The members of this committee have worked during the last several weeks at the request of Dr. Clifford Fedler, Associate Dean of the Graduate School, to conduct the Graduate School’s standard six-year review of the graduate programs in Agricultural Education and Communications (AGED). Members of the committee include Dr. Mary Frances Agnello (Education, TTU), Dr. Robert Birkenholz (Agricultural and Extension Education, Ohio State), Dr. Stephen Cox (Environmental Toxicology, TTU), and Dr. Sean Grass (English, TTU).

Local members of the committee met initially on January 27 with Dr. Fedler to discuss the procedures involved and also to receive the self-study submitted to the Graduate School by AGED. Local members met again on February 17 to discuss the self-study and initiate planning for our day of meetings with faculty and students in AGED. Then, on March 7, all members of the committee spent the day in AGED, meeting with various faculty and students, some individually and some in groups, before concluding the day with a tour of the AGED building and facilities. Meetings that day included individual interviews with Dr. Steve Fraze (chair) and Dr. David Doerfert (graduate coordinator); group interviews with M.S. students, Ph.D. students, full professors, associate professors, and assistant professors; and finally an optional session attended by two doctoral students, who requested special time with the committee to discuss issues that they felt uncomfortable discussing in a larger group setting.

Based upon this day of activities—as well as our reading of the self-study, our conversations as a committee, and the dialogue that has continued in preparing this report—we have concluded, as the following report shows, that the graduate programs in AGED are generally very good. Having met the goals for growth the department laid out six years ago, and having done so without sacrificing the collegial environment in which AGED students and faculty work, the department has made important strides toward its goal of being, eventually, one of the top five graduate programs in the country. Even in the current fiscal climate, the department has found ways to do more with less, expanding financial support for graduate students, winning more external grant funding, and investing in its junior faculty and its technological base.

This said, however, the committee has also identified several areas—in student recruitment, in faculty recruitment and research activity, and in the department’s physical resources—that AGED will need to address in the very near future, particularly if it wishes to pursue aggressively its goal of entering the top five.
The pages that follow address the particular sections of graduate program activity that appear in the “Graduate Program Review Guidelines” under which the committee worked. These guidelines prescribe five particular sections of commentary, each one identified below, and calls for a rating to be applied to each, according to the following scale: Excellent, Very Good, Good, Satisfactory, Poor, Unsatisfactory. Each section therefore begins by indicating the committee’s rating, then offers a qualitative discussion of the reasons for that rating.

Program Overview and Mission

Committee Rating: Very Good

The AGED department and its graduate program have done an outstanding job of achieving their goals during the last six years and also of articulating goals that look ahead to the next several years. As they indicate in their self-study, the last six years “have been about growth—both in scale and efficiencies” (1). They have grown their number of graduate students, their number of applicants to the graduate program, their number of graduate faculty, and the amount of financial support they can offer to graduate students in the program. They have also grown, in some ways, their level of research productivity, particularly tallying impressive gains in grant funding received and poster presentations by their graduate students at professional meetings. Consequently, they have, as their self-study points out, been identified by peers in the field as one of the top 10 graduate programs in the country, according to recently published research.

Motivated by these successes, they have mapped out an ambitious but by no means unrealistic set of goals for the next six years: helping junior faculty in their scholarly development, improving management of graduate advising loads and certain departmental procedures, continuing to develop new courses on emerging industry topics, and recruiting graduate students from underrepresented groups.

The committee believes that these goals are appropriate to the department and to the strategic mission of TTU. Junior faculty must be given time and opportunity to cultivate aggressive research agendas that will lead to external grant funding and peer-reviewed journal publications, partly because these things will help to elevate the graduate program’s profile and perhaps move it from a top-10 to a top-5 institution, and partly because increased grant funding, particularly, will expand the department’s ability to attract and support doctoral students, another part of the university’s Tier 1 goals. Along the way, the department must find ways to develop efficiencies in graduate student advising; as this report discusses later, some faculty are already feeling a considerable advising burden because of an exceptionally high student/faculty ratio in the graduate program. Allowing this situation to deteriorate would have a detrimental impact on the students being advised and, equally important, on the research activities of the faculty doing the advising. AGED must make this a primary concern moving forward.

Along these lines, and while the committee encourages recruitment activities targeting graduate students from underrepresented groups, the committee believes—as is discussed below—that the period of growth should now be followed by a period of plateau in the graduate population while
AGED stabilizes faculty advising and teaching loads and agrees upon and articulates quantitative targets for its graduate program. This can still be a very rich period for AGED, as continuing high numbers of applications, but greater selectivity in admissions, can promote a generally stronger graduate student body, improving quality while maintaining quantity.

Obviously, the committee supports, too, ongoing efforts to keep course offerings relevant to emerging industry topics.

**Faculty**  
**Committee Rating: Very Good**

Overall, the committee found the faculty to be energetic and enthusiastic about graduate education. The faculty have won numerous teaching awards and have performed well in student evaluations, at least as evidenced in the combined graduate/undergraduate evaluation totals given in the self-study. The only exception to this rule was in 07/08, when Instructors had to be hired in a very sort time span to fill faculty vacancies. The commitment to graduate education was reflected in the graduate students, who expressed significant appreciation for the level of mentoring they were receiving.

The committee is also impressed by the faculty’s continuing commitment to pursuing external grant funding and remarkable (and increasing) tendency to win such funding. This can only help the department in the long term, and in several phases: its reputation and visibility, its fiscal health, and its ability to support graduate students in greater numbers and in capacities related directly to the research profile of the department. A few faculty, particularly, are exceptionally successful in this regard already, and the committee has every expectation that the department’s recent hires will continue to move the department in this direction.

Although the faculty's significant emphasis on teaching is typical of similar departments at peer institutions, the committee does feel that the faculty should give additional emphasis to research. Obviously, the collegial nature of the culture within the department is to a large extent fostered by the faculty's emphasis on teaching and mentoring. The department should not compromise this strength, but it could emphasize research in ways that bolster faculty dossiers and benefit graduate education by providing additional funds for student support. Such an emphasis would also benefit the department by leading to larger numbers of peer-reviewed publications, the number of which has lagged compared with posters and grant funding. Collectively all of these research activities would add value to the department's pending Ph.D. program. A potential niche for the department in this area is their ability to serve as education/outreach/assessment collaborators for other initiatives within CASNR. This idea, mentioned by the Chair, is worth fully exploring.

A related issue is the ability of faculty to adequately mentor graduate students in the near future. The data reported in the self-study indicated an increasing trend in the SCH/FTE ratio over time, and the current number of students per faculty member is 6.7. Some faculty felt that student numbers could soon increase to a level that would compromise quality. One who indicated that
s/he did not feel this way later emerged as the subject of concerns from several students, who are concerned that the classes this faculty member teaches simply do not measure up, in terms of quality and engagement, to the department’s other course offerings. Furthermore, 6.7 students per faculty is significantly higher than all peer institutions but the University of Missouri-Columbia; Texas A&M and Ohio State, by contrast, are currently at 2.4, and these are the programs that Texas Tech’s is admittedly attempting to emulate. The committee recommends that the department seek to identify a realistic target for each of these indicators (SCH/FTE ratio and graduate student/faculty ratio). These targets should be based on explicit criteria.

In summary, the committee was impressed by the collegial atmosphere and feels that the faculty must be commended for their attention to graduate education. Nevertheless, in light of TTU’s push for TIER I status and other budget issues, the committee recommends that the department place more emphasis on research, taking care to do so in a manner that complements graduate education. The addition of staff to support this emphasis would benefit the department.

Finally, while the committee was very impressed by the department’s junior faculty in its time with them, the committee is somewhat concerned by the tendency to hire assistant professors from within the department’s own doctoral program. It would be impossible (and inappropriate) for the committee to assert that the faculty hired were not the best candidates available for their respective positions. Still, given that the department asserted several times its desire to be regarded as a top-5 graduate program, AGED ought ideally to be hiring its faculty from those programs it wishes to join in the top 5. Doing so would elevate the visibility of TTU’s department with those national competitors, create opportunities to recruit graduate students from those same programs, and presumably lead to quality faculty joining the department.

**Graduate Students**

*Committee Rating: Good/Very Good*

The committee found the graduate students impressive in several ways. The department has evidently experienced significant growth within its graduate program, and this growth is due in large part to significant efforts in recruitment. The department has done an excellent job of increasing its number of applicants, and it continues to make efforts to increase the diversity of the student body (including, importantly, research efforts on this topic). It also has cultivated an atmosphere that promotes success among its resident graduate students. Resident students were very positive about the level of mentoring they receive from faculty, and graduate student survey results indicate that despite the challenges associated with distance learning, distance students rated most items as highly as resident students did. This speaks highly of the department’s ability to deliver distance programs effectively and to attract students who suit the program, and whom the program can serve.

This said, the committee does have two recommendations. First, given the growth in the number of applicants, the department should be more selective in the students it accepts. The number of applicants has more than doubled during the last five years, but the acceptance rate for applicants has continued at around 80%. The department has tried to focus on growth while not sacrificing the quality of incoming students. However, the committee feels that the program has matured to
the point where emphasis must shift from recruiting solely for the purpose of increasing student numbers to recruiting the highest quality students. Even in the push to Tier 1 status, graduate programs can participate in other ways—and more meaningful ways—than through simple expansion. Elevating the university’s research profile is an important way, and this begins with recruiting excellent faculty, then recruiting excellent graduate students capable of collaborating with those faculty in their research initiatives.

GRE scores for current students are low relative to the rest of the university, and they have decreased steadily for students in the program even as applications have risen. While the committee recognizes that GREs are only one measure—and not even the most important one—of applicant quality and likelihood of success in graduate school, it is hard to view the continuing high acceptance rate as desirable, partly for reasons of academic quality of admitted students and partly because of the potential consequences of over-enrollment, alluded to elsewhere in this report. Several faculty indicated in our meetings that they share some of these concerns.

Second, as noted in the section on "Faculty" (and not a direct reflection of students, per se), increased faculty emphasis on research (funding and publication) would benefit students in several ways. While recent and current AGED graduate students have delivered poster presentations at conferences with greater frequency in recent years, increased emphasis on publication in peer-reviewed journals would aid faculty in promoting their research and make the students themselves more competitive on the job market. Funding for graduate students is a major concern for most departments, and AGED must consider explicitly the level of student support that is necessary to maintain current student numbers. The department has managed recently to increase graduate student support via GPTI positions, but this may be difficult to sustain. Elevating the research profile and drawing more grant money that can be used to support students may be an important avenue to cultivate in the future.

In summary, the committee felt that the department has successfully grown its graduate student body over the past six years, and, given current applicant pools, has the opportunity to begin to be more selective in its selection process. While the committee recognizes that standardized test scores are not authoritative, the department's current averages are low by university standards.

Curriculum and Programs
Committee Rating: Very Good

The M.S. Ag Comm and Ed.D. degree programs engage students in the realm of agricultural communications, education, and leadership. The curricula in the Department are geared to these programs to address students’ learning needs. The following discussion highlights the salient suggestions or complaints about the current program offerings.

At present, faculty and graduate students alike are awaiting word on the proposal for a Ph.D. to replace, for resident students, the existing Ed.D. program. This report addresses that potential development below. But it is important to say at the outset that the existing programs—the on-site and distance M.S. program, the on-site Ed.D. program, and the online joint Ed.D. program the department conducts with Texas A & M—all appear to be well run, organized, and based upon typical, successful curricula. Class sizes seem reasonable and appropriate, with a very few
exceptions noted below, and generally students seem to be able to take necessary courses in a timely way, and to move through their particular program without delays. They are getting a fine education, and they know it.

Even so, our meetings with faculty groups during the day the committee spent in AGED show that faculty continue to think through their existing curricula and consider ways to update and improve it. One faculty member expressed the need for an interdisciplinary systems course for students in the Ed.D. program. Far-reaching effects of a systems thinking/analysis course would take the doctoral program to a destination more aligned with the complexities of engineering, health, and information disseminated in national clearing houses. Such a course would fill an important gap in addressing US and global food production, in light of impending water shortages, rise in fuel costs, among other issues. Other faculty voiced concern that a qualitative research class that is more specifically geared to researching agricultural problems, issues, and concerns is needed to serve both masters and doctoral students. Currently, the course fulfilling the graduate qualitative research requirement is EDCI 5386 Constructivist Inquiry Methodologies in Curriculum and Instruction—a course that has served the program well, but which is more geared to general education research in the College of Education. Another big concern is the AGED 5312 Assessing Program Effectiveness in Agriculture and Extended Education which is focused on teaching statistical analysis. Those who teach this class say they need some relief either by limiting enrollment or offering more sections.

In the university’s new RCM environment, pressure to enroll high numbers of students in doctoral-level coursework may not dissipate. But it was clear from the committee’s discussions with students and faculty that both groups are fully aware of when they get or give less than they need in a particular course. As long as faculty are expected to groom graduate students as scholars—to teach them to produce original scholarship rather than simply consuming it—class sizes must be held within reasonable bounds, partly to keep faculty from being overloaded by teaching demands (so that they themselves can continue to produce research) and partly so that students can receive the individual mentoring they require to become high-quality researchers.

Beyond this, several other ideas came from the conversations with students. One proposed curriculum change was to teach with emphasis on research consumption, rather than solely on its production. Another suggested improvement was to require a project or creative work in place of the thesis with differentiated credit hours. One avenue for pursuing this kind of structure would create a graduate seminar that is an introduction to reviewing literature with required products consisting of literature reviews in preparation for conferences and posters, perhaps appropriate for the masters degree. Another more rigorous literature review focus would facilitate practices of reviewing literature with the goal of publishing critical to the doctoral degree.

It is difficult to discuss curricular innovation without considering how the labor involved in this realm would affect the other facets in discussion here. As evidenced in the focus group interviews, faculty are already stretched too far. Both faculty productivity and human resources are compromised in attempting to cover the masters and doctoral programs advising, dissertations, and teaching. Yet, faculty members have been willing to make adjustments to improve the program and are constantly searching for ways to be efficient and excellent.
Finally, the proposal for a Ph.D. to replace the Ed.D. resident program remains under review at the Higher Education Coordinating Board. The Ph.D. entails more research and would parallel what is offered in other Top-10 agricultural education programs. Meanwhile, the joint distance Ed.D. would remain in place and also remain suited to the needs of practitioners in the field. The committee queried the faculty persistently about the possible implications of the change to the resident program, with consistent results: faculty stated unanimously that while the change to a Ph.D. would change the academic community’s perception of what the doctoral program at TTU does, faculty members feel that they would be doing what they have always done. The external reviewer on the committee, Dr. Robert Birkenholz of Ohio State, confirmed this view by agreeing that the Ed.D. at TTU is already on par, in most of its expectations, with Ph.D. programs around the country.

Facilities and Resources

Committee Rating: Good

The Ag Building has been retrofitted, remodeled, and renovated to serve the needs of the department considerably well. Most faculty offices are large and are of high quality, although one more faculty office will be needed when a faculty member currently working as an administrator returns to the department in the fall. Also four graduate labs exist now where there was formerly only one. Current space can accommodate the graduate students’ office spaces, but there is no extra space to support growing programs. The doctoral students’ computers have dual-monitors—a nice touch—though in our meetings they expressed some concerns about the availability of staff support for the department’s existing technology.

Two of the classrooms (one of which has had flooding problems) are outfitted with cutting edge technology where synchronous and asynchronous broadcasting is done. Also, Mediasite capabilities enable capture of distance lectures that can be posted on line after the fact. There are tracking and zoom cameras in one lab, and the rear-facing cameras in the other, teacher microphones, microphones mounted in the ceiling, and wireless microphones, among other features like sound recording that ensure that the highest quality distance learning is possible. Two department faculty have worked to innovate and install the technologies themselves, but have stated that there is need for technology support. Two computer labs offer facilities mostly to the undergraduates, though here a pending requirement that students have laptops may preclude possible future need for more computer labs. The current computer lab will move and become a video lab. In a large meeting room with moveable chairs and tables, renovations will be done to create a conference room. There are two Ag Mechanics labs where small gas engines and lab structures serve teacher education. To prepare future ag teachers, welding tools are available, along with the use of a plasma camera/electric cutter. Apparently, this is one of the few remaining Ag Ed programs that still have laboratories.

The Chair’s biggest complaint during the program review is that restrooms in the Agricultural building need to be remodeled at the cost of $250,000. The expenditure does not seem realistic in the management of current resources, despite very frugal management of existing resources. A copy closet has saved the department 75% in copying costs, and generally the department seemed to have adequate computers and printing capacity for faculty and graduate students. With regard to technology, the practice in the Department thus far has been to plan and work in 3-year
cycles to purchase, install, and use equipment. Such a strategy has worked well allowing time to look ahead while using the current equipment wisely.