

From the Barren Soil Beauty will Bloom

Agricultural Land Restoration
Project Patuxent River State
Park



Former Izaac Walton League Property Patuxent River State Park

- This 6-acre plot has been under heavy row crop farming for the last 30+ years.
- The field has been a steady rotation of Corn and Soy.
- This field was leased out every 5 years to the highest bid farmer.
- Over the years this particular plot had suffered from lack of production and was our lowest Bid farm \$50 per acre compared to the \$350 per acre we get for surrounding lands.





Regenerative Agriculture

The goal of regenerative agriculture is to use agricultural land in such a way that the resource improves with use over time in terms of quantity, quality and/or function. Regenerative agriculture emphasizes improving soil health and water quality through prioritizing excessive photosynthetic activity to build soil organic matter. Regenerative agriculture is a form of land management that produces agronomic output(s) while enhancing ecosystem function, increasing biodiversity, and mitigating climate change. The core principles of regenerative agriculture are as follows:

- **Minimize soil disturbance:** Use low- or no-till practices to preserve soil microbiology and structural integrity for adequate water infiltration and respiration.
- **Keep soil covered:** Maintain constant soil cover to minimize soil compaction, erosion, temperature extremes, moisture evaporation, nutrient loss and runoff.
- **Increase diversity:** Encourage plant polycultures to cultivate more diverse, resilient ecosystems on agricultural land that can also support wildlife and pollinators. This practice is frequently deployed by using multi-year, diverse crop rotations.
- **Maintain living roots:** Prioritize deep-rooted plants and employ farming practices to maintain living roots. Root systems are the primary method for creating soil organic matter, and soils with extensive root structures have increased stability, function and resilience and provide food, habitat, and temperature stability for soil microbiology.
- **Include livestock:** Maintain growth-stage plant life with regular foraging (i.e., key to excessive photosynthetic activity) and increase nutrient availability with animal waste as fertilizer (i.e., key to health soil microbiology) by including rotational grazing. (Note: This condition is optional and not a requirement for this location as the acreage is limited and not well-suited to livestock inclusion. Inclusion of animal waste fertilizer without hosting live animals on site is also a possibility to achieve a similar goal).

Removal of Agricultural land from public bidding in 2021



The IWLA property was proposed to be removed from the Agricultural Bid process so we could attempt some different methods to try and regenerate the soil.



Beauty Blooms farm reached out to see what the process was for leasing land.



During this time, we did not have a lease process for this type of agricultural. So, in came Maddie and LeeAnne to save the day. They were able to craft a Land Use agreement so we could have Beauty Blooms investigate ways to regenerate the soil.



•Beauty Bloom Farms

- Beauty Blooms Farm is a woman-owned farm supplying certified naturally-grown food & flowers to Montgomery County and the D.C. Metro area. Their farm is low-till with a focus on naturally-grown vegetables, fruits, herbs, and flowers. This means they don't spray any synthetic chemicals on the crops they grow and use organic practices and material to create healthy soil to grow the highest quality crops.

•Farm Values

- Through the farm, we center values on:

- Family:** being surrounded by those I love, both blood and chosen family & friends

- Appreciation of Beauty:** looking for and stewarding beauty through seed to fruit

- Community:** using my voice and power to build a thriving, local food economy & steward our shared home well with others who hold similar values. We have a lot to say on this subject!

- Humor & Fun:** having a good giggle!

- Courage:** farming is no joke! As a young, beginning, woman of color farmer, I am choosing to challenge the representation of who a farmer is and taking on a large operation to grow good, local food.

Cleve
Farmhand
(he/him)

Cleve is a land worker and my dad. He has managed a landscaping business serving the D.C. area for the last 30+ years and brings a vast knowledge of plant varieties and pest management. Cleve helps with any and all tasks on the farm.



If Cleve were a spice, he'd be curry.

Nia
Founder & Farm Manager
(she/her)

I am a returning generation farmer, reconnecting with my roots and celebrating the foods that I love to share with my community. As the founder and farm manager of Beauty Blooms Farm, I manage everything from seed starting to crop planning and harvesting. I have spent the last 10 years immersed in justice work and extending her programming, facilitation, and organizing leadership to the food justice movement where I grew up.



If I were a spice, I'd be ginger.

•In 2022, Nia expanded on the vision of Beauty Blooms Farm and took a major leap to 10 acres in Montgomery County. Her goal is to regenerate the land which was in corn & soybean production for over 30 years through organic practices and cover cropping to produce food that feeds the community. Nia is proud to be one of the first, hopefully of many, regenerative, natural farmers stewarding public park land for sustainable agriculture use.

•Nia believes that all people have a right to delicious, nutritious and culturally important food that's affordable and grown locally.





Beauty Blooms Farms benefit to the public and the Maryland Park Service.



First and foremost, it rejuvenates and maintains the health of state parkland, creating a vibrant and sustainable ecosystem. It directly contributes to the fight against food insecurity by partnering with local food banks and nonprofit organizations, strengthening the local food system and providing culturally relevant food to those in need. Additionally, it offers a new pathway to land access for aspiring farmers, particularly those who historically faced barriers to entry.

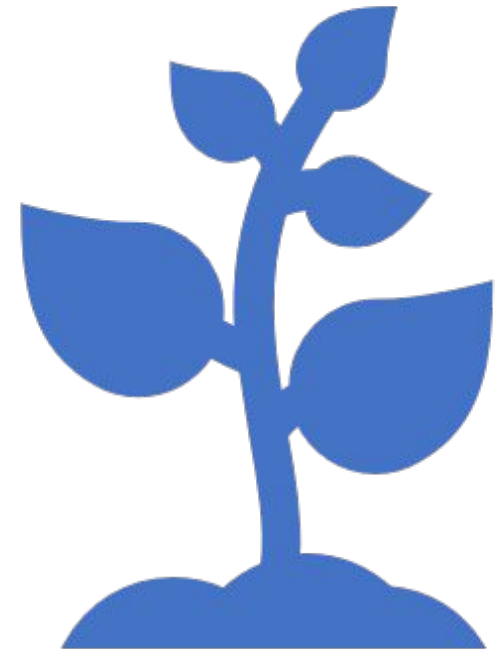


Finally, we aim to make this land a hub for educational events, where we can share our journey and celebrate the rich history of Black farmers in the county and the state. Our project aligns with the mission of the Maryland Park Service, focusing on conservation and land stewardship, ecosystem health, and people's enjoyment of natural, cultural, historical, and recreational resources. By transforming the Mullinix Mill property into a thriving, organic community farm operation, the Beauty Blooms Farm project embodies the principles of sustainable land use and environmental Stewardship championed by the Department of Natural Resources



Rejuvenation of soil and improved habitat in an overused agricultural area. .

Beauty Blooms is a Certified Naturally Grown operation that grows and shares culturally important crops with the Montgomery County community. Beauty Bloom uses Afro-Indigenous methods of cover cropping, crop rotations and adding organic matter to improve soil health while providing food to the local community. Beauty Bloom will continue to use integrated pest management (with a focus on prevention), low and no-till methods, small tools whenever possible, silage tarping, crimping, and diverse African heritage cover crop varieties for regenerative, no-till, small-scale agriculture production. This will minimize soil disturbance, maximize soil cover, maximize biodiversity, and maximize the presence of living soil roots



Certified Naturally Grown Farm Approach

Through this approach, Beauty Bloom hopes to improve overall soil health, including organic matter content, carbon sequestration and pH levels.

From their initial cover cropping of winter rye and adding organic mushroom compost in Fall 2022 - Spring 2023, the soil pH improved from 4.4 to 4.7 and organic matter increased from 3.1% to 4%.

This season, Beauty Bloom added over 2,000 pounds of locally sourced organic amendments to the 1-acre plot that was in vegetable production.

These included mushroom compost, leafgro, feather meal, and Harmony Ag organic 5-4-3 NPK fertilizer. In this plot, pH has increased to 6.1 and organic matter has increased to 4.6%.

Soil Testing



SOIL TEST REPORT
UNIVERSITY OF DELAWARE — SOIL TESTING LABORATORY
NEWARK, DELAWARE 19717-1303

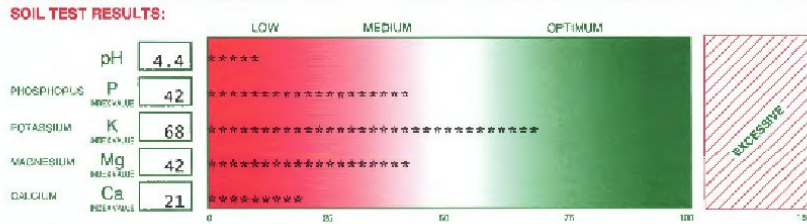
BACKGROUND INFORMATION: Grower copy

MULLINIX	6 OUT OF STATE	3/16/22	4/22/22	05/10/22	2830	171066
FIELD NAME OR NO.	AGRES	COUNTY	DATE SAMPLED	DATE RECEIVED	DATE COMPLETE	LAB NO. BAG NO.

SOIL TEST FOR: GROWER ADDITIONAL COPY TO: COUNTY AGENT

NIA NYAMWEYA
4720 ROSEDALE AVE #311
BETHESDA MD 20814

BRINKLOW	MOD WELL	NORMAL	SI LO	6-18	NO TILL	CORN STUBL	NO	NO	
SOIL NAME	SOIL DRAINAGE	SOIL COLOR	SOIL TEXTURE	SAMPLE DEPTH	TILLAGE	PRESENT COVER	IRRIGATION	INCL PUMP	
CORN, NO TILL						UNKN	0.0	UNK	
LAST CROP	YIELD OF LAST CROP	TYPE	T/A WHEN MAINTEN	N LAST FERTILIZER	P ₂ O ₅	K ₂ O	MOS. ACID LAST LINE	T/A TYPE	OTHER NUTRIENTS



0.8	222.9	2.8	65.9	3.1	7.37	12.6	6.9	26.6	1,2,18	
B	Mn	Zn	SO ₄ -S	% ORGANIC MATTER	SOIL SMITS M4-H2SO4	BUFFER pH	% Phosphorus Saturation	CBC micro100cm	% Base Saturation	ENCLOSURES

SUGGESTED FERTILIZER PROGRAM:

CROP: SUNFLOWERS

3.0	80	40	0		
T/A LIME	TYPE	N LBS/A	P ₂ O ₅ LBS/A	K ₂ O LBS/A	B LBS/A

- Nitrogen use is most efficient when split into at least two applications.
- Recommended phosphorus rate is for broadcast application. If P is to be banded, apply one-half the indicated rate.
- Surface application of limestone will not adequately raise the pH of this field. Limestone should be incorporated and thoroughly mixed to a depth of at least 6 inches.
- Manganese level in the soil at this pH is adequate.
- zinc deficiency is unlikely at this pH, soil zinc and soil phosphorus levels.

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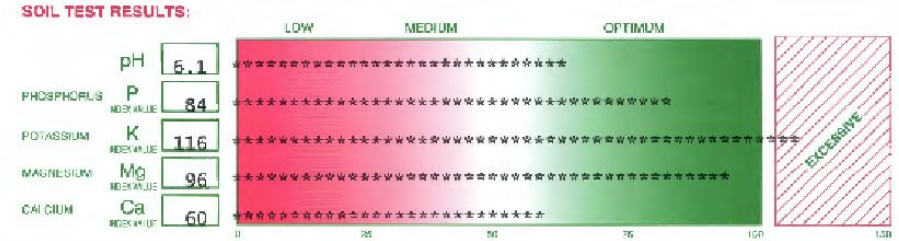
BACKGROUND INFORMATION: Grower copy

PLOT 1	1 OUT OF STATE	9/03/23	9/08/23	09/25/23	535	171364
FIELD NAME OR NO.	AGRES	COUNTY	DATE SAMPLED	DATE RECEIVED	DATE COMPLETE	LAB NO. BAG NO.

SOIL TEST FOR: GROWER ADDITIONAL COPY TO: COUNTY AGENT

NIA NYAMWEYA
501 HUNGERFORD DRIVE P97
ROCKVILLE, MD 20850

BRINKLOW	MOD WELL	NORMAL	SI LO	1-10	DISK ONLY	RYE	NO	NO	
SOIL NAME	SOIL DRAINAGE	SOIL COLOR	SOIL TEXTURE	SAMPLE DEPTH	TILLAGE	PRESENT COVER	IRRIGATION	INCL PUMP	
TOMATOES	8000 LBS					0-6	0.0	UNK	
LAST CROP	YIELD OF LAST CROP	TYPE	T/A WHEN MAINTEN	N LAST FERTILIZER	P ₂ O ₅	K ₂ O	MOS. ACID LAST LINE	T/A TYPE	OTHER NUTRIENTS



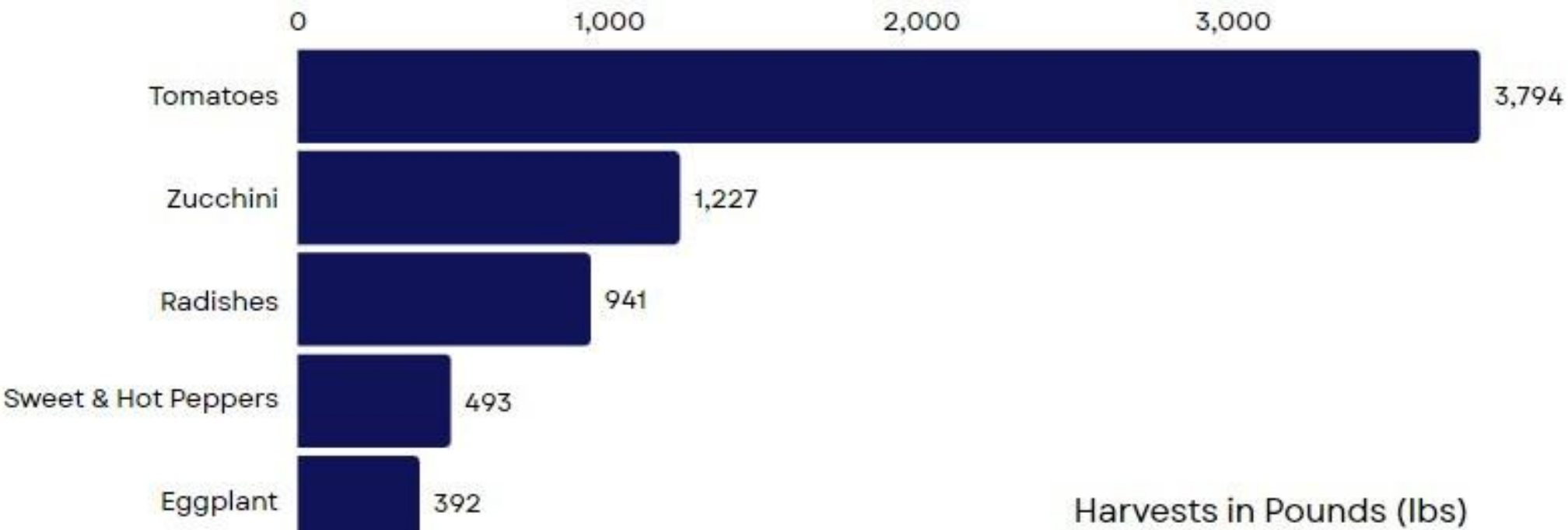
1.0	112.3	6.0	81.7	4.6	7.45	21.5	9.0	51.1	1,4,5,7,18	
B	Mn	Zn	SO ₄ -S	% ORGANIC MATTER	SOIL SMITS M4-H2SO4	BUFFER pH	% Phosphorus Saturation	CBC micro100cm	% Base Saturation	ENCLOSURES

SUGGESTED FERTILIZER PROGRAM:

CROP: TOMATOES

1.0	50-90	100	0	1-2
T/A LIME	TYPE	N LBS/A	P ₂ O ₅ LBS/A	B LBS/A

- BARE GROUND, FRESH MARKET: Broadcast and disk in 40-45 lbs N/ac at or prior to planting. Sidedress an additional 40-45 lbs N/ac when first fruits are set.
- PROCESSING MACHINE HARVEST: Broadcast 25 lbs N/ac at or prior to planting. Sidedress an additional 25-50 lbs N/ac at first cultivation.
- POLYETHYLENE MULCHED FRESH MARKET WITH FERTIGATION DRIP: Incorporate 50-85 lbs N/ac into the planting bed before laying the mulch. Fertigate at rates starting at 0.5 lbs N/ac/day and increasing to 2.5 lbs N/ac/day over the course of the season. Total N rate applied via fertigation should range from 90 to 125 lbs N/ac.
- Phosphate should be broadcast and disked in at or prior to planting.
- Apply boron at a rate of 1.0 to 2.0 lbs/ac.
- To avoid possible boron toxicity damage to crops, apply boron in broadcast fertilizer rather than in bands or as a sidedressing. Boron may be broadcast preplant as a soluble spray alone or with other compatible chemicals.
- Manganese level in the soil at this pH is adequate.
- zinc deficiency is unlikely at this pH, soil zinc and soil phosphorus levels.
- For plasticulture, potash applications should be split. Incorporate one-half into the planting bed prior to laying mulch. Apply the remainder at increasing rates with the nitrogen through the fertigation.



Harvests in Pounds (lbs)

- Beauty Blooms secured 8 grants this year which helped secure fencing, a BCS walk-behind tractor with attachments, soil amendments, and consulting for deeper learning and implementation of soil health practices. Thanks to cost-share and grant funding, they also constructed 2 high tunnels on the property completely from scratch, Beauty Blooms continue to cultivate intensively on 1 acre and maintain and steward the remaining 5 acres in year-round cover crops.
- Beauty Blooms secured a long-term lease of 10 years with the Maryland Department of Natural Resources, and are the first small-scale, regenerative farm to lease from Maryland State Parks. We look forward to adding more permanent structures to increase our capacity including a well and storage shed. In total,
- Beauty Bloom harvested 8,200+ pounds of food from 1 acre. Above are the top 5 varieties of vegetables we grew, and the amounts in pounds we harvested in the 2023 growing season:





Once Row Crops Now Vegetables

In 2024, Beauty Blooms will be growing in the following ways: expanding production and fencing to 1.5 acres, installing solar panels for cold storage, offering monthly volunteer opportunities, engaging in WIC center pop-up markets, serving on the Montgomery County, Maryland's Extension Advisory Committee, and joining [NMSDC's Acres Program](#) and [Vital Village's Community Food Systems Fellowship](#). I am so grateful to be in community with you, working towards a more equitable and just food system in the Montgomery County/DC area!





BEAUTY BLOOMS FARM