

NCAC4- JC Raulston Arboretum, NC State. May 19, 2014

Attendees:

- **Doug Bailey**, Univ. of Georgia
- **Vance Baird**, Michigan State University
- **Bill Braunworth**, Oregon State University
- **Wayne Buhler**, North Carolina State University
- **John Dole**, North Carolina State University
- **Roch Gaussoin**, University of Nebraska, Lincoln
- **Irwin Goldman**, University of Wisconsin, Madison
- **Roger Harris**, Virginia Tech
- **Emily Hoover**, University of Minnesota
- **Jeff Ihles**, Iowa State University
- **Matthew Jenks**, West Virginia University
- **Paul Johnson**, Utah State University
- **Bob Joly**, Purdue University
- **Don LaBonte**, Louisiana State University AgCenter
- **Dan Lineberger**, Texas A&M University
- **Wayne Mackay**, University of Florida
- **Doug Needham**, Longwood Garden
- **Steven Newman**, Colorado State University (attending for Steve Wallner)
- **Rich Pratt**, New Mexico State University
- **Chris Pritsos**, University of Nevada LV
- **Marvin Pritts**, Cornell University
- **Scott Senseman**, University of Tennessee
- **Scott Steinmaus**, Cal Poly State University
- **Amy Wright**, Auburn University (attending for Jeff Sibley)
- **David Wright**, South Dakota State University

Introduction

- Introduction to the meeting and venue by John Dole
- Welcome by Dean Richard Linton, NC State University
- John indicated that Marc Linit is our official rep from USDA for this meeting. He couldn't be here, but did send information that will be presented.
- Wisconsin (Irwin Goldman) will host next year's NCAC4 meeting in Madison. Approximately one week later than this week if possible.
- State reports have been distributed. This report- what it covers- can be modified if needed for next year.

USDA National Priorities- from Marc Linit:

Changes in AFRI programs- they are now more collaborative

2014 Farm Bill- SCRI and AFRI:

Matching requirement for the land grants will disappear in Fall, 2014, but are present for the current grants

Every year ASHS lobbies congress on funding issues. They lobbied to support the federal funding programs, including Hatch.

Foundation for Food and Ag Research: \$200 million new initiative, ill defined at this point. A board will be appointed. Not sure what it will focus on.

Decreasing funds in NIFA, but there is a sort of leveling now. NIFA wants to decrease formula funding and an increase in funding toward grants.

(Note- Marvin Pritts suggested that we assign a person to take minutes- usually the person who is taking on the duties to host the next meeting.)

Project reviews- our group needs to review some of these projects- but we haven't received any yet this year. Maybe 1-6 per year to review. We should watch for that to review, and John will contact us if they are received.

University reports and trends:

Representatives from each university talked about their programs. Each person provided a handful of comments about what is going on in our departments, colleges, universities, and states.

Dan Lineberger- Texas A&M. Hemorrhaging in budget stopped, but nothing restored. Enrollment is down for the first time in seven years. Bachelor of Arts program was established. All non-tenure track faculty had to be laid off when the big budget cuts happened. Hard to find funding to support PhD level graduate students. Discouraging MS level students and encouraging PhD level students. 90-10 policy. When a person left, the department got back 80% of the salary. Now when a person leaves, the department gets back 10% of the salary. They have to justify the positions to the grand challenges for the university. Three of their senior faculty are on part time administrative appointments. They have lost another to recruitment from UC Davis. Harder to find people to teach their courses.

Matt Jenks- West Virginia University. About 35 horticulture students, 110 plant science students total. Two tenure-track faculty in horticulture plus one more recruitment.

Roger Harris- Virginia Tech. 12.5 faculty. They are set up in stations. Three off-campus stations have horticulture missions. They have added faculty.

Doug Bailey- Georgia. Had cut 27% several years ago but coming back. Four positions refilled. Three of those came from the state legislature earmarked for several areas. Just hired in sustainable food systems and organic production. The college itself hasn't given more but they did get some from the state. Issue with graduate students in centers- and funding those centers. They have started two certificate programs.

Marvin Pritts- Cornell. Big thing is that Cornell is making a school of integrative plant science this year. Departments will become sections. Botany is included in that mixture. Will be interesting to look. Student numbers going up. Classes are full. Faculty numbers will be down 28% over two years because of retirements. Early retirement incentive will take away flexibility to adjusting to those gaps. Around \$50,000 to fund a graduate student- which is very high. The reason is that their peer institutions are Harvard, Yale, etc.

Bob Joly-Purdue. Ag Dean Jay Ackeridge said that the three plant science units must sharpen up and differentiate their departmental missions- they engaged in intensive meetings and retreats and differentiated themselves. Any faculty member can move to one of the other plant science departments if they wanted to. Turf program will move into Horticulture. One Botany person is moving into Horticulture. Two are moving to Botany. Botany is more focused on model systems- this is a change from the past where horticulture used to have model systems work too. President of the University had asked for proposals – 10 new faculty hires will be made. \$28 million will be invested; new phenotyping and genotyping facilities. Tuition is frozen for third consecutive year. Student numbers are declining in Hort and LA. A plant sciences recruitment and outreach coordinator has been hired with the other departments. Approaching something quite serious. Through this new infusion of money, they will likely integrate their undergraduate curriculum.

Jeff Isles- Iowa State. 128 undergraduate students. Trend is downward. There were three hundred students in 2001. Undergrad major called global resource systems- housed in horticulture. Has 100 students in that.

Wayne Mackay- Environmental Horticulture, Univ. Florida. Kevin Folta is the chair. Agronomy and Plant Pathology and Horticulture are combined. They were at 100 three years ago, but declining. Many faculty have been lost. 26.5 faculty left. Starting a hort therapy certificate program. No long term associate professors. Legislators gave a raise to the president. Only teaching portions of appointments were funded with raises. College had to give up 27 faculty positions to give the raise.

David Wright- South Dakota State University. Has been a department head for 10 months. Horticulture was merged into plant science in 2010. Agronomy, Hort, LA. Double digit undergrad numbers growth in plant science. 8 new positions to fill. Bad

news is that horticulture undergrad numbers (it is a horticulture track) are going down. 90 to 30-35 now. 7.5 hort faculty. One is retiring and another one retiring in a year. Genomics for northern grapes is a big area. Outreach and Extension continues to struggle- fourth year in a row with budget cuts in Extension.

Amy Wright- filling in for Jeff Sibley, Department Head, Auburn University. Student numbers declining. Admission standards going up which may be affecting things. Most students come in as transfers. These are major themes throughout the nation. Developing relationships with community colleges who have horticulture programs in order to facilitate transfer. Departmental assistantships have disappeared- graduate numbers and recruitment are hurting. 3+2 program with Chinese universities- they do their courses in China and after 2 years they get a MS from Auburn. New graduate certificate for public horticulture. Because of budget cuts, no more hard funded research technicians. Can have on soft money. A few retirements- 4- that have not been refilled. Two new assistant professors have been hired however. No merger discussions yet.

Vance Baird- MSU. Level budgets after the big cuts. Faculty salary increases for the last 5-6 years. No retirements- one in phased retirement. Two for one policy- if you have two retirements you can get one refilled. No assistant professors in the department. No hires in over 7 years but may hire several in coming year. 110 undergrads- stable for past 5-6 years. 9th out of 12 units in the college- so they aren't relatively high. Most students come in as transfers. Two year certificate program has some hort students- most at community colleges. Just finished 7 year review- all internal. Project Green to help get matching funds for SCRI and that sort of thing. Tree Fruit Commission- apple, cherry, peach, plum voted to increase their checkoff system which will go toward research and support specialty crops. Will support work at the four off-campus stations. Director of Extension position is open. Dean has another 18 months before they look for another dean. Four deans in six years.

Rich Pratt- NMSU. Stable budget, due to holding back salary savings. 10 research assistantships in the college were competed college-wide. Extension is facing extreme budget challenges. 29 faculty lines- 7 are at various centers. The Hort program is stable at 45-50 students. Grown a new environmental sciences major. A couple of new endowed professorships.

Bill Braunworth- Oregon State Univ. E campus courses- money is returned to the departments. May merge curricula across three departments rather than merge the departments themselves.

Chris Pristos- Univ. Nevada-Reno. One department of Ag. No hort program but a program in ag sciences. Hiring a horticulture faculty position.

Steve Newman- filling in for chair, Colorado State Univ. 78 in environmental hort. 96 in horticulture. Viticulture, floriculture, sustainable ag, LA, all seem strong.

Paul Johnson-Interim Head, Utah State Univ. Small group in horticulture. Water resources are a major area. Largest part of students are off campus in Salt Lake area.

Roch Gaussoin- Univ. Nebraska. Merged with Agronomy over 12 years- saved the hort program. They would have lost the MS and PhD programs had they not combined. Five undergrad majors. Declining numbers on the hort side. Turf and landscape major has about 60 students. Plant biology major has 18 students, taught by hort faculty. New money came in for Institute of Ag which will hire new faculty in new positions. 77 faculty total. The hort faculty do teach a lot of service courses- they support the hospitality and tourism major. The turf and landscape supports LA.

Scott Senseman- Univ. Tennessee. 35 faculty. Maybe a 1% increase. 10 year review ongoing. About 65 students in hort, landscape, and turf.

Scott Steinmaus- Cal Polytech. Program review was completed recently. Strawberry center to be developed. Two new faculty hires. It is very selective for students to get in- third in California *ahead* of Stanford.

Emily Hoover- Univ. Minnesota. Budgets are transparent under a new interim dean. Horticulture and Agronomy majors are gone. Food systems and plant science are the new degrees- no more hort degree. They want students to be able to graduate in two years because most come in as transfers. Students put together their own program of study. They take a different suite of classes- each program is approved by faculty. They lost the horticulture major name but didn't lose the flexibility. Stipend issues. MS and PhD students are paid the same. They feel they are on the low side (Note it is similar to Madison). All new hires are 9 months.

Don Labonte- LSU. Hort is a small pie wedge in a larger unit. Those other units help subsidize the hort program. The number of students is stable. Quality is improved. Agronomy/Soils position is easier to fill than a Hort faculty position because of student / credit / graduate level teaching. Lost a lot of horticulture faculty to administrative positions but they appear on the books because they teach- hard to replace them. Extension adds strength to their existence because hort is connected to urban outreach. Important to college to have this outreach.

Doug Needham- Longwood Gardens. Pennsylvania. They have a graduate program at the University of Delaware. Professional Gardener program is a two year focused experience in horticulture education- they contract faculty from Delaware and other universities to teach those courses. They also have a continuing ed program. They have had an increase in staff numbers. Large college and university internship program- 3 month summer internships and yearlong internship programs. 156 different courses and workshops through continuing education programs. Engage just under 14,000 kids in programs.

Irwin Goldman- Wisconsin. This is the department's 125th anniversary and they are holding a large symposium on June 19. There were new hires last year- urban and

regional, asexually propagated, and fruit crops. They had had a retirement and a departure, so now faculty numbers back up to what they had been. Salary tools are mainly what we have to increase faculty salaries- these are often funded by cannibalizing our current resources. Undergrad numbers a bit down- close to 50 last couple of years- and grad numbers stable. Quality is very strong. The great majority of graduate students in our department are training in other programs. Several new courses offered to undergraduates: organic production, plants and human well being, future of food; etc. Proposing a new certificate in organics. Completed a 10 year review and strategic planning process- determined that we cannot be a full-service department but can focus on certain areas. We will pursue clusters in strategic areas and want to develop some distance programming. Plant bio option in biology major. No plant science major or merger of departments at this time. University moving toward activity based budgeting.

John Dole- NC State. Several new positions opening up at tenure track level. Focusing on the website and trying to improve that. Undergraduate numbers are dropping. DE has been doing well- they have hired two lecturers for that. Doing recruiting as well. Hort industries are fractured in the state. Trying to create a fruit and vegetable council for the state.

DE HORTICULTURE PRESENTATION from NCSU

DE=distance education. For place-bound students, for greater flexibility for on campus NCSU students as well. If you are enrolled in a campus major, there is no difference in cost for taking a DE course. The model for tuition is determined by the program for which you are enrolled. A staff member in NCSU Horticulture teaches a DE version and a face to face version of the same class.

To make this work, you have to have a program. Two or three courses won't do it. You need to have faculty dedication and commitment to this in order to make it work. You also need to have technical support and equipment.

Face to face teaching counts the same for a professor as teaching DE courses.

Good discussion surrounding DE programs. Taking courses at Texas Tech and Kansas State and Univ. Nebraska. AG*IDEA is a kind of consortium for taking these kinds of courses. AG*IDEA sells the software. The Big Ten also does this.

<http://www.agidea.org>

Undergraduate students really like these courses.

Class capture is the technology they use to capture the class and allow students to view it later.

Elizabeth Meyer did a piece on gamification – the process of turning a course into a game with the intent that students can reach the grade they want by earning more

points through tests, quizzes, assignments, activities, etc. There are a number of places you can enter your data and vocabulary words in and it turns it into games in moodle. Check out hot potatoes for game-making software apps. After lunch, we talked about barriers to DE, MOOCs, etc. 400-500 completed a sustainability MOOC at Minnesota at Coursera. **Camtasia** is a product that is often used.

Longwood Gardens and ASHS “Promoting Horticulture”

John Dole. Student numbers are declining in horticulture. Who will be our next leaders? They are the lifeblood of the industry. The minimum standards keep going up, and this is leaving many of our hort students behind. These students are often very active in horticulture departmental activities and so this is declining overall.

In a survey, one third of respondent universities with four year programs said their numbers had stayed the same, 32% decreased slightly in last five years, 11% decreased greatly.

There is a real problem in terms of student declines.

At the two year schools, the results were very similar.

Grad student numbers are also very similar to the above.

What is horticulture? Largest responses: fruit, nut, vegetables, woody ornamentals, floriculture, and then to a lesser degree- landscape design / construction, landscape large scale, turfgrass, environmental science. Other responses plant science, plant breeding, public gardens, horticulture therapy, sustainable agriculture, organic production, plant biotechnology.

Nationally, one third of departments are stand-alone with names of horticulture in their name in some way: 31% had department of horticulture or name with horticulture. 50% are a combined department, about 19% either combining or likely to be combined

Doug Needham- Longwood- developing an action plan. Improve public perception of horticulture, develop tactics to ensure that horticulture is in the national education curriculum, etc. Longwood, ASHS, NJHA, American Horticultural Soc. AmericanHort, etc. were signing partners. There were 150 endorsing partners. Three firms have been interviewed. They selected *FleishmanHillard* and *Scholastic* to do the study.

Campaign Theme: *Grow It*

First, influence the children, then influence the teachers and it will evolve naturally. The study has a discovery phase, the college-university sector, and then the public sector. Ask how the public views horticulture? Integrated horticulture into STEM education. In a study of 250 high school students, 62% had never heard the term horticulture. Kids, parents, teachers don't know what horticulture is.

"Influence and conversion strategy" Online way to engage kids with horticulture. National digital gardening interface, social channels, etc. They made a video to promote this activity.

Program costs

Research \$198,000
Planning and Development \$445,000
Launch \$335,000
Audience engagement \$220,000
Educator engagement \$495,000
TOTAL \$1,695,000

Do we have to give up on the word horticulture? Which words work? Do we need other words like environment, sustainable, etc. that follow this?

Universities can commit to supporting this. Our NCAC4 group committed to \$4,999 each; once per year for three years, at last year's meeting. If we can commit to supporting it, industry may help us advance this. Pioneer has committed to some money as well. BASF, Syngenta, Monsanto, etc. are also willing to contribute.

If our group can raise \$75,000, Longwood is willing to match that. It can be phased. This is for the research phase, for which we need \$198,000. John Dole will send a concise set of objectives for the research phase.

Succession in Horticulture Departments

We then talked about succession in departments and various structures with heads and chairs, including the unique situation with USDA-ARS appointments and affiliations on different campuses.

We then talked about multistate collaborations. Several states have collaborated to an MOU to hire an apple specialist, which is research. Multi-state collaborative arrangements. Everyone pays one-third, tenure home is at NCSU. Tennessee has one with Kentucky in tobacco. We discussed joint appointments at our own institutions and across institutions. Georgia seems particularly involved in these multi-state collaborations. NCSU would love to add one of these for value added marketing and for ornamentals.

Irwin Goldman will craft a letter of thanks to John Dole in appreciation for the event he organized and held at NCSU this year.

Topics for next meeting: Please let us know of topics that you'd like to see.

Suggestions

Curricular issues- reporting on the curriculum- arboriculture?

9 month versus 12 month appointments- management. How do you handle summer months- what about Extension faculty? How about 75% appointees?