

Master Plan Milestones 2015

Two years into implementation

I. Purpose and Background

The strategic plan for the College of Agriculture and Natural Resources, the *CANR Master Plan*, was finalized at the end of 2013 after thorough vetting and editing based on input from faculty, staff, students and stakeholders. It is a “living document”, meaning that it should be periodically revisited and updated over time. Therefore, in August 2015, an administrative retreat was held to revisit the plan for the first time and review the accomplishments and milestones reached after two years of implementation. All unit leaders in the college were represented at the retreat, and each presented the accomplishments of their units toward many of the stated goals in the *Master Plan*. In addition, a Town Hall meeting of faculty and staff was held on November 5th, 2015 to obtain additional feedback on our progress. This document - *Master Plan Milestones 2015* – charts our progress toward implementing change in the college stemming from the *CANR Master Plan*.

II. A Word about Implementation

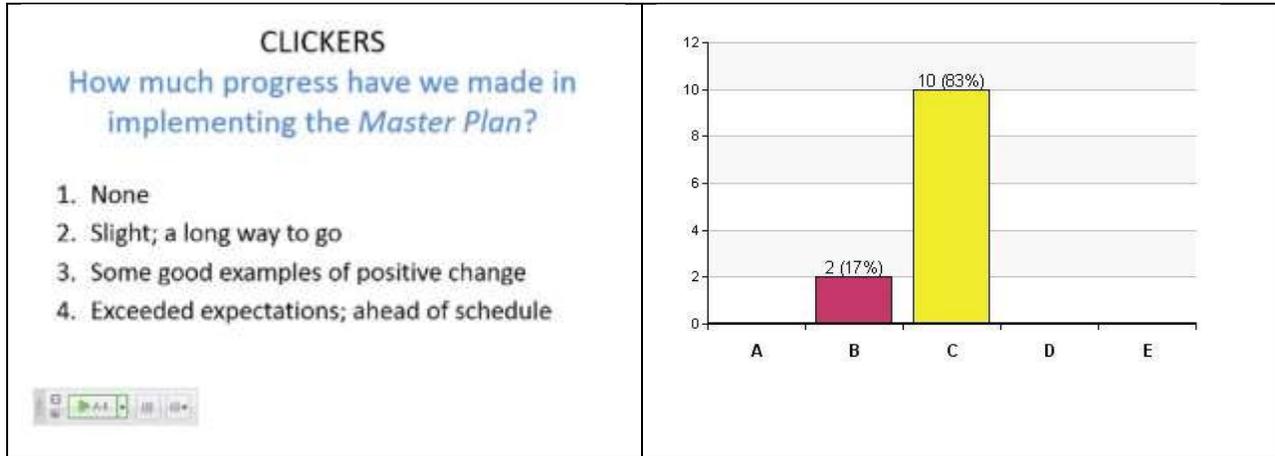
In 2013 as the *Master Plan* was drafted, we considered the “what” and “why” questions only; what type of a college do we aspire to be in the future and why? In 2014 as we entered the implementation phase, we tackled questions of “how” and “when”; how we will prioritize our goals to bring positive change to the college, and when will we begin working on each goal? A framework for implementation was adopted based on the book *The 4 Disciplines of Execution*, abbreviated “4DX” (McChesney, Covey and Huling. 2012. Free Press, ISBN 978-1-4516-2705-3). The four disciplines are:

- Focus on the wildly important
- Act on the lead measures
- Keep a compelling scoreboard
- Create a cadence of accountability

The first is the most important discipline – *focus*. Each unit leader was asked to declare one “wildly important goal”, or WIG, for their unit. The authors of 4DX contend that by focusing primarily on one goal, meaningful, visible progress can be made on the main issue facing the unit, as opposed to attempting to make some progress on multiple goals at once. In the latter case, strategic plans often fail. This does not mean that other goals are ignored, but simply that, at any given time, one goal is relentlessly pursued with a definite timeline for completion and measurable outcomes. When one WIG is completed, another is adopted and the process repeated. Therefore, at monthly administrative team meetings throughout 2014 and 2015, each unit leader provided a WIG update to keep everyone aware of their progress (addressing the scorecard and accountability disciplines). The 2014-15 WIGs for each unit are provided in Appendix I of this document. The 4DX philosophy has been and will continue to be a key component of strategic goal implementation in the college.

III. Master Plan - Goals Progress Assessment

To start the 12 August 2015 administrative team retreat, all unit leaders in the college were asked how much progress they felt we had made on implementing the Master Plan, and their responses were recorded with clickers (at right):



As the data show, most unit leaders felt that there had been “some good examples of positive change” during the first two years of implementation. At the 5 November 2015 Town Hall, the majority of faculty and staff present gave a similar response. This document will highlight such examples in specific areas, and also address areas that require future attention.

A. Teaching

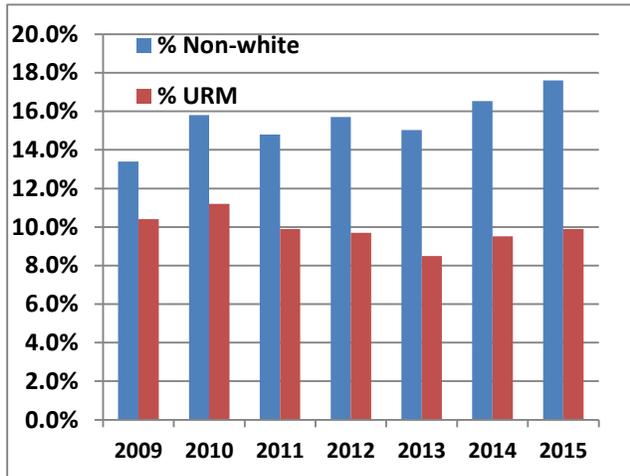
Well before the *Master Plan* was written, the college was focused on growing and diversifying enrollment at both the undergraduate and graduate levels. With nearly two jobs for every graduate in agriculture and natural resource disciplines, we can and must do a better job of supplying society with workforce-ready graduates. With this in mind, the dean announced a “15 by 15” initiative in the fall of 2012, setting a goal to raise enrollment 15% by fall of 2015. Table 1 provides a summary of progress.

Table 1. Trends in enrollment metrics over the four most recent years.

CANR enrollment metrics	FY12	FY13	FY14	FY15	% change
Incoming class size	158	163	189	178	12.7%
Student Credit Hours taught	17,136	18,478	19,936	20,076	17.1%
Undergraduate headcount	702	702	715	760	8.2%
Graduate headcount	168	178	188	208	23.8%

Positive trends in enrollment have occurred since FY12. The incoming class size increased by 12.7%, falling just short of the 15% goal. Student Credit Hour production increased by more than 15%, double

the rate of increase in undergraduate majors, suggesting that students from outside of the college were being attracted to our courses. Graduate enrollment greatly exceeded expectation at well over 20% in just three years, suggesting that the robust research and graduate education effort in the college has continued. Overall, the enrollment trajectory is positive, indicating that we are on the right track in meeting the important goal of producing more graduates in our disciplines. Now that the “15 by 15” effort is behind us, we need to set new quantitative enrollment goals for the college.

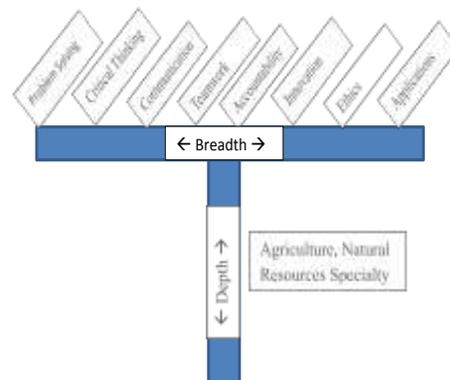


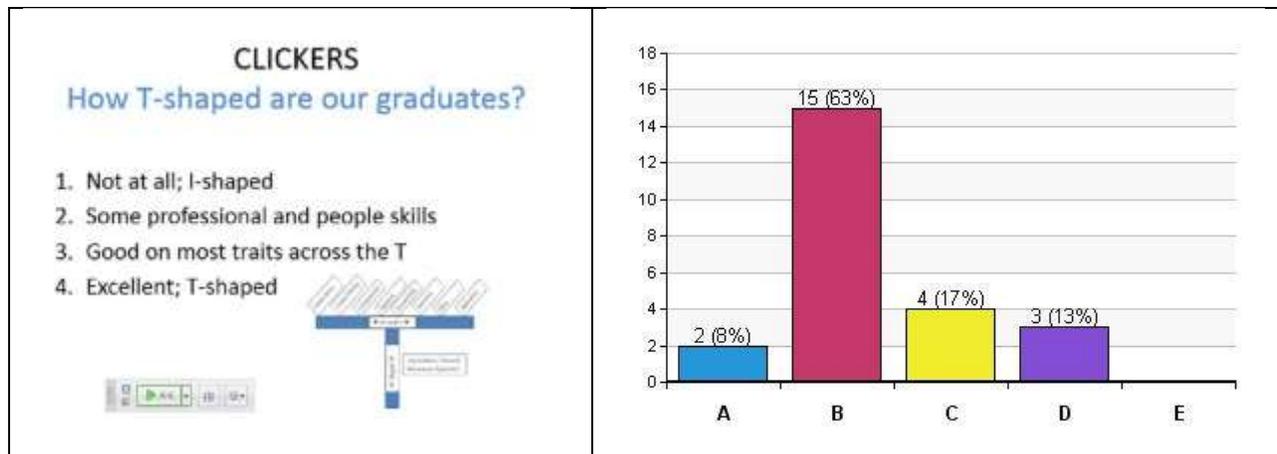
As illustrated in Figure 1, undergraduate enrollment has trended toward becoming more diverse in recent years. The non-white student population reached 16% two years ago, and appears to be significantly above historical levels. However, we must do better at recruiting underrepresented groups to the college as the URM enrollment appears to be static at 10±1%.

Figure 1. Historical trend of the non-white undergraduate and underrepresented minority student populations in the college. (URM = African American, Hispanic, Pacific Islander and Native American)

The underrepresented minority population at the graduate level has remained flat at ~3% for the last five years. It is less than half of the UD average of 7.5%, suggesting that we need to redouble our efforts on graduate student diversity in the coming years. In FY14, we created the CANR Diversity Initiative, assigning it an initial \$50,000 budget line. The Initiative includes the *AGcelerate* retention and the Summer Institute recruiting programs. In FY16, Diversity Initiative funds are supporting an MS student in Sociology to further our efforts to recruit and retain minority students.

Another important goal was to create “T-shaped” students by stressing professional and people skills development within our curricula. A T-shaped student has the workplace skills that employers desire (the top of the T) as well as sufficient depth of knowledge in a given discipline (the stem of the T). As the faculty/staff poll results show (below), we believe we are making progress in this area, but there is clearly room to do more. A related question on graduate students asked whether learning outcomes were broad enough to prepare graduates for careers. The faculty/staff group was evenly split on this question, differing from the administrative team membership who felt that outcomes for graduate students were broad enough. Again, there is room for improvement in enhancing learning outcomes for all of our students.





Several other goals related to growing and diversifying enrollment were defined in the *Master Plan* and Appendix II provides a brief overview of the progress in these areas.

B. Research

Historically, research has been strong in the college and continues to increase in both quantity and quality. To underscore our commitment to selective excellence in the *Master Plan*, we defined five unique strengths in research, around which we will maintain or build programs moving forward:

1. Genetics and genomics
2. Mitigation, adaptation to climate change
3. “One health”, interrelationships in the health of humans, animals, plants and ecosystems
4. Sustainable food systems, landscapes and ecosystems
5. Human dimensions of agriculture and natural resources

Three questions were posed to the retreat and town hall groups regarding progress toward achieving excellence in the five unique strengths. Seventy-five percent of the administrative team felt that we had achieved excellence in three of the five areas. However, about half of the faculty/staff group felt that we had achieved excellence in only one of five areas, with the other half of the group casting votes for two, three or four areas achieving excellence. Further questions revealed that the college’s main research strength was thought to be (1) genetics and genomics, although a considerable number of people polled from both groups indicated excellence in (4) sustainable food systems, landscapes and ecosystems. Asked another way, i.e., which areas were furthest from excellence, reinforced that areas (2) mitigation and adaptation to climate change, and (3) “one health”, were not perceived as reaching excellence at this time. A smaller amount of faculty/staff voted that excellence had been achieved in (5) human dimensions of agriculture and natural resources, but this work is concentrated in one department (Applied Economics and Statistics) and this group was not widely represented at the town hall or the retreat. Further discussion and analysis shed some light on these polling results. In the college’s *2015 USDA Plan of Work Report*, there was an opportunity for faculty to self-identify with one or more of the stated unique strengths. In this analysis, over 40% of the research FTE in the college were reported to fall into unique strengths (2) or (3), suggesting that there is no lack of quantity or quality of individual programs that align with these areas, but rather a lack of recognition of the areas as being focused, unique strengths in the college. Thus, it may be that unique strengths in climate change and “one

health” have not been effectively communicated throughout the college, or that these areas are still maturing.

C. Extension

Cooperative Extension is strong and the most visible aspect of CANR from the viewpoint of external stakeholders. Now, after UD has achieved its distinguished Carnegie Engaged University status, Cooperative Extension will be a foundation upon which the university grows its engagement efforts. The *Master Plan* defines a number of goals for Extension (Appendix II). One major goal is to create and implement a more sustainable funding model, as our costs have increased while state and federal appropriations have remained largely flat. To that end, Figure 2 shows a strong increase in grant funding to support cooperative extension programs in the last three years. It should be noted that Cooperative Extension was one of only a few units to complete their Wildly Important Goal within the first two years of implementation, and Director Michelle Rodgers and her implementation staff were the key drivers in completing this work. They implemented a new planning and reporting system to facilitate impact reporting in Extension. Another goal was to move select programs, such as the Master Gardener program, from county-based to statewide delivery, which they have been doing with the aid of Adobe Zoom, a synchronous online collaboration platform.

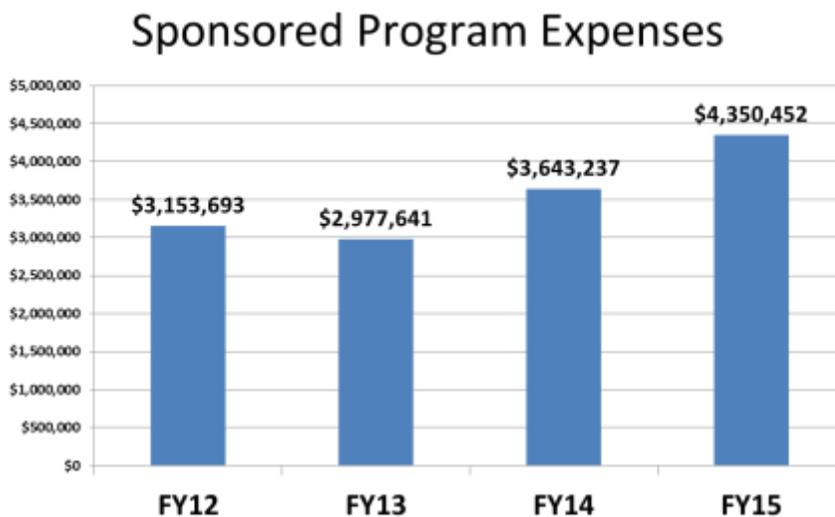


Figure 2. Four-year trend in grant funding for Cooperative Extension.

D. Space

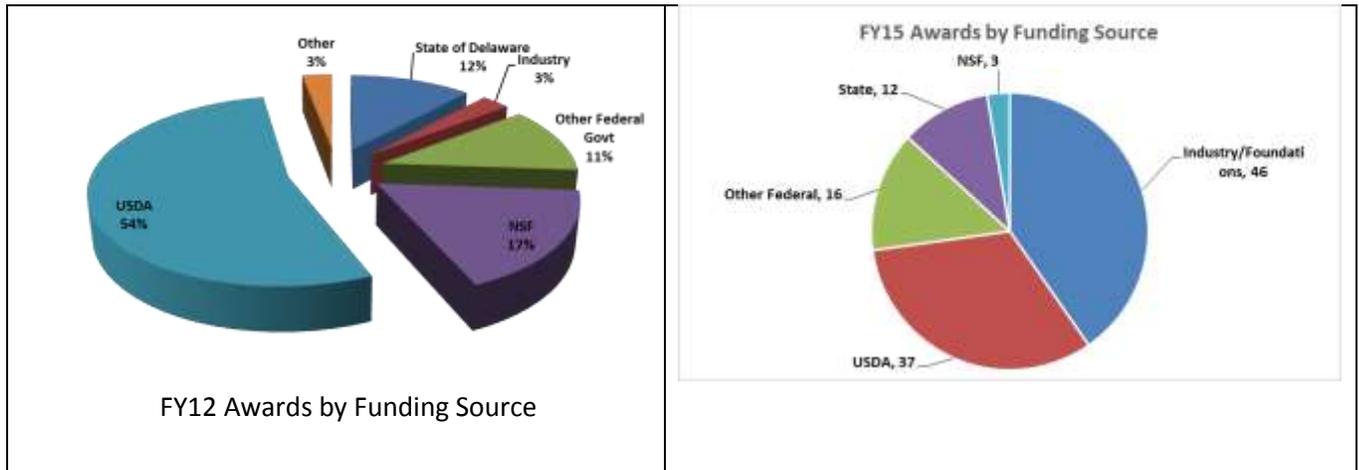
Physical infrastructure is a major focus of the *Master Plan* because of the indirect effects it has on the quality and capacity of work that we do, and on the ability to attract and retain the most talented students, faculty and staff. We have made significant progress in planning for a Worrlow Hall renovation, and in making minor upgrades to other spaces Townsend Hall (Appendix II).

One goal that we have not made progress on to date relates to our outdoor spaces, namely the Newark and Thurman Adams farms. Clearly, these are among our most valuable assets. By a margin of ~10:1, both the administrative team and the faculty/staff group felt that we needed to have formal plans in place to ensure the future of the farms. This is an issue that should be addressed in the 2016 academic year, beginning with a revision of *Land Use Planning for Our Future*, a document produced by CANR administration in 2004 for precisely this purpose.

E. Budget

Our budget must align with our goals in order to have the resources available to make progress. A section of the *Master Plan* outlined goals and principles for budgeting, as several changes were being considered simultaneously to improve the college’s financial position. Significant progress has been made on improving the college’s budget in just two years (Appendix II).

In terms of sponsored programs, we sought to diversify the portfolio of sponsorship because it appeared that we were exceedingly dependent on federal agency funding in 2012. However, this was misleading as small grants and contracts were not accounted for in 2012, but were in 2015, resulting in a clearer picture of our funding portfolio, which is indeed diversified. Also, a few, large NSF awards were in existence in FY12 but not in FY15, resulting in a shift away from federal agency dominance of the portfolio.



The college has maintained a strong overall position in sponsored programs, which shows an uptick in both total expenditures and F&A in Fiscal 2015. CANR is ranked 3rd among all colleges at UD, but has the second smallest number of faculty.

	2012	2013	2014	2015
Expenditures	\$26.1M	\$26.9M	\$26.4M	\$28.2M (+7%)
F&A	\$2.5M	\$2.4M	\$2.6M	\$2.75M (+10%)

IV. Conclusions and Next Steps

As the preceding discussion has shown, we've begun to address many of the goals set forth in the 2013 CANR *Master Plan*. Given the 25 year timeline for the *Master Plan*, it is reassuring that such clear and measurable progress has begun, but also not surprising that we have much more work to do to reach our ultimate goals. Importantly, several units have either completed their Wildly Important Goals or have made significant progress, suggesting that the implementation plan is working. In the coming years, we must continue to progress with the same tenacity as we have seen during the first two years, pausing periodically to assess our accomplishments. The next *Milestones* document will be produced in late 2017.

We are thankful for the efforts and support of all of the faculty, staff, students and stakeholders that worked on this initial phase of implementation.

Appendix I. 2014-15 Wildly Important Goals (WIGs) for programmatic and support units in the college

Unit	Wildly Important Goal (WIG)
Dean	As Dean: Worrilow Hall renovation planning As Professor: Develop and teach <i>Organic and Sustainable Farming</i> (done, spring 2015)
Cooperative Extension	Implement a new Planning and Reporting System (done, spring 2015)
Research & Graduate Programs	Raise the visibility and awareness of the research and graduate education activities of the College with external audiences
Animal and Food Sciences	Revise Animal and Food Science major
Applied Economics and Statistics	Develop an online statistics program
Entomology and Wildlife Ecology	Improve graduate student professional development and success
Plant and Soil Sciences	Develop a Genomic Sciences curriculum
Carvel Research & Education Center	Enhance the role of the Carvel Center in student recruiting, teaching
Business Operations	Improve HR function of the Business Office; author a section of the CANR Policy and Procedures manual on HR
Communications	Increase the visibility of the college to internal and external stakeholders; form a college communications advisory committee
Facilities	Address deferred maintenance issues within the college
Grants and Contracts	Foster the development of a college-wide grants and contracts team via a LEAN improvement process
Information Technology	Enhance the security and functionality of the college's IT infrastructure
Undergraduate Student Services	Improve academic success in undergraduates through peer mentoring and other initiatives

Appendix II. Master Plan goals and selected examples of progress

Teaching Goals	Examples of progress
Grow Professional Master’s degree programs	Greater enrollment in the Masters of Statistics program, possibilities for online program development being considered.
Create a PhD program in Applied Economics	<u>This was the WIG for the APEC department;</u> curriculum is now being considered.
Create a teaching program in genomic sciences	<u>This is the PLSC WIG;</u> a Unidel grant for \$500,000 has been awarded to help start the program.
Create a series of “4+1” programs	The Agricultural Education Master’s program has been modified to allow/encourage 5-year completion through deep tuition discounting.
Reach students in other colleges through service courses, minors, internships, and extracurricular activities	Student Credit Hour production has increased at double the rate of undergraduate enrollment growth; new minors in Equine Science and Statistical Data Analytics are reaching students outside the college; the Newark Farm, Extension and Creamery provide internships for students from CANR and other colleges.
Create streamlined, flexible curricula	Revisions are completed or ongoing in three of four departments at the undergraduate level.
Online and hybrid delivery	Opportunity for an online MS degree in statistics being explored; online courses in food science, soil science and statistics are being offered.
Greater collaboration across and outside of the college.	Genomic Sciences under development; a new minor in beverage management with Hotel, Restaurant and Institutional Management being explored; Lerner College of Business and Economics, Horn Entrepreneurship Program involvement with UDairy Creamery; increased enrollment in Bioinformatics and Water Science and Policy graduate programs.
Research Goal	Examples of progress
Support research with excellent facilities and core support units	Lasher Lab renovated and new research labs installed at Carvel Center; WorriLOW renovation planning (Dean’s WIG); new Center for Experimental and Applied Economics in Townsend Hall; Large Animal Barn, Allen Lab and Poultry Unit renovations in Newark; increased space utilization from Insectary and OA Newton Building renovations; increased IT budget and improved IT infrastructure; increased F&A and cost recovery from grants; increased financial independence of core facilities.
Promote interdisciplinary approaches to research and collaborate with partners outside of the	Delmarva Land Grant Collaborative program in 2 nd cycle of funding; BASF, DuPont, Dow and FDA

college	collaborations strengthening; potential for an interdisciplinary Microbiology program being explored.
Extension Goal	Examples of progress
Create a statewide focus and structure to Extension programming	Statewide initiatives in Master Gardener, Beginning Farmer, and 4-H programs launched.
Stress programmatic impact through evaluation; enhance scholarship	Planning and reporting system implemented (Extension WIG); grant funding increased.
Enhance program leadership	Two agents and one faculty completed LEAD-21; Extension Director completing the Food Systems Leadership Institute program.
Utilize technology in educational delivery	Student team designed <i>Pocket Farmer</i> , won regional <i>App Challenge</i> award; monthly Extension meetings conducted by Adobe/Zoom; videoconferencing capabilities enhanced at Carvel and Townsend.
Integration of Extension across UD colleges, within CANR departments	Working with College of Health Sciences to place an agent for health and nutrition issues; developing strategic hiring plans in all departments to be inclusive of Extension needs.
Develop a strategy for meeting the population needs of Wilmington	Urban Ag Extension position; strengthening the Delaware Urban Farming Coalition, and building partnerships; assessment of current educational efforts in Wilmington.
Space Goal	Examples of progress
Replace or completely renovate WorriLOW Hall	Architectural study completed in 2014; fundraising target and strategy set in 2015. Funding for Creamery expansion into a WorriLOW pilot plant area secured in 2015.
Improve the quality of our classrooms	Unidel 2013 allowed upgrades to 006, 007 Townsend; upgrades to WorriLOW Anatomy Lab coming in 2015-16.
Create attractive, welcoming, functional common spaces	Townsend Commons and lobby renovated with 2013 Unidel grant; repurposing 057 Townsend to a student collaboration space and computer help desk.
Create a fair, transparent space allocation system	Space committee created in 2013, policy revised in 2014 and 2015.
Budget Goal	Examples of progress
Maximize transparency and predictability	A unit-level budget is updated and shared at each CANR Admin Team meeting; departmental teaching budgets are buffered +/- 10% annually to enhance predictability
Reduce long-term costs by enhanced efficiency	Greenhouse and growth chamber LED lighting for reduced energy consumption; increased staff utilization by turning over the genome sequencing facility to VP for Research; new autoclave for

	Townsend Hall; reduced leakage and energy use by renovating farm buildings.
Create a surplus for unforeseen circumstances and reinvestment	Budget contingency/surplus (all funds): <ul style="list-style-type: none"> – FY13: 0.12% (still had debt) – FY14: 0.87% (still had debt) – FY15: 1.36% (out of debt) – FY16: contingency projected @ >2%
Continually reinvest in facilities and avoid deferred maintenance	[see above under Space]
Centralize salaries and space, create clear priorities for allocation	Done in 2013; strategic hiring plans being formulated in 2015
Achieve greater cost recovery from grants, contracts, fees and gifts	Cost Recovery Committee put in place FY13, approved initial fees; F&A recovery increased 10% in FY15; Graduate tuition policy producing meaningful budget relief in FY16; annual fundraising doubled in FY13-FY15 compared to five-year period before FY13.