

NE-1335 Meeting  
March 28, 2015  
University of Arizona  
Controlled Environment Agriculture Center

*Attendees:*

Murat Kacira (University of Arizona)  
Gene Giacomelli (University of Arizona)  
Rosa Raudales (University of Connecticut)  
Neil Mattson (Cornell University)  
James Ebling (University of Arizona)  
Robin Brumfield (Rutgers)  
AJ Both (Rutgers, chair)  
George Meyer (University of Nebraska)  
Sangita Pawar (AZ)  
Martin Gent (The Connecticut Agricultural Experiment Station)  
Stephanie Burnett (Maine, secretary)  
James Ebeling (Aquaculture Consulting)  
Ysabella Mar Rongo (University of Arizona)  
Roger Kern (Agate BioSciences)  
Feij (Jeff) Jia (University of Arizona)  
Ying Zhang (University of Arizona)  
Stacey Tollefson (University of Arizona)  
Erica Hernandez (University of Arizona)  
Ricardo Hernandez (University of Arizona)  
Conor Quinlan (University of Arizona)  
William Kacheris (University of Arizona)  
Tyler Baras (The GrowHaus)

Online:

Joyce Latimer (distance presentation; Virginia Tech)

*Introduction:*

Murat, Gene, and Sangita Pawar, Director of College of Life Sciences welcomed us. Gene mentioned that the Dept. of Agricultural and Biosystems Engineering celebrated its 100th anniversary last year. He also mentioned that our committee started around 1980 (as NEC-51, followed by NE-164, NE-1017, NE-1035, and now NE-1335).

*Approval of the Minutes from 2014*

Murat motioned for approval of the minutes; Gene seconded this motion. The minutes from 2014 were approved.

*Invitation of New Members to NE-1335:*

Several new members were proposed to invite to join NE-1335:

Jim Owen (Virginia Tech – VA Beach Campus)

Mike Timmons (Cornell, CEA - Aquaponics)

Bill Miller (Cornell – he is part of the CEA Program and will be at our next committee meeting)

Yufeng Ge (University of Nebraska)

Ricardo Hernandez (North Carolina State University – works in LED lighting)

Neil mentioned that Brian Krug has taken a position with private industry in Iowa and will be leaving the group. We should invite the new person who replaces Brian at UNH to join our group.

Murat suggested that we could formally invite people on our e-mail list that are not members of the group.

There was also the suggestion that we could extend the information about this group to all the land grant universities. This could be an invitation sent at a departmental or dean level. Perhaps department chairs or deans are aware of people at their universities we should be informing about our group.

Murat asked if we should be involving the industry more in our group. We have not had industry support or activity. He proposed that we invite greenhouse industries in our state as well as NGMA. Everyone could come up with names and send them to the secretary. The secretary could e-mail the people on that list and invite them to join the NE-1335.

*Update from Administrative Advisor:*

We do not have an update from the administrative advisor, and Ed Ashworth was unable to attend the meeting.

*Discussion of collaborative efforts (past and future):*

AJ encouraged us to look at the proposal and try to see activities where we can collaborate with other members. We should all work on this and try to figure out how we can show collaboration.

AJ showed the group a recently published book titled 'Plant Physiology in Greenhouses' (by Ep Heuvelink and Tijs Kierkels) that was a compilation of trade journal articles (from the magazine 'In Greenhouses'; <http://www.ingreenhouses.com/>). This hardcover book is available for sale for growers, students, and other interested groups. Perhaps we could publish on a broad topic such as growing in greenhouses in trade journals and bind these

publications together in a book. This is a good possibility for a future collaboration. One issue with this approach is that we would need to communicate clearly with the trade journals about our intent since they own the content after publication in their trade journal.

Martin mentioned that he, Rich, and Neil working together to publish articles on silica.

AJ is working with the CEA at Cornell. They are looking at the light output on a kilowatt hour basis for greenhouse lights to help predict energy use.

Gene mentioned that we could do short courses in the future and bring in different expertise for specific presentations. Neil currently teaches at the CEAC for the aquaponics short course.

Murat suggested a planning meeting or planning proposal for the next SCRI meeting among members of this group. He also suggested that we could work on graduate student committees collaboratively.

One area the group is strongly interested in pursuing during the next year is a series of articles or a book authored collaboratively. One potential topic for a book would include 'Realities of Growing Indoors'. A possible topic for a series of articles in greenhouse grower was 'Realities of Growing in Hydroponics'. This book would cover the topics of Urban Agriculture/Indoor Growing (broadly). The group is interested in getting factual information about urban agriculture to the large number of people interested in this topic. If we publish a book, one source of funding discussed was Kickstarter. A book should look aesthetically pleasing in order to reach the largest audience – we could reach out to collaborators at architectural firms to include graphics.

**Members are encouraged to respond with their preference. Would you prefer to write a series of articles on hydroponics or a book on indoor growing? Also members should submit a list of topics that they would like to contribute to (Hydroponics and Indoor Growing).** Some of these topics should also be plant science related, and there may also be the potential for Robin to include an economics topic.

AJ requested that pdf's be available for the water and hydroponics articles we recently published. Neil will see about getting these pdf articles, and Stephanie will remind him about getting these pdf articles.

*NCERA-101 merger suggestion:*

AJ mentioned that some group members have suggested that we merge with NCERA-101. This could present some problems for certain members of the group. One problem is that NCERA-101 is an information exchange group – this would limit

funding for some members of the group who need to be in a research group in order to receive funding. Also, NCERA-101 is a growth chamber group, which is a slightly narrower focus than NE-1335's focus on greenhouses.

We have also talked about meeting collaboratively with groups, such as the NCERA-101. This could provide benefits to do some collaborative work. NCERA-101 is meeting next year in Australia, so that may not be a good year to meet with them. However, 2017 may be a good year to meet with the NCERA-101.

Rosa is a member of NC-1186 (Water Management and Quality for Ornamental Crop Production and Health). They will meet in Grand Rapids, Michigan on July 27-29, 2015. We are potentially interested in meeting with them in 2016. Rosa offered to discuss this idea with the NC-1186.

#### *Nomination and election of incoming secretary*

Rosa Raudales volunteered to be the incoming secretary for 2016. Her nomination was approved. Thank you, Rosa!

#### *Meeting dates and location for 2016*

If NC-1186 is interested in meeting collaboratively, we will meet with that group in 2016. Nebraska group has tentatively offered to host us in 2016 as a back-up. Cornell has offered to host in the future, but not 2016. They are a possible host for 2017.

Meeting adjourned.

Respectfully submitted by Stephanie Burnett