24 January, 2011

From:  Bruce A. McPheron, Dean

To:  All College of Agricultural Sciences Employees

Re:  Provost/Core Council recommendation memo and next steps

Attached is the report from Provost Erickson that captures the evaluation of the College of Agricultural Sciences by the University Park Academic Review Coordinating Committee (UPARCC) and the Academic Program and Administrative Services Core Council (Core Council). To remind you, under guidance of the Penn State Strategic Plan, all programs and locations are undergoing deep review by a set of committees. UPARCC undertook an extensive review of the College, as part of their mandate to look at all academic colleges here at University Park, and they passed their recommendations to the Core Council. The Core Council, chaired by Provost Erickson, examined and further amended these recommendations, and their report was shared with President Spanier for comments. The outcome of the process for our College is the attached document.

These recommendations represent the transition from our AG Futures planning process to our AG Futures implementation process. As I have indicated throughout the past months, our excellent strategic planning in the past positioned us to use AG Futures as a tool to look further into our future. As we worked through that planning process to identify areas where we collectively feel we must have a presence in the future, we have acknowledged that how we approach that future will also be affected by the recommendations of the internal Penn State evaluation process.

There are six central recommendations from the Core Council, and we are expected to heed and substantively address all six. These include mandates to 1) consolidate academic units, 2) reduce/remove under-enrolled courses, 3) participate in a university-wide reorganization of life sciences graduate programs, 4) seek new revenue generation opportunities, 5) evaluate and adjust livestock & land holdings, and 6) re-examine Cooperative Extension operations. The attached memo contains mandates to move forward, and we have been charged to fill in the details based upon our data and our own discussions to achieve most of the significant changes.

The six recommendations are, in fact, largely congruent with the plans and discussions we have had within the College over more than a decade. In fact, many of you are currently working to address a number of the issues contained in the memo from Provost Erickson. Therefore, we are well-positioned to move forward with the next step of consolidation of academic units. This week I will charge six teams to spend four weeks
identifying potential program synergies to create at least six independent creative proposals for a new academic unit structure. The recommended reconfigurations contained in the attached memo give us one option (this is truly one option, not a mandate), and we will now use an open team process guided by our AG Futures strategy to identify several more creative options for consideration. Each unit leader will ensure a robust process in their units to engage faculty and address staff concerns, and there will be multiple opportunities for feedback and comments. The team charge will be held on January 24 and the team presentations will occur on February 25. We will post these presentations on the web for viewing by all interested parties in the College. I will use my March 18 (draft of the new structure) and April 8 (final structure) to communicate our progress forward. After April 8, we will begin the process of resetting budgets, revising operational processes, and addressing educational program changes to support the implementation of the new structure.

All of the changes we are making will position us to achieve our strategic vision and long term national and international preeminence. I look forward to working with all of you in partnership to achieve this vision as we continue to pursue excellence and innovation across all functions. Together we are solving real-world problems at the interface of the food and fiber system, ecosystem, and socioeconomic system. The work we do over the next few months and years to implement our AG Futures strategy and structure will enable us to achieve long term success for our students and stakeholders.
DATE: January 12, 2011
FROM: Rodney A. Erickson
TO: Bruce McPherson
SUBJECT: Core Council Recommendations Regarding the College of Agricultural Sciences

The Academic Program and Administrative Services Core Council ("the Core Council") has discussed the recommendations received from Susan Welch, Chair, on behalf of the University Park Academic Review Coordinating Committee (UPARCC) regarding the College of Agricultural Sciences programs and operations, and the background information and strategic priorities you have provided about the College, its successes, and its challenges. The Campus Academic Program Review Coordinating Committee (CAPRCC) also reviewed curricular and operational matters that might affect one or more campuses and these comments were taken into consideration in the formulation of the UPARCC recommendations to the Core Council.

The purpose of this memo is to share with you the response of the Core Council to various College of Agricultural Sciences organizational, operational, and curricular issues and initiatives, and to make recommendations for such further changes based on the analysis and deliberations of UPARCC and the Core Council.

Context

The College of Agricultural Science has a mission unique among Penn State colleges. In addition to its instructional and research missions, it co-manages an extensive Cooperative Extension organization that provides research-based practical assistance to agricultural producers and other constituencies throughout the state on issues related to production agriculture, energy and natural resources, and home and family.

As you know, the General Funds budget of the College is slightly more than $16,300,000. In addition, the College is supported by a Commonwealth of Pennsylvania appropriation of more than $25 million for agricultural research and nearly $30 million for extension, approximately $20 million from the federal government for agricultural research and extension, and $13 million from county contributions to the extension mission, in addition to more than $10 million in in-kind support from the counties. The College also earns significant external support in addition to federal, state, and county funds, with sales and fee revenue of about $20 million. Most of the college’s faculty are supported by more than
one revenue stream, typically a research role (state and federal appropriations) combined with either resident instruction supported by general funds or extension education supported by state and federal appropriations.

We appreciated the benchmarking information showing that the College’s twelve department and school units are about at the mean of CIC and regional peers (but fewer than national ones you mentioned). The College has many small undergraduate and graduate majors. While there are no widely accepted rankings of undergraduate programs in the College, the recent National Research Council doctoral program assessment indicates that there is considerable unevenness of quality among your various PhD programs. Some programs did relatively well in the NRC assessment, with four of 11 programs in the top quartile among their peers, while three programs were above the mean although not in the top quartile, and four programs were ranked below the mean among their peers. We recognize that College faculty participate extensively in various Intercollegiate Graduate Degree Programs (IGDPs), at least two of which (e.g., Plant Biology and Nutrition) were ranked in the top 10 percent or top quartile nationally. Graduate programs in the College tend to have students presenting somewhat lower academic credentials than University Park averages, although considerable variability exists.

Although it is large in scope, Agricultural Sciences is one of the smaller units in its instructional mission among University Park colleges. The College currently enrolls about 1,900 undergraduate majors, reflecting an increase over the low point of about 1,450 in the first half of the past decade, but somewhat lower than the peak enrollment of more than 2,100 majors in the early 1990s. This peak enrollment was fueled by nearly 700 majors in the interdisciplinary, interdepartmental Environmental Resource Management program, enrollments in which fell precipitously to about 60 majors by five years ago, and are now rebuilding to a sustainable level of more than a hundred students. Doctoral programs within the College enroll slightly over 200 students and have grown by about 25 percent over the past decade. Total student credit hours (SCH) delivered have increased during the last five years to a total of slightly more than 40,000.

Discussions of the organization and functioning of the College of Agricultural Sciences are far from recent; reorganizations of its academic units are a “hardy perennial” of discussion, addressed by various study groups and retreats, including the University Future Committee in the early 1990s. We understand that you are currently engaged in an “Ag Futures” process, led by a consultant and including senior leadership and opinion leaders within the College, as well as representatives of external constituencies, to define priorities and themes for the future. The Core Council is supportive of that process inasmuch as it provides an opportunity for many constituencies to be heard, but the Core Council is making recommendations based upon its own analysis and deliberations to reflect an independent perspective from outside the College per se.

Our Review

Our recommendations are made on the basis of a review of current and historical data on the College, two UPARCC meetings with you, lengthy correspondence with you on a wide
range of issues affecting the College of Agricultural Sciences, and information regarding changes recently implemented or currently being considered by similar colleges in peer Land Grant universities. We also reviewed the report of the Land Grant Mission Task Force, of which you were a member. We are providing a vision for the College with some concrete ideas, but not a detailed implementation plan, which can only be done by you and the College leadership team working with me and relevant governance bodies including the Faculty Senate and Graduate Council.

Undergraduate curricular changes need to take into account Commonwealth Campus enrollments in agricultural fields, 2+2 pre-majors, and associate degrees. Aggregate pre-major enrollments in Agricultural Sciences at the 19 Commonwealth Campuses (there are no stand-alone baccalaureate majors at the Commonwealth Campuses) have been growing in recent years, which you have indicated is a result of the College’s focus on retention, student success, and connections to University Park majors, facilitated by the appointment of a College liaison to the campuses. There are also currently 12 faculty identified as Agricultural Sciences on the Commonwealth Campuses, including six who are tenured in the College and six instructors. Eight campuses schedule Agricultural Sciences courses using the e-Learning Cooperative. Thus, it will be important that appropriate consultation occurs with the Commonwealth Campuses around prospective curricular changes at the undergraduate level.

We recognize that the College of Agricultural Sciences has significant and powerful external constituency pressures not faced by many other academic colleges at Penn State. The opinions of these constituents are important, and should be carefully weighed, but not allowed to lock in the status quo, which is no longer acceptable. President Spanier and I, Vice President Weidemann and other University leaders, stand ready to assist you in navigating these potentially choppy waters as College restructuring for the future occurs.

Recommendations

1. Consolidate Academic Departments

In the changing world of agriculture and life sciences more generally, our view is that the current College structure does not map well to the needs of the College today and going forward. We believe that the reorganization proposed below, or something like it, will position the College much better for the increasingly interdisciplinary world of agricultural science research and the changing dynamics of the American and global food and fiber system. It will enable the College to build more nationally recognized programs, broaden the scope and appeal of its majors, create critical mass, and be more efficient and effective in instruction, research, and Cooperative Extension.

Our peers are having the same discussions, and we believe that the College could be a national leader if it makes appropriate organizational and programmatic changes. Scale, scope, and synergy will be important elements in the future. It is instructive that Penn State’s top NRC-rated plant science doctoral program was Plant Biology, an interdisciplinary program drawing faculty from both Agricultural Sciences and the Eberly
College of Science. Plant Pathology, Entomology, and Food Science also did reasonably well, but many of the smaller and narrower graduate programs of the College were not rated highly.

In your discussions with UPARCC and me, you have indicated that it would make sense to reorganize around functional lines, such as food, animals, and the environment. The **Core Council recommendation is that the College reconfigure its departmental structure from twelve departments to perhaps six or so departments to include a reconfigured and renamed agricultural economics and rural sociology department, a reconfigured and merged animal sciences department, a new ecology and ecosystem management department, a food sciences department, a reconfigured and merged plant sciences department, and a new agricultural production, engineering, and processing department.** This report outlines the rationale for these units and provides some suggestions about what the units would consist of, without getting into detail better reserved for further discussions.

We recommend that faculty groups around each area be formed with a clear charge to determine how these new units could best be formed, would function, and what their degree structure will look like. We also note that if these departmental rearrangements are to be successful, considerable attention will need to be given to spatial rearrangements so that merged departments can truly function as coherent units. This locational transition will no doubt take some time to accomplish.

**We will review each of these departments that we propose in the order listed above.**

**A. The Core Council recommends a reconfiguration of the existing Department of Agricultural Economics and Rural Sociology (AERS) into a department of community and economic development (CED) or similar nomenclature, adding some faculty from the current Department of Agricultural and Extension Education.**

The AERS department has reconfigured its programs around community and economic development in recent years, including a successful online masters degree and an undergraduate major in that area. It still maintains doctoral programs in Rural Sociology and in Agricultural, Environmental, and Regional Economics, both of which are small (20 to 30 students). Most of its faculty participate in the community and economic development area, and we recommend that future efforts be concentrated in this area, which seems to combine the two historical foci of the department. Human-environment interactions, which is an area of increasing global importance, is another emerging area where this unit has strength and is ripe for further development, such as the College’s participation in the intercollege dual title graduate degree in Human Dimensions of Natural Resources and the Environment. The department also offers a joint B.S. degree with Smeal College in agribusiness management, which has about 125 students, and would appear to fit well with a reconfigured CED department.

Our Rural Sociology group has some outstanding faculty, but the field appears to have run its course as a stand-alone discipline; only three rural sociology departments were ranked in the latest NRC report (a fourth was too small to rank). Other universities have either
combined their rural sociology group with the Department of Sociology or shifted the focus of this group more directly to align with a community and economic development theme.

**Relevant to this new CED unit, the Core Council recommends that the Department of Agricultural and Extension Education (AEE) be eliminated and its undergraduate and graduate programs be dropped or, in a few selected cases, reconfigured.**

With a budget of approximately $2.8 million in Commonwealth-appropriated funds and about $300,000 in federal funds (both numbers include benefits), the AEE department consists of 14 tenured and three untenured faculty and thirteen staff, many involved directly in the extension functions. With some exceptions, the department’s student credentials are characterized by low quality indicators and low enrollments. The department has two undergraduate major programs; Agricultural and Extension Education has only 14 majors (having declined from a high of 44) and the other, Agricultural Science, is an individualized interdisciplinary major where students pull together courses from other College offerings. The graduate program has nine doctoral students in Agricultural and Extension Education and about 30 masters students in programs in Agricultural and Extension Education and Youth and Family Education (the latter with only about 10 students). Concerns about the graduate programs size and quality were expressed in then-Dean Eva Pell’s 2004 Graduate Program Review.

The cost per student credit hour (SCH) in AEE is higher than the College average and research funds per FTE are very low relative to the rest of the College. Seventeen percent of the department’s courses were under-enrolled in Fall 2009 and 27 percent the prior Fall Semester.

A majority of state funding for this unit comes from research and extension lines, so eliminating the department would offer an opportunity to reduce those budgets as well as the general funds budget focused on instruction. Faculty from AEE should be merged with the CED faculty in the new combined unit or with other appropriate departmental homes, and AEE lines should be reduced over time through attrition and reassignment to a level commensurate with the prevailing instructional, research, and extension needs of the College.

As part of this restructuring, we recommend eliminating the Youth and Family Education masters degree program (10 students) and the Agricultural and Extension doctoral program (9 students). We suggest the College examine whether the Agricultural and Extension masters degrees (an MEd and MS totaling about 20 students) should be reconfigured as one interdepartmental degree or perhaps an online Masters of Professional Studies degree.

As noted, the BS in Agricultural and Extension Education is a very small degree. However, it is the only program in the Commonwealth training vocational agriculture teachers. You reported that there are about 10-15 vacancies annually in the 170 Pennsylvania school districts offering vocational agriculture training. This program is supported by $400,000 annually from the Pennsylvania Department of Education. We recommend that the program be moved to the new CED department and that collaboration
with the College of Education’s program in Workforce Education and Development be established to share instructional resources.

The interdepartmental Agricultural Sciences undergraduate degree should be relocated to another department if the College wishes to maintain it. With the reconfiguration of degrees in the College, it is possible that enrollment will drop further, setting the stage for future closure.

The Core Council also notes that the current Department of Agricultural and Extension Education has for many years been the most diverse among the College’s units in terms of its faculty and student profiles. Although we are recommending that the AEE faculty be dispersed to other departments within the College, and its majors be eliminated or reconfigured within other programs, the substantial and successful efforts to enhance diversity within AEE must not be lost, but rather built upon by all units within the College of Agricultural Sciences.

B. The Core Council recommends that the study of animal sciences be focused in one Animal Sciences department that would combine dairy and animal science, poultry science, and veterinary and biomedical science.

The Core Council believes there are tremendous synergies that can be achieved by combining these existing departments into one coherent unit, a unit that would build upon both commonalities and natural interdisciplinary linkages between these currently separate units. Animal Science was not highly ranked in the recent NRC doctoral program assessment; however, several new faculty, some of whom have won considerable competitive extramural funding, have been hired since 2006 when the NRC data were compiled. Pathobiology, offered in Veterinary and Biomedical Sciences, was one of the College’s top quartile programs.

In the Animal Sciences major, the BS degree enrollments are very healthy, but the Science Option in the major has considerable overlap with the Veterinary and Biomedical Sciences major. Graduate programs are languishing with 11 and 10 students in the MS and PhD programs, respectively.

The Department of Poultry Science has no freestanding undergraduate or graduate degrees, although it does have a minor. The department has a very limited instructional mission, teaching about 600 SCH per year. All three of its Fall 2009 courses were under-enrolled. A minor in Poultry Science could continue to exist under the Animal Sciences major, and course enrollments may increase under this broader umbrella.

As part of this reorganization, the College should continue working to build stronger ties to the faculty with basic biomedical expertise to the Department of Biochemistry and Molecular Biology in the Eberly College of Science where significant research synergies exist. Faculty should also establish stronger research ties to College of Medicine faculty at Hershey and the new Medicine faculty who will be based at University Park.

The reconfigured Department of Animal Sciences should contain an undergraduate major
that would bring together the largely duplicative current major in Veterinary and Biomedical Sciences and the Animal Sciences majors, perhaps with newly defined options (given the popularity of veterinary sciences and the significance of other areas to key constituents). It should also contain an Animal Sciences graduate program.

C. The Core Council recommends the creation of a department of ecology and ecosystem management, to incorporate both undergraduate and graduate programs.

The College’s research and teaching mission has long focused on ecology and the environment. A department of ecology and ecosystem management (or equivalent name) would bring together the College’s faculty whose work focuses on this topic. This important area of ecology, now meshing with new interests in sustainability and the environment, would be given a higher profile within the University. Faculty in forest management, watershed management, and wildlife and fisheries management could be at the core of this new unit, but faculty in other areas of the College who have an ecological focus would also be integral. This configuration might include some of the resource economists and rural sociologists interested in the human dimensions of managing natural resources. The department could also develop collaborative appointments with interested faculty in other Agricultural Sciences’ departments and other colleges and campuses.

The College’s undergraduate Environmental Resource Management degree should be situated in this proposed department. The existing undergraduate majors in Forest Science and Wildlife and Fisheries Science would also be part of this new department. The ecology-focused undergraduate majors in other units are not attracting many students, so there may be opportunities to reconfigure those programs in this new unit, too. To be resolved is the low-enrollment Wood Products major currently offered through the School of Forest Resources. At the graduate level, currently, the Wildlife and Fisheries Science doctorate is very small (15 MS and 7 PhD students), as is the Forest Resources graduate program (8 MS and 12 PhD students). The new unit would need to reconfigure its graduate degrees and, of course, be a participant in the overall life science reorganization, noted below. In 2004, then-Dean Pell suggested that consideration be given to merging the Wildlife and Fisheries graduate program into the IGDP in Ecology. The MAg and MFR programs in Forest Resources should be eliminated (only 1 MAg and 9 MFRs have been granted in the past five years.)

D. The Core Council recommends that the Department of Food Sciences retain its current configuration, although some faculty may fit better in the agricultural production unit described below.

There is a wealth of opportunity for this department to address emerging issues beyond its current portfolio of research, education, and outreach priorities. The relationship among food, diet, and human health will be a key societal focus for decades to come, and the Department of Food Science should play a leadership role in focusing the College and University expertise in this area. The department should build close and synergistic relationships with the College of Health and Human Development and the College of Medicine to address diet-related chronic health issues. With continued reliance on post-production food processing, the department is ideally positioned to assume a leadership
role in working with industry to provide science-based input to the private sector that will result in improved health prospects for the world’s citizens. Close interaction with the University Health Sciences Council, the Huck Institutes for the Life Sciences, and the Social Science Research Institute to define research and education agendas is warranted.

Food safety is also a key societal need, and the department should partner with reorganized animal science and plant science departments, the Department of Agricultural and Biological Engineering, and relevant units with the College of Engineering to ensure farm-to-fork thinking about food safety and to leverage expertise on engineering aspects including processing and sensors.

The Department of Food Science might also thoughtfully engage with the extensive supply chain expertise in Penn State’s Smeal College of Business, particularly regarding possibilities for enhanced student learning opportunities.

**E: We recommend the creation of a plant sciences department containing faculty from the existing Departments of Horticulture, Crop and Soil Sciences, and Plant Pathology; such a unit might also include the current Department of Entomology.**

Currently, the departments focusing on plants—Horticulture, Plant Pathology, Crop and Soil Sciences, and Entomology—have many small programs, some of high quality and others that are not highly rated. Two departments, Entomology and Plant Pathology, have no undergraduate majors; the other two have small undergraduate majors. Crop and Soil Sciences has one undergraduate major program and participates in another joint degree while Horticulture has two major programs, with most students in the Landscape Contracting major (the Horticulture major has only about 30 students, half of what it had a decade ago). These departments have many under-enrolled courses, including 21 percent in Crop and Soil Sciences, 18 percent in Entomology, and 13 percent in Horticulture, for example.

The graduate programs in these departments are also small; together, there are only about 90 doctoral and 28 masters students in the four departments. In 2004, after a review of graduate programs, Dr. Pell called attention to the long standing nature of the problems in these plant-related graduate programs and called for “bold changes in the current structure” of these units. Obviously, that has not happened. In her letter to then-Dean Bob Steele on May 18, 2004, she asked that the College “seriously consider terminating the Agronomy program and perhaps also the Soil Science program.” The Agronomy graduate program continues to limp along; there are eight students in the doctoral program and seven in the masters program, about the same as in 2004. It was not submitted for ranking in the 2010 NRC assessment, presumably because of this small size. Soil Science also remains with 17 doctoral and eight masters students. Dr. Pell also raised questions about the size and quality of the Horticulture program, and recommended the MAgr be closed (since then, it has granted only two degrees).

As Agricultural Sciences programs in these areas have persisted, a new set of life science degrees in Integrative Biosciences (IBIOS) have sprung up and existing intercollege programs in related areas have continued to thrive. Many College faculty participate in,
and some lead, these programs (and other intercollege programs such as Ecology, Genetics, and Plant Biology). Thus, there are significant opportunities to merge and reorganize college graduate programs.

We believe that reorganization of these departments will not only save resources and provide a better platform for more integrated instructional programs, it will also provide a better support structure for research. We know that these departments provide a significant extension function, so it is likely that combining resources might make those activities more cost effective, too.

A reconfigured plant sciences department could serve as the home for an interdisciplinary undergraduate plant sciences major. Based on past experience, we think that such a major will only be viable and productive if there is a department to nurture it. We know that you have already assembled a faculty group to study such a major and include various options that might exist within it. Such a major could replace several of the existing small majors in individual plant science-related departments, including the BS in Agroecology (11 students), Environmental Soil Science (10 students), and Horticulture (29 students, but on a declining path from 60 a decade ago). Turfgrass Science and Landscape Contracting seem distinctive and further analysis is needed to determine if these programs would fit best with the plant sciences department or another reconfigured unit. Some consultation should occur with the Department of Biology as well, given their Plant Science option.

At the graduate level, Dr. Pell called for merging programs and developing options within them. It certainly is appropriate that this unit have its own graduate programs, reconfigured as she suggested in 2004. In addition to College action on its graduate programs, this discussion should be part of the larger discussion about the life sciences graduate programs. Based on a Core Council recommendation in the case of another college, and with my support, Vice President Foley will soon appoint an interdisciplinary committee to make recommendations on rationalizing our large array of life science programs that now exist in departments, through IBIOS, and in the intercollege programs.

In the context of overall reconfiguration of the graduate programs in these units, we recommend the closure of the MAgr degree in Agronomy (three degrees have been awarded in the past five years), seconding Dr. Pell’s recommendations.

Although we have made specific recommendations about a number of graduate programs, echoing earlier recommendations, the Core Council is mindful that departmental reorganizations should precede action on graduate programs, inasmuch as the latter are likely to be affected by the former in ways that we cannot now anticipate. Also, we believe that decisions must be based upon careful evaluation of relationships between departmental and intercollege programs. It is surely no accident that all units currently engaged in the applied animal sciences, ecology and ecosystem management, and applied plant sciences participate heavily in intercollege programs that represent basic sciences (e.g., Ecology, Genetics, IBIOS, Plant Biology, Physiology, and Plant Physiology). Data for the past four years show that the College’s life-science related units, those focusing on animals, insects, and plants, on average produce one “intercollege” PhD for every 1.7 “unit-program” PhD’s. At its best, this integration of applied and basic sciences in
graduate training is healthy for a college whose principal strategic strength is in the application of science to solving real-world food and fiber problems. For such units, it is logical to regard the graduate program as all of the students directly supervised by its faculty, not just those in the home major, and having majors of both types is vital.

F. The Core Council recommends forming a department to focus on agricultural production, engineering, and processing systems. This department could include such groups as wood products and those studying the business and marketing of crop and animal production as well as engineers in the current Department of Agricultural and Biological Engineering (ABE). The ABE department currently straddles the Colleges of Engineering and Agricultural Sciences, and has done so since a Memorandum of Understanding was executed in 1954. As you explained to UPARCC, ABE students generally consider themselves engineers and they graduate at the College of Engineering ceremony, although the program is situated administratively in the College of Agricultural Sciences. You’ve indicated to the Council that the department has strong connections to Cooperative Extension, and considerable involvement with the Penn State Institutes for Energy and the Environment and the Huck Institutes.

The department could be moved to the College of Engineering (minus the Agricultural Systems Management degree), but this move would likely diminish the Extension connections. It would not save resources to simply recreate the department in another college, although it would remove a somewhat anomalous placement. Or, as we suggest here, the faculty could become part of a larger unit focusing on agricultural production systems. The following recommendations assume this latter path and the consolidation of the current department into a larger unit.

The proposed production systems-related department may be a good home for the Agribusiness Management degree, now in the Department of Agricultural Economics and Rural Sociology, and Agricultural Systems Management noted previously in ABE. These two majors seem to have some overlap currently. If the ABE unit became part of this new department, obviously undergraduate and graduate ABE engineering majors would come with them.

Considerable re-visions of a department such as that recommended here will be necessary to establish a strong core to realize its potential in research and instruction, as well as its historically strong role in Cooperative Extension.

We now move to some other issues outside the departmental structure issues.

2. Under-enrolled Courses. With the many small programs in the College, it is not surprising there are many under-enrolled sections—more than 13 percent of all sections in the College. This is well above the University average of 9.7 percent. As noted previously, under enrollment is particularly high in Agricultural Extension Education, Crop and Soil Sciences, Entomology, and Forest Resources, and it is higher than the University average in all departments except Agricultural and Biological Engineering and Dairy and Animal Sciences.
Given that we have recommended wholesale structural reorganization and merging and eliminating several degree programs, the patterns of under-enrollment will undoubtedly change with reorganization and under-enrollment should be substantially reduced. Fewer small competing programs with separate requirements should make better use of instructional resources. We recommend that you and your leadership team evaluate this issue after undergraduate and graduate degrees have been reconfigured.

3. **University-wide Life Science Reorganization.** We must elevate the discussion of reorganizing the life sciences graduate programs to a higher level with a clear direction. We believe that a reorganization of the intercollege and IBIOS programs that Vice President Foley’s committee will address, should have a salutary effect on the College of Agricultural Sciences’ graduate programs as well as those in other colleges.

4. **New Revenue Generation.** The College of Agricultural Sciences was a pioneer in World Campus programming with the Turfgrass Science programs, which remain very popular and successful today. We believe there remain significant opportunities, and we encourage the College to move ahead on its newer World Campus plans. It has a successful online MPS in Community and Economic Development and is planning to be part of the Homeland Security MPS. The Council recommends that the College find other opportunities for World Campus revenue generating programs in its core fields, including in some of its reorganized degrees.

5. **College Land and Animal Resources.** The Council commends you for the actions that you have already taken in the College to become more efficient in the management of the College’s extensive land and animal holdings, including the more centralized and streamlined management program for land holdings (including forested land) rather than relying on numerous departments to co-manage land in an often uncoordinated way.

We are also pleased that you have launched a process to review the College’s holdings of flocks and herds. We recommend that the College divest itself of all animals except those essential to its teaching, research, and extension missions. We are certain that this, along with the actions you have already taken in managing land and animal resources more effectively, will lead to significant savings in staff, infrastructure, and capital costs while creating new efficiencies in usage.

The College should consider a fee structure, where it is appropriate, for its animals and animal facilities used in instruction. An obvious example is in the popular equine science minor. Should the College wish to continue these, it should establish a fee to help cover the costs of maintaining the horses and hiring the instructors.

Given its sales of goods and services, the College is greatly affected by the process for approvals of rate increases. The Council has noted your comments that University processing time on requests for approvals of rate changes is very long, even when the charges are small. Other areas of the University affected by this cumbersome process also have complained about inordinate delays and roadblocks in getting permission for small fees associated with minor events and tours. It has taken more than a year for some units at the University to receive rate approvals, and Al Horvath and I will discuss potential
changes we might make to expedite this process in order to improve revenue generation prospects and timeliness.

6. Cooperative Extension. The College of Agricultural Sciences has had a rich legacy of applying evidence-based interventions to a plethora of agricultural issues across the Commonwealth and beyond. As a result, the research of the College’s faculty has played a critical role in advancing Pennsylvania as a national leader in agricultural production. Aside from research funding, Extension faculty currently bring in about $16.5 million each year in competitive grants and contracts for translational research and program development in connection with their Extension responsibilities. Such work demonstrates obvious connections between Extension and University-based scholarship, and helps to legitimize Cooperative Extension as a core University mission.

And, at the same time, there are more voices both nationally and locally calling for change in traditional extension practices, administrative structures, and fiscal models. This is due to pressing budget challenges, coupled with evolving expectations for universities to respond to complex societal issues beyond cooperative extension’s traditional agricultural expertise. Thus universities are considering innovative delivery models, such as consolidating offices and moving to regional models, focusing programming on fewer key issues, and including non-agricultural programming and academic partners from many other colleges across the university. The problems of the existing cooperative extension model have been discussed many times, but we describe them briefly below as a context for our Core Council recommendations.

As you know well, the current model embeds Cooperative Extension’s funding into the College’s budget, administrative and academic structure, funding portions of many core academic and administrative positions and College functions with Extension dollars (the same is true of Agricultural Research dollars). During positive budget periods, the College benefits from this fiscal integration; however, during times of financial shortfalls, this model amplifies the College’s budget challenges because decreases in Extension funding cannot be offset by increases in tuition dollars. That means, for example, salary and benefits increases must come from level or declining Extension funds. Gradually extricating the Extension budget from College core faculty and staff lines would provide more flexibility for the College in dealing with state appropriation fluctuations. Some of the consolidations and cuts proposed here might offer an opportunity to begin this admittedly slow process of extrication.

It appears that there are many current Extension activities that do not have a solid research basis within Penn State, and may be driven by various political priorities, county dollars, or perhaps just inertia. In this age where almost anyone can consult the web to answer a question, our Cooperative Extension mission and efforts should be based squarely upon the scholarly expertise and research of our Penn State faculty, both inside and outside the College.

We know from our conversations that you agree there are currently too many Extension programs focusing on too many issues and trying to meet the demands of too many stakeholders. The establishment of the new Natural Work Groups (NWGs) you and your
leadership team have created around key extension topics is a step toward greater programming focus on key Commonwealth issues. However, the number of NWGs (now 18) remains too large to have the kind of focus and impact that will be necessary in the future. These groups also have relatively limited engagement with other colleges and campuses across Penn State.

It is clearly a fiscal challenge to operate offices in every Pennsylvania county, although such coverage has contributed to the relatively strong financial support from counties (around $13 million plus substantial in-kind support). Some of that support would not be needed, however, if the College moved to a structure that focused on improved, possibly technologically enhanced, delivery systems from regional centers that reach into every county in its activities but not in office locations. We are aware that the College is considering streamlined delivery models that are being implemented by many peer Land Grant institutions to provide programming coverage without an extension director/staff in each county. These will assuredly be difficult decisions and changes because of the strong support that many counties have traditionally provided Cooperative Extension offices through the provision of staff, space, and other resources.

The Core Council can provide only limited recommendations regarding the details of Extension programming. However, based on our deliberations and those of the Land Grant Mission Task Force, we do provide some general recommendations to address the problems enumerated above. Cooperative Extension must clearly remain a key part of the College of Agricultural Sciences mission. It is embedded in the College’s culture and history and continues to provide vital services to the Commonwealth. At the same time, the College’s financial dependence on Extension funds must be reduced as funding shrinks or stays constant as personnel and other expenses increase. Moreover, it will be useful to offer more faculty in other parts of the institution opportunities to participate in Extension programming on topics vital to the state’s well being.

We recommend an updated review of Extension programs be done with the objective of identifying those that are outdated, no longer reflect the research activities of Penn State faculty, or no longer reflect strategic foci of Extension now being developed. This would be an important step in determining what we should be doing and what we can afford to do. Subsequently, we recommend pruning those Extension programs not based on Penn State research or not central to our mission and not strategically important. You have indicated that you and your leadership team plan to reduce the number of these issue-focused working groups, and we recommend this be accomplished expeditiously.

Although free services in some activities and to some audiences should continue, we recommend that Cooperative Extension accelerate its efforts to develop pricing for some of its programming that are appropriate to “private goods and services.” Individually small amounts of revenue that can be easily and efficiently collected can help to offset delivery costs significantly.

The Core Council recommends that plans be developed and implemented to modify the current practice of supporting an Extension office in each county. We understand that the issue of county-based funding is an important consideration in consolidation, but the focus of the discussion needs to shift to the quality of programs delivered to county residents and
away from where an office is located. We also recommend developing plans to 
consolidate Commonwealth Campus and Outreach offices where it is feasible. This would 
bring greater visibility to Penn State’s campuses, increase opportunities for collaboration 
with campus faculties, and also provide a clear indication that Cooperative Extension is a 
PSU-led enterprise.

The enhanced revenue and reduced costs from restructuring Cooperative Extension could 
provide seed money for leveraging faculty expertise in other colleges and campuses. Thus, 
we recommend that a financial model and structure be developed in collaboration with 
Outreach to stimulate Extension activities of faculty in other areas of the university, for 
example, those involved in energy and health. We are not advocating a parallel extension 
structure in each college or campus. Perhaps we might consider some variation of our 
cross-college institute models that provide support to involve faculty in other colleges and 
campuses for specific tasks. Even 1.0 percent of the current Extension budget could 
provide support for several such faculty. This is just one kind of model, however, and 
there may be better ideas that would allow the College of Agricultural Sciences to remain 
the focus of Extension activity while generating relevant participation from other faculty 
across the entire University.

Concluding Comments. These are clearly challenging times for the College of 
Agricultural Sciences, and the Core Council recognizes that significant structural and 
budgetary changes must occur at a very rapid pace. It is a time for bold changes—bold 
changes to position the College for what will undoubtedly be an era when resources will be 
increasingly scarce while expectations for the College remain high. Facing these 
challenges will require focus and streamlining and, in some cases, a smaller, leaner 
enterprise. The College has long been a hallmark of Penn State’s mission and traditions, a 
“can-do” organization where excellence can be enhanced in the years ahead.

Please report back to the Core Council the actions that have been or will be taken in response 
to these recommendations by May 1, 2011.