



The Douglas Library Garden

2016 Seasonal Report



The first gardening event of the 2016 growing season was held at the Douglas Library of Hebron on Friday April 1st. It rained in the morning, and was cloudy and comfortable at 3:00 pm when patrons arrived for the workshop. A variety of tools were arrayed against a brick wall, including shovels, pitchforks, buckets, hosing, electronic devices, sprinklers, wire cutters, soil, seeds, seedling trays, and work gloves. The gloves remained unused by the five patrons in attendance, possibly because of our shared desire to get our hands dirty!



I set each person to a task. A teen volunteer removed some old and tangled fencing using wire cutters. Others neatly folded and removed plastic fencing. The rest of us used our bare hands to bend the thin rebar fence poles back into shape, as they had sagged under the weight of heavy winter snow. The garden fence which is tall enough to deter deer now stands again as an example of cost effective fencing.

The three teen volunteers next began hand tilling the soil. By turning the soil using a shovel, and then using a pitchfork to aerate, we created an ideal growing medium for our plants. We then applied a thin layer of organic fertilizer to ensure adequate micro-nutrients, nitrogen, phosphorous, and potassium. Using a rolling spiked cultivator tool we worked the fertilizer into the soil and smoothed our garden bed.

Two patrons, a mother and daughter duo committed to shoveling out the old soil from our cold frames into buckets, and dumping it in the hedges. We moved the light weight plastic cold frames to a different spot, which would have better sun exposure. Before our cold frames were cleaned up we harvested and washed all the crispy lettuce that had overwintered inside them. When we sampled some it was delicious.



Next, I gave a demonstration on seeding crops into trays. After I had planted 50 kale seeds into our high quality organic potting soil each patron seeded their own crop. Yellow squash, beets, basil, tomatoes, and kale were seeded this way. We then arranged our five seeded trays into our cold frame, so that the greenhouse effect would enable germination at this early time of year.



Our last project of the day was to set up an automatic irrigation system using hoses, an electronic timer, and a sprinkler placed inside the cold frame. Our teen volunteers worked together to decipher the instructions on programming the electronic timer, and after about an hour of assembly and testing we had an easy to use watering system. Two teen volunteers who frequent the library were enthusiastic about monitoring this system

To conclude the event we planted some pansies in front of the library in pots, and carried the tools and supplies to their storage. The seeds began to germinate in their cozy cold frame, and the microbial garden life performs its biological processes. We did all this between 3:00-5:30pm. In the month of May we will transplant the seedlings and begin the regular maintenance of weeding.

On May 27th, 56 days after we seeded our trays and installed an automatic sprinkler to keep them wet for germination we had a cold frame full of crops ready to be planted. Some repeat patrons attended this second gardening workshop, as well as some new ones. Pictured above are our bountiful seedlings inside of the cold frames. The cardboard around the cold frames base is important to keep weeds down. If weeds are allowed to grow they will shade the trays and reduce germination rates. If you look in the top right corner of the picture you can see the freshly tilled soil, free of weeds and ready to cradle our baby plants.



Patrons set to planting the seedlings in neat rows. One library patron had donated some seed potatoes, so one of the volunteers dug two trenches, about 4 feet long and 1 foot deep. Placing the potatoes at the bottom of the trench, and hilling soil on top of them was quick work for a teenage boy with a shovel. Six Healthy potato plants now grow there, alongside the rest of the plants.



Popping seedlings out of the trays without damaging their root balls is delicate work, so patrons worked together. One held the trays at an angle, and the other poked the base of the trays with a stick to loosen the seedlings. We did not have enough space in our 4'x8' garden for all of the seedlings, so participants in the workshop took home as many plants as they could carry. Now that



the cold frames had been emptied and the garden filled we relocated the automatic sprinkler so that it would spray the garden every day. Adjusting the sprinkler with a screwdriver tweaked the water stream to perfectly cover our garden for 10 minutes every day.

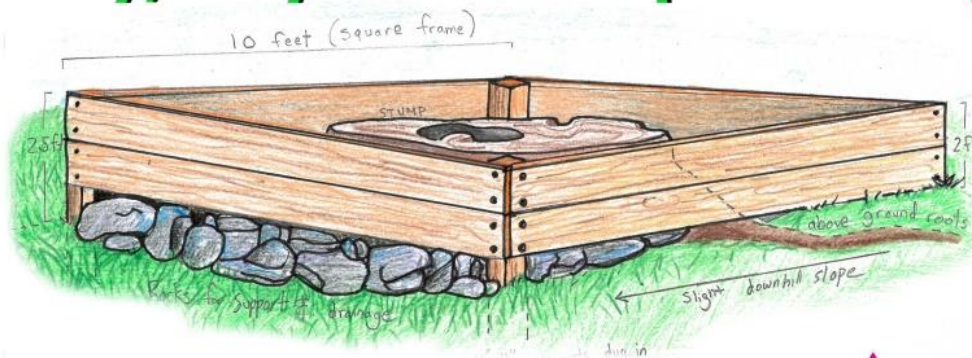
Pictured to the left you can see the results of this planting, from left to right are Potatoes, Beets, Basil, Kale, and Squash. This picture is taken on July 9th. The Kale and Basil are ready for harvest, but the other plants need some more time.

After our garden was planted we began the next step towards expanding the size and beauty of our library garden by constructing a 10'x10' raised bed nearby. One reason we decided to install a raised bed was because there was a large tree stump right next to our gardening area. Because of the stump, it was difficult to maintain the area around it, and it did not look like an attractive landscape. The stump's area also happened to get excellent sunlight, compared to our less than ideal sunlight on our current garden which was often shaded by the library building. It is worth mentioning that although some of our conditions for growing were imperfect, this enabled our garden to act as an example of just how productive and successful a garden can be even when it has sandy soil and too much shade.

Library Garden Workshop

Our vegetable garden located beside the Douglas Library is in its 2nd year of production. Last season went great, so let's expand! We'll be placing a raised bed over our intrusive tree stump, so we have more room for our seedlings to grow. This simple carpentry and landscaping project will act as a foundation for future hands on learning, and beautify our library. Ben the Library Assistant will be hosting this workshop, all are welcome to come and lend a hand on...

Friday, May 27th 2:30pm - 5:30pm



INSTITUTE of
Museum and Library
SERVICES



DOUGLAS LIBRARY OF HEBRON
WWW.DOUGLASLIBRARY.ORG



CT State Library
Preserving the Past. Informing the Future.

This project is made possible in part by the Institute of Museum and Library Services under the provisions of the Library Services and Technology Act, administered by the Connecticut State Library

Pictured above is our sign advertising the workshop and a drawing of my plans, and pictured below is the construction in progress and finished the product.



The raised bed is 2' to 2.5' in height because it is on a hillside. This is an ideal height for a person in a wheelchair to be able to reach the garden, so our library garden is handicap accessible. The garden is conveniently located next to our wheelchair accessibility ramp leading to and from our library. The raised bed is 10'x10' in dimension, giving us 100 square feet to plant in.

Placing the raised bed over the stump had another advantage as well. The stump will decompose over many years, trapping water inside it like a sponge. This water-saturated wood just below the roots would ensure that our plants would have access to water all season long with minimal watering. Our library garden's raised bed would be able to stand strong for at least 50 years and as a foundation for hands-on learning.

The construction began during the May 27th workshop, and was finished during another library gardening workshop on June 20th. All in all about 6 hours was spent building and moving, and a few hours were spent planning and acquiring materials. Volunteers participated in all the steps leading up to the completion of our attractive and functional expanded gardening space.

Library Garden Workshop

Drip Irrigation Installation

Join Ben the farmer and library assistant for an afternoon of gardening beside the Douglas Library. Our objective of the workshop will be to install drip irrigation lines within our newly added 10'x10' raised bed. Water and time are precious, and adding this technology will save both. We will also be planting crops in preparation for fall harvesting. All attendees will have an opportunity to get their hands dirty, offer creative input, or just learn and observe while we make these improvements on

Monday, July 25th 3:00pm - 6:00pm



This project is made possible in part by the Institute of Museum and Library Services under the provisions of the Library Services and Technology Act, administered by the Connecticut State Library

The next step for our Library garden was to utilize drip irrigation to create an easy-to-use and professional quality watering system. Our drip irrigation system consists of plastic tubing connected to a standard garden hose. All one needs to do to water the garden is turn on a knob and wait about 10 minutes as the water drips and sprays from the tubes to cover our raised bed. To realize this goal five library patrons showed up to help, 3 teenagers, a woman and a child.

We had a kit that felt a lot like a puzzle. It had a variety of tubes, plastic connectors and fittings. We figured out together what the best way to water our garden was with the supplies we had. We even made some custom modifications to the tubes by punching larger holes. This was very engaging to the patrons who participated in solving this puzzle, and prepared them to install their own drip irrigation systems in their home vegetable gardens.



While some workshop attendees installed the drip lines and made adjustments others weeded the already mature garden. Weeding a small space such as this only takes a few minutes, but is essential for vegetable production. Because our garden is located on town owned property we are lucky enough to have town maintenance crews to mow the grass around it. However, whenever grass needs to be cut and there are hoses lying about there is the potential for sliced hoses and tangled blades. We decided to dig a trench from the water source to the edge of the raised bed and bury the hose so that the maintenance crews could do their job without having to watch for our irrigation lines. The trench was about 5 feet long and 6 inches deep, and it was dug quickly and enthusiastically. There is something about digging that youth love.



When our drip irrigation was installed we moved to the next step, which was populating the raised bed with seeds. We planted carrots and spinach because they are tolerant of cool weather, and because they have a relatively quick growth cycle. We planted 30 row feet of spinach, and 50 row feet of carrots with a near perfect germination rate. Without the watering of our drip irrigation these cool weather crops attempting to germinate in this hot time of year would have had a much lower success rate.



When the seeding was completed we took a step back and marveled at our perfectly distributed water. This workshop lasted 3 hours, with a few hours of preparation. For some of the volunteers this would be their first time planting and watering seeds, and later it would be their first time eating food they had grown themselves.

During the months of August, September and October we had enough produce to donate to our neighbors, the Veterans of Foreign Wars association, on an almost weekly basis. Our donations consisted of potatoes, squash, tomatoes, basil, beets, kale, carrots and spinach. Our carrot crop did especially well because of the power of reliable volunteers. Every week a volunteer would apply fish emulsion to our carrots growing in the raised bed. Fish emulsion is high in nitrogen and accelerates plants growth. It is applied by diluting it with water and spraying it from a spray bottle. So after only 60 days of growing our carrots were large enough to harvest, and we had a lot of them!



Here are the contents of one of many donations to our neighbors the V.F.W.

The spinach has a bit of insect damage, but part of eating organic food is sharing it with the rest of the biosphere.



On November 10th we transitioned the garden once again by bulk-harvesting the carrots and spinach which were filling the raised bed. This freed up space for planting garlic. Garlic is a crop with a unique planting cycle. It goes in during the late fall or winter and lays dormant under a layer of mulch until spring. This technique allows the garlic to germinate early, and take full advantage of the warm spring months for growth. Again with the help of teen volunteers the task of harvesting all the vegetables in the garden, donating them, and planting 40 row feet of garlic was accomplished in just 2 hours.



Pictured to the left are volunteers harvesting carrots. The box of garlic bulbs will be separated into cloves so they can be planted like seeds.



The conclusion to our 2016 gardening season was the bulk donation to the V.F.W., and covering the planted garlic with hay for the winter. We accomplished a lot this season, such as tripling our garden space with our handicap accessible raised bed. Our cold frames were put to good use by getting our crops germinated early, and the addition of the automatic sprinkler system was flashy and functional in this regard. Another chance for the patrons to experiment with gardening technology was the drip irrigation workshop. This season we took a small patch of yard with a stump in it and transformed it into a community garden. Over 20 volunteers participated in this project, and our hopes for the 2017 season are high. Thanks to a grant from the Connecticut State Library, the skills of our staff, and the power of our volunteers, we added a unique service for our library patrons and community.



Written by Ben Sarnoski

Photography by Kelly Parlin