

RETHINKING URBAN GRASSLANDS

Green-Wood Teams Up with Cornell University to Battle Climate Change

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The grasslands of Green-Wood, showing new treatment plans developed in collaboration with Cornell University's School of Integrative Plant Science.

The global effects of climate change are staggering: species extinction, rising sea levels, rising temperatures, and more. But what does this mean for Green-Wood? In partnership with Cornell University's School of Integrative Plant Science, we've embarked on a first of its kind research initiative to examine and address the effects of global warming right here in the Cemetery.

Focused on our hundreds of acres of grass, the project is led by Dr. Frank Rossi, an associate professor of horticulture at Cornell who is internationally recognized for his work in environmentally sustainable systems for grass and turf. Urban environments experience accelerated impacts from the increasing temperatures and rainfall associated with climate change, threatening grasslands like Green-Wood.

A number of challenges have become increasingly evident at Green-Wood. Most notably, we've seen a rise in invasive grass species, affecting both the appearance and biodiversity of our landscape. Furthermore, the longer growing season has meant more frequent mowing. Mechanical mowing contributes to greenhouse gas emissions, enlarging our carbon footprint, creates noise pollution, and opens our landscape and monuments up to damage.

Over the course of this three year project, we're setting out to address several questions: How can we reduce the spread of invasive grass spe-

cies? How can we cut down on how often we mow? What alternatives to traditional turf grass can we grow at Green-Wood?

First we need to understand exactly what we're dealing with. State of the art technology is being used to track the characteristics of our soils, grasses, and microclimates, including drone imagery and an array of monitoring devices. This baseline data is being used to develop, test, and refine treatment plans for our landscape.

Research is in its early phases, but we know what our goal is: to establish a more climate-resilient landscape. We're currently in the process of testing treatment plans. This has included the introduction of new seed mixes as an alternative to traditional turf, adjusting the frequency and height of mowing, and finding effective ways to manage soil disruption.

The most exciting part of this project is its impact beyond Brooklyn. Our findings will serve as a blueprint for other cemeteries, parks, and greenspaces in cities across the country that are facing similar challenges. By offering real-world strategies for large-scale urban grassy landscapes, Green-Wood is making an important contribution to the reduction of greenhouse gas emissions and creating sustainable solutions for the future.

If you have any questions, please contact us at grass@green-wood.com.

A mowed path through long grasses that are aflutter with wildlife on Green-Wood's Hill of Graves.



“THE URBAN GRASSLANDS AT GREEN-WOOD PROVIDE AN IDEAL ENVIRONMENT TO STUDY SUSTAINABLE AND ECOLOGICAL ALTERNATIVES TO THE MANICURED LAWN IN AN ERA OF CLIMATE CHANGE”

FRANK ROSSI, PhD, PROJECT MANAGER, ASSOCIATE PROFESSOR OF HORTICULTURE AT CORNELL UNIVERSITY



Aerial photographs captured by drones are used to map and monitor the species of grasses at Green-Wood.



Andrew Pochedly, Cornell graduate student and project technician.

NEW BEETLE SPECIES DISCOVERED AT GREEN-WOOD

The new species was identified during a screening for invasive wood-boring beetles on our grounds, conducted in collaboration with the U.S. Forest Service. Entomologists analyzed the traits of the insect and found it to be distinctive from any known species in both physical appearance and genetic composition. It also exhibits a distinct behavioral difference from its closest relatives—it feeds on beech trees. This is a significant find because of the potential harm the beetle is capable of inflicting on the important urban tree population. The species has not yet been named.

Since 2016, Green-Wood has participated in initiatives to identify and reduce the populations of invasive insects that wreak havoc on trees both inside and outside of Green-Wood. Our partners in this work are the U.S. Forest Service, U.S. Department of Agriculture, and the New York State Department of Environmental Protection. Green-Wood is proud to help safeguard New York's urban forests.



Enlarged image of the newly discovered beetle, which measures just 3.7mm in length.