Update from Animal Science Teaching Section

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Recommended Citation
DOI: https://doi.org/10.31274/ans_air-180814-674
Available at: https://lib.dr.iastate.edu/ans_air/vol653/iss1/68

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Update from Animal Science Teaching Section

A.S. Leaflet R2242

M. Douglas Kenealy, university professor of
animal science

Summary and Implications

Animal Science undergraduate admissions for each of
the 2005 and 2006 academic years increased dramatically,
impacting laboratory space, teaching demands and advising
loads. Placement rates and starting salaries for graduates of
animal and dairy science remained excellent.

Major curriculum revisions were implemented in
calendar 2005. The primary result of the curriculum
changes is a set of revitalized sophomore and senior
species-related courses in animal production and enterprise
management. These changes also led to major increases in
enrollment from students from other departments in the
College of Agriculture. Additionally, the changes increased
significantly the number of agriculture majors electing
animal science minors.

The new ISU Dairy nears completion and planning for a
new multi-purpose animal pavilion is in the early stages. It
is predicted that each of these building programs will also
have a positive impact on enrollment. The college
responded to the dramatically increased teaching/advising
load in the department by granting increased teaching
support for the coming calendar year.

Introduction

The past two academic years have brought significant
increases in enrollment for Animal and Dairy Science. In
fall 2004 undergraduate enrollment was 576; in 2005,
enrollment was 616; and in 2006, enrollment increased to
659. Increased enrollment in animal and dairy science
reflects a reasonably solid farm economy and confidence in
the career market. Placement rate, reported for fiscal year
2006 (FY2006), remained strong at 95% for Animal
Science and 100% for Dairy Science. Salary information
estimated average starting wage at about $35,000. Selected
enrollment information for fall 2006 is included in Table 1.

Teaching Facilities Update

The building and planning processes for two major
construction projects for the department are making good
progress. Both projects are phases of the ISU Dairy project.
Major funding came from the sale of the Ankeny Dairy.
Phase 1 is the completion of the new ISU Dairy
approximately one mile south of the Elwood Drive exit
from Highway 30 in Ames. The education and research
farm will house 450 milking cows. Most barns are well
under construction and relocation from Ankeny is planned
during late summer of 2007.

Phase two of the building project is the proposed new
animal science pavilion. The pavilion project has moved to
the architectural concept and initial budget proposal stage.
The pavilion project is proposed as a multi-use facility that
will accommodate classes, outreach activities, and animal
events open to the public. The proposed site for the multi-
use pavilion is on Mortensen Road east of the old ISU-
Ames dairy site.

Enrollment and Career Placement

Career opportunities and job placement continued to be
excellent for animal and dairy science graduates. The latest
figures received from ISU Agriculture Career Services for
FY2005 are illustrated in Table 2. The fall 2006 Agriculture
Career Day at ISU was the largest in the nation with over
150 companies or organizations meeting with our students.
It was a ‘good news-bad news’ situation, with a Memorial
Union full of opportunities for our students, but a number of
companies had to be turned away. During FY2006, 122
companies completed 889 formal interviews at Agriculture
Career Services in Curtiss Hall. For more information on
ISU’s Agriculture Career Services program, please go to:
www.career.ag.iastate.edu/

Graduates of Animal and Dairy Science continue to be
highly selected for colleges of veterinary medicine and
graduate schools. This past year 39 students entered
professional programs. Many of these programs select
primarily students who rank within the top 20% of ISU’s
graduating class.

The department graduated 12 Master of Science
students; 6 entered employment and 5 continued in Doctor
of Philosophy (PhD) or other professional programs. Ten
students completed PhD programs; nine entered
professional positions.

<table>
<thead>
<tr>
<th></th>
<th>Fall 2006 Enrollment at Iowa State University.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal Science majors</td>
<td>561</td>
</tr>
<tr>
<td>Dairy Science majors</td>
<td>44</td>
</tr>
<tr>
<td>General Preveterinary</td>
<td>54</td>
</tr>
<tr>
<td>Total, department</td>
<td>659</td>
</tr>
<tr>
<td>Animal Science graduate</td>
<td>82</td>
</tr>
<tr>
<td>Total</td>
<td>741</td>
</tr>
<tr>
<td>Total undergrads, College</td>
<td>2,539</td>
</tr>
<tr>
<td>Total, Iowa State University</td>
<td>25,462</td>
</tr>
</tbody>
</table>

* 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.
Table 2. Fiscal year 2005 undergraduate employment: results for animal science and dairy science students.

<table>
<thead>
<tr>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduates</td>
</tr>
<tr>
<td>Placed or further education (95%)</td>
</tr>
<tr>
<td>Placed in agriculture careers</td>
</tr>
<tr>
<td>Employment within Iowa</td>
</tr>
<tr>
<td>Further education*</td>
</tr>
<tr>
<td>Estimated average starting salary</td>
</tr>
</tbody>
</table>

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

Impact of Changes in the Teaching Program

During the 2005-2007 catalog biennium, Animal Science began offering an expanded series of sophomore level species-oriented production science courses. Added to the curriculum were sophomore courses in beef, poultry, sheep, and swine. Courses already existed in companion animals, dairy, equine, and foods of animal origin. Animal Science majors must complete at least three of the 200-series courses. The philosophy behind these added courses is to offer basic production early in the student’s career so that they begin to understand why the intense junior-level discipline course (such as breeding/genetics, reproduction, etc.) are such an important part of the student’s education. The senior species courses follow with a specific focus on enterprise management.

The addition of these courses came at the same time that new student enrollment in Animal Science was increasing dramatically. Concurrently, enrollment in these courses by non-majors blossomed. In academic year 2005, the department offered 19 total sections of these 200-level courses. By fall 2006, it became apparent that section offering must be increased significantly. Starting in spring 2007, at least 30 sections of the sophomore courses will be offered. Additionally, the department was rewarded by the college for its success in recruiting. In 2007, the department will receive support to hire an additional permanent Lecturer in equine studies and, at least temporarily, four ¼ time teaching assistant positions. Any new faculty hires will also have a significant undergraduate teaching component in their assignment.

Discussion

During the past three semesters, dramatic changes in curriculum elements and tremendous progress in facilities development have combined to bring renewed excitement to the teaching programs in the Animal Science Department. Coupled with significantly increased enrollment in the freshman and sophomore classes, the department has had both rewards and challenges for its strong recruiting efforts. There is considerable need to add new faculty members to the teaching and advising core. To track new developments in animal science teaching programs, facilities, faculty and staff, please sign on to the following website:

http://www.ans.iastate.edu/