University of Minnesota Duluth
Duluth, Minnesota
Farming/Garden

SCHOOL
University of Minnesota Duluth, public, 4-year, fall 2011 enrollment of 11,806, Duluth, Minnesota.

ABSTRACT
Edible landscaping can be found throughout the University of Minnesota Duluth (UMD) campus. The Edible Garden Project helps to diversify the appearance of the UMD campus while also providing opportunities for collaboration across colleges and departments. In its third year, the project now boasts 19 different groups involved with 16 campus gardens. These gardens serve many purposes including encouraging healthy eating, providing opportunities for UMD students, faculty and staff to learn about local produce, and providing fresh vegetables to the UMD community. UMD Facilities Management made the Edible Garden Project possible through their commitment to sustainability and alternative landscapes.

GOALS AND OUTCOMES
Goals
The Edible Garden Project at UMD has evolved since its inception in 2010. Beginning as a way to showcase alternative landscapes on campus, the project has developed into a collaborative effort between UMD Facilities Management and other UMD departments and student groups. The project has also been influenced by the adoption of a new campus strategic plan. The outcomes of the project vary depending on each group involved, but the overall goal is to encourage interdisciplinary learning and to empower people to learn about growing food. Using UMD campus grounds to encourage learning about growing food aligns with many aspects of the UMD Facilities Management mission to “encourage use of the physical campus and our operations for teaching, learning and research.”

Under the guidance of Facilities Management, the Edible Garden Project began in 2010 after many years of discussion about the need for edible garden space on campus. The project began with raised bed gardens made out of burlap bags. This construction method was adapted from the Victory Gardens idea in San Francisco. The campus also hosted a salsa garden and a demonstration three sisters garden (corn, beans and squash).

In its second year, the project changed significantly. Many varied campus groups applied to adopt a specific garden site. These groups assumed responsibility over their garden site, while Facilities Management took the role of providing assistance to the campus gardeners. Facilities Management was also able to hire a student to manage the project.

UMD also adopted a new campus strategic plan in 2011. Goal 6 of this strategic plan states: “Utilize UMD’s infrastructure; technologies; and information, human and financial resources to support the campus in a sustainable manner.” As reflected in Goal 6 of the new strategic plan, Edible Garden Project
using UMD’s infrastructure to provide participants with the opportunity to learn about the many aspects of sustainable food production (economic, social and environmental). The strategic plan has been a major step in the continuing development of the Edible Garden Project.

During the summer of 2012, the Edible Garden Project supported 19 different groups, comprised of a variety of students, staff and faculty volunteers. Together these volunteers manage 16 different gardens. The goals of the project vary depending on each garden and group. The vegetables from some gardens will be used in healthy food workshops for students, faculty and staff. The produce from other gardens will be donated to a food shelf and an after school program. One garden focuses on heirloom vegetables, while another focuses on companion planting. The focus of some gardens is to grow vegetables for student groups, while the vegetables in other gardens will be shared with the UMD community.

Accomplishments and Outcomes
The gardens associated with the project are just beginning to produce vegetables for the 2012 season. The project has engaged at least 65 people in local foods. The project has also engaged numerous students, faculty, staff and community members during the 2010 and 2011 seasons.

Many of the gardeners have reported success thus far in accomplishing their goals. The gardens have already produced vegetables that have been donated a food shelf and an after school program. Some groups are developing plans for healthy food workshops and potlucks open to students, faculty and staff. Other groups report success in engaging staff and students in learning about growing food while also growing something beautiful for the whole campus and community to enjoy.

Challenges and Responses
The Edible Garden Project has had three major challenges during the 2012 season: animals, weather, and determining who is expected to pay for additional garden materials. In spite of these challenges, the gardens have remained resilient. Technology and effective communication have played a major role in determining responses to all these challenges.

The first challenge was animals. Cutworms and deer have affected the gardens. Deer were not a problem during the current season until late July. In years past, Facilities Management has used a deer repellent. A solution will need to be determined for this year. In addition to deer, cutworms have been a problem in many gardens. Cutworms eat leafy greens. The solution to this challenge developed out of an e-mail conversation. The garden coordinator asked for advice from the group of gardeners, and the group responded with several answers. Gardeners found their answers on the Internet or passed along their personal experiences to the rest of the group.

The second challenge during the 2012 season has been the weather. During the early part of the season, Duluth experienced very wet weather. This delayed some of the plantings. Also, heavy rains threatened the gardens. However, the gardens did not erode to any major extent, and the plants seemed to recover. The next month was very dry. The challenge of watering was solved through teamwork within each group involved. Once again garden coordinator served as the communications link, this time...
between the garden volunteers and Facilities Management. When a group needed extra watering supplies (water keys and hoses) the garden coordinator requested the supplies from Facilities Management.

The final challenge developed out of a misunderstanding. Facilities Management provided the gardeners with seeds and plants, as well as mulch and hoses. However, Facilities Management was not prepared to provide the gardeners with all the materials they requested. For example, some gardeners requested hard to find plants or trellising/stakes to support their plants. Facilities Management did not have the budget to pay for these materials. The response to this problem developed out of the innovation of the gardeners. Some gardeners purchased their own materials. Other gardeners created their own materials (trellising, stakes) out of branches and twine. One possible solution to this challenge could be to provide each group with a budget at the beginning of the season, from which they would purchase their own plants and materials. This solution would also require less of a time commitment by Facilities Management.

Campus Climate Action: Your School’s Carbon Footprint
The Edible Gardens Project indirectly addresses global climate change. The global food system is one of many factors directly related to global climate change. This project provides people with the opportunity to learn about to grow some of their own food locally. By growing food locally, the need for long distance transportation and its associated emissions are removed from the system.

Commentary and Reflection
Several issues need to be considered before beginning a program like the Edible Garden Project:

1. Gardening time is in the summer, when fewer people are visiting and living on campus. Summer time on a college campus can be a difficult time to connect with people. Faculty and students come and go for long periods of time. It may be difficult to keep people to their commitments.
2. The location of gardens on campus also needs to be considered. Gardens need to be located near a water source. Also, gardens need to be easily accessible for people. In order to be successful, people need to be willing to visit their gardens regularly for maintenance. Gardens also need to be accessible so that the public can see the gardens and appreciate/learn from them.
3. An additional suggestion is to develop a list of expectations for all parties involved. For example, develop a list of what is expected (financially and time commitment) of the campus grounds office (Facilities Management in the case of UMD), the garden coordinator and of the volunteer gardeners. A list of expectations will assist in communication between the groups, so that everyone knows what to expect from everyone else.

Below are some words of inspiration or guidance gathered from the 2012 Edible Garden Project volunteer gardeners:

- “Don’t wear nice shoes or clothes in the garden, they will get muddy.”
- “Communication is difficult...It takes a lot of effort to keep trying to involve people.”
• “Tending to the garden is a great way to take a break, enjoy the summer, and feel fulfilled about doing something productive outside of our regular jobs.”
• “Gardening is much simpler than expected. I assumed it was something someone had to show you how to do. This wasn’t true and it is something you can set out on yourself to learn. Our group didn’t know anything about gardening when we started and now we feel like we have learned a ton through ‘just doing it’.”
• “It is so easy to garden when everyone is pitching in and helping out with it.”
• “Our lessons so far have been around the spirit of teamwork. Our staff has really pitched in to work on our garden this year.”

ENGAGEMENT AND SUPPORT
Leaders and Supporters
UMD Facilities Management has been the main supporter of this project. Facilities Management has shown a commitment to innovation and sustainability, and several people within this organization have been key players in the development and implementation of this project. Some of the key people involved with the Edible Garden Project, past and present, include:
- Brian Bluhm, Sustainability Assistant
- Jonathan Roatch, former Facilities Management Student Employee
- Candice Richards, retired Associate Director in Facilities Management
- Peggy Dahlberg, retired Facilities Management
- Steve Schilling, Facilities Management
- David Chilberg, Facilities Management
- Stephanie Vine, Facilities Management
- Mindy Granley, Sustainability Coordinator

Funding and Resources
The Edible Garden Project relies on financial commitment by UMD Facilities Management. Initially the project used Campus Beautification Funds (a donation fund), but Facilities Management now funds most of the expenses associated with the project. As of August 2012, UMD Facilities Management has spent approximately $5,400 on the Edible Garden Project. This amount includes labor hours for Facilities Management staff and student employees, materials and equipment rental charges. The project is funded internally through the FY 2012 Grounds Maintenance budget. These financial resources are budgeted annually.

The UMD Office of Sustainability, as part of Facilities Management, has dedicated funding to the Edible Garden Project. The UMD Office of Sustainability paid for the printing of informational signs for each garden, as described in the outreach section. The UMD Office of Sustainability has also dedicated the time of a student employee, Brian Bluhm, to coordinate the garden project during the 2012 season.

This project has thrived with the help of approximately 65 people have been active in helping with the 16 different garden plots during the 2012 season. Volunteers have come from many departments and many roles across campus. In addition to their time and energy, some volunteers have even donated their own resources to ensure the success of their garden plot.

The Edible Garden project was not supported through a NWF Campus Ecology Fellowship.
Education and Community Outreach
The UMD Office of Sustainability has made many efforts to inform the UMD and Duluth community about the Edible Garden Project. The Office of Sustainability highlights the project under the Land and Water Section on its website. Signs have been created for the gardens with information about the sponsoring group and the intention or theme of each garden. The Office of Sustainability staff members have been active posting pictures and information about the project on Facebook and Twitter. The Edible Garden Project is highlighted at the weekly Office of Sustainability booth at the Market at UMD (www.umdmarketday.com). UMD Currents, a monthly newsletter created by UMD External Affairs for faculty and staff, featured an update on the Edible Garden project, and the project will be highlighted by a story on the UMD homepage in August 2012 (www.d.umn.edu).

National Wildlife Federation’s Campus Ecology Program
The Campus Ecology Program was not directly involved with the origin or implementation of this project. However, this case study has served as a format from which to assess the Edible Garden Project. The Campus Ecology Program, and associated case studies, will serve as a guide for the Edible Garden Project as it evolves in future years.

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MORE ABOUT YOUR SCHOOL
Campus Sustainability History
The University of Minnesota Duluth has a history of leadership in developing sustainable facilities practices. In addition to the Edible Gardens Project, UMD Facilities Management has developed other alternative campus landscapes. Some examples include the use of native plants and the creation of rain gardens. These alternative landscapes lessen UMD’s impact on the local environment through limiting the use of fertilizers and water for lawn maintenance and reducing storm water runoff. UMD also has a strong commitment to reducing energy consumption and carbon emissions. UMD has signed on to the American College and University President’s Climate Commitment, and UMD’s Energy Action Plan creates an outline for campus carbon emission reduction goals. Learn more about the UMD Office of Sustainability and UMD’s sustainability efforts at www.d.umn.edu/sustain.

Image Credit: Brian Bluhm