**S1065 Multistate Project Meeting**

Atlanta, GA

Feb 16, 2018

**Present**: Ariana Torres, Bridget Behe, Charlie Hall, Hayk Khachatryan, Alan Hodges, Ben Campbell, Bill Graves, Tim Schauwecker, Dewayne Ingram, and Ben Posadas

* Meeting was called to order at 8:56 am.
* The agenda and previous meeting minutes were approved.
* Thank you Ben Campbell and Hayk Khachatryan for arranging tours and planning the meeting.

**Discussion of ongoing research projects:**

**Ben Campbell** has been filling the green industry’s need for extension articles and has received great support from the Georgia green industry. He has looked at the effect of recession and drought on farm gate values and found that the green industry took longer to recover than food crops operations. He has been working on research with Hayk and Alicia on the barriers to buying pollinator friendly plants. Ben published an article on water resources and irrigation practices and he is currently investigating the use H2A labor in the green industry. Ben has received requests from the green industry to understand how smaller and larger businesses compare within the state of Georgia. He is interested on developing forecasts and predict behavior from the nursery and greenhouse business owners. He is looking for collaborators in other states to understand owners’ perceptions of supply and demand and their effects on business success.

*Alan Hodges mentioned the use of forecasts from IBIS World to obtain industry indicators.*

**Alan Hodges** has been collaborating with Charlie Hall and Paul Fisher on an online course that provides training on greenhouse cost production, pricing, and financial statements. Paul Fisher leads the course, which is offered for $400 to 50 people. Alan is also working on the economic contribution of the forestry industry in Florida. He found that forestry has a higher output impact than the green industry, but the green industry provides more jobs (>100,000 jobs in landscape services). Alan is also involved in a study on urban forestry, in which he is surveying landscape and tree service farms to determine the percentage of income derived from urban forestry, rather than only landscape maintenance and lawn service. His team is interested on developing a methodology that can be replicated in other states. One of his latest projects involves the economic impact assessment of Hurricane Irma in Florida, in which his team wants to determine the influence of the disaster on crops using GIS data. They have estimated that the amount of direct crop losses in Florida is about $1.6 billion.

**Bill Graves** has a graduate student working with the City of Chicago and other researchers on the use of algae from waste water treatment as fertilizer (9%N and P, and 2% K). The material has been used as a paste and pelletized to fertilize greenhouse plants. They have studied the application of N compared to controlled-released and organic fertilizer

**Charlie Hall** has completed his service for *America in Bloom* and has shifted his efforts to the *Seed Your Future* program board. They are currently conducting focus groups with children, parents, teachers, and guidance counselors to formulate marketing efforts that educate students about opportunities in horticulture. In collaboration with Scholastic (educational magazine publisher/organization) *Seed Your Future* targets 7th, 8th, and 9th graders and educates them about the careers in the green industry. He is also on the National Initiative in Horticulture’s Economic Committee, which may be a funding opportunity for this group. Charlie, Dewayne, and Bridget are part of the marketing and economics objective for an SCRI water grant project. Additionally, Dewayne Ingram and Charlie are working on carbon footprint and economic models (project ending in 2019). Charlie is working with Marco Palma and Louis Ribera at Texas A&M for rose rosette disease (based on the RosBREED project outline) through 2019. Charlie has several PhD students working on a variety of topics such as water use, WTP for roses, watering practices, use of edible plants in containers, model of combining ecosystem services and environmental benefits, and WTP for floral art versus floral design.

**Tim Schauwecker** is working on a project related to watershed management on the Semero River in Italy, a project that started during his sabbatical. He has been involved in a collaborative design project that involved Italian communities and researchers to respond to site restoration, trash clean up, and planting. The research component collected feedback from the community during meetings, interviews, and social media to understand the use and perceptions of the project. Tim has also completed a NFWF project that built an exhibit of wooden mattresses at the Crosby Arboretum. In addition, Tim has graduate students working on green roof and has visited University of Kentucky’s project related to landscape architecture.

**Bridget Behe** is working on a SCRI water project with Melinda Knuth. It is the WateR3 project, in collaboration with Charlie Hall which produced 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. She has also finished a study built on Jennifer Dennis’ earlier “plant quality 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 are part of an SCRI proposal on the marketing and economics for biocontrols; Ohio State is the lead. Bridget, Sue, and Ariana Torres published a paper looking at business practices of landscape businesses in HortTechnology. Tom Fernandez got an HRI 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. Bridget conducted an online survey of consumer privacy concerns. She is expecting to present her work in Italy. Her Eye Tracking project got a FSMIP grant looking at the display complexity between human coding and tobi filter. The software extracts patterns between eye movement and plant purchasing decisions as part of their goal to understand choice decision-making coupled with visual search behavior. 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. Lastly, Bridget has launched her new podcast series called Marketing Munchies, available through several podcast host mobile apps and via Connect2Consumer.com. Each podcast interviews a researcher to provide a preview of a project related to marketing in the green industry.

**Hayk** **Khachatryan** discussed his National Horticulture Foundation (previously National Foliage Foundation) grant which 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. His group currently investigates consumers’ preferences and willingness to pay for edible and food producing ornamentals. The other (USDA SCRI) grant project currently focuses on 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 groups is studying the use of neonicotinoid labels and their impact on consumer preferences in an experimental laboratory. Lastly, Hayk mentioned his third grant proposal, which was recently submitted to NSF in collaboration with the University of Florida’s Center for Landscape Conservation and Ecology. If successful, this project will investigate Floridian single-family homeowners’ preferences for sustainable landscape attributes in their neighborhoods and the economic contribution of sustainable urban landscapes in Florida.

**Ben Posadas’** work is focused on 3 areas: marine fisheries, marine aquaculture, and horticulture economics (about 10-15% of his efforts). In horticulture, his work is focused on local food networks and making the information for Mississippi readily available to stakeholders. He is focused on providing bigger insight on each of the key horticulture MS commodities such as watermelon, pecans, and blueberries. He expressed his interest on investigating the workers FTE and wages in our next survey. He is currently investigating labor management practices and mechanization in the nursery and greenhouse industry. Data from the US Bureau of Labor Statistics only covers horticulture businesses and has shown inconsistencies when compared to data from USDA-AMS. Ben also expressed his interest on collecting data to track the impact of the grant money obtained. His expectation is that we should be able to measure the impact of each dollar obtained through grants. Ben actively engages with his stakeholders via blogs, articles, and social media.

**Dewayne Ingram** continues to utilize funds from the Kentucky Horticulture Council to conduct economic analysis, market research, and education on specialty crops. These grant funds have been decreasing and this has resulted in fewer personnel for on-farm consultations and there has been more focus increasing the educational resources available through the Center for Crop Diversification (CCD) from the University of Kentucky. Another of Dewayne’s project is related to the use of new technologies on controlled-release fertilizers. Dewayne’s projects have yielded a series of publications in HortScience related to carbon footprint, water footprint and variable costs of production systems and there is the expectation that more publications will be submitted through the same outlet.

**Ariana Torres** is working on three research grants received from NIFA, USAID, and NCR-SARE. She is currently looking for a graduate student to work on the NIFA grant that aims to develop a model of added-value technology adoption for specialty crop growers. She expects to collect data via surveys January 2019. Her USAID grant looks at the barriers to adopt drying technologies among apricot growers in Tajikistan. She collected data in the summer 2017 and is currently writing a paper to publish the results. She will travel to Tajikistan again this summer (2018) to finish the data collection process and train women farmers on entrepreneurial skills. Her SARE grant will start collecting data in May 2018. Her graduate student will be soon testing the questionnaire developed to understand organic grain buyers’ preferences. She hopes to obtain a good response rate and conduct either qualitative or quantitative analyses. Her extension projects are related to farmers’ market prices, e-learning on business feasibility, and financial calculators for specialty crop operations. She has started collecting weekly prices of specialty crops sold through farmers markets. The pricing data has helped publish 1 peer-reviewed extension article, 3 newsletters, and provide 5 workshops. Her financial calculator combines enterprise budgets, breakeven analyses, and financial feasibility for specialty crop growers. She expects to hire a student this summer to test her calculator, convert it to excel, and make it available to growers. Lastly, her e-learning entrepreneurship course has been prepared with faculty in the Library department to help beginning and operating businesses assess the market value, financial sustainability, and industry feasibility via case studies. She is hoping to publish the market feasibility section and have the videos available by the end of 2018 and apply for grants for next year. Ariana has published 1 article in HortTechnology in December 2017 (with Bridget Behe and Sue Barton) and has an article accepted in HortScience on the drivers of organic decertification. She has submitted 2 other articles in AgEcon journals and is preparing 3 articles for submission (urban farming, Tajikistan, and millennials perceptions of local and organic agriculture).

**National Survey**

The group discussed preparations for the National Survey, which has been an ongoing effort for about 30 years. The next survey is expected to be distributed in 2019 to collect information on the 2018 calendar year. The group hopes to receive funding from the HRI, institution that has funded the data collection for the last 5 to 6 times. The deadline for the HIR call for proposals is May 31st and we expect to have a draft by the first week of May. The limit of the HRI grant is $35,000. Expected total costs were estimated at about $30,000 (mailing survey $15-20,000 plus salary for survey distribution). The most time-consuming tasks are soliciting and creating the lists of firms from 50 state. 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 spreadsheet format. The group typically contacts the state departments of agriculture in each state to obtain those lists. We have experienced success by calling, email, and sending letters from funding agency. The survey is focused on nursery and greenhouse producers. The last survey also included plant handlers (some landscape businesses), wholesalers, and retailers.

Tim expressed his interest on including questions regarding the use of sustainable practices. Ben Posadas suggested to update businesses’ information by using the lists from the Better Business Bureau. Alan suggested using a different platform than SurveyMonkey, and the group suggested using Qualtrics (free in most universities). Charlie suggested to everyone to provide questions or changes to the questionnaire during the 2018 summer meeting. While funding is expected to be received in May/June of 2019, the group would like to release the survey by January 2019.

**S1065 Multistate Research Project Summer meeting, June 19-21, 2018**

Preparations for the summer 2018 meeting is currently in progress and Hayk will keep the group informed with details. Eleven group members responded to Hayk’s earlier email with their intentions to attend the meeting in California.