



ECHS - Lee has selected horticulture, and community gardening as a highly relevant and appropriate topic to teach the critical thinking and communication skills necessary for industry level experimental design, data collection, group decision making, and attention to detail in the production of a deliverable product. For information about the overall effort, a specific plant serial number, related student work and available data, as well as opportunities for you to get involved, visit us at: www.echslee.edison.edu

The capital letter(s) denotes the plant type. (*S = Sunflowers*)

The lower case alpha character denotes the experimental design being tested.

The number represents an individual plant in that process.

S:a:1 - ###

Work to Learn, Learn to Lead!!!



ECHS - Lee is a STEM high school that believes and practices a “hands on” approach to learning. We believe that learning is not only centered around traditional school topics and STEM (Science, Technology, Engineering, and Math) content, but also rooted in critical thinking and communication skills as well. These skills can be taught in a classroom, laboratory, and in the larger context of “real world applications.”

Commercial scale gardening gives students the opportunity to produce an economically viable product while studying process optimization, efficiency, data collection and analysis, experimental design, attention to detail, and a host of other highly important cognitive skills. To this end, ECHS - Lee has both onsite and offsite growing operations in a highly controlled experimental design structure. Each management paradigm serves as a control and comparison for the other and allows for students to always have a context for interpreting data and making conclusions.

1. Our onsite operations use 100% Made in America products and supplies consistent with OMRI standards and in general follow some simple and basic guidelines. Plant material starts from a documented seed stock in commercially available potting soil and seedlings are then planted into our raised bed gardens at about 1 month past germination. Our raised beds are made of pressure treated 2x12 material and contain 9 inches of traditional “dirty sand” topped with a 2 inch cap of rich organic bedding mix, followed with a ½ inch of mulch material. This mix is intended to imitate a naturally occurring Florida biome. Watering is done by hand as is weed control. Limited spraying with OMRI approved products resolves any pest issues.
2. Off site operations use the same documented seed stock and are managed for maximum yield in a soft chemical (nutrients are fed through a closed loop irrigation system), raised and covered bed application at a local u-pick operation.

All plant material is tracked using the serial number system described on the previous page and data/summary information is catalogued on the ECHS - Lee website. Seedlings, soil analysis, comparative photos and data, and evens some good old fashioned vegetables are available for purchase and/or donation to the community.



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