



Developing an Urban Food Production Platform on Campus to Enhance Experiential Learning of Horticulture Students



Odile Huchette*, Alexandra B. Wofford, and W.M. Randle

*Natural Resources and Environmental Design, College of Agriculture and Environmental Sciences,
North Carolina Agricultural and Technical State University, Greensboro NC 27411*



Introduction: The undergraduate horticulture program at NC A&T State University was redesigned in 2013 to offer an academic curriculum focused on urban and local food production supported by experiential learning in the hope of attracting more students into our program. In 2014, a \$150,000 NIFA capacity building grant provided the funds to build an urban food platform on campus, enhance course work, and develop recruitment materials to support the « Urban and Community Horticulture » concentration. Instructional methods are focused on engaging students in active learning strategies and help them develop the necessary understanding of plant science concepts while developing practical and critical thinking skills. The URBAN FOOD PLATFORM responds to 4 key objectives outlined below. Its development was as much as possible integrated in the major courses of the curriculum, which included the construction of the new students' greenhouse with the class of Season Extension in the Fall 2016.

Objective 1: Supporting Classroom instruction allowing students to experiment and develop deeper understanding of horticulture

Students planting, touching, observing concepts learnt in plant propagation, plant nutrition, plant disease management, IPM and vegetable production.



Objective 2: Allow students to participate in small-scale food production and gain first-hand experience in building the necessary infrastructure.

The construction of the greenhouse as a semester project by students of Season Extension was a major endeavor in 2016. The labs were used for implementing course concepts and build the greenhouse to be used by students for their transplants needs at the platform.



Students of Vegetable Production used the new cold frames and raised beds for producing and testing different lettuce and greens in salad mixes. Hydroponics structures are under progress for more diverse production options.



Objective 3: Act as a recruitment tool by exhibiting the URBAN FOOD PLATFORM and hosting different events to engage the campus and establish connections with the Greensboro community.

Students conducted and participated in outreach activities with high school students, teachers of the County School Garden Network, as well as with campus events such as World Food Day and Earth Day using the Urban Food Platform.



Objective 4: Collect data on intensive year-round food production for 12 month harvests.

Data are collected year-round through students projects and research on urban small-scale production systems.



Summary: An Urban Food Platform has been developed on campus at NCA&T State University to support experiential learning in the Urban and Community Horticulture program. Building the platform was made possible thanks to a \$150,000 NIFA capacity building grant received in the Fall 2014. Students were involved in all steps of the development of the platform, which has been an outstanding opportunity to teach them problem-solving, teamwork and professional skills beyond horticulture concepts. The urban food platform has reached a point in 2017 where it can be used for teaching, research and outreach.