Cultivability and regenerative potential of vegetable and herb species in student living accommodations

N.L. Allen[*], E.R. Render

Georgia Institute of Technology, Atlanta, Georgia, United States of America

[*]Corresponding author email: nallen49@gatech.edu

Keywords: accessibility, micro-gardens, small-scale, student engagement, sustainability, urban agriculture,

Urban gardens provide a multitude of social, economic, environmental, and health benefits to communities globally. Students living in urban universities possess a unique opportunity to engage in small-scale gardening to become educated in urban agriculture and sustainable daily living habits. We fail to take advantage of the opportunity to advance sustainability by not harnessing the potential for small-scale urban gardens within student living accommodations in urban campuses, limiting students' agricultural education and their access to locally grown foods. This study aims to gain a deeper understanding of the factors preventing university students from participating in food production and determine the most feasible small-scale urban gardening techniques to engage students. A survey of students (n = 394) at an urban campus (Georgia Institute of Technology, Atlanta, Georgia) was conducted to gain insight into the limiting factors of engaging in at-home agriculture. The main deterrent was a lack of supplies and knowledge regarding urban gardening techniques. To mitigate this, the study provided students with gardening supplies, in order to better understand student behavior in this context, and develop the most successful gardening methods to be further promoted to engage student populations. A select group of students (n = 20) were sent supplies to begin a dorm-sized garden, including four plants (one each of herb, leafy green, self-pollinating vegetable, and root vegetable). The participants were provided with mentoring, and plant progress was monitored weekly. Plants with the highest average yield, least amount of upkeep time, and highest chance of success were evaluated. Participants' attitudes towards urban gardening were also monitored through consistent surveys. The results show that providing students with small, at-home gardens, with plants adaptable to dorm living is a promising method to increase awareness of and participation in urban gardening. The study was able to generate an effective model for gardening in student-living arrangements.