

A decorative banner with a red background. It features various autumn-themed illustrations including yellow and orange leaves, a white flower, a green leafy vegetable, a bunch of grapes, a yellow bell pepper, a yellow chili pepper, a yellow potato, a white onion, and a yellow corn cob. The text "UDC CAUSES" is written in white, bold, sans-serif font on the left side.

**UDC CAUSES**

**URBAN FOOD HUBS**

UNIVERSITY OF  
DISTRICT OF  
COLUMBIA  
1871

EPRI | ELECTRIC POWER  
RESEARCH INSTITUTE

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# **AN INNOVATIVE CONTAINER FOOD PRODUCTION SYSTEM (AG. POD)**

**UDC – PEPCO**

**NOVEMBER 2020**

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# UDC – PEPCO Ag. Pod Project



## Introduction

- PEPCO and UDC have partnered to install an **Innovative Container Food Production System** known as an “Ag. Pod” at the UDC Backus Food Hub Site.
- Using advanced technology in the Ag. Pod, we can grow high quality - fresh food in a controlled environment in a short time.
- This type of technology enables us to operate 365 days a year 24/7 which will help us minimize food desert problem.

# Ag. Pod Project Goals

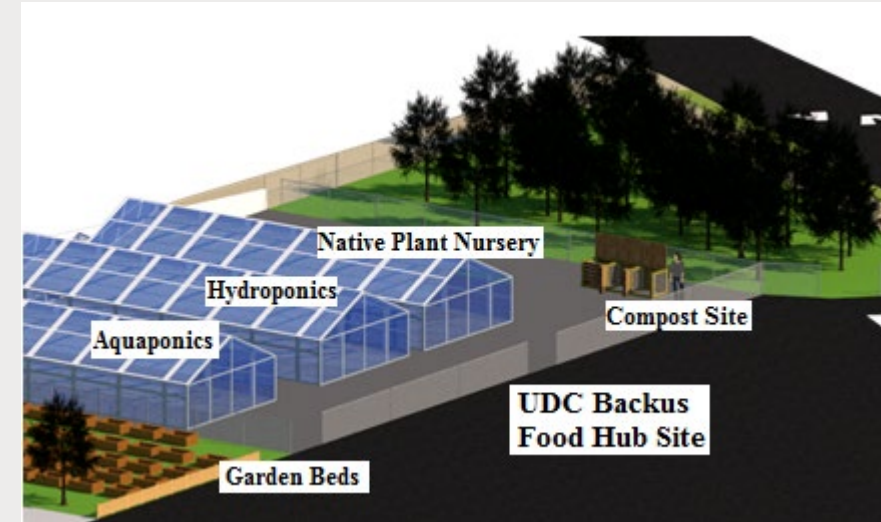


- The Ag. Pod is an innovative form of urban food production.
- The PEPCO UDC collaboration is in line with UDC CAUSES mission to offer research-based academic and community outreach programs that improve quality of life and economic opportunity of all people and communities in the District of Columbia, the nation and the world.

# Ag. Pod System



- The Ag. Pod demonstrates a vertical hydroponic system with LED lighting for 24 hours of growth and sanitation for high-quality food production.
- We can grow lettuce, leafy greens, herbs, flowers and root vegetables.





## POD FARM



Example size:  
320 sq.ft.



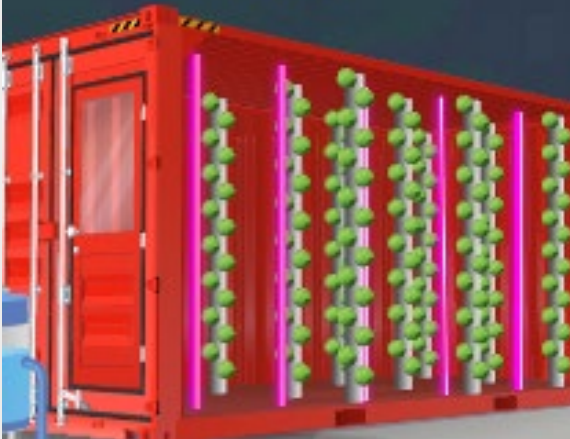
Average lettuce  
yield per week:  
95 to 140 lbs /  
approx. 500 5oz  
heads per week



Average electrical  
service required:  
60 Amp, 120/240V



Typical daily energy  
consumption:  
100-150 kWh



# LETTUCE



## LETTUCE

Experience fresh and crispy lettuce varieties like crunchy romaine, smooth butterhead, or delicate leaf lettuce. Perfect for refreshing salads, these crops are in high demand by consumers, grocers, and chefs.

### WEEKLY YIELDS HARVESTING SCHEDULE

Crop Variety	3-week*	4-week*	5-week*
Bibb	1,450 heads	990 heads	700 heads
Butterhead	1,450 heads	990 heads	700 heads
Leaf	1,450 heads	990 heads	700 heads
Romaine	1,450 heads	990 heads	700 heads

\*This refers to the amount of time lettuce is growing in the plant panels in the cultivation area of the Greenery. Lettuce can be sold by the head or by the ounce/pound. Projections should not be considered a performance guarantee.

Source: Freight Farms

# LEAFY GREENS



Source: Freight Farms

## LEAFY GREENS

Rich in flavor and vibrant in color, leafy greens like kale, Swiss chard, and spicy arugula grow very well in the Greenery™. The versatility and nutritional value of these plants make them the staples of many international cuisines. Projections should not be considered a performance guarantee.

### WEEKLY YIELDS

Crop Variety	Pounds Per Week
Arugula	70
Asian Greens	125
Collard Greens	100



# HERBS



Source: Freight Farms

## HERBS

Enhance the flavor of any dish with fragrant herbs. Most of these crops typically grow in warm-weather climates, so year-round availability is important for at-home cooks and professional chefs looking to add sophistication to their dishes. Projections should not be considered a performance guarantee.

### WEEKLY YIELDS

Crop Variety	Pounds Per Week
Basil	90
Chives	55
Dill	90
Parsley	90
Thyme	55
Sage	75

# Root Vegetables



Freight Farms

## ROOTS

Roots are crunchy, delicious, and sweet additions to salads, or can act as stand-alone sides. Pro tip: many chefs use the leaves of root vegetables in their dishes, so growing these crops gives them two ingredients in one! \*While the Greenery™ is optimized and designed for the growth of leafy greens, our Freight Farmers have had success growing a variety of root vegetables and flowers.

### CROP VARIETIES

- Beets
- Carrots
- Bunching Onions
- Radishes
- Turnips
- Kohlrabi



# Community Training

- The Ag. Pod will be installed at the Bertie Backus Food Hub Site in December or early January.
- The Bertie Backus Food Hub Site is one of a network of UDC urban food sites to educate and train communities on urban food production and urban sustainability.
- UDC is working with its partners including PEPCO to develop an **Entrepreneurial Training Model** to train interested residents in Wards 5, 7, and 8 to make this project to a functional community asset.

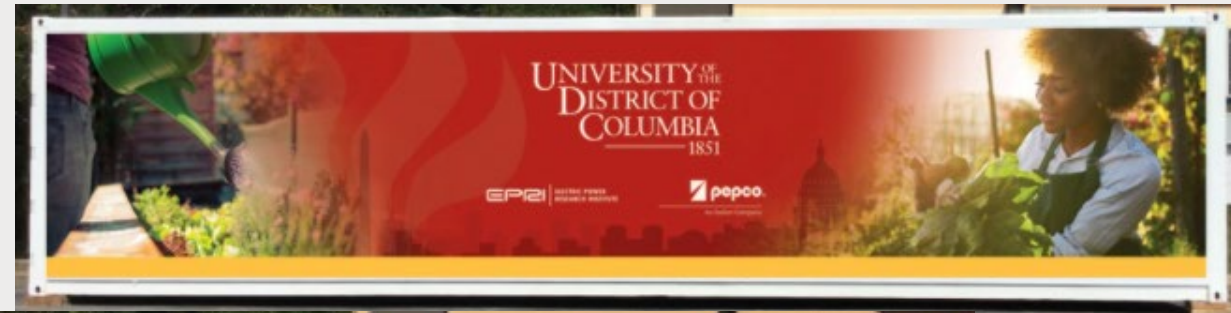
# Food Production and Distribution

- All produced food from this project will be distributed among the residents in food desert areas.
- Part of the production will be assigned to UDC Backus Farm stand, which will be operational between June and November.

# Community Engagement

- A community Survey: [https://udc.iad1.qualtrics.com/jfe/form/SV\\_6MyQ2BqV0I2uWVL](https://udc.iad1.qualtrics.com/jfe/form/SV_6MyQ2BqV0I2uWVL)
- Project Wrap design selection: <https://www.surveymonkey.com/r/B9N696S>

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**Questions?**