Henry Steele Commager said that “Change does not necessarily assure progress, but progress implacably requires change,” and change is something we have seen a lot of in the department in the past seven years. That is how long it has been since our last external department review. In the spring of 2008, we embarked on a year-long effort as a department to take stock of our progress, outline our accomplishments, and reflect on our future strategic initiatives in preparation for a comprehensive external department review. I talked about the effort that went into developing the self-study document – an important component of the review - in the Winter 09 newsletter. We had our review this past spring, and I would like to share the highlights of the review team’s report in this column.

The Cooperative State Research Education and Extension Service (soon to become the Agriculture Food Research Initiative), the USDA agency responsible for the land grant partnership, created a team of external experts to conduct the evaluation. Team members included Kristine Braman, professor of entomology at the University of Georgia, Rick Meyer, national program leader and review team leader with CSREES, Blair Siegfried, professor of entomology at the University of Nebraska, and Mike Parrella, professor of entomology and associate dean of the College of Agricultural and Natural Sciences at the University of California at Davis. Their charge was to review all aspects of the department’s structure and operations required to deliver on its responsibilities in teaching, research and extension. The team received a 447 page self-study document compiled by the department over the previous year as background for their visit April 5th to 9th. The team gave an oral report on their preliminary findings to the central administration and the department on the last morning of their visit, and followed-up with a written report about a month later.

The review team was generally pleased with what they learned about the department from our self-study document and during the on-site visit. They acknowledged our long and rich history of accomplishments and service, and praised our strong tradition of research, education and extension for an ever increasing and diverse clientele. We were commended as leaders nationally recognized for excellence in teaching, strong research and extension efforts in pest management, and arthropod genomics research. They were particularly complimentary about the way our insect science education and outreach efforts feed back into the priorities of key discovery signature areas. They found our vision and mission well articulated, if somewhat ambitious, and our signature areas as clear statements of our aspirations and ultimate goal. Overall, they had good things to say about Entomology at Purdue, but they did have a few suggestions for improvement.

In their deliberations about our administration and staff, they found the diversity in responsibilities and capabilities in our staff as a “major strength.” Our morale is high, and there is a genuine feeling of camaraderie and community that is “pervasive throughout the department”. Entomology is considered a good place to work because of the positive, respectful atmosphere. We have a healthy mix of old timers and relatively new staff who all appear to have a high degree of ownership in their programs and the overall operations of the department. While there were few complaints, some staff thought the faculty did not fully understand the breadth of professional expertise available in the department. There were also concerns about equitable distribution of workloads and compensation for staff during periods of faculty retrenchment or growth. We got dinged on the lack of diversity in our staff and faculty, but no suggestions were offered on how to improve this situation beyond our current efforts.

Our students made a huge impression on the review team. They found our graduate students “confident, articulate, opinionated and incredibly diverse in both gender and ethnicity,” and felt that all were headed toward successful careers. Our international graduate students were singled out as adding “immeasurably to the educational experience in the department.” Perhaps the only thing the team found more impressive than our graduate students was our undergraduate students. “Articulate, forth-coming, and effusive in their praise of Purdue University, the department, and especially the professors in the department” was the review team’s description of the undergraduates. They were amazed how many of our graduating seniors were headed to top entomology programs around the country to pursue graduate school. Another interesting observation they made was that a majority of our undergraduates (including those from out-of-state) were attracted to Purdue because of our highly successful outreach programs like Bug Bowl and Insectaganza. The review team was concerned that too much of our teaching responsibilities were in the hands of too few faculty. They recommended a critical review of our current
course offerings (including the possibility that our undergraduates might take more courses outside of the department, and that our faculty might teach more courses with broad appeal in the biological sciences outside the department) and development of a transition plan for our teaching responsibilities that anticipates future retirements. They suggested that we develop metrics to measure our success in attracting top candidates to our graduate program, make adjustments in the timing of some course offerings, and secure sustainable support for our significant forensic science commitment. The team liked the international opportunities that both undergraduate and graduate students enjoy and encouraged us to continue this effort.

We were complimented for our research portfolio and its fundamental and applied elements, and praised for our research impact as measured by the quality and quantity of our publications and for the robust $150,000 in annual expenditures per research appointment – a trend that has increased steadily in recent years. They noted the recent selection of Greg Hunt as a University Faculty Scholar and proclaimed the award as an acknowledgement of individual excellence and a testament to the department’s ability to create an environment that promotes outstanding achievement and investment in young faculty. We were commended for our exemplary record of accomplishments and documented leadership in international research. These efforts are helping to improve agricultural production in every case and alleviate poverty and hunger in the most desperate situations.

Our USDA ARS adjunct faculty, the joint appointment with the Department of Forestry and Natural Resources, and interdisciplinary activities at many levels, were all cited as examples of important interdisciplinary research collaborations that contribute to the overall success of the department - a model we should continue to pursue. The team liked our staffing plan, but felt we needed to develop a consensus on position priorities given current vacancies and likely retirements within the next 5 years. Other recommendations included 1) the development of core bioinformatics support for our efforts in molecular biology and arthropod genomics, 2) the construction of a biocontainment research facility for research on invasive species, biological control and other regulated organisms, 3) a plan to hire a new curator for our research collection when the current curator retires later this year, 4) upgrade our facilities to state-of-the-art research labs for current faculty and new hires, 5) fill the open biological control position as a strategic hire to support our research portfolio and graduate education, and 6) fill our open endowed chair position in a manner that best serves the needs of department.

The review team found our extension efforts to be responsive to the needs of traditional and growing urban clientele. Our research and extension is well integrated with appointment splits that allow an exceptional level of basic and applied science to inform extension activities. Many of these efforts include prominent and globally relevant international engagement such as the Gates-funded Purdue Improved Cowpea Storage (PICS) program in West Africa, the Ornamental Clean Stock program in Costa Rica, and more recently, pest management support for Indiana National Guard troops deployed in rural Afghanistan working as agricultural educators. We provide valuable opportunities for our students to engage in extension, as well as research experiences both locally and abroad. The review team recommended that we enhance our web presence, increase distance learning opportunities, seek impact assessment support and training, formalize our current regional efforts, and upgrade applied research facilities to support critical applied research activities.

We were acknowledged as the national leader in the development and implementation of public outreach programs using insects and other arthropods and received high praise for the way we have capitalized on the fascination people have for insects with programs that introduce youth and the general public to entomology and science. We have a unique opportunity given the publics’ general fascination with insects and the enormous head start we earned with many years of outreach programming, to remain a national leader in this area. What we need is a transition plan to replace faculty and staff currently involved in outreach as they approach retirement. The review team acknowledged that universities have a bigger responsibility for science education than traditionally recognized and that Purdue Entomology has an opportunity for a significant stake in our institutional efforts to reaching out to K-12 students and the general public. A future joint hire with another department interested in STEM education and science outreach where insects are used as the model for outreach is a possibility.
In wrapping up, the team recommended increasing collaborations with CERIS, a unique unit within our department, and engaging the faculty in discussions about our strategic initiatives and priorities as we continue with the planning process.

Overall, the feedback from the review was positive and constructive. We enjoyed interacting with the review team, and found their oral and written reports consistent with many of our own expectations. Perhaps, most satisfying was the finding of no significant deficiencies. We have much to be proud of as a department, and look forward to improving the way we work as we go forward. Many of the review teams’ recommendations are already being evaluated, and action plans are currently being developed by various committees and working groups within the department. We’ll address all the recommendations and take action as appropriate as we implement our new strategic plan. At the end of the day, we’ll be a better department because of this review.

~Steve Yaninek~