Due to COVID-19, staff professional development award activity was reduced in Spring 2020, as frequently those requests involved travel. No staff members have applied for those awards yet this year. However, we had a staff member lead a successful Sustainability Challenge Grant grant, at the University-level.

Analysis of results and reflection: We were increasing participation in the College-level staff development and research programs by advertising to the staff and matching staff funding requests, prior to COVID. We will see whether this activity resumes once a vaccine emerges.

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 have 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 are developing online Forage Management & Use and Grain Crops courses, respectively, for the STO program. Henning's course proposal has been approved, with plans to teach it in Fall 2020. Dr. C. Lee's course is in development still. Several other online ideas are floating amongst the PSS faculty. Dr. Grabau is developing online versions of PLS 103 and PLS 104, but these are not likely to contribute to a master's degree.

Analysis of results and reflection: COVID has changed the online course world dramatically, as all instructors have been forced to go online. I think many have discovered there are substantial benefits to online instruction, though some challenges remain. I suspect that we will have a proliferation of online courses resulting from the COVID experience.

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. In an attempt to better incorporate staff in decision-making, the Chair created a 'staff advisory committee' that is tasked with advising the Chair on staff-related issues.

Analysis of results and reflection: So far the staff advisory committee has only met once. It isn't clear whether this committee is going to be useful or not. The Chair will continue to monitor and make changes as needed.

Ongoing improvement actions: Continue to assess effectiveness and usefulness of our committees and make changes were needed.

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: The Chair continues to support the Departmental shared-use lab (S-104) by re-filling the lab manager position associated with it and providing funds for needed equipment upgrades in the space. In 2019-2020, the Chair used substantial Departmental funds to support a range of lab and field research needs.

Analysis of results and reflection: Our Department has been lucky to have funds available to help programs achieve space and equipment needs. I am afraid that this year's budget cuts will dramatically reduce our capacity to continue to meet these needs moving forward.

Ongoing improvement actions: The Chair will continue to help the faculty achieve their goals with regard to equipment acquisition and space utilization, though budget cuts are likely to make this more difficult in the future.

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 Chair has engaged with the Office of Philanthropy and has begun developing relationships with potential donors. One such relationship has generated a \$50K donation for graduate student development. We are actively developing materials and databases to allow us to more aggressively pursue alumni and potential donors in the future (post-COVID).

Analysis of results and reflection: The Chair has made major headway in this arena this year, with results already starting to show. There is probably quite a bit more that could be done here, but it will be easier once we get out of COVID.

Ongoing improvement actions: Continue discussions with Philanthropy and Alumni and watch for opportunities. Continue to hone plans to engage with 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 two full years now. We are doing every other year analysis of the data that comes in through the survey. We are engaging in in-depth conversations with IPSS faculty and students regarding strengths and weaknesses of the degree program and potential changes.

Results: The PSS Chair created a formal IPSS Steering Committee, which has representation from all IPSS Departments (PSS, Hort, FNR), one outside Department, and current graduate students. This committee has revised the IPSS handbook and completed several major curricula changes: eliminating the Forest 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. It is clear from the exit survey data that more needs to be done to improve the clarity of the IPSS handbook and students consistently request more consistency in course offerings.

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 get a new DGS this year, which will create an opportunity to continue to further change in the program.