

Entomology

Results of the 1999 USDA Cooperative State Research, Education, and Extension Service (CSREES) review of the UMass Amherst Entomology Department. These reviews are conducted to evaluate the effectiveness of programs receiving Land Grant funding. This review consisted of a self-study document prepared by the department in preparation for a three-day visit in March, 1999, by a five-person external review team selected by the USDA. The review addressed all departmental activities: undergraduate and graduate instruction, research and scholarship, and extension and outreach activity.

■ Strengths

The CSREES team was generally very positive about the Department and its activities. The team reported being

...favorably impressed with the package of teaching, research and outreach presented by the Department The Department is a national leader in IPM [Integrated Pest Management] with an international reputation in behavioral biology. ... Their balance between basic and applied work could serve as a model for the rest of the country. Research productivity ... is among the best in the country. The balance and amount of funding is again exceptional. Their record in teaching and placing graduate students in academic positions throughout the country is unsurpassed. The distance education initiative within the Department is innovative and ahead of the curve in the Land Grant system. ... Overall, the Review Team found a first-rate department of Entomology doing everything it possibly can to be the best.

The Review Team made special note of the Department's interdisciplinary work, particularly its success in teaching course offerings through other departments. Although the Department has no undergraduate major, faculty members have maintained very active undergraduate teaching through courses offered by other life sciences departments. This is expected to expand again in the coming year, as Entomology faculty assume responsibility for teaching large introductory courses in biology.

The Department's research program also received high praise, and the Team noted that "it would be difficult to name a department in the country in which so many, and such a high percentage, of the faculty are so well known on the national and international scene." Moreover, the Team noted that "the extension program is as good or better than any other program in the country. The link with research is strong ... and it is clear that the majority of the innovative research [work] performed by these research/extension faculty is driven by listening and being responsive to the needs of industry and other constituencies."

The Team noted the Department's long leadership in Integrated Pest Management in agriculture, and applauded and endorsed more recent efforts to expand IPM approaches to turf and floriculture. The Team strongly recommended building on this leadership by moving aggressively into urban and structural pest management, which would both serve important

needs within the Commonwealth and fit with other research and outreach efforts at the University, such as the Urban Forestry program.

■ Concerns

The overriding concern of the Review Team — and the only area in which the continued strength of the Department was cast into doubt — involved physical facilities. The Team used strong and unequivocal language to express its view that facilities are seriously inadequate and deteriorating: “The decrepit facilities found everywhere throughout the Department will increasingly become a constraint to the productivity of the Department, the College, and the University. ... Most of the laboratories provide adequate square footage, but the quality of space is poor and the infrastructure (air conditioning, electricity, plumbing, fume hoods) is deplorable. ... The Review Team was shocked by the lack of modern greenhouse space. ... The benches, seats, and lighting [in the teaching labs] are antiquated and as inadequate as any facilities this Team has ever seen.”

The Review Team also expressed concern with what it termed “ineffective communication” between the College of Food and Natural Resources and the Department regarding “the potential contributions” of the Department to the needs of the state. The Team suggested that poor communication may have prevented greater investment in the Department, especially investments in faculty to build capacity in urban pest management. On examination, it appears that the College is aware and supportive of the opportunities presented in urban pest management, but that — as with many other areas of potential leadership for the University — success depends on developing a financial strategy incorporating sponsored research, corporate participation, and other revenue sources.

■ Recommendations and Future Action

The Review made three general recommendations as a result of the study. First, as indicated above, the Team suggested greater communication between the Department and the Dean with an eye toward gaining recognition for the Department as “a model within the University and across the country.” Second, the Team recommended development of urban pest management capacity within the Department. With respect to both recommendations, the Dean has expressed his strong interest in continuing the conversation regarding future directions for the Department and the development of a financial strategy to support new efforts in urban pest management.

Third, the team recommended that facilities improvements receive “prompt and substantial attention.” The Review Team’s concern parallels that of the campus administration, and lends urgency to ongoing efforts to develop a comprehensive response to the campus’s mounting deferred maintenance, plant renewal, and new facilities needs.