

Update from Animal Science Teaching Section

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Animal Science

Summary and Implications

Placement rates for graduates of animal science remained strong in 2003. The sources of recruits and interests of students continue to shift. Community college transfers and urban high school students have become a larger segment of the animal science student population at Iowa State University (ISU). These students have different needs and interests in education. Transfer students may need to compact most of their animal science courses into two years at ISU, while Urban students tend to have a greater interest in courses in equine and companion animal studies. Times of change should be viewed positively as an opportunity for the animal science faculty to evaluate teaching programs in relation to traditional and new career markets for graduates.

Introduction

The 2003-2004 academic year has been one of mixed signals. Though student numbers declined slightly at ISU and significantly in the College of Agriculture, enrollment was reasonably stable in Animal Science. The most noticeable decline in enrollment was in GenPV, the undeclared preveterinary students managed by Animal Science. While the economy of the state and country continued to be somewhat soft, the job market for animal and dairy science graduates remained very strong. The Agriculture Career Service office reported over 1,500 interviews for the past academic year. Starting salaries are estimated to be approximately \$35,000 for the academic year and the annual placement rate is expected to remain at about 95%.

A Time of Change

All good things generally come to an end, and this includes increasing enrollments. After peaking in the late 1990's at approximately 735 students, the department began a slow, but steady enrollment decline.

Enrollment has been significantly impacted by the late 90's plunge in hog prices, recent low dairy prices, and the struggling Iowa and US economy post-9/11. The challenged Iowa economy has led the way in forcing double-digit increases in resident tuition at ISU. These factors have combined to reduce ISU enrollment, especially in agriculture, and to significantly increase community college enrollments. Community college tuition is generally lower and students often choose to live at home to further reduce costs of education. As the increased number of community college enrollees graduate, transfer student numbers should increase in animal and dairy science.

Table 1. Fall 2003 Enrollment at Iowa State University

Animal Science undergraduate majors	505
Dairy Science undergraduate majors	44
General Preveterinary students*	30
Total, department undergraduates	579
Animal Science graduate students	99
Total, department	678
Total, College of Agriculture	2,369
Total, Iowa State University	27,380

* Majors in animal or dairy science may declare preveterinary medicine options, but the department also manages the undeclared preveterinary medicine program (general preveterinary medicine) for the university.

The job market and starting salaries have stayed very strong for ISU animal and dairy science graduates. In part, the strong career market has stabilized departmental enrollment at approximately 600 undergraduate students and 100 graduate students for the past two years. Career placement has been excellent and matriculation rates to programs in veterinary medicine and graduate studies have remained exceptionally high. The reputation of undergraduate program strength in animal and dairy science and the quality of ISU students prompts many of the top graduate schools in the United States to actively recruit ISU seniors.

Table 2. Fiscal year 2002 undergraduate employment: results for Animal Science and Dairy Science students

	Number:
Graduates	110
Placed or further education (95%)	105
Placed in agriculture	53
Employment within Iowa	50
Further education*	39
Estimated average starting salary	\$35,000

* "Further education" included graduate studies (MBA, M.S., Ph.D.); colleges of law, medicine, and veterinary medicine; or a second bachelor's program.

The department graduated 11 Master of Science students; 9 entered employment and 2 continued in Doctor of Philosophy (PhD) programs. Nine students completed PhD programs and all entered career positions.

Changes in Faculty and Facilities

Academic year 2003-2004 will bring significant change in the roster of teaching faculty. Dr. Marshall Jurgens will retire after over 35 years of teaching animal nutrition. Dr. Gene Rouse will also leave ISU after 30 years to pursue opportunities with the Iowa beef industry. Drs. Jurgens and Rouse have combined to teach over 10,000 students during their careers at ISU and currently advise nearly 100 animal

science undergraduates. Their departure will have a profound impact on the teaching group. Two young faculty members with research and teaching assignments, Drs. Chad Stahl and Kristjan Bregendahl, have entered the animal nutrition teaching pool in the past months to assist in the transition of teaching activities.

Due to budget reductions, the department has closed or will close three critical farm facilities. Of these three, the facility most directly related to teaching was the ISU-Ames Dairy Farm. It closed in October, 2003. The department moved temporarily dairy teaching and research operations to the ISU Ankeny Dairy. Architects will soon compete for the opportunity to plan a new 500-cow ISU dairy farm to be located just south of Ames in the zone of other current animal science teaching farm facilities. For more information on the changes related to the dairy farm closure, please see the *Update from the Dairy Science Curriculum*. Additionally, the department will cease research activities at the Rhodes Farm and the Western Iowa Research Facility near Atlantic. Rhodes beef research will transition to the Beef Nutrition Farm near Ames and other ISU facilities, while the swine research from the western Iowa facility will transition to the swine breeding farm near Madrid, IA.

New Directions for the Teaching Faculty

Two of the rapidly growing areas of interest for entering animal science students are equine and companion animal studies.

Equine studies have been a traditional part of the animal science offering since the 1800's, but the focus of study has changed obviously from draft horses to competition and pleasure horses. More than 100 of the 600 animal science undergraduates declare the horse as their animal of primary interest. Animal Science currently offers five equine courses and is test-marketing two experimental courses in equine management. Dr. Peggy Miller manages all of these course offerings. During the past year, the department hired Ms.

Angela Chandler to manage the equine unit and become a team member in the equine teaching program. Ms. Chandler received her BS degree from Auburn University and previously managed the equine unit at the Auburn College of Veterinary Medicine.

The fastest growing and largest species interest contingent in the department is the companion animal interest group. Approximately 250 students have primary interest in work with dogs, cats, or other small animals. Though a large percentage of these students enter initially with the goal of pursuing veterinary medicine study, most eventually graduate as animal science majors. Some begin careers related to the companion animal sector, but many move directly into traditional animal science employment due to the breadth and depth of the degree program. To serve these student's interests in companion animal science as well as to pursue a full compliment of research in breeding and genetics, the department is pursuing the hiring of a new faculty member with teaching and research focused on companion animal genomics.

Discussion

Times of change may bring new challenges, but should be considered to also contain significant opportunities. As faculty membership changes and as interests of the student population shift, the department of animal science will also evolve. The forward-looking view is that the department is expanding its clientele, its recruiting pool, and its alumni base. The teaching section will evolve by adjusting the educational pool to respond appropriately to new student clientele while maintaining strength in education related to traditional disciplines and species. To track new developments in animal science teaching programs, faculty and staff, please sign on to the following websites:

<http://www.ans.iastate.edu/ugrad/homepage.html>

<http://www.public.iastate.edu/~ans/dairy/home.html>