

GRADUATE PROGRAM REVIEW REPORT

Department of Animal and Food Sciences

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Program Overview and Vision

The Mission Statement outlined in the Departmental Strategic Plan is, “The Department of Animal and Food Sciences is dedicated to the pursuit of excellence in higher education and personal development of students, staff, and faculty through commitment to creative teaching, research and public service”. The department strives to be recognized as one of the leading institutions of higher education in the areas of animal and food sciences. It is very apparent that the department is making excellent progress towards meeting this goal. One of the strategic plan objectives for strengthening the graduate program was to establish a Ph.D. program in Food Science. Although it was mentioned, the importance of adding a Ph.D. program in Food Science was not discussed at great length during the review. Graduate faculty numbers and research support have greatly increased during the last five years. From 1999 to 2005, Animal Science faculty has grown from 10 to 14, and Food Science faculty has grown from one to four (total departmental graduate faculty = 17). During this time, faculty and staff have developed and built a state-of-the-art facility for teaching and research.

In this reviewer’s opinion, the mission and organization of the academic unit is excellent, and the Department does a superb job of accessing outcomes related to their Strategic Plan.

Faculty Productivity

Faculty in the Department of Animal and Food Sciences at Texas Tech University are among the most productive in the Big 12. Animal and Food Sciences faculty workloads were consistently higher than the average of the college and university, and yet productivity appears to be very good. Research has resulted in many refereed (n = 194) as well as non-refereed (307 abstracts) publications and presentations (168 invited presentations). Faculty have also been very successful at receiving grant and contract awards (\$8.8 million from 149 awards). The strategic plan called for \$25,000 per year per faculty member in external funding, and they appear to be on track for reaching this goal. All graduate faculty are engaged in teaching and advisement, in many are involved in service to professional societies.

Faculty productivity is excellent.

Quality and Quantity of Graduate Students and Graduates

Graduate students in the Department of Animal and Food Sciences at Texas Tech University come from all over the U.S. and internationally. Over the review period, the department received 30 applicants/year, and the number of applications is increasing. The department admitted 46.1% of all applicants over the review period; 40.7% of students are Ph.D. and 59.3% are pursuing M.S. degrees. The Department currently has 61 graduate students, and the administration felt they had room for 75. Faculty generally felt they were at capacity based on available fiscal resources, but that the facilities could support more students. They expressed the need for more Graduate Student Research Stipends and/or Fellowships. The quality of students appears to be high, with enrolled students averaging combined verbal and quantitative GRE scores of 1023, and M.S. and Ph.D. student GPA’s are above 3.5 and 3.7, respectively. Students are productive from a publication (126 refereed) and presentation (n = 226) standpoint. Ninety five percent of them graduate. Job placement is nearly 100%. The faculty

indicated that two pools of graduate students existed in the department; one of high quality and one of mediocre quality. Graduate student recruitment is directly between the scientist and student, and the graduate committee is mostly hands off. There was some general discussion as to whether or not this approach was adequate. Some faculty expressed that the quality of the students could be improved if some minimum standards were established and adhered to for student acceptance into the program(s). The general idea was that a graduate screening committee would make the initial screen, although a faculty member could attempt to justify a marginal student's acceptance if they felt the student was capable of competing/excelling in graduate school. The review committee agreed that minimum standards should be established, and a departmental graduate committee employed. Concern regarding a "disconnect" or lack of communication between the Graduate School and the Department was perceived. The Department felt they were losing potentially good students to other universities due to the lag time between students' acceptance by the Graduate School and notification of the Department regarding that acceptance.

Overall, quality and quantity of graduate students is good.

Curriculum and Programs of Study

The department offers graduate programs leading to Master of Agriculture (non-thesis) with emphasis in Animal or Food Science, Master of Science in Animal or Food Science, and a Ph.D. degree in Animal Science. A Ph.D. in Food Science is being considered. These programs are compatible and comparable to similar programs at peer institutions. The graduate students suggested that 2/3 of the courses offered were "very good" and 1/3 were inadequate for graduate education. Because the department routinely evaluates courses offered (every two to four years), marginal courses should be identified and faculty encouraged to make those courses more relevant for graduate education, assuming a problem actually exists. As is problematic at many institutions, many faculty don't faithfully attend departmental seminar. Because graduate students tend to take seminars very seriously (especially when they're receiving a grade), faculty should set the example and be encouraged to attend. Students expressed some concern that the physical location of faculty and graduate students in separate buildings inhibited effective communication and opportunities for collaborative research. Attending a departmental-wide seminar weekly is one potential way of fostering communication among disciplines. The Department is doing a great job of taking advantage of distant education opportunities with other institutions, and filling the potential gaps in their curriculum.

The curriculum is very good to excellent.

Facilities and Resources

Faculty generally felt that their programs were at a comfortable level, with not much room to expand. This seemed to be in response to available dollars, and not due to lack of physical space. Faculty felt the facilities could handle more students. The graduate students had some concerns with availability of computers in the Animal Science Building. Some students had computers and some did not. However, if a computer lab is available to all students, it's most likely not the department's responsibility to provide personal computers for graduate students, but should be left up to each student's advisor (this reviewer's opinion). In today's high-tech world, many of our students (Oklahoma State University) prefer to purchase and provide their own personal computers. If students don't have the personal resources, refurbished computers are generally available as "hand-me-downs" from faculty and staff. The review committee did not tour the facilities, but both faculty and graduate students felt the facilities were very good, and provided them with excellent opportunities to be productive in research, teaching, and service. Facilities were considered a strength. In addition, the graduate students generally felt the quality and quantity of support staff was very good.

Facilities and resources are very good to excellent.