

LONGWOOD GARDENS

Minutes

NCAC-4 Meeting

Monday and Tuesday, June 12 and 13, 2017

2017 Attendees:

Doug	Bailey	University of Georgia
Vance	Baird	Michigan State University
Bill	Braunworth	Oregon State University
Wayne	Buhler	North Carolina State University
Howard	Eyre	Delaware Valley University
Irwin	Goldman	University of Wisconsin—Madison
Dave	Graper	South Dakota State University
Emily	Hoover	University of Minnesota
Jeff	Iles	Iowa State University
Paul	Johnson	Utah State University
Dan	Lineberger	Texas A&M University
Marc	Linit	University of Missouri
Rich	McAvoy	University of Connecticut
Jim	Metzger	The Ohio State University
Karen	Midden	Southern Illinois University
Doug	Needham	Longwood Gardens
Greg	Reighard	Clemson University
Steve	Reiners	Cornell University
Candice	Shoemaker	Kansas State University
Rolston	St. Hilaire	New Mexico State University
Astrid	Volder	University of California—Davis
Hazel	Wetzstein	Purdue University
Susan	Yoder	Seed Your Future

The meeting was hosted and chaired by Doug Needham, Retired Vice President, Education, at Longwood Gardens. The theme of the meeting was “Refilling the Pipeline for Horticulture Leadership,” and it included presentations and discussions. Tours of Longwood Gardens on Monday and Tuesday and optional tours of Mt. Cuba Center, Winterthur Gardens and Estate, and Chanticleer focused on careers in public horticulture.



Introductions

- Paul B. Redman, President and CEO of Longwood Gardens, welcomed the NCAC-4 attendees and explained how he got started in horticulture. He announced Sarah Cathcart as Doug Needham's successor as Vice President, Education, at Longwood Gardens.
- Introductions were made around the room and each attendee was asked "how he/she got hooked on horticulture."
- Next year's meeting will be hosted and chaired by Jeff Isles at Iowa State University.

Seed Your Future

- Susan E. Yoder, IOM, Executive Director of Seed Your Future, shared how Seed Your Future originated and where it is going. One of the primary tasks of Seed Your Future is to determine what young people are thinking about with respect to horticulture.

Vision of Seed Your Future:

- U.S. citizens understand and value the art, science, technology and business of plants, and the people who work in horticulture.

Mission of Seed Your Future:

- Promote horticulture and inspire people to pursue careers working with plants.

Susan asked the NCAC-4 attendees, "What do you think parents believe horticulture jobs are?" The following are some of those answers:

- Mow lawns
- Low Paying
- Gardening
- Digging holes
- Selling plants

In order to understand how to begin filling the pipeline of workers in the horticulture industry, Seed Your Future conducted three phases of audience research through FleishmanHillard.

Phase 1 – Internal to the industry (Informal interviewing at several association conferences and online surveys)

1. Industry challenges
2. What they tell people

Susan asked how those universities represented at the meeting that have not lost their horticulture programs are operating. Irwin said that U.W. Madison is involved in a year long process to determine if the Horticulture Department will be consolidated. Dan said at Texas A&M University they have a BA and BS in a horticulture field. The university also tried teaching a lot of service courses, including floral design, because that one course is how the



school gains Horticulture major converts. Susan mentioned the campaign “Every Kid in a Park” as a good way to draw students in; however, there needs to be a career path associated with it. Bill said the number of online students in horticulture at Oregon State has gone way up and that has helped their Horticulture degree program.

Phase 2 – General Public (adults)

1. Awareness of horticulture
2. Attitudes about horticulture careers

Seed Your Future believed there was less of an understanding of horticulture among adults in the general public, but research was needed in order to prove this. Seed Your Future asked adults if they strongly agreed, agreed or disagreed, etc. with certain statements.

Paul asked if they defined what Horticulture is during the survey. Susan said, no, they didn’t, but in later surveys they did define it. They realized the problem is that some adults don’t even know what horticulture means.

Phase 3 – Middle schoolers, their parents, their teachers and their school guidance counselors

1. Survey
2. Focus Groups

Question posed for this research: **“What do you want to do after high school?”** It will be important to make the imagery associated with a horticulture campaign look “cool” to a middle schooler.

Doug Bailey talked about “Experience UGA,” where every grade in the county gets exposed to a department at the university. The 7th graders visit the Horticulture Department every year for half of the day.

One thing that was discovered is that titles are very important even to kids. Job titles and department titles are important. There is also room to discuss job opportunities in horticulture for those who don’t want to have a job where they are working outside. It would be great to have a celebrity horticulturist or a TV/YouTube show devoted to horticulture. We need to take the aspects of cooking shows and explain where food comes from to spark interest.

Recruitment and Retention of Students

The meeting attendees were asked from where they are recruiting students. Responses included:

- The requirements are too high for students to get into the program or even the university.
- Advocacy program – you can write an endorsement for a student to get into the Horticulture Department at NC State even if they haven’t met the requirements for that degree program.
- There are thousands of students in biology and other science fields, who may be interested in horticulture programs if they knew about horticulture.



- Clemson has a “bridge program” – local 2-year college that allows students to transfer into Clemson.
- The number of credits required for the Bachelor’s degree has been reduced at many universities.
- Students would like more hands-on classes but don’t have time to take the courses.
- Adding concentrations to the Horticulture program.
- Pull from the undecided (exploratory college) majors to get them into horticulture.
- Created a course about medicine and plants which counts towards science. Created fun elective courses to attract students.
- Work with a local high school that focuses on horticulture.
- Get high schoolers to apply – get their names, write them letters and call them to retain them in the major and the school.
- Provide travel grants to get students to select your university.

State Reports

Each university representative explained his/her own state report to the group.

Astrid – UC Davis

- Most of the department is over 58 years old, so many will be retiring in the coming years
- Stable budget
- A lot of funding from endowments
- 25–35 graduate students each year. They are paid \$24,500/year

Greg – Clemson University

- Only 4 faculty have Horticulture degrees. Most are scientists.
- Plant Science enrollment is going up.
- Research dominated department

Rich – University of Connecticut

- Shrinking department due to retirees
- Obtain a lot of money through grants

Steve – Cornell University

- Horticulture is a section within Plant Sciences
- Searching for a new Director
- Lost 9 staff and gained 2 in the last five years
- In the next 5 years will lose another 8–10 due to retirement
- Gained donations from golf courses

Doug – University of Georgia

- Department is neither growing nor shrinking
- Doug had to fight for 12-month salaries. 9-month appointments aren’t as successful.

Jeff – Iowa State University

- All except one in the department are 12-month employees.
- Invested in marketing and branding the department



- Stayed pretty stable since 2012

Candice – Kansas State University

- Teaching and research have been pretty stable.
- Worried about the number of FTEs in Extension and in the department
- It's difficult to get people to come to Kansas.
- Stipends are the same, but each student gets a different amount for scholarships.

Doug – Longwood Gardens

- Longwood has articulation agreements with four surrounding universities, where its Professional Gardener students, 2-year undergrads, can continue their studies to obtain a bachelor's degree: Rutgers, University of Maryland, University of Delaware, and Temple University—Ambler. An articulation agreement with Delaware Valley University is being negotiated.
- No tuition. No fees. Free housing. Paid during throughout the two-year program.
- Longwood can educate up to 20 PG students per year.

Vance – Michigan State University

- Been able to fill every vacancy that's come up since retirement and in some cases hired before the other staff retired for training
- Global Impact Initiative – targeting and hiring over 100 new faculty
- Gained 2.5 new faculty positions and hoping to hire a third new faculty member
- Numbers are growing slightly from an undergraduate stand point.

Emily – University of Minnesota

- Only has three people who do any extension in the entire state
- State legislature said they had to hire a potato breeder. Coming in with the second highest salary of the department – difficult to manage
- No Horticulture undergraduate major – Plant Science and Food Systems majors
- Budget model – get funding based on the number of credit hours students get

Rolston – New Mexico State University

- This year had the highest undergraduate numbers in introductory courses for horticulture ever.
- This year they are up 11% in graduate numbers.

Wayne – North Carolina State University

- Horticultural Science Department is part of Plant Systems.
- The provost wants 40 new positions in the College of Ag and Life Sciences.
- Last year they hired an apple pomologist, a shared position with University of Georgia and Clemson. Hired a few other positions as well.

Jim – The Ohio State University

- Horticulture and Crop Science departments merged several years ago.
- Interviewing for a position in Horticulture Crops
- Looking to do interdepartmental hires and interdisciplinary hires
- Landscape and turf are going down. Landscape has merged with horticulture.
- Added Plant Bio Science and Agro Ecology
- Undergraduate credit hours have gone up mostly due to online courses (Could have 250 online students verses 10 students in the classroom, e.g. Turf Management)



Bill – Oregon State University

- Quite a few new positions that have come in
- Professional continuing education gains revenue (1/2 of the money comes back to fund department)
- Several students ask for an organic option so it is something to consider offering as a certificate or minor.

Hazel – Purdue University

- Retirement Incentive Program for employees over 60 years old and who had been with Purdue for 10 years
- Three people are retiring from Horticulture and Landscape Architecture Department.
- New student farm

Dave – South Dakota State University

- Down to 20 students in horticulture
- Hired a new lecturer and instructor this year
- Two retirements in the past year and a half
- Lost a lot of the classes, including Turf Management
- Tough to build the program back up when things are being taken away by the university
- Local Food Education Center that's going to be built – student farms

Karen – Southern Illinois University—Carbondale

- No state funding in two years although SIU is part of a system so it's doing better than other universities in Illinois
- Had to lay off a few people
- People are leaving the state of Illinois which is making the enrollment go down.

Dan – Texas A&M University

- New hires are 9- or 10-month positions.
- Texas wine and grape industry legislature – hired 5 new people
- Lose 90% of the money when someone leaves or retires because it goes back to the college, and the department has to fight for the position again.
- BA is down. BS is up.
- Graduate enrollment is up.
- A huge push on experiential education and research which requires much faculty time

Paul – Utah State University

- New university president who comes out of their college
- The college supports the department well and allows it to rehire open positions.
- Many courses are growing online and offsite.
- College is centering around water issues.

Irwin – University of Wisconsin—Madison

- Significant changes to tenure
- Hundreds of millions of dollars in budget cuts
- Six year tuition freeze
- Chairs asked Dean for a reorganization – goal is to have a plan by December 2017



- Hired four new Assistant Professors recently
- Landscape Architecture and Urban and Regional Planning are leaving the department.
- Was gifted a new genomics facility
- Undergraduate numbers continue to shrink in Horticulture.
- Field fees and greenhouse fees also cost a lot for the university.

Generalizations from State Reports

- Several Retirements – need younger staff
- Retirement positions are returning to colleges and not rehiring for them
- New hires aren't necessarily horticulturists
- Decline in turfgrass programs
- Decline in landscape programs
- Student farms on or near campus – students are engaged in experiential learning
- Biology programs being a potential source of students – education about opportunities in Horticulture
- Budget reduction/budget constraints
- High tech initiatives
- More 9-month appointments than we used to see
- “Jobs for life” perception: “tenure entitlement”
- Students can't get into the university programs because requirements are too strict
- Almost all universities represented require an internship
- Perception of a low paying field/career

Federal Budget (Marc Linit, Administrative Advisor for NCAC-4)

- President's budget request: Proposes to Congress an 8% decrease to NIFA (Horticulture funding)
- In recent years we fought to protect Agriculture/Horticulture. Current proposition is for a \$25M reduction.

Salary Survey

Doug Needham led a conversation about surveying alumni with respect to salaries in their horticultural profession and the impact of their education on their career.

Bachelors Graduate Job Titles

- Entry Level Management – taught to manage and can move up the ladder
- Golf Course Assistant Superintendent
- Greenhouse Production
- Nursery Production
- Horticulture Production
- Controlled Environment



- Medical Marijuana Greenhouses
- Horticultural Sales
- Pesticides/Fertilizer
- Family business (fruit and vegetable, farms, landscaping) or start their own greenhouse production business
- Yard Care
- Arboriculture
- County Level Extension positions
- Public Gardens and Botanical Gardens
- Grape Production
- Smaller seed companies in fruit and vegetables
- Native plant production
- Green roof maintenance
- Agriculture companies – farm to table movement
- Tissue culture
- 5 to 40% are going to grad school dependent on the university

Masters Graduate Job Titles

- Field Reps
- Extension
- Community College teaching
- Vocational Ag
- Seed Companies
- Higher positions in the landscape industry with management responsibilities
- Federal government
- Research technician
- Approximately 50-70% will go on to get a PhD dependent on the university
- Masters degrees are being overlooked. Now one needs to get a Ph.D.
- About half of the Bachelors students come in and think they want a Master's degree or, possibly, a Ph.D.
- Ph.D. interest is up but many students are international

Ph.D. Job Titles

- Breeders at seed companies
- University faculty
- Post doc
- Breeding is hiring many PhDs
- Davey Tree and Bartlett Tree Company are both hiring PhDs
- Curator of Plants
- Public Gardens are hiring PhDs for senior level positions



Alumni Survey

Very few horticulture departments have salary data for their alumni. The meeting attendees agreed that it would be a good next step to create an online survey in order to determine whether their alumni are still in the field, what their job title is, and what their salary is. Additionally, it will be important to track alumni throughout their career(s) in horticulture in order to show career advancement and salary gain with experience.

Discussion was centered on whether the alumni would even respond to an online survey. It was mentioned that response rates to .edu emails are much higher when the email comes from the department rather than the university. All agreed that it will be critical that we use the same survey so that data can be aggregated.

The group also mentioned that it might be a good idea to survey employers who hire horticulture graduates. There is the possibility of getting salary data from them for entry level, mid-career and senior level positions. Job fairs may be another possible source for information on alumni as well as searching for the data on the internet using an “R code.” A programmer may be of value for that type of search.

There was debate about whether salaries, alone, are the most important aspect to potential horticulturists. Do benefits matter as well? Parents of future horticulture students are more concerned about their children’s career turning into something livable with a good salary within 5 years of entering the career field. There needs to be a more holistic package than just a salary. Measuring the quantitative and qualitative impact will be very important with this survey. How did we change the way that person impacted the world? How did we impact that person? Get stories from alums, personal experiences and personal stories.

The survey needs to be developed collectively to ensure that we are asking the right questions and that it’s consistent across all of the universities and departments. Questions should be kept open-ended, so that personal experiences can be shared rather than just quantifiable data. Keep everything open-ended including job titles. Work with a professional organization to complete the survey.

The following NCAC-4 meeting attendees agreed to form a committee to work on this survey project.

1. Jeff Iles
2. Vance Baird
3. Hazel Wetzstein
4. Candice Shoemaker
5. Karen Midden
6. Jim Metzger



The Alumni Survey Committee noted that they need to work with more than just the students, but also with the Biology teachers, Chemistry teachers, Art teachers, and other people who influence the students. The following questions were brought up for further discussion.

- How are these salaries communicated to prospective students?
- At what level should these salaries be, and how can we affect that change?

The Committee will come up with a timeline for the survey, and Bridget at Michigan State can potentially help out with survey.

Metrics for Assessing Faculty and Department Performance

Dan Lineberger presented on Metrics for Assessing Faculty and Department Performance. He talked about how horticulture departments are often assessed by being combined with other departments and are often compared to disciplines other than just horticulture. Someone at the university level determines who each department is compared to.

The assessments include:

- Academic Analytics
- Productivity, which is determined by citations/impact
- Ranking of departments based on the national average
- Use of the system to determine annual review

Emily said that Minnesota is backing out of Academic Analytics because the data is wrong. Other institutions get all the credit for things that a different university accomplished.

Dan said, even though some data isn't accurate and there are many flaws to the program, the reality is that universities are being analyzed by Academic Analytics anyway, so each institution should be prepared for this.

How to support and maintain institutional (or even intra-departmental) respect for faculty involved in basic horticulture when funding levels across disciplines are so variable, e.g. \$MM grants for genomics faculty vs. \$10K for applied field projects

Astrid Volder presented on how to support and maintain institutional respect for faculty involved in horticulture with varying degrees of funding.

One of the main topics presented was related to faculty demands. How can respect be established when faculty are taking sabbaticals and others are obtaining grants to certain projects even if the proposal doesn't make sense. Some faculty members believe they are too important and too busy to contribute to the department, which in turn, creates disrespect for them because they don't carry their weight among



their coworkers. Some faculty are great researchers and some are great teachers. Each person should be given job responsibilities according to what he/she is good at.

The group came up with ideas of how to stop the sense of entitlement at universities. Are there any strategies besides salaries that give an incentive not to be entitled?

- Culture and leadership needs to change.
- The university is the one that causes that type of entitlement. The university brings in people that are superstars and gives them excessive amounts of money.
- Universities have fostered a prima donna culture.
- It's up to leadership and those in higher positions to acknowledge those who aren't recognized for their good work. The department will end up working better together if the morale is raised.
- A great technique is to start meetings where others can recognize their peers in the department for accomplishments.
- Banner that flashes through the hallway recognizing others for their work
- Sometimes you have to be firm and tell the faculty how it really is.
- Tenure creates problems with entitlement and the faculty get negative reinforcement for bad behavior.
- Professional jealousy has also taken over in different departments and universities.
- Lack of respect for extension faculty
- Faculty vote on a merit increase at UC Davis.
- At NMSU each faculty member gets an allocation of effort (AOE); promotion is based off one's AOE.
- Make sure the person is evaluated on what his/her job description says.

Doug Needham adjourned the NCAC-4 meeting after dinner on Tuesday, thanking all for making the meeting a success. Many attendees participated in the optional day of public garden tours on Wednesday.

