

# Urban Sustainable Gardening

by Scotia Hille



Albers Marcovina Vista Gardens, Bremerton, Washington [albertvistagardens.org](http://albertvistagardens.org)

On August 10th, 2020 members of the Center for the Women of New York's Green Team interviewed Dr. John J. Albers of the University of Washington. Dr. Albers is a research scientist and professor of medicine at the University of Washington. He is also a passionate environmentalist and the author of several books about sustainable gardening, *Growing Conifers: The Complete Illustrated Gardening and Landscaping Guide* (May 2021); *Northwest Garden Manifesto: Create, Restore, and Maintain a Sustainable Yard* (2017); and *Gardening for Sustainability* (2013). Although recently retired from research and teaching, Dr. Albers continues to review scientific and medical research papers, as well as continuing to assist young investigators in their research.

The Green Team at CWNYP was made aware of Dr. Albers' wonderful work through his feature on *Growing A Greener World* on national public television. After an email correspondence, he graciously agreed to an interview with the Green Team to discuss urban sustainability. This interview was conducted by CWNYP President Victoria Pilotti and Green Team Coordinator Scotia Hille.

Dr. Albers offered insightful advice for members of the Center for the Women of New York about the benefits and challenges of urban sustainability. He advised that when it comes to urban gardening, quality rather than quantity should be the focus—even a small container of plants or small plot of land can provide benefits for the urban environment. Some of these benefits include:

1. The uptake and removal of carbon dioxide
2. Improvement of air quality by trapping atmospheric pollutants, which is especially important in cities,
3. Cooling effects on urban heat, which will become more important as the climate warms,
4. Improvement of water quality through filtration,
5. Reduction of noise pollution, particularly with plant groupings,
6. Provision of food, shelter, and nesting sites for wildlife and pollinators, and
7. Improvement of human health and well-being through recreation and reduction of stress.

For those living in a small space with little or no land, such as an apartment or condominium, Dr. Albers recommends planting fruits, vegetables, herbs, and flowers on a balcony deck or rooftop using containers filled with high quality potting soil. As he said, “you really do not need much space to make a significant contribution to the green infrastructure of your urban community.” For those with a small bit of land with native soil, he recommends adding compost and other organic material to improve the quality of soil before planting.

Urban composting is another important component of urban sustainability that may provide some challenges for those with limited space. A number of pilot composting programs that had sprung up around New York City have since closed due to COVID-19 budget cuts and lockdown restrictions. Luckily, Dr. Albers highlighted several strategies for composting at home. For those with a little space, he recommends a compost tumbler, which is a rotating container that can make compost in a relatively short amount of time. For those with limited space, a small container can be used for a worm bin, to produce compost with kitchen waste. Adding organic material of any kind to the soil can make it healthier for plants to flourish.

Dr. Albers surprised both interviewers with the fact that New York City actually receives more rain annually than his home city of Seattle. He warned that with climate change, New York City can expect more extreme weather events, including generally hotter summers and some unusually cold or snowy winters. Unfortunately, the prevalence of impermeable surfaces such as asphalt and concrete in urban environments can exacerbate the effects of flooding during extreme weather. Many New Yorkers remember vividly the destruction of Hurricane Sandy and have reason to fear the increase in extreme weather events that is expected with rising sea levels and warmer temperatures. Dr. Albers walked us through the ways in which public green space can help the public respond to such natural disasters. Urban green space helps alleviate flooding by minimizing stormwater runoff and recharging the urban groundwater, primarily through enhanced filtration—water filters better through soil than concrete. Some cities have taken steps to actively build green infrastructure through the incorporation of rain gardens, bioswales, and soakage trenches, which all work to reduce the flow and volume of stormwater, enhance filtration, and remove pollutants. Some New Yorkers might have seen bioswales on various sidewalks, which is part of the city’s investment in green infrastructure. More information can be found with the New York City Soil and Water Conservation District.

Another essential part of Dr. Albers’ sustainable garden methodology is the prioritization of planting native species. This was a subject raised during CWNY’s Sustainability Webinar with NYC Parks, where Assistant Commissioner Jennifer Greenfield brought attention to the work of the Native Plant Society of Staten Island in preserving New York’s native species. Dr. Albers encourages robust research into the species of plants you choose for your garden, to ensure that the species aren’t invasive. Unfortunately, many nurseries continue to sell invasive plants. Likewise, when bringing plants into New York’s microclimate from other areas of the country, budding gardeners should make sure that their new plantings will not become invasive. Planting native species has a myriad of benefits: they are well-adapted to the local microclimate and require little maintenance or water and provide shelter and food for native species of

wildlife. Choosing native species is an easy way to cut down on effort required to maintain a garden or lawn. Nevertheless, Dr. Albers explained that non-native plants which are not invasive and adapted to the urban microclimate have their own benefits. In New York specifically, many new parks or plots may contain soil that has been added from elsewhere or else significantly altered by the urban environment, potentially containing harmful contaminants. This soil will not be well-suited for native plants. Therefore, non-native plants, particularly woody plants and shrubs, can provide similar ecological benefits. In fact, Dr. Albers informed us that community parks which include non-native and native species actually support a wider diversity of insects, including pollinators, than gardens comprised of native species exclusively.

Dr. Albers had several final lessons for the CWNY team. He recommended to the NYC Parks Department to replace lawn cover, which has low biodiversity and requires significant maintenance, with sustainable gardens or native grass species. Not only would doing so improve the biodiversity of NYC's parks, but would save the city significant money on lawn mowing and watering. Despite his focus on the individual efforts to improve biodiversity at home, Dr. Albers repeatedly emphasized that all of our work towards building sustainable environments will have only moderate impact unless we do more about climate change. Minimizing our reliance on fossil fuels is crucial to maintaining our global climate, which is essential to the health of each microclimate we are fortunate enough to garden in. Likewise, the use of green infrastructure to mitigate flood risk will do little to prevent sea level rise unless we also reduce greenhouse gases to mitigate global warming. Although there are many adjustments we can make in our own environments to improve biodiversity and quality of life, reducing fossil fuel emissions and slowing the rate of climate change is essential. Dr. Albers believes that the major factor that will bring about this change is the education of our youth. He wants to ensure that more students at the elementary, middle, and high school levels are endowed with a robust environmental education, to best prepare them to be stewards of our changing environment.

The Center for the Women of New York has our own role to play in ensuring the education of our communities, both in regards to the rights of women and in the protection of the environment. Our Green Team aims to address both of these issues in tandem by bringing to light the ways in which women's equality and participation are both essential to the fight against climate change. We look forward to future webinars, interviews, and discussions about this essential topic!

Full interview audio and transcript are available at [cwny.org/past-events](http://cwny.org/past-events).