* Publications:
  + Robert L. Meagher, Jr., Kristal Watrous, Shelby J. Fleischer, Rodney N. Nagoshi, James T. Brown, Kristen Bowers, Neil Miller, Stephen D. Hight, Jesusa C. Legaspi, and John K. Westbrook. *Visitation of Pollinators to Sunn Hemp and Community Composition Among Different Cover Crop Plants* Environmental Entomology (pending publication)
  + Meagher Jr, R.L., Nagoshi, R.N., Brown, J.T., Fleischer, S.J., Westbrook, J.K., Chase, C.A*. Flowering of the cover crop sunn hemp, Crotalaria juncea L*. HortScience. 52(7):986-990 (2017).
* Graduate Student Committee Member
  + Member: IFAS Center for Stress Resilliance Fellowship Committee
  + President: Entomology and Nematology Student Organization
* Presentations:
  + Invited speaker at 2018 ACS AGRO Division in Boston, MA.
* Outreach
  + Volunteer entomology guide at 2018 Learning Gate Community School BioBlitz in Lutz, FL.
  + Invited guest at 2018 Glen Springs Insect Day in Gainesville, FL.
  + Invited guest at 2018 University of Florida Bug Camp in Gainesville, FL.
  + Invited judge at 2018 University of Florida 4H Insectathon

**Element 1: Assists with and conducts experiments**

* Maintained a 3.66 GPA at the University of Florida
* Maintain a colony of European corn borer, *Ostrinia nubilalis,* here at the USDA-ARS CMAVE courtesy of Dr. Daniel Hahn of the University of Florida.
  + Colony established on August 15, 2016 under diapause and non-diapause conditions
    - Diapause larvae maintained at 23°C, 12:12 L:D photoperiod, and 65% rH
    - Non-diapause larvae and maintained at 23°C, 12:16 L:D photoperiod, and 65% rH
  + Maintained adequate biotic and abiotic conditions for health.
    - Insect artificial diet preparation and environmental control monitoring
    - Daily surveys of colony for general health growth, development, and growth.
    - Genetic variation within strains maintained by regular infusions of eggs from the University of Florida.
* UPLC user proficiency using OpenLab software and Mass Hunter Software.
  + Lipids separated into classes and the concentration of Triglycerides determined
* Developed, innovated, and validated new and existing experimental protocols.
  + Developed: “Wandering Assay”
  + Innovated: Larval “Bleeding Assay”
  + Validated: FAME derivitization
* Undergraduate Trainer
  + Each student taught proper safety standards of the lab and the unit.
  + Each student taught to prepare calibration standards, calculate dilutions, manually inject samples, and analyze results for accuracy.
* Undergraduate Mentoring (400+ mentoring hours)
  + Trained students in organic chemistry techniques to separate and modify specific analytes
    - Liquid-liquid separation and base-catalyzed derivitization
  + Jeremiah Martinez
    - January 2018 - Present
  + Erin Lapasaran
    - December 2018 – Present

**Element 2: Practices Safety/SHEM/EEO/CR**

* Wearing PPE as required preventing injury, negligent practices are avoided, and violations and/or incidents are reported to supervisor.
* Performs duties and responsibilities in a manner that is fair and respectful.
* Aware of EO and CR policies.
* Demonstrates support to EEO and CR policies.
* Written and oral communications are free of discriminatory bias.
* Attempts to discourage unlawful discrimination by maintaining an unbiased atmosphere.
* Displays helpful attitude and willingness to assist persons of all kinds and creeds.
  + Collaborated with IFAS to exemplify diversity in Science to High School Students here in Florida
  + <http://ifasgallery.ifas.ufl.edu/m4v/Entomology/James-Brown-Interview.m4v>

**Element 3: Maintains equipment and supplies and materials**

* Performs periodic cleaning, maintenance and calibrations on instruments and equipment when necessary.
  + SpeedVac: Troubleshooting and user maintenance
  + Lyophillizer: Troubleshooting and user maintenance
  + Ultra Performance Liquid Chromatography
    - User maintenance, Disassembly, and troubleshooting.
      * Parts replacement, leak detection and correction.
  + GC
    - Inlet Maintenance
    - Regular maintenance (septa, inlet, liner replacements)
    - Mass Spectroscopy baseline correction maintenance
* Maintains cleanliness of work areas after use.
  + Laboratory fume hood improvements
* Prepares solutions and reagents when needed.
* Ensures and predicts procurement of necessary supplies and equipment.

**Element 4: Processes Data**

* Digital and analog copies of data maintained electronically and in laboratory books
* Compiled thesis document showcasing;
  + Experimental design
  + Data analysis
  + Defense of research program and model organism.
* All relevant information and details are recorded in a manner that can be referenced and repeated.
* Laboratory data is recorded, summarized, and analyzed using R Studio.
* Experiment data is maintained, organized and accessible to the researcher and others
* Meeting with SY regularly for advice, guidance, and project status updates.
* Attending staff meetings when scheduling permits.