

Bringing Kids and Plants Together



Michaela Belkofer (left) and Savannah Moretz replace the water in the Baby Bloomer reservoir tray. Regular changes of the water and an electronically measured pH allow for optimal growing conditions. The recycled water is used on the plants in the indoor and outdoor growing areas.

Applications for the 2006 Hooked on Hydroponics Awards must be postmarked by September 30, so apply today!

By Barbara Richardson

Photos by John C. Sammons

When youngsters explore growing plants using hydroponics, fruitful questions abound: What does soil do for plants? Do plants grow better or worse when grown in soil vs. hydroponically? How can we provide support for plants without soil? What happens if we change the nutrients in the solution?

Questions like these invite creative experimentation, during which students become active learners. Educators know that information learned through hands-on discovery is retained better and gener-

ates new questions, fostering curiosity that leads to lifelong learning.

The benefits of classroom hydroponics programs extends beyond teaching science. Record-keeping can involve math, art, and language skills. Natural extensions of hydroponics lessons include explorations of agricultural history and social studies, recycling, technology, and nutrition. These studies may even lead to classroom business opportunities or fuel student career interests. Not the least of the benefits is the joy of students harvesting a crop of their own incredible edibles or beautiful blooms!

National Gardening Association's Hooked on Hydroponics award, generously sponsored by the Hydroponic Merchants

Association, provides 12 schools with top-notch equipment and material for their plant-based learning projects. Schools and youth programs interested in launching such explorations can apply for NGA's Hooked on Hydroponics award.

Previous winners used their awards for projects ranging from diverse entrepreneurial ventures to optimizing methods for propagating mangrove seedlings for estuary restoration. Schools interested in the 2006 Hooked on Hydroponics Awards can find award package descriptions and download application forms at www.kidsgardening.com/grants.asp. Or call 800.538.7476 ext. 115 to request an application by mail.

Applications must be postmarked by



Left: Michaela and Savannah measure the soil-grown pothos. Grown under the same conditions as the hydroponically-grown pothos, this soil-grown pothos reaches just two feet from the pot. The only variable in this experiment is the growing medium. Lighting, temperature, and water are all held constant. Right: Savannah and Michaela transplant pothos into the pots. The Girl Scouts and Greenbrier Intermediate School students experimented with a variety of transplanted samples and seedlings under different growing conditions.





Michaela trims a pothos from an existing vine to transplant into one of the Baby Bloomer bedding trays. These vines are growing on a trellis that take advantage of the grow light supplied by the hydroponics arrangement.



Savannah and Michaela measure the hydroponically-grown pothos to compare its growth to the soil-grown pothos. This vine, started in a Baby Bloomer, reaches halfway across the top of the trellis and is growing under natural light.

Sept. 30. Awards will be shipped by Nov. 30.

Winner Profile: Greenbrier Intermediate School

John Sammons, technology integration specialist at Greenbrier Intermediate School in Chesapeake, Va., uses hydroponics to engage students and fulfill state learning standards. The school received a setup valued at \$1,155 through the 2004 Hooked on Hydroponics Awards. Greenbrier Intermediate has ever-expanding outdoor learning gardens, and the hydroponics system allows students to continue their hands-on studies of ecology, botany, and other subjects inside the classroom.

“We’ve used it every semester since we received the award,” Sammons said. “Students have nurtured several cycles of flowers and vegetable crops—even cucumbers—to maturity in the hydroponics garden.” In addition, Girl Scouts make use of the system during their after-school activities.

“One of the questions on the application was ‘How much classroom space do you have for hydroponics equipment?’ My hope was to set it up on an old computer cart to make the equipment portable and accessible, and we received just the right components to make it work.” They attached a homemade light stand to the cart to support the 400-watt Hydrofarm Convertible metal halide grow light, placed two American Hydroponics Baby Bloomer ebb-and-flow hydroponic units on the cart, and had room on the lower shelf for supplies and other components.

Sammons is grateful for advice and on-site help from a local HMA member Carl Anderson of Virginia Hydroponics. “He came over to visit us and suggested adjustments to our set up that really made a difference. He also got the kids excited to try a propagation experiment where they compared success rates of propagating pothos in the hydroponics system versus cuttings rooted in pots of soil.”

The hydroponics system won out, but the results of the experiment continue to grow for all to see, creating a green transition between indoor and outdoor gardens. Pothos covers a trellis in the hallway leading to the courtyard garden. One side features the modest growth of the vine planted in soil while the other side burgeons with much more lush growth supported by a second hydroponic unit Sammons purchased from Virginia Hydroponics.

Online Resource for Teachers

Whether you’re using a commercial unit or building your own, Exploring Classroom Hydroponics (also sponsored by HMA) will help you understand hydroponics basics, set up classroom systems, and engage your students’ hands and minds with soilless growing activities. You’ll find it online at www.kidsgardening.com/HYDROPONICSGUIDE/toc.asp. 🌿

Barbara Richardson is a grants coordinator and editor with the National Gardening Association, a nonprofit leader in plant-based education in South Burlington, Vt.

Hooked on Hydroponics

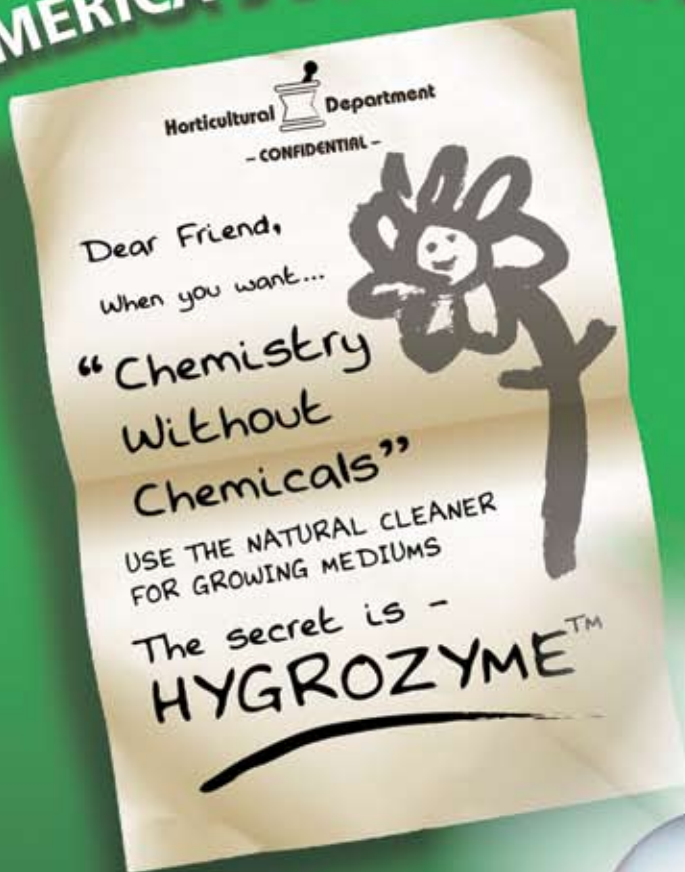
The Hydroponic Merchants Association is sponsoring the second annual National Gardening Association’s Hooked on Hydroponics award. The award provides 12 schools with hydroponics systems ranging in value between \$425 and \$1425.

All elementary, middle, and high schools in the United States are eligible. Applicants must plan to engage at least 15 students in the hydroponics project during the 2006/07 school year. Schools interested in the 2006 Hooked on Hydroponics Awards can find award package descriptions and download application forms at www.kidsgardening.com/grants.asp. Or call 800.538.7476 ext. 115 to request an application by mail.

Applications must be postmarked and mailed no later than September 30. Applicants will receive notification of their status by October 31. Awards will be shipped by November 30.

HMA members contributing to the Hooked on Hydroponics award program include American Hydroponics, American Agritech, General Hydroponics, Hydrofarm, Sunleaves Garden Products, and Sunlight Supply.

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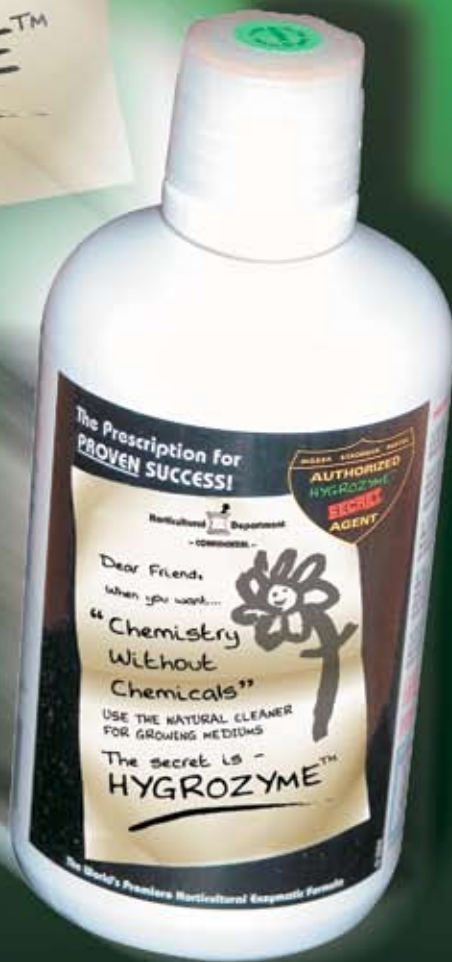
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