



Nathan Hale Urban Farm's

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Permaculture Prattle

Message from our President and Horticulture Teacher – by Jessica Torvik



After much hard work by our students and board members this winter and spring, we are thrilled to report on the arrival of our outdoor classroom (see article below), the kick-off of our inaugural summer program (article below), and our most successful spring plant sale to date.

We hosted our first early bird sale event on Friday, May 11, complete with appetizers, student-produced live music, and some amazing weather! We sold over 130 tickets, giving a much needed boost to fundraising for the outdoor classroom. Our public sale was the following day, Saturday May 12. Even though we halved our sale days and reduced the price of our hanging baskets, we almost doubled our proceeds compared to the last few years. These funds will enable us to make progress on our site plan and provide our student leadership team with some exciting budget decisions next year.

On a bittersweet and personal note, this message is the last one that I will write as the horticulture teacher at Nathan Hale High School. During the 2018-19 school year, I will be teaching Career Essentials, a new semester-long course and graduation requirement for all 10th grade students at Hale. I will also be completing an administrative internship with our principal Dr. Hudson.

Although I am looking forward to this new direction after 20 years of teaching, I am aware of how much I am giving up. The students really are the best part of my job and I will miss them most of all. It is satisfying to know that I am leaving the program in excellent hands, thanks to the Friends of Nathan Hale Urban Farm and our incoming horticulture teacher Matt Davis. I plan to stay involved as a member of the Board.

I figure that I have taught over 2,000 horticulture students over the past 14 years. That amounts to almost 4,000 hanging baskets, 6,000 poinsettia plants, over 22,000 tomato starts, and, I hope, a generation's worth of Hale graduates who better appreciate the significant role that plants play in their lives and in the health of the planet. Here's a special shout-out to Randy Kilmer, my teaching partner, who generously shared his vast knowledge with me and our students. I am thankful that Randy will continue his good work with Mr. Davis.



We Dig the Dugout! - by Katherine Ransel

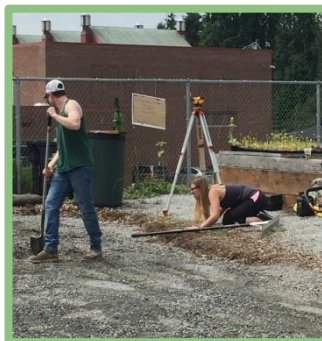
Our December 2017 newsletter explained how we found the University of Washington Neighborhood Design/Build Studio and then sprang into action to raise the funds required to pay for materials for the outdoor classroom (<https://www.nathanhaleurbanfarm.org/newsletters>).

We first meet with the student architecture team and its professors in March, shortly after the spring term began. We discussed the various uses we wanted to make of the structure and the size of student and community groups who would use it. We also discussed limitations imposed by not being able to obtain a building permit for a project that would take a mere 11 weeks from design to completion.

After assessing the area we envisioned for the project, the students and their professors, Steve Badanes and Jake LaBarre, took this information to the design studio and within a very short time, returned with a wonderfully rendered scale model and architectural drawings of a proposal for us.



A few weeks later, we began working with the UW team to place gravel and level the site in preparation for the arrival of the outdoor classroom (dubbed “the Dugout” by the design team).





We were breathless as we watched the completed three pieces of the Dugout swing in the air above the flatbed truck that carried them to the Farm. They were expertly placed on the ground to await permanent fastening to concrete posts deep in the ground. It was clear from the first few minutes of the dugouts' pieces being set down that people would love to gather there. And it will suit small, medium or large-sized groups because of the way it is designed.



On June 7, we celebrated with the students, their professors, and their families and friends with a ribbon-cutting ceremony, much home-made finger-food and lemonade. Everyone mingled and, of course, sat and chatted on the many levels of the "Dugout" during the festivities.

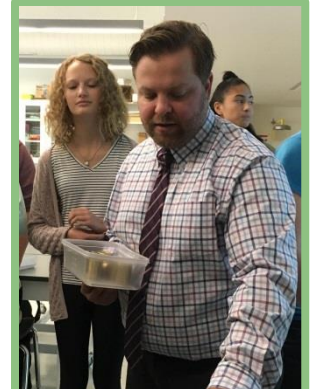


When we began working with the Neighborhood Design/Build Studio, we didn't know that our building needs would turn into a two-year project for the Studio, but it turns out it has. Next spring we will work with a new class of architecture students to create easily accessible storage for all of our tools which ties into an entrance structure that can also serve as a place to hang plants and provide shade. Our original cost estimate for these projects was pretty much on target (\$30,000), half of which has gone to pay for the Dugout. Professor Badanes predicts we will need to raise about the same amount for next spring's project.



Welcome to Our First Summer School Students at the Greenhouse! – By Jessica Torvik

On Monday July 9, the Nathan Hale Urban Farm will welcome its first class of Summer Skills Center students. These 9th to 12th grade students hail from seven different Seattle schools, including NOVA, Ballard High School, Interagency, and our own Nathan Hale High School. The students will spend five hours every day for the next four weeks immersed in hands-on horticulture learning in our greenhouse, garden, and at least six all-day field trip sites in the Puget Sound area. I am excited to co-teach the summer class with my science department colleague Matt Davis.



Matt Davis & students

Our new Summer Skills Center program solves a longstanding paradox we have grappled with since 2004. Our students spend the whole school year preparing the urban farm site: sowing seeds in the greenhouse; rebuilding and top-dressing beds; repairing the irrigation system; and planting annuals and perennials in our demonstration garden spaces. They work until the last day of school in June, and then leave just when the garden begins to hit its stride.

In past years we have tried several measures to close this gap: hosting weekly summer work parties; lining up students and families to be summer caretakers; and attempting to maintain the farm ourselves. We learned that it takes a village to keep up with the harvest and ongoing summer farm projects. We also realized that creating a summer program would benefit students in need of graduation credits and those who want to keep learning during the summer months. Special thanks to Susan Grant for making it a reality.

Nathan Hale Urban Farmers go to Wallingford Farmers Market – by Marcia Holiday



This year, the Nathan Hale Urban Farmers took some of the remaining plants from the Spring Plant Sale and set up a booth at the Wallingford Farmers Market. Working with the Seattle Farmers Market Association (Wallingford is one of its three markets), the students continue to build their understanding of marketing as a part of the horticulture/farm production process.

The customers at the Farmers Market were very impressed with the quality as well as affordability of the plants available, and many asked if we would be back. The students had



the opportunity to appreciate the work that goes into getting food and plants to market, as well as to talk to other farmers, see other displays and experience the lively atmosphere of a well-established market. We look forward to building this connection and “growing” our presence at Farmers Markets in the future.

New Success with Beneficial Insects in the Greenhouse – by Randy Kilmer

In our outdoor home gardens, for the most part we can get by without using chemical or organic pest controls. But all greenhouse managers use either chemical or biological (organic) insect controls because the environment in greenhouses makes plants more susceptible to damage by various harmful organisms.



Thrips' damage on tomato leaf

The aim of organic/biological controls is to keep harmful insect populations at a manageable level. Chemical controls tend to kill all insects, both beneficial and harmful, whereas biological controls permit a low level of harmful insects to survive in order to feed the beneficial insects that are controlling them. This prevents outbreaks of harmful insects and the harm to the environment that chemical controls can cause. The idea is to create an environment where beneficial insects can thrive and harmful ones cannot attain populations high enough to do serious harm to plants.

We have experimented with biological controls in the past, but have seen more success this year. Although we encountered aphids, whiteflies, fungus gnats, and shore flies in the greenhouse this year, they were all satisfactorily controlled by predators or parasites (e.g., the parasitic wasp *Encarsia formosa* and Minute Pirate Bug, *Orius insidiosus*).

If you noticed insect damage on some of our plants at the Spring Plant Sale, it was most likely done by Western Flower thrips. Once plants are taken to the outdoor garden, thrips cease to be a problem and the plants will grow with little or no further damage. That said, we have yet to manage thrips' populations in the greenhouse to our satisfaction.



Thrips on a tomato leaf



Pirate Bug

Our next experiment to control the thrips will be to combine Purple Passion Plants (a “banker” plant) with Minute Pirate Bugs. The Pirate bugs feed on thrips when available and on the purple passion plant when the thrips' population becomes so low that they need an alternate food source. This controls the thrips' canopy stage.

<https://soundhorticulture.com/products/orius-insidiosus?variant=30503538948>



Steinernema feltiae
nematodes

Another part of the thrips' life cycle takes place in the soil. To control them at this stage, we will use Steinernema feltiae nematodes. They come in a sponge which is mixed with water and squeezed into the soil.

<https://soundhorticulture.com/products/steinernema-feltiae?variant=30552116100>

An essential ingredient of thrips' control is cleanliness in the greenhouse, including the pots used to grow plants, which can either be replaced every year or sterilized with chlorine solution. Commercial nurseries never reuse pots, but because we don't have the resources to buy new pots, we are going to experiment with sterilizing them before reuse this coming year. We hope for much better control over thrips next year after instituting these new controls and practices.



A Western Flower Thrips – a beautiful culprit!

ACKNOWLEDGEMENTS

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Friends of Nathan Hale Horticulture and Urban Farm Board of Directors:

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AccMan Full Service Accounting
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(continued next page)



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And the many students, neighbors, families and community groups who have made our work parties successful and fun. We could have accomplished *nothing* without you.

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