EXPERIENTIAL LEARNING ACTIVITIES TO ENHANCE PLANT MATERIALS COURSES
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Introduction
- Plant materials courses are a major component of any horticulture curriculum
- Large amounts of information are disseminated and can provide to be challenging for many students
- Rote learning or memorization often becomes a common learning technique and often results in reduced understanding of the plant materials
- Learners’ perceptions and responses in a learning environment can be influenced by cognitive, affective, and physiological domains (Keefe, 1979)
- Learning modes can be visual, auditory, and kinesthetic (VAK); often with one or two being dominant
- Taste, one of kinesthetic senses, is least used in classroom learning (Baines, 2008)

Objectives
- Implement unique experiential learning activities in plant identification (ID) courses to encourage student engagement and diversify typical plant ID courses
- Include sense of taste as a learning tool or method to assist in learning plant materials

Approach
- Fall course (HORT 374), several maple (Acer) species covered; including sugar maple (Acer saccharum).
- An activity conducted in an attempt to provide a more meaningful learning experience has been the maple syrup taste test
- An accompanying maple syrup production lecture is given, along with plant species review
- Students are provided with several grades of authentic maple syrup and a commercial maple flavored corn syrup to taste and compare
- Students record and describe the different syrup grades, providing comments of the experience

Student Feedback and Responses

Course Evaluation “TEVAL”, Fall 2012
11 students (31%) provided positive feedback about activity based on end of semester TEVALS (n=35)
22 students (61%) had never tried/recollected trying authentic maple syrup (n=36)

“The maple syrup lecture was pretty cool. I had no idea that there were different grades of natural syrup—I thought there was only natural and ‘synthetic’ syrup.”
“The maple syrup lab was really neat and informative.”
“I have a new view on syrup.”
“Great class and way to educate about syrup.”

Conclusions
- Taste testing in the plant ID course provided a positive student learning experience, based on student evaluation responses
- A similar activity has been implemented in the spring plant ID course; a lecture on herb species with an accompanying lab, providing students with an opportunity to experience and reflect on a taste testing; i.e. cookies with lavender flowers (Lavandula angustifolia)
- In subsequent courses, we plant to implement these activities and evaluate if increased learning occurs with unique experiential learning activities in plant ID courses

Literature Cited