**S1065 Multistate Project Meeting**

Carmel, CA

June 21, 2018

**Present**: Ariana Torres, Bridget Behe, Hayk Khachatryan, Will Graves, Susan Barton, Jennifer Dennis, and Robin Brumfield. The meeting was held jointly with the multistate NC1186 in Carmel, CA.

* Meeting was called to order at 9:01 am.
* Thank you members of NC1186 for arranging tours and planning the meeting.

**Discussion of ongoing research projects:**

**Hayk Khachatryan** discussed his USDA SCRI grant project, which focuses on three broad areas 1. An economic feasibility analysis (inputs / insecticides), 2. Growers’ adoption of alternative pest management/production methods / factors affecting production decisions, and 3. Consumer demand analysis for several annual and perennial ornamental crops. As part of the SCRI grant, Hayk’s group is studying the use of neonicotinoid labels and their impact on consumer preferences in an experimental laboratory.  The other project, National Horticulture Foundation (previously National Foliage Foundation) grant, is a 2-year project investigating shopper behavior at independent garden centers in Florida.  The grant included a pilot section for which data was collected at the TPIE tradeshow to understand tradeshow attendees’ visual attention to booth design elements. Hayk’s residential landscaping project (funded through UF’s Center for Landscape Conservation and Ecology) investigates consumer preferences and WTP for different turfgrass/non-turfgrass landscape ratios, smart sensor-based irrigation systems, pollinator friendly attributes, etc.

**Robin Brumfield** is wrapping up the second year of an EU grant where they are training women farmers. She has collaborators in Germany, Malta, Turkey and Spain. She is also working on taking Annie’s Project to urban agriculture in areas of production and economics. Annie’s project is empowering women farmers by the creation of business plans in Turkey, Greece, Guyana, and Nicaragua. Robin obtained a grant from NRCS for a water project, in which they are looking for growers to be their ‘test’ subjects that they can collect water use data from. The NRCS project aims to develop an economic model for smaller grower to recycle water. Robin received a Small Farms grant to analyze the potential of 10 ultra-niche products. This project is helping develop online enterprise budgets for these crops. Robin also received the 2nd biggest gift given to Rutgers to decrease youth unemployment.

**Ariana Torres** is working on four main industry issues. First, value-added technologies that can help the economic sustainability of specialty crops. She has collaborated with Bridget Behe and Susan Barton on a paper that has been submitted to AgEcon journal that looks to the correlation between using social media (and other online marketing strategies) and the adoption of e-commerce in the green industry. She is collecting data on the use of value-added technologies for produce sold primarily at farmers markets. She got a USDA-NIFA grant to work with ag and biological engineers and food scientists to understand the drivers and barriers to add value to specialty crops sold in local markets. Another USAID-Hort Innovation lab grant is measuring the supply chain of dried apricots in Tajikistan, where she will also conduct entrepreneurship training to women groups. With funding from Specialty Crops Block Grant, she is collaborating with turfgrass scientists to work on the information asymmetries found in the turfgrass industry. She will hire a graduate student to understand the preferences of homeowners, HOA, and landscape contractors toward sustainable turfgrass for residential purposes. With funding from USDA-SARE, she (and a graduate student) is evaluating the purchase agreement and preferences of buyers of organic grains in the Midwest. Second, the lack of indicators that address the financial feasibility of new crops and technologies. She (and a visiting scholar) is developing an online financial calculator that uses enterprise budgets to understand breakeven prices/quantities, cost-benefit analysis, and ROI. This project is currently funded by 3 grants from USDA-SARE, 1 from SCBG, 1 grant submitted by a grad student grant for organic grains, and how marketing decisions influence farm diversification through the reduction of risk exposure. Third, the lack of pricing information for farmers selling in local markets. She has started the 2nd year of collecting farmer’s market prices in 10 locations in Indiana and 1 produce auction. A graduate student and a visiting scholar are working on data analysis to understand how prices from farmers markets, produce auctions, and retailers correlate. She has obtained an internal grant to fund the 2018 phase and has trained farmers, market managers and extension educators on the use of pricing information to assist price determination. Fourth, she has started looking at consumers perceptions of new crops. With funding from USDA-SARE, she is collaborating with Bridget Behe to develop a survey that will evaluate consumers’ preferences and willingness to pay for new varieties of melons (one of the main specialty crops in Indiana). She and a graduate student are modeling if millennials perceive organic and local foods as substitutes or complements.

**Jennifer Brown (Jennifer Dennis)** attended the meetingas a former member of the group. She gave us an update on her current position at Oregon State University. She also announced she will join UC Riverside this summer.

**Bridget Behe** is working on a SCRI water project with Melina Knuth. She has also finished a study built on Jennifer Dennis’ plant guarantee work and has assessed the structural break points. She has started working with Ph.D. communications students looking at hedonic versus utilitarian attributes of plants; preliminary analysis shows that the price point for plants is higher for hedonic v. utilitarian settings and that priming strongly influences price points. Bridget and Marco Palma submitted their SCRI proposal on the marketing and economics for biocontrols submitted by Ohio State. Bridget, Sue, and Ariana Torres published a paper looking at business practices of landscape businesses (HortTechnology). The SCRI Water 3 project, in collaboration with Charlie and Dewayne, had yielded 4 papers looking at perceptions on water source and water use by consumers. One paper is published, another one in press, and 2 in preparation. Their work gathered data on consumer perceptions on the word recycle vs reclaimed, and perceived risk of direct (personal and impersonal) and indirect use. The word “recycle” has a positive term with significant policy issues with perceptions of and willingness to work with recycled water. Findings from this project will be submitted for the Journal of Environmental Psychology.

Bridget and Tom Fernandez got a grant to investigate the impact of RFID tags on consumer perceptions regarding perceived risk, intention to use, convenience to use – disconnect between using and not knowing and privacy. She is expecting to present her work in Italy. Her EyeTracking project got a FSMA grant looking at the display complexity between human coding and tobi filter. The software extracts patterns between eye movement and purchasing (or not) plants as part of their goal to understand decision-making search behavior of how humans pick a plant. This eye-tracking project is currently analyzing the gaze pattern (eye-tracking) in the lab, and will combine her FSMA grant that focuses on retail purchasing behavior. They have been able to find the eye pattern when looking at plants in retail setups. Lastly, Bridget has launched her new podcast series called Marketing Munchies, available in Connect-2-Consumer.com. Each podcast interviews a researcher to provide a preview of a project related to marketing in the green industry.

**Susan Barton** is working with a group of researchers on consumer perceptions towards native plants. They are looking at how testimonials affect consumers following through the planting of native plants in their yard. The team is also looking at homeowner’s fertilization practices on native plants. Susan has a long-standing project with the Delaware Department of Transportation, in which they are getting enhancement sites on Google Earth as an online resource to manage public sites properly. Another of her project looks at different grasses and their effect on pollinators. The project has 4 treatments of herbaceous and 3 types of grasses to understand what will be the best pollinator meadow.

**Bill Graves’** research appointment has decreased after taking an administrative appointment in Iowa. Will has 3 grad students. Doctoral student Zach Hudson is studying the anatomy and physical properties of bark of members of the Thymelaeaceae.  He’s also investigating potential uses of high-quality specialty paper he has made from the bark of *Dirca* spp., which are members of the Thymelaeaceae. Doctoral student Anna Talcott is resolving conflicting reports of human responses to floral fragrance of hoptrees (*Ptelea trifoliata* and *Ptelea crenulata*).   She also is studying cold hardiness of these species, as well as preferences of swallowtail butterflies for *Ptelea* vs. other members of the citrus family. Master student, Austin Gimondo, gave a presentation about his masters’ thesis on wastewater-grown algae fertilizer for horticulture production in turfgrass and container crops, using complexes of green algae as fertilizer at standard rates of nitrogen, incorporated into the media. He quantified plant growth and shoot nutrient concentrations and compared performance of extruded algae-based pellets to synthetic and controlled-released fertilizer. Pellets performed similarly or better than commercial fertilizer.

**Future meetings**

* Spring meeting 2019 (February): The group proposed to meet in Texas (Austin)
* Summer meeting 2019: Susan Barton is willing to host a summer meeting

**The Multistate Research Project Grant Proposal**

The duration of the multistate will end in 2020. The group will discuss the multistate objectives for the next period during the Spring 2019 meeting, when the entire group of researchers will be together. Ariana will send the previous project sent to NIMSS to the group, as well as a Qualtrics link to obtain nominations for the elections that will take place in Spring 2019. The Qualtrics will ask for S1065 members to vote on the objectives that we will keep for the next period, with the option to add a new objective. Potential dates for the Spring 2019 will include Thursday-Friday meeting after Valentine’s day. The group also discussed the need to recruit new members for the multistate. Some names were mentioned, such as Lloyd Nackley (Oregon State), professors in NC State, UC, Heidi Krastch (University of Nevada, Reno), Bryan Peterson (University of Maine), and Bryan Maynard (in Rhode Island).

**Elections**

* Will occur during the Spring 2019

**National Green Industry Survey Proposal**

The group discussed the future of the National Survey, which has been an ongoing effort for about 30 years. The group hopes to receive funding from the HRI, institution that has funded the data collection for the last 5 to 6 times. The proposal was submitted in May. We would expect to use the same company to administer mixed-mode survey (via phone calls and mail). We are expecting that the HRI will announce the awardees on January 2019, and the grant should be effective after May 2019.

**The Survey Questionnaire**

The most time-consuming tasks are soliciting and creating the lists of firms from 50 states. In the past, state lists have been obtained from the National Plant Board and we have experienced collaboration from most states. However, those who are not willing to collaborate send businesses’ information in pdf format, which later need to be converted to digital. The group typically contacts the state department of agriculture in each state to obtain those lists. We have experienced success by calling, email, and sending letters from funding agency.

Alan Hodges have obtained the list of businesses (also available from Dunn & Bradstreet), however there are no emails attached to the names and addresses. The list includes approximately 15,223 nursery and floriculture businesses, 159,000 landscape services businesses, and 26,000 suppliers. The group discussed briefly some suggestions to the next year’s survey:

* Survey administration:
	+ Send a 1st postcard as a survey invitation with the URL of the survey. This will create savings of printing and sending questionnaire
	+ Collect most surveys online – a trend that we expect will increase for most surveys
	+ Send a reminder to those who did not answer. The reminder can include the printed questionnaire.
* Survey list
	+ Check for bouncing rate in the 2013 survey
	+ Cross-reference the old list (2013) with the Dunn & Bradstreet list (2019) to identify emails of businesses that do not exist in the 2019 list but are in the 2013 list
	+ Alan had previously suggested to extract the emails from the Dunn & Bradstreet. Hayk used Email Extractor but found inconsistent results.
* Questions
	+ Reword Q24 to define 2 methods of advertising and follow up with more detailed methods
		- Internet based: email, texting, e-newsletter, business’ website, paid ads
		- Other: face-to-face, printing, mass media, newspaper, radio, tv (separate)
	+ Q20: the group discussed that this question has not been very useful and had suggested either rewording it or delete it.