

South Carolina Master Gardener Volunteer Awards

Beautification and Community Service

This award recognizes the Master Gardener Volunteer(s) who have made the effort to beautify or enhance their community through community service. Its purpose is to recognize hands-on service that may not fall under the category of educational service. This project should be relevant to the field of horticulture. Examples might include community gardens, food plots, clean-up efforts, etc.

Summary

This community service project was created, developed, and maintained at 3 children garden facilities in Bluffton, SC: Michael C. Riley Elementary School (MRES); Pritchardville Elementary School (PVES); and the Bluffton Boys and Girls Club (BGC). The See-Thru Garden demonstrates what happens underground via a live visual aid when growing vegetables, flowers, or other plants. *(see pictures at bottom of this narrative)*

The size of the finished raised See-Thru Garden bed is approximately 24 inches wide by 24 inches long by 12 inches high. Size can vary as needed or desired, based on available material. The finished See-Thru Garden bed can be rectangular or square. Recommend pressure-treated lumber (other water-resistant lumber will be more expensive but still useable).

Once filled with soil and the plants are growing, the See-Thru Garden looks very similar to other raised garden beds. However, when the wooden side panels are temporarily removed, it allows the viewers to see underground through the plexiglass. When replaced, the wooden side panels prevent sunshine from damaging the roots and the plants grow as usual.

Horticultural Relevance

The students can now see what the root system looks like. They can compare various root vegetables. Or they can see the differences in the roots of other plants and vegetables that develop their produce above ground. Students have been able to observe underground creatures like ants, grubs, worms, pill bugs, and centipedes. They have seen how soil levels, water flows (percolation), and compost interact, in addition to viewing how any damaged areas appear.

Outcome

There are a total of 6 See-Thru Gardens at the 2 Bluffton elementary schools and the BGC. The children enjoy checking the growth of plants. They learned how sun, water, different

soils, fertilizer / food, and temperature affect plant and root growth, along with the interaction of worms, bugs, and insects.

Testimonials from the community audience that demonstrate the impact of this project.

Karlee McConnell (MRES teacher): "My fifth-grade students absolutely love the See-Thru Garden. It allows them to get an up-close look at plant life cycles that they study in the classroom. This type of hands-on learning not only excites the students but helps them to understand the different parts and stages of in the development of vegetation."

Sharon Nathaniel (BGC volunteer): "... via the See-Thru Garden, the students have gained an understanding of the mysteries of plant growth!"

Elizabeth Rutan (MRES teacher): "The See-Thru Garden beds are an asset. These innovative garden beds allow students to study the plants from a new perspective. They can see the root growth and spreading."

Rosemary Birchall (PVES teacher): "Providing the See-Thru Garden for our students offer opportunities for them to experience hands-on learning, inquiry, and observation. This approach will help them with understanding patience and resilience, as they wait and watch through the plexiglass."

We teach or explain various math and science subjects too. We have them measure the garden and calculate the area and volume of the bed, so they understand how deep to plant a seed, how deep the roots will grow, how close a transplant can be, and how much space is needed vertically and horizontally at plant maturity. This leads to figuring out measurements like ounces, pounds, pints, quarts, etc.

Not all outcomes are measurable by numbers. The visual display of joy and excitement is often difficult to describe when students pull their first carrot, peanut, or potato out of the ground. Some have said that garden club is the "most funnest" time of their day. We anticipate this gardening interest will continue into their future lives and will encourage them in their other school subjects, especially reading. This will elevate their understanding of all STEM subjects. Even simple things like reading the info on the back of a seed packet will help them grow their garden.

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(more details about the project or material list are available upon request)



Picture # 1

*(version 2.0 was 20 inches high,
but version 3.0 beds are only 12 inches high,
saving soil and materials)*



Picture # 2
(grown carrots underground against plexiglass)



Picture # 3
(seed potato plant with root structure)