

Soil Remediation Techniques in Urban Agriculture

Project Titles: Soil Remediation Techniques in Urban Agriculture

Coordinators: Casey Campbell Sabatka

Location: Chicago, Illinois

SARE Grants: \$14,975

Duration: 2018-2020

To read the full project reports, go to <https://projects.sare.org/>, and search for project number FNC18-1141.

When we think of soil health, concepts like soil structure and water and nutrient holding capacity come to mind. For urban farmers managing contaminants such as lead and arsenic is another major soil health concern. Dirty Boots Flowers is an urban flower farm that shares a small parcel of land with two other farms in the East Garfield Park neighborhood of Chicago, Illinois. Dirty Boots grows more than 20 varieties of flowers which they sell for weddings, events, offices, and personal deliveries. One of their challenges has been soil remediation. With help from a \$14,975 NCR-SARE Farmer Rancher grant, Dirty Boots owner, Casey Campbell (nee Sabatka) is working with one of the neighboring farms, Chicago Patchwork Farms, on soil remediation.

“Two years ago, we discovered that the chickens at Chicago Patchwork Farms were able to transform wood chips and farm waste into 75 cubic yards of clean, healthy soil,” said Campbell. “This made us wonder how else we may be able to affordably work with the toxic land in our communities.”

The two farms will tackle their soil contamination problem with a two-part solution of phosphate induced metal stabilization (i.e. binding lead with fish bones) and phytoremediation with sunflowers, marigolds, native grasses, and ferns (plants which hyperaccumulate



Dirty Boots Flower Farm received SARE support to plant these Brake ferns to help remove toxins from their urban soil through a process known as phytoremediation.

contaminants). The project is on-going, but base-lines tests have been conducted and plantings have been made. Chicago Safe Soils Initiative, a group that is working on a lead map of Chicago, has expressed interested in future collaborations.

For more information on Campbell’s NCR-SARE Farmer Rancher grant project, visit the SARE project reporting website. Simply search by the project number, FNC18-1141, at <https://projects.sare.org/>, or contact the NCR-SARE office.