

High School Student Competition To Generate Interest In Green-Industry Employment

Lee Ivy
Senior Lecturer
NC State University
124 Kilgore Hall
Raleigh, North Carolina
rlivy@ncsu.edu

Lis Meyer
Senior Lecturer
NC State University
lis_meyer@ncsu.edu

Emily Erickson
Crop Science Lecturer
NC State University
emily_erickson@ncsu.edu

Joy Morgan
Assistant Professor
NC State University
jemorga2@ncsu.edu

Introduction/Need for Innovation or Idea

The North Carolina Green Industry including greenhouse, nursery, floriculture, sod and Christmas tree producers, and related landscaping industry trades consistently need motivated and trained employees in landscape design, installation, and management (Higgins, 2018). These interest areas provide exciting and rewarding employment opportunities with upward career mobility (Goecker et al., 2015). Furthermore, research has determined the skill sets and aptitudes necessary for success in the applied horticulture field including business acumen, construction applications, horticulture principles, and landscape design (Beidler et al., 2006). In response to this, a new initiative has been developed to produce highly trained and capable employees directly from high school or through premier educational institutions across [state].

How It Works/Methodology/Program Phases/Steps

This event, North Carolina High School Landscape Competition, is conducted in cooperation with regional industry sponsors and statewide horticulture educators offering seven landscape-related events not commonly available to students in rural areas. These events include plant identification, landscape irrigation design and assembly, plant problem diagnosis, landscape lighting, small engine operation and diagnosis, arboriculture tool and equipment identification and landscape equipment operation. Sponsors carry out educational/instructional workshops for high school students to enhance education and interest in the Green Industry instead of strict competition. Colleges also bring students as a preparatory activity for the [National Collegiate Landscape Competition](#). While the college students do compete alongside high school students, they are evaluated on an appropriate performance scale. This two-day event includes a meal and panel discussion on Friday evening with local and national industry experts and provides local housing for the participants. Saturday begins with a safety briefing, then students can attend educational workshops and participate in competitions. To provide time for increased interaction with green industry professionals, a progressive lunch is held and sponsored by 6-8 local landscape companies. Concluding the event, scores and future competition schedules are released.

Results to Date/Implications

The first North Carolina High School Landscape Competition was held February 28-29, 2020 at the [named] Arboretum and Horticulture Field Laboratory at NC State University. There were 7 high schools represented and 7 [state] colleges for a total of 164 students and educators. Primary funding was from Caterpillar construction equipment and STIHL power equipment. Seventy-nine industry professionals were involved by donating time, food, and company resources. Each supporter happily contributed and mentioned they would be interested in future involvement. Students were not required to pay a registration fee with the only expense for the schools being their travel to the event. All other expenses were covered by sponsors with a cost per sponsored student of \$95. A panel discussion between local and national representatives was held on Friday night covering topics such as career pathways and opportunities within the green industry. Saturday offered ten competitions for college students and five for high school students. NC State University students were commissioned to help with setup of the event, facilitation, and cleanup. Their involvement made the event possible and welcoming for all involved.

INNOVATIVE IDEA

Qualtrics surveys were used for the evaluation and sent to educators and industry professionals yielding quality feedback. Successes included great industry and educator buy-in, high-quality food, convenient location, great collaboration between college educators, and cooperation within the host school. The challenges included the management of set-up, facilitation, clean-up, and the weather since this was an outside event. Key suggestions for improvement entailed inviting 2-3 times as many high schools as you expect to come, setting participation deadlines for students one month prior to the event, considering registration software instead of Google Drive, involving college educators in more of the event planning, considering more events for high schoolers, creating more financial buy-in from major sponsors, expanding the event to two full days and creating educator competitions at the end of the event.

Future Plans/Advice to Others

This program which is hosted by cooperating educational institutions and will target 100 high school students and 100 college students annually. Performance Evaluation Criterion (Target) will include the ability of the program to attract high school students within a region of the state where the event is hosted, the perceived learning that takes place during the event, and the movement of individuals into the industry. This is a long-term process since a high school sophomore who attends could move into the industry upon graduation or completion of a post-secondary degree. By fifth year of the event, a reasonable goal will be that 30% of high school participants enter the industry. Tracking of this data will be done through cooperating educators. Industry professionals will be asked to contribute data related to hiring and career mobility. To determine target performance, participation and satisfaction data will be collected annually and evaluated for output and audience related monitoring targets.

Queries to participants can include:

1. How well was the event promoted to students, educators, and industry partners?
2. What was the primary communication method and was it successful?
3. Were on-site event preparation techniques conducted in a timely manner?
4. Was this experience cost-prohibitive to any parties involved?
5. Do regional events draw consistent participation across the state?
6. Are there sustainable funding sources needed to conduct the program?

Costs/Resources Needed

Estimated annual expenses are \$12-15K and include student/faculty lodging, meal expenses, publicity, t-shirts, and other promotional materials with this cost being covered by event sponsors. Local sponsors and industry partners provide materials and equipment needed for the event. The host school is responsible for securing any technology needed, planning, and other conference type responsibilities. Much of the educational materials that are utilized have been developed for a national competition therefore the need for development of new materials is limited. Modifications may be made specific to the host site.

References

- Beidler, K. M., Iles, J. K., Nusser, S. M., & VanDerZanden, A. (2006). Assessing the Preparedness of Postsecondary Graduates Entering the Landscape Contracting Industry, *HortTechnology horttech*, 16(2), 312-317. Retrieved Jan 22, 2021, from <https://journals.ashs.org/horttech/view/journals/horttech/16/2/article-p312.xml>
- Goecker, A. D., Smith, E., Fernandez, J. M., Ali, R., & Theller, R. G. (2015). Employment Opportunities for College Graduates in Food, Agriculture, Renewable Natural Resources, and the Environment United States, 2015-2020. Retrieved from <https://www.purdue.edu/usda/employment/>
- Higgins, A. (2018, August 5). The horticulture industry's age problem is bigger than you think. Retrieved from https://www.washingtonpost.com/lifestyle/home/the-horticulture-industrys-age-problem-is-bigger-than-you-think/2018/08/05/3c7d3618-734f-11e8-805c-4b67019fcfe4_story.html?noredirect=on