SWALCO & Collaborators "Dig In" with first actions steps of a Pilot Project to Promote Compost Use and Divert Food Scraps

In August, 2020, SWALCO (Solid Waste Agency of Lake County) was awarded a USDA and NRCS grant for local governments to host a Community Compost and Food Waste Reduction pilot project. The primary goal of the grant is to assist local government with projects that develop and test strategies for planning and implementing municipal compost plans and food waste reduction plans.

Since its inception, SWALCO has focused on developing and implementing programs and initiatives to recover materials from final disposal while educating members, residents, businesses, and institutions on why and how to be better recyclers, composters, and environmental stewards. The grant plan that was submitted by and awarded to SWALCO and will now be carried out with the help of a variety of collaborators, will help to continue the Agency's educational and diversion efforts, and work and take it to the next level. Results and data collected from and due to this grant, along with other programs and resources will be shared with anyone interested locally, throughout the state, and beyond.

Some of the collaborators involved are The Illinois Sustainable Technology Center (ISTC), at University of Illinois-Urbana, Champaign, the Lake County Farm Bureau and U of I Extension, SWALCO's 43 member municipalities, in addition to the agriculture and garden sites where soil research and demonstration will occur. These include: the Golden Oaks Farm, the Lake County Forest Preserve District and the Prairie Wind Family Farm, and additionally three community gardens that are managed by the Eden Restoration Project, Lake County Forest Preserves Green Youth Farm, and the Vernon Hills Park District Community Garden. Plans for on-site and virtual education and demonstrations days where the public, local ag entities, gardeners and others will be invited along with other educational and outreach efforts will be conducted by SWALCO and grant collaborators.

Compost Demonstration in Lake County

A main endeavor of the project is to demonstrate that compost derived from landscape waste and food scraps can be a valuable product that can be used in agriculture to improve and maintain the health of soils. Participants that reflected the variety of agricultural typologies that exist in Lake County Illinois were selected and included commercial, large-scale farms (growing crops such as corn, soy bean, alfalfa), smaller urban farms with CSAs, community gardens with shared output and community gardens with individual household "rental" parcels.

The demonstration will focus on the impact compost will have on soil characteristics such as bulk density, crop yield, compaction, water holding capacity, organic matter content, soil workability (anecdotal, qualitative assessments from participants who will be asked to maintain diaries/journals during the demonstration period). Soil sampling will occur pre and post growing season to track changes in soil chemistry, nutrient levels, organic matter content. Data will be data taken regularly during the growing season, such as soil moisture and compaction. While compost can deliver some nutrients, in this demonstration it will not be used as a fertilizer. It will be supplemental to a site's current management practices, meaning sites can continue business as usual when they apply compost. However, with the testing that is included in this demonstration, we hope that participants will see that they will be able to scale back fertilizer use. First up….Vernon Hills Park District Community Garden….

Vernon Hills Park District (VHPD)—First Steps in the Pilot Project

Background: VHPD, a long-time partner and collaborator of SWALCO, and one of three community garden participants selected for the project, has a community garden space near its recently built maintenance facility. It offers plots that residents pay $35 for a growing season. The space was originally a wooded buffer/barrier alongside a rail line. During the grading of the space set aside to be the community garden, the park district found the soils to have a high clay content that could make planting vegetables problematic. Fill was incorporated into the soil profile in hopes that would remedy any potential problems. During the first years, gardeners expressed frustration because very little would grow. Plants were stunted, root crops deformed, soil would dry out to a cement like hardness, and during rain events flooding was a constant problem. Some gardeners resorted to raised beds, created their own channels to address excess water on their plots, and even replaced the native soil with bagged substitute from the local hardware store.

Overview of VHPD Community Garden:

Left: The space prior to the recent construction of the maintenance facility and adjoining community garden was a stretch of trees and thicket acting as a barrier /buffer to the rail line on the other side.

Right: Current aerial of the Vernon Hills Park District community garden. 15 x 15 ft plots are arranged in six 2x3 groups.

Water infiltration is poor on the heavy clay soils of the community garden.

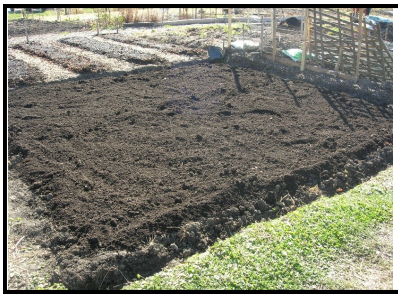
Ponding is a problem, and some gardeners have resorted to creating channels to capture water and move it out of their plots.

The Plan: Compost will be applied in a 2 inch layer each year of the program to the gardeners plots, while the park district will maintain several plots where different rates of compost, including no compost, to demonstrate the impacts of these varied rates. The first load of compost was delivered November 4th, 2020, and the reception has been very positive. James Kim, superintendent of parks for Vernon Hills Park District, is already making plans to budget compost purchase for two other community garden sites. The gardeners were responsible for moving compost to their own plots. The park district supplied the gardeners wheelbarrows, shovels, and rakes to facilitate the process.

First Steps!:

Left: First Compost delivered on November 4th, 2020.
Right: Shank Family gathering their compost.

Every Picture... and Every Garden Tells A Story:



Left: A plot with compost applied, the gardener says he will incorporate with a small motorized cultivator.

Right: Demonstration plot managed by the park district. One half will have compost applied at same rate as the rest of the garden, while the other half will have no compost added.