The Graduate Program in the Department of Agronomy
Purdue University

The Graduate Committee
Department of Agronomy
Jeff Volenec, Chair
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Then: Recommendations/Actions from the 2002 Review of the Graduate Program

Opportunity 1: The graduate curriculum should reflect Departmental strengths and be flexible (Curriculum Committee has been formed to review and suggest changes to the graduate curriculum)

Opportunity 2: Create a systematic program for graduate students to learn about the breadth of discovery underway in the department (Departmental seminar has been created and students are strongly encouraged to attend)

Opportunity 3: Faculty should provide graduate students with more training in writing grant proposals (referred to the Curriculum Committee for considerations; Already done in AGRY 605; AGRY 515, but resource intense)

Opportunity 4: Identify graduate degrees that reflect concentrations areas as a potential benefit to students entering a competitive marketplace (both the Curriculum Committee and Graduate Committee will review current offerings to assure appropriateness)

Opportunity 5: Diverse areas like environmental sciences could benefit from additional programmatic organization (ESE leadership, Linda Lee and others, has emerged to coordinate this program)

Opportunity 6: Ensure that all students have adequate training in the basics of scientific communication (Curriculum Committee will evaluate the effectiveness of the seminar series; graduate seminar has been revamped to include Extension)

Opportunity 7: The mixing of graduate students with undergraduate students in 500-level courses was a concern expressed by graduate students (the Curriculum Committee has been asked to evaluate the 500-level courses and develop solutions, including teaching of additional 600-level courses exclusively for graduate students)

Opportunity 8: The review team was concerned that 60% of the faculty had one or fewer graduate students and that there were few post-docs (information on graduate student and post-doc numbers, funding, lab space, and other resources will be benchmarked against peer institutions to understand the reasons for uneven distribution of graduate students; barriers will be removed and incentives put in place to encourage greater participation in graduate education)

Opportunity 9: The graduate programs should be reviewed in light of Indiana’s Life Sciences Initiative because of emerging opportunities in value-added agriculture (the Graduate Committee will review the graduate program in light of new initiatives on campus and in the state make recommendations to the faculty. Cluster groups have been formed to discuss collaborative research and funding opportunities)

Opportunity 10: Faculty need to be credited appropriately for their mentoring and support of graduate students, including those in other departments and interdisciplinary programs (the Dept. Head will be encouraged to recognize and value faculty for their involvement in graduate education. Faculty will be asked to detail their involvement in graduate education in their promotion and tenure documents)

Now: The total number of graduate students has declined, especially those seeking and MS Degree
Now: The number of post-docs increased from 2002 to 2003, and except for 2006, has remained relatively constant thereafter.

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Now: Since 2005 the number of domestic graduate students has declined, while the number of international students has increased. Minority enrollment has increased since 2001, but still remains low.

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Now: Enrollment Trends for Domestic (Dom) and International (Int) Graduate Students by Area of Study May Reflect Hiring Patterns

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Trends in Verbal GRE Scores (GREv) and Quantitative GRE Score (GREq) for Domestic and International Graduate Students

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Trends in Grade Point Average (GPA) and Analytical GRE Score (GREa) for Domestic and International Graduate Students

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Now: The number of male graduate students has declined since 2001, while the number of female graduate students has increased.
Now: The total number of M.S. and Ph.D. degrees awarded from 2001 to 2007

Now: The number of approved applications has declined since 2003, and we admit approximately 40% of students approved for study. Lack of funding often limits admission of qualified applicants.

Now: Stipends were increased markedly in 2005 in an effort to keep them in the upper 25% of stipends provided by our peer institutions.

Now: The number of approved applications has declined since 2003, and we admit approximately 40% of students approved for study. Lack of funding often limits admission of qualified applicants.

Now: Exit Interview Responses for Students Graduating June 2001- October 2008 (n=73)

Now: Currently one-half of the faculty have one or fewer graduate students. Five faculty currently have 4 or more graduate students (total of 21 students; one-third of the total)
Now: Involvement of faculty in graduate education is uneven. Nine faculty completed 58 students between 2001-2007, while the remaining 28 faculty completed 43 students between 2001-2007.

![Bar Chart: Number of Faculty Members vs. Graduate Students Completed/Faculty Member 2001-2007]

### Issue: Stated Need for More Graduate-Level Course Work
- With significant gaps in our curriculum identified by the graduate students, and with many untaught 600-level courses on the books, there is a need to evaluate our graduate course offerings.
- We proposed that the faculty conduct a comprehensive review of the curriculum focused on 500- and 600-level courses to ensure advanced knowledge is readily available through coursework that meets student needs.
- Coordination of this effort with review of the undergraduate courses (100- to 400-level) is recommended so educational objectives and content is provided in a seamless/logical manner.

### Issue: Uneven Distribution of Graduate Advising Amongst Faculty
- Several faculty are heavily involved in education of graduate students.
- However, there is a significant number of faculty who are not participating in graduate education.
- In order to grow our graduate program, and meet the high demand for our graduates, greater faculty involvement in graduate education is necessary.
- How do we engage more faculty in the education of graduate students?

### Issue: Declining Graduate Student Enrollment
- Funding is a clear limitation for most faculty wanting to mentor additional graduate students.
- Fee remissions and costs associated with graduate education have increased making cost of a graduate student on-par with that of a post-doc.
- What strategies should be used to increase the number and duration of fellowships and assistantships?

### Issue: Fellowship Funding of Ph.D. Students
- The Ross Fellowship: For recruitment of outstanding Ph.D. students. Each fellowship provides a four-year package to the fellow, which includes one-year of support from the Graduate School and a commitment by the graduate program of three additional years of support.
- The Andrews Fellowship: For recruitment of outstanding Ph.D. students. Each fellowship provides a four-year package to the fellow, which includes two-years of support from the Graduate School and a commitment by the graduate program of two additional years of support.
### Ross Fellowship Funding of Ph.D. Students

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The Ross Fellowship Program Contributes 12% of the Total Cost.