GRADUATE PROGRAM REVIEW REPORT
Department of Animal and Food Sciences
Spring 2006

The members of the TTU Animal and Food Sciences (AFS) Graduate Program Review Committee were Dr. John Zak, Chair ( Biological Sciences), Dr. Clint Krehbiel, External Reviewer (Animal Science at Oklahoma State University), Dr. Ron Warner (Preventive Medicine; Family& Community Medicine TTU –HSC) and Dr. David Wester (Range, Wildlife and Fisheries Management). In conducting the review, the committee reviewed the Program Review Document prepared by Dr. Kevin Pond and Dr. Leslie Thompson, met with the Department Chair, Dr. Kevin Pond; the Associate Chair and Graduate program Coordinator, Dr. Leslie Thompson; five faculty members; and ten graduate students in the department on April 28th, 2006.

Program Overview

The Department has graduate programs that lead to the following degrees: Ph.D. in Animal Sciences; M.S. in Animal Sciences – thesis; M.S. in Food Sciences-Thesis, and an M.S. in Animal Sciences-non-thesis. The Department also actively participates in the non-thesis Master of Agriculture degree with an emphasis in Animal or Food Science administered through the College of Agriculture Sciences and Natural Resources. Since 1999 the Department has had 94 graduate students who have successfully completed their degree program (58 M.S. degrees and 36 Ph.D.s). These degree numbers are comparable to graduate programs at Kansas State University and Oklahoma State University. The numbers of students completing graduate degrees in AFS increased by 40% between 1999 and 2005 with the program exhibiting significant growth between 2003 to 2005. This increase in graduate student numbers is commensurate with hires of highly productive faculty beginning in 2001. The current faculty include 6 Full Professors, 5 Associate Professors, and 6 Assistant Professors (17 total faculty). Faculty numbers for AFS at TTU are substantially lower than numbers for comparable institutions. For example, there are 23 current tenure/tenure track faculty in the Department of Animal Science at Oklahoma State University. These faculty numbers must be considered in light of the fact that TTU supports a comparable graduate program to OSU with less faculty.

The majority of graduate students in AFS are enrolled in the Animal Sciences degree programs with an increasing number pursuing degrees in Food Science and Technology. Discussions with the Chair indicated that there are several areas of research growth that should help to increase graduate recruitment.

Graduate student support is primarily from research assistantships funded through faculty grants and contracts. Stipends range from $10,000 to $15,000 at the M.S. level and from $12,000 to $18,000 at the Ph.D. level. These stipends are comparable with other units on campus. The Department has a substantial series of endowments that help support their graduate students. In addition, several fellowships are available from the College of Agricultural Sciences and Natural Resources.

One of the major accomplishments for AFS is their outstanding ability to place their graduates. Since 1999, their graduates have either become faculty at research universities, gone on to obtain Ph.Ds, or accepted employment in Animal and Food Science related industries.
With the recent move into the new Animal and Food Sciences Building the Department has very effective space and state-of-the-art facilities. Some of the previous space in the Food Technology Building has been retained for food safety and microbial pathogen research and for lab and office space for the Thornton Chair in beef cattle management. In addition to these facilities, one faculty member is now located in the Experimental Sciences Building. The Department also operates research and instruction facilities at the New Deal Farm and the TTU Equestrian Center.

Currently, graduate student applications are not reviewed at the Departmental level; instead, individual faculty review and accept graduate applications. Faculty members are divided on how to best review applications for entry into the AFS graduate program. Some faculty consider the current process as acceptable. Others would like to see a committee establish standards for the Department and evaluate applicants according to established criteria. The Graduate Program Review Committee indicated that the Department may wish to consider a minimum set of criteria for accepting applicants into their graduate program.

Faculty

Graduate students viewed the faculty as very dedicated to their graduate programs and to the success of their careers. Faculty productivity as measured by the number of publications, number of editorial boards served on, and numbers of successful grant proposals has continued to increase. The effort of the faculty is very good despite a high faculty workload (20.84 for 2005) as compared to the college (18.82) and the University (16.23). In discussions with the Chair this workload reflects courses taught, graduate students mentored and other departmental obligations of faculty, such as coordination of the Meat Judging Team. Faculty in AFS also participate extensively in four Centers: Center for Excellence in Cryobiology, Center for Feed Industry Research and Education, International Center for Food Industry Excellence, and the Pork Industry Institute for Education and Research. In particular, the Center for Food Industry Excellence has doubled the amount of research awards received since 2003.

One of the departmental problems expressed by the graduate students was having faculty in three separate buildings. Students considered this fragmentation as detracting from necessary interactions among faculty and graduate students outside of their immediate research groups.

The faculty viewed the international research efforts and faculty diversity as several of the major strengths of the overall program in AFS. In addition, faculty have established very successful in-area industry opportunities, and student out-reach experiences. These opportunities were viewed as a major strength of the graduate program. Faculty indicated that teaching loads were heavy owing to the fact that they had to also teach the labs and that this load reduced their ability to pursue opportunities related to graduate education and research efforts. The faculty expressed appreciation for the very good facilities provided them with the new building.

Graduate Students

Graduate student applications to the Department have doubled since a low in 2001. Moreover, the number of admitted students has almost tripled since 1999. These numbers reflect a growing recognition of a strong and productive graduate program. There are currently 56 graduate students in the program (38 M.S. and 18 Ph.D.). These numbers are similar to graduate programs at Kansas State University and Oklahoma State University.
Faculty expressed a need for increased institutional support for graduate students. Currently, the Department only receives support for three TAs. The remaining TA needs utilize the graduate students on RAs with the faculty member who is teaching a particular class. This multiple use of graduate RAs was viewed as detracting from the ability to recruit quality students. Faculty expressed a need to be able to provide designated RAs from the Department to enhance graduate recruitment.

The Department has fostered a culture of graduate student participation at regional and national meetings. Travel to meetings is usually provided through Graduate Tuition return to the Department.

The Department would like to see improved communication with the Graduate School concerning recent applicants and completed folders forwarded to the Department in a more expeditious manner. They would like to reduce the number of students who go elsewhere because the Department does not know until too late that students have applied to the Department.

A very effective Graduate Student Handbook has been developed by the Department for their graduate program. This handbook could serve as a template for Graduate Student Handbooks across the University.

**Curriculum and Program of Study**

Overall, the graduate students are generally satisfied with their experiences in AFS. During the meeting with the committee, all students indicated that most courses and programs were very good to outstanding. Several courses were seen as too lax; students did not elaborate further. All students indicated that the facilities were outstanding and that the Department was very supportive of their efforts. Each indicated that communication with the Chair and with the office staff was very good. The graduate students indicated that there was a critical need for more computers, printers and licenses for statistical software in the Department. The lack of computer access, given the relative location of AFS to computer centers on campus, was seen as an impediment to the graduate program.

The use of piggy-back courses makes effective use of faculty time. Chair, faculty and students did not see their use as a detriment to the Department.

The Chair and the graduate students expressed a need to have a Veterinarian appointed to the Department for both instructional purposes and research opportunities.

**Recommendations from the Review Committee**

1. Increase the number of TAs to the Department to eliminate teaching duties by RAs.

2. Allow one or two RAs to use in efforts to recruit graduate students.

3. Increase support for computers, related hardware, and statistical software for graduate students.

4. Form a departmental committee that will establish minimum criteria for accepting graduate student applicants. This review committee should also screen graduate student
applications.

Overall Departmental Rating: Very Good

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David Wester  
RWFM

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