

**PROGRAM REVIEW IMPLEMENTATION PLAN**  
**PROGRESS REPORT**  
**Animal and Food Sciences**  
**2018 - 2019**

**Recommendation 1.**

Establish a long-term faculty-hiring plan that grows the research capabilities of the department.

**Assessment method:**

Department Chair and Associate Chair, in coordination with the Advisory Council and department faculty, annually evaluate and discuss departmental needs in all three areas of responsibility (research, teaching, and extension) to ensure hiring priorities match departmental needs.

**Results:**

Discussions with faculty revealed the importance of replacing the Beef Extension position at the UK Research and Education Center in Princeton. The previous faculty member in this position completed a 2-year phased retirement on September 5, 2018. The department conducted an unsuccessful search to fill the position. This result led to the department rewriting the position description and re-advertising the position. Based on this second search, the Chair is currently in negotiations with one of the candidates and hopes to have the position filled with a January 2020 start date.

**Analysis of results and reflection:**

Discussions with the Advisory Council and faculty helped to identify the department's greatest faculty need, which resulted in getting college approval to fill the Beef Extension position housed at Princeton.

**Ongoing improvement actions:**

Involving faculty and the Advisory Council in ongoing, annual discussions to prioritize how open faculty lines are filled ensures the highest priority needs are addressed. It also enables changes in hiring priorities can be addressed due to changes in needs. The Chair and Associate Chair are currently involved in conversations with Elizabeth Vaughn (CAFE Associate Senior Director of Philanthropy) about developing plans to seek gifts to support endowed faculty lines.

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**Recommendation 2.**

Prioritize the hiring and retention of beef, swine and small ruminant extension specialist positions.

**Assessment method:**

See Recommendation 1 above (This recommendation combined with Recommendation 1 to provide a more holistic approach in how all faculty hires are prioritized.)

**Results:**

See Recommendation 1 above (This recommendation combined with Recommendation 1 to provide a more holistic approach in how all faculty hires are prioritized.)

**Analysis of results and reflection:**

See Recommendation 1 above (This recommendation combined with Recommendation 1 to provide a more holistic approach in how all faculty hires are prioritized.)

**Ongoing improvement actions:**

See Recommendation 1 above (This recommendation combined with Recommendation 1 to provide a more holistic approach in how all faculty hires are prioritized.)

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**Recommendation 3.**

Develop appropriate benchmarking against peer institutions.

**Assessment method:**

Objective, comparative data from our peer institutions will be compiled annually to determine how we are progressing relative to our peers in all three areas of responsibility (research, teaching, and extension).

**Results:**

The Advisory Council is in the process of identifying appropriate benchmark institutions, and determining the appropriate measures to use for comparative purposes.

**Analysis of results and reflection:**

Nothing to report yet as we are still determining our appropriate benchmark land grant universities, and the appropriate measures to use for comparison.

**Ongoing improvement actions:**

Nothing to report yet as we are still determining our appropriate benchmark land grant universities, and the appropriate measures to use for comparison.

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**Recommendation 4.**

Engage college administration to define and communicate an optimal structure that will allow the equine program to reach its full potential.

**Assessment method:**

Undergraduate student numbers and FTEs assigned to cover EQM and ASC teaching, advising, and planning for the academic enrichment experience will be evaluated annually to determine if needs for all three undergraduate degree programs are being met.

**Results:**

Both ASC and EQM new freshmen enrollment numbers were at all-time highs for Fall 2019. These student numbers, coupled with already high sophomore-senior numbers and no faculty growth, have resulted in greater student: teacher ratios in both ASC and EQM courses.

**Analysis of results and reflection:**

Student numbers and available faculty to meet the responsibilities of teaching, advising, and planning for the academic experience of both EQM and ASC need constant evaluation to ensure students enrolled in these programs obtain the best educational experience possible. These evaluations should guide conversations with college administration on how to best allocate resources for these two important degree programs.

**Ongoing improvement actions:**

Work with college administration and the Director of Equine Programs to refine the organizational structure of Equine Programs in a way that facilitates communication and teamwork between Animal and Food Sciences and Equine Programs. Will also continue working with the Office of Philanthropy and Alumni to secure funding to expand both the teaching and research infrastructure at the AFS Horse Unit so that the growing needs for teaching do not hinder the research program.

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**Recommendation 5.**

Develop strategies and faculty incentives to expand the creation and delivery of multi-media and on-line content across all missions.

**Assessment method:**

Several assessment methods will be used to measure departmental success in creating and delivering multi-media and online content. These will include number of online courses, number of students enrolled in online courses, number of multi-media resources developed for extension and research clientele, and number of downloads of multi-media resources from departmental web pages.

**Results:**

Since completion of the department's Program Review in March 2018, we have move forward with transitioning two courses to online platforms. These include ASC 399 Experiential Learning in Animal Sciences which is now offered as an online course, and ASC 205 Career Development for Animal Sciences which is in the final stages of development as a hybrid (part online and part face-to-face) course. Additionally, the department's beef extension group are currently developing an innovative app that will provide a modern platform for delivering beef extension educational content.

**Analysis of results and reflection:**

Transitioning appropriate undergraduate courses to hybrid and/or online platforms allow easier access of courses to students, allow for a variety of different content delivery methods to be used, and once developed can reduce faculty time needed for teaching. Developing a variety of multi-media resources for extension and research clientele provides resources in a form desired by clientele, and in forms that often facilitate the transfer of knowledge.

**Ongoing improvement actions:**

The department will continue to evaluate where the delivery online and multi-media content would enhance our missions of teaching, research, and extension, and as time and resources allow will continue to develop and offer these kinds of resources. Additionally, the department will work with CAFE administration and the Office of Philanthropy and Alumni to secure funding to hire additional technical support staff to assist with departmental multimedia and online content.

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**Recommendation 6.**

Identify the physical and programmatic needs required to replace the Garrigus building and construct an on-campus multi-use livestock teaching/event facility.

**Assessment method:**

The college has recently completed a review of research laboratory space in Garrigus that identified several physical limitations that limit research capabilities. Additionally, the college has competed a comprehensive review of classroom space utilized by students that highlighted the needs for additional classroom space for teaching. The department is currently conducting a survey of faculty and staff in the department to develop the amount of research and teaching laboratory space that is needed to support research and teaching efforts, as well as the amount of space needed for offices (for faculty, staff, graduate students, post-docs, visiting scientists, etc.), classrooms, conference/meeting rooms, undergraduate student gathering and study space, and storage

**Results:**

Although numerous needs have been identified, the lack of financial resources required to renovate or replace the Garrigus Building and to construct an on-campus multi-use livestock teaching/event facility have prevented addressing these needs.

**Analysis of results and reflection:**

The Garrigus Building requires major renovation or replacement to meet the ongoing research, teaching, and extension needs of the department. Additionally, an on-campus multi-use livestock teaching/event facility would greatly enhance the labs for several courses and would help alleviate much of the need of transporting students to the department's Animal Units for teaching labs.

**Ongoing improvement actions:**

The department will continue developing concept plans for renovation of the Garrigus Building and will work with CAFE administration and the Office of Philanthropy and Alumni to secure funding for renovation of Garrigus (or construction of a new building) and construction of on-campus livestock teaching/event facility.

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**Recommendation 7.**

Develop a mechanism and timeline to improve/expand off-campus facilities, specifically the milking parlor, equine unit, and swine teaching barn.

**Assessment method:**

See Recommendation 8 below (This recommendation combined with Recommendation 8 to provide a more holistic approach for the development and maintenance of facilities.)

**Results:**

See Recommendation 8 below (This recommendation combined with Recommendation 8 to provide a more holistic approach for the development and maintenance of facilities.)

**Analysis of results and reflection:**

See Recommendation 8 below (This recommendation combined with Recommendation 8 to provide a more holistic approach for the development and maintenance of facilities.)

**Ongoing improvement actions:**

See Recommendation 8 below (This recommendation combined with Recommendation 8 to provide a more holistic approach for the development and maintenance of facilities.)

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**Recommendation 8.**

Develop a mechanism for continued off-campus facility, maintenance, repairs, and renovations, and sustaining budgets through fluctuating agriculture markets.

**Assessment method:**

A review of current facilities to determine renovation, repair, maintenance, and/or facility replacement needs will be conducted.

**Results:**

Although the review of all facilities is incomplete, several high priority needs have already been identified. These include (1) relocation of the Dairy Unit, (2) relocation of the Poultry Unit, (3)

development and construction of new research facilities at the Equine Unit, and (4) repair/replace ventilation exhaust stacks at the Swine Unit.

**Analysis of results and reflection:**

The department operates seven (7) animal units, animal research space in the basement of Garrigus, a Meats Lab, and a Food Processing lab that support its research, teaching, and outreach missions. Maintaining all of these facilities requires substantial financial resources, and limited availability of funds often results in basic maintenance being delayed.

**Ongoing improvement actions:**

Continue to work with college administration to develop a budget strategy that provides stability and sustainability for the department's animal units. Work with college administration and the Office of Philanthropy and Alumni to increase philanthropic efforts in securing funding for maintenance and repair of facilities.

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**Recommendation 9.**

Define the facility and resource needs to create a dynamic and sustainable undergraduate and graduate food science program in the department.

**Assessment method:**

Several metrics will be used to evaluate the success of the department's food science program. These will include number of undergraduate students majoring in Food Science, number of graduate students being trained by Food Science faculty, grant and gift dollars secured to support the research and graduate student training program, and success in developing a Food Processing Pilot Plant.

**Results:**

The Chair and Associate Chair have met with the Food Science faculty and Academic Coordinator to discuss ways to enhance and increase undergraduate student recruitment. The faculty are currently developing plans how to best recruit undergraduate students into the program, with a goal of increasing undergraduate student numbers from 25 to 50 over the next 5 years. Additionally, the department has recently signed a 2+2 agreement with Shandong Agricultural University (SDAU) in China as an initial step to bring SDAU students to UK for the final 2 years of their undergraduate degrees. A major area of focus for this agreement is food science undergraduate students. The Chair and a delegate of faculty will be visiting Inner Mongolia Agricultural University (IMAU) later this year to explore another 2+2 agreement that will bring IMAU students to UK for the final 2 years of their undergraduate degrees, again with food science undergraduate students being a primary focus.

**Analysis of results and reflection:**

The department and Food Science faculty recognize the need to grow this important undergraduate degree program. It is too early to know if new efforts in student recruitment and the new 2+2 program with SDAU will ultimately help increase undergraduate Food Science student numbers.

**Ongoing improvement actions:**

The Chair will continue to work with Food Science faculty and the Academic Coordinator to identify more effective ways to recruit undergraduate Food Science students. The Chair will also work with faculty and the Office Philanthropy and Alumni to secure funding to develop a Food Processing Pilot Plant to enhance both undergraduate and graduate student instructional and research capabilities.

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**Recommendation 10.**

Engage extension specialists to explore sustainable funding models for program support.

**Assessment method:**

Assessment metric will include funding received (grants, gifts, philanthropic, etc.) to support extension programming efforts.

**Results:**

As mentioned already, the department's beef extension group are currently developing an innovative app that will provide a modern platform for delivering beef extension educational content. If successful, sales for the use of the app will develop a new revenue stream that will be used to support beef extension programming. Conversations with other departmental specialists are ongoing with regards to identifying new funding models.

**Analysis of results and reflection:**

Nothing to report yet, other than there is a clearly recognized need to identify alternative and sustainable funding models to support the department's extension efforts.

**Ongoing improvement actions:**

The Chair will work with extension specialists to (1) identify and evaluate funding models used at other land grant institutions to fund programs, (2) develop a strategy that provides for ongoing evaluation of programs offered to clientele to ensure clientele needs are being met, (3) develop AFRI-funded integrated grants [i.e., extension/research and research/extension grants], (4) engage CAFE Office of Philanthropy and Alumni to secure funding for support personnel and other extension programming expenses, and (5) engage CAFE administration to explore the feasibility of counties providing financial support for some extension travel and programming.

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**Recommendation 11.**

Enhance undergraduate and graduate experiential learning.

**Assessment method:**

Metrics to measure the success of the department's undergraduate and graduate experiential learning activities have yet to be developed.

**Results:**

Nothing to report yet, other than the department's Undergraduate Curriculum Committee and Graduate Activities Committee have begun looking at ways to develop a diverse and impactful experiential learning program for both undergraduate and graduate students.

**Analysis of results and reflection:**

As fewer students come from farming and animal production backgrounds, the need for providing hands-on, experiential learning opportunities as a part of the educational process has grown dramatically. Additionally, the college has added the requirement for all students having an "academic enrichment experience" to help fill this need. There is a great need to hire a staff position (with appropriate academic qualifications) to provide oversight and leadership for undergraduate academic enrichment experiences.

**Ongoing improvement actions:**

Continue work with the Curriculum Committee, Graduate Activities Committee, and faculty to develop a menu of academic enrichment experiences that will be of most benefit to our undergraduate and graduate students. Work with research and teaching faculty to develop a process for increasing undergraduate classroom and lab teaching opportunities for graduate students. Work with CAFE administration and the Office of Philanthropy and Alumni to secure funding for an Academic Enrichment Experience Coordinator position.

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**Recommendation 12.**

Increase funds available for undergraduate ASC scholarships, graduate student stipends, and graduate student tuition.

**Assessment method:**

Metrics to use for assessment will include funds available for scholarships, stipends paid to graduate students, and funds available to support graduate student tuition. Other metrics will include number of scholarships awarded and number of graduate students, and comparison of our graduate student stipends relative to our benchmark universities.

**Results:**

Efforts are underway to identify ways to increase funding for these efforts.

**Analysis of results and reflection:**

Limits on the number and amount of scholarships available to graduating seniors with interests in pursuing Animal Science as a major makes it difficult for us to compete with regional universities in recruiting many Kentucky students. Additionally, decreasing departmental funds available for graduate student stipends and tuition has placed tremendous pressure on faculty to supplement (or fully fund) funds for graduate student training. Decreasing competitive federal funding levels further exacerbate this problem.

**Ongoing improvement actions:**

Work with the Office of Student Success to develop a plan for greater involvement of Animal Science faculty in the awarding of scholarships. Work with CAFE Office of Philanthropy and Alumni to secure funding for graduate full tuition scholarships, and funding to increase both the number and amount of graduate student stipends.

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