

The Grow Academy



Like most kids, students at The Grow Academy have a natural curiosity. “Why does this lettuce look so weird? Is this a fake lettuce?” they query as they peer over the classroom’s hydroponic grow bed, bursting with red and speckled varieties next to the more traditional green. One student breaks off a piece and starts chewing, and the other follow suit. “We should make salads next week,” they say.

The Grow Academy is a four-month residential program from the Wisconsin Department of Juvenile Corrections for adolescent boys who have entered, or are at risk for entering, the Juvenile Justice System. Grow uses an agriculture-based education, including a large outdoor garden and indoor gardening projects such as aquaponics and hydroponics, as a basis for increasing students’ ability in academics, employment readiness, and social interactions. The program is built on evidence-based practices to help students successfully reintegrate into their communities and not return as offenders later on.

In order to graduate the program, students must meet requirements for school, career exploration, and appropriate behavior among their peers and supervisors. So how does gardening fit in with all of this? “Gardening is something that many of these youth probably never thought they would ever be doing,” Kate Elvidge, regional chief for Wisconsin’s Northwest Division of Juvenile Corrections, said. “It is a really powerful experience when you have to tend and nurture something living, and there is a real shift in responsibility for them. The programming provides plenty of opportunities to acknowledge their strengths in hopes that we will help shape a more caring and confident person. Each youth has the opportunity to demonstrate leadership skills and teamwork, while also learning about their environment and a lot about themselves.” When designing the program, one of the hurdles Elvidge had to cross was how to continue the garden-based curriculum during the winter months. How would students who enter the program in November get an equivalent experience to those who enter



Students prepare hydroponics lettuce wraps for a winter snack at the Grow Academy

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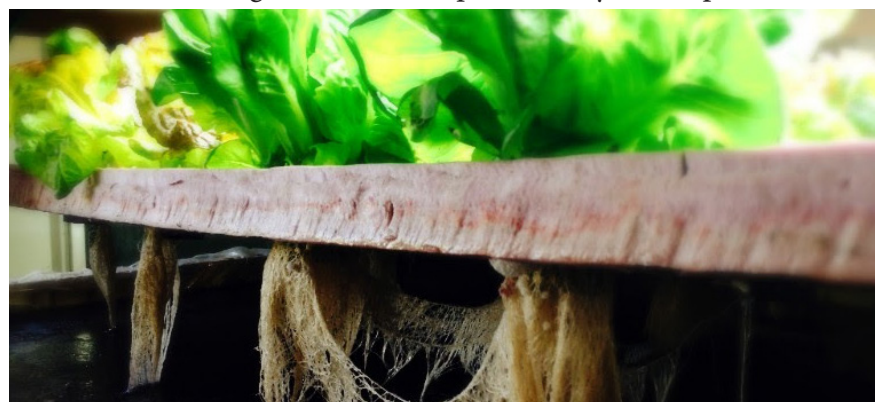
in April? The answer lay in hydroponics, and its fish-friendly sister, aquaponics. “We really started from scratch,” Elvidge said. “We didn’t have a greenhouse, but we did have a large heated classroom, some old bunk beds, and plenty of fluorescent lights, so that’s where we started to build our winter garden.” In the winter months, students are involved not just in managing the indoor garden – they are building it from scratch.

In December of 2014, just six months after Grow opened its doors, community partners Community GroundWorks (CGW) and Dane County UW Extension (UWEx) helped students construct the program’s first hydroponic system. Modeled after a passive hydroponics grow bed that students observed on a field trip to a rooftop greenhouse in UW Madison’s Aldo Leopold Hall, students built a homemade water reservoir out of 1x8 inch boards and a double layer of plastic. Plants are suspended above nutrient-rich water via a piece of foam insulation. Roots hang in the balance, winding their way through crevices in perlite-filled baskets before dangling down into the reservoir. Simplicity was the theme with this first system: there are no pumps, drainage systems, or filters, and lights are mounted on the underside of the adjoining bunk bed. Students monitor pH and nutrient levels each week, and can testify that the system grows excellent lettuce.

This year, with additional support and expertise from Paradigm Gardens, a local hydroponics supplier, Grow and its partners are ready to tackle an aquaponics build. “We experimented with some smaller aquaponics systems last year using goldfish, and there were definitely some bumps in the road,” Program Director Nicki Laudolff said. “But we also worked out a lot of kinks, and we are ready to try our hand at a larger system. The goal is to make the inside of the classroom an

engaging, hand-on learning experience for students, just like the outdoor garden provides from April to October.” Part of that hands-on experience comes in learning alongside their teachers to construct, maintain, and problem-solve around these indoor growing stations, which also include a worm composting bin, seed-starting, and smaller building projects such as rain barrels and bird feeders. Grow Academy students also learn how to design their own garden in a special class put together by teacher Jonathan Davis. Each year should see new learning stations that will add to students’ gardening repertoire. This winter, students are working on an expanded, multi-layer aquaponics system and two additional hydroponics grow beds.

Grow Academy hydroponic lettuce – as well as produce grown outdoors – is the basis for a nutrition education program that revolves around using produce in home-cooked recipes, as well as a market program that teaches small business skills and earns students extra privileges, such as movie nights and trips to the YMCA. Yet it is easy to see that these vegetables are making a difference long before harvest day. As students admire a successful bed of hydroponic lettuce or a ripening row of tomatoes, it isn’t hunger that shows up in their eyes: it is pride.



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