

Bloom: Recovering Nutrients, Carbon, and Energy in the Circular Economy

Chris Peot Director of Resource Recovery March 23, 2020

District of Columbia Water and Sewer Authority



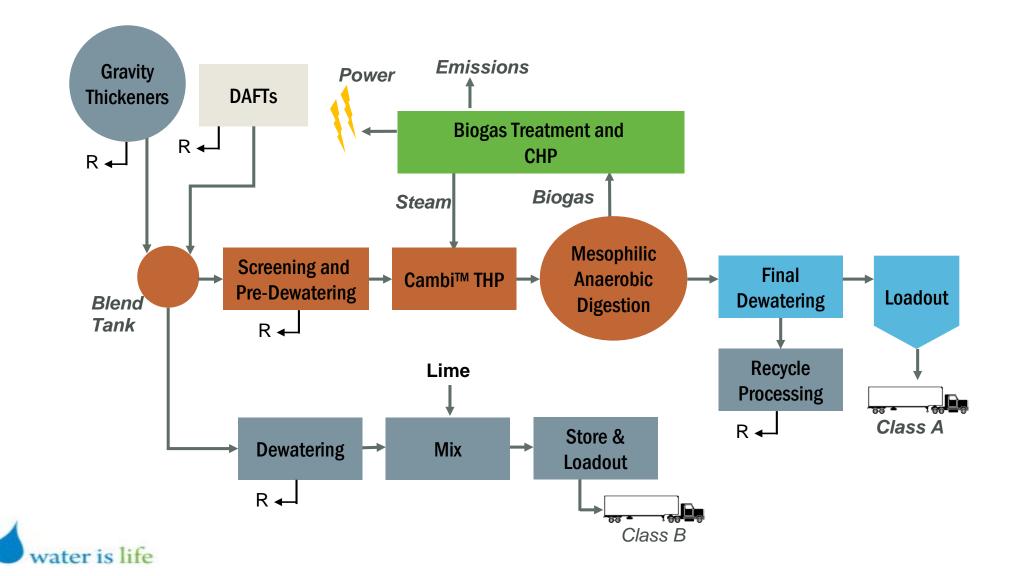
There is no such thing as waste, only wasted resources.

Anaerobic Digestion / Thermal Hydrolysis



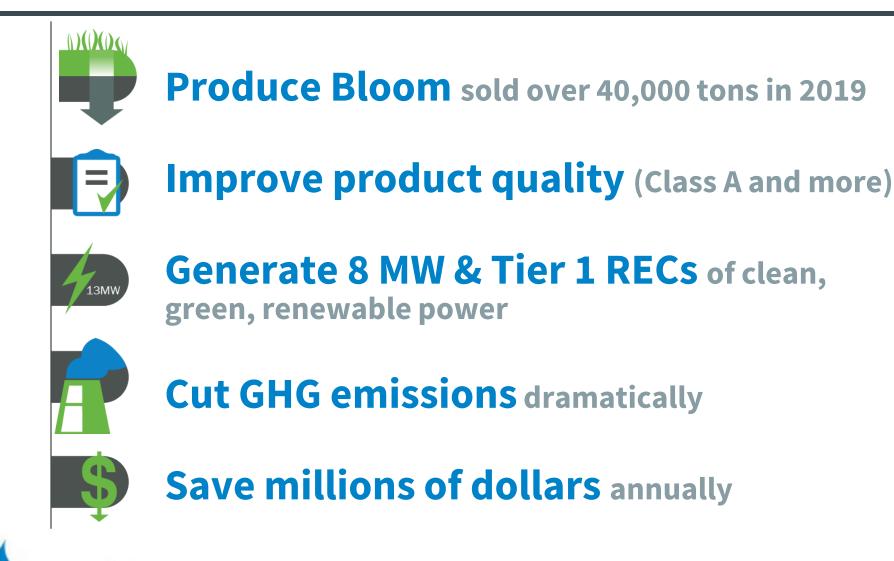


Process Schematic



Program Benefits

Resource Recovery



Digester launch event





mayor_bowser Washington, Distric...



49 likes

mayor_bowser Yesterday, DC became the first city in the nation to employ thermal hydrolysis technology with the largest facility in the world. This project will allow DC Water to provide clean, green renewable power by collecting sewage for production of electric powe & recoverable heat. This 'green gold' w reduce greenhouse gas emissions & save taxpayers money. Turning #pooptopower is just another way we

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Blue Plains Garden & Employee Giveaway





Outreach to the Urban Gardening Community



Community Gardens



Youth The Washington Youth Garden Yesterday

That's right - we're trying out the highly regulated bio-solids compost from DC Water - and the raised bed we're using them in is amazingly healthy! — with Anna Benfield.



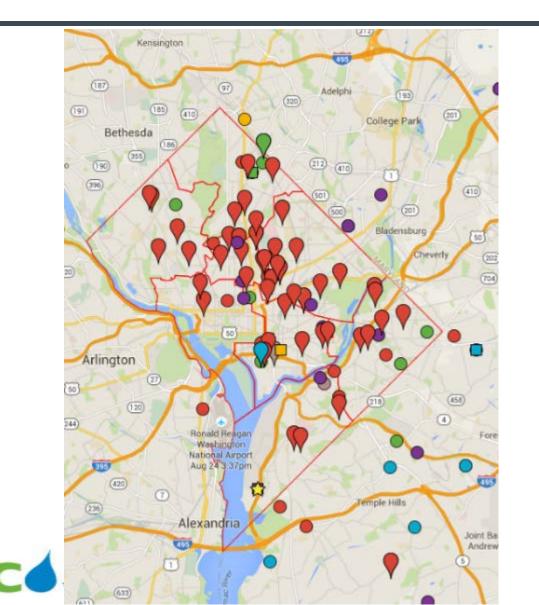
 $g^{\prime \prime}_{\rm L}$. Kristin Brower, Emily Anne Roberts, Meghan Higginbotham and 23 others like this.





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Map of Use



•70+ comm. gardens & tree plantings in all 8 wards (430+ tons)

•765+ tons to employees and onsite

Class B vs. Class A Product





BLOOD SOIL,® BETTER EARTH.

An exceptional soil amendment



Marketing approach

- •Marketing is done through Blue Drop, the DC Water non-profit arm built to generate non-ratepayer revenue
- •Focus on soil blenders, landscapers, nurseries, bulk suppliers, turf growers, farms, government agencies
- Assistance from outside marketing expertise
- •Trade shows, public speaking, tours
- •Employee & community giveaways
- •Purchased our own delivery vehicles
- •Free/cheap trials for early adopters but otherwise insisting on market rate



Bloom Dates

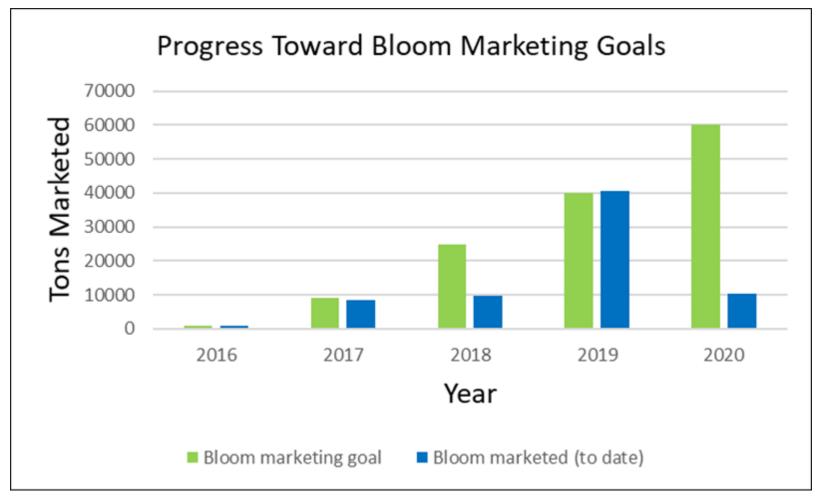
- •First product from digesters, November 24th, 2014
- •Distribution & Marketing permits:
 - •DC 11/2016
 - •MD-05/2016
 - •VA-02/2017
 - •PA-02/2018
- •First Distribution (free sample): November, 2015
- •First product sale: August, 2016
- •Bloom brand trademark registered January 3, 2017
- •First daily production sell-out: April 23, 2018 (450 wt)
- •First bagged product in stores: May 20th, 2018
- •First month sellout: April, 2019

First sale, first check





Productivity: Bloom Sales





Marketing Bloom Translates to Savings

Year	Goal (tons)	Achieved (tons sold)	Savings	Revenue	Total
2016	1000	950	\$34,000	\$4,800	\$39K
2017	9000	8600	\$300,000	\$43,000	\$343K
2018	20,000	9600	\$750,000	\$100,000	\$850K
2019	40,000	40,658	\$1.5M	\$210,000	\$1.7M



Fresh Bloom: Construction, ag and soil blenders

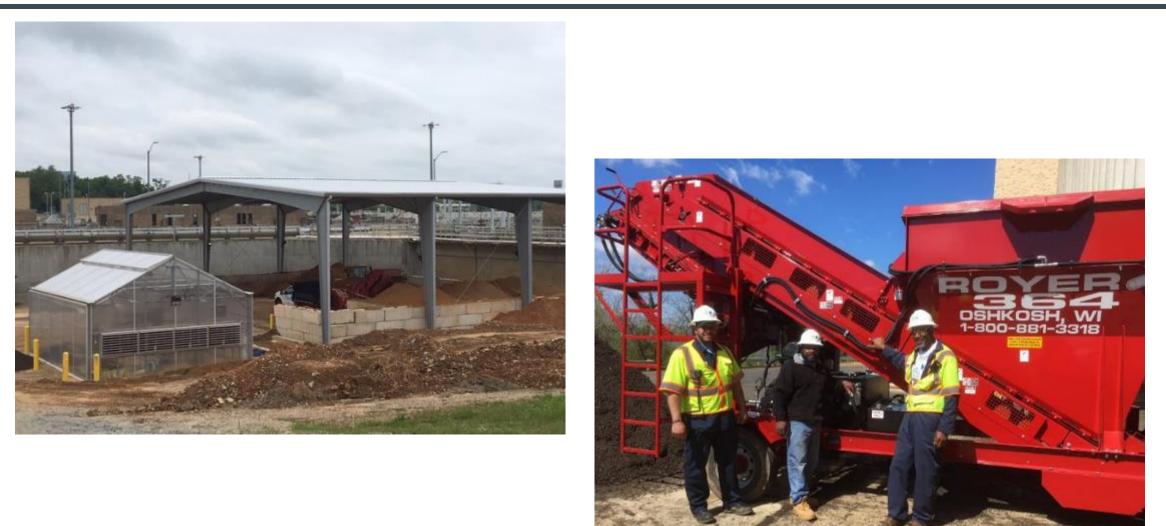
Primarily used by construction, farmers, and soil blenders

"Urban N. Zink has had a high level of turfgrass success since instituting Bloom as our preferred topsoil amendment for elevating organic matter. Bloom delivers a high quality, visually pleasing, and agronomically strong product with lasting results. James worked with us to understand our requirements to ensure Bloom would bring the necessary nutrients to meet our specifications. The level of logistical, sales, and administrative service rendered by the Bloom team is first-class."

– Bobby Howells, Project Manager, Urban N. Zink Contractor, Inc.



Bloom blends—on-site blending facility





Woody Blend

- A favorite of gardeners, groundskeepers and landscapers
- Customers include Magstone and the American Horticultural Society
 Available from resellers like Rock Sand Stone Yard as well as from Blue Plains





Sand-Sawdust Blend

•A favorite for topdressing lawns, SSB is a multi-purpose soil amendment that has outperformed alternatives in field trials

•Customers include Catholic University and George Washington's Mt. Vernon





Cured Bloom (1.5-1.5-0)

•All purpose product available in bags from retailers like Annie's Ace Hardware and in bulk from Homestead Gardens used for US Capitol maintenance









Great for lawns!

"This was our first job with Bloom and we got better results than I think we've ever seen, and certainly never so quickly! We did core aeration and overseeding of an existing lawn with poor, claylike soil and within seven days the tall fescue grass was jumping. Anyone trying to establish grass should consider using Bloom."

– Bobby White, Owner, Maple Hill Lawn & Garden





Brandywine Exchange/Rt 5

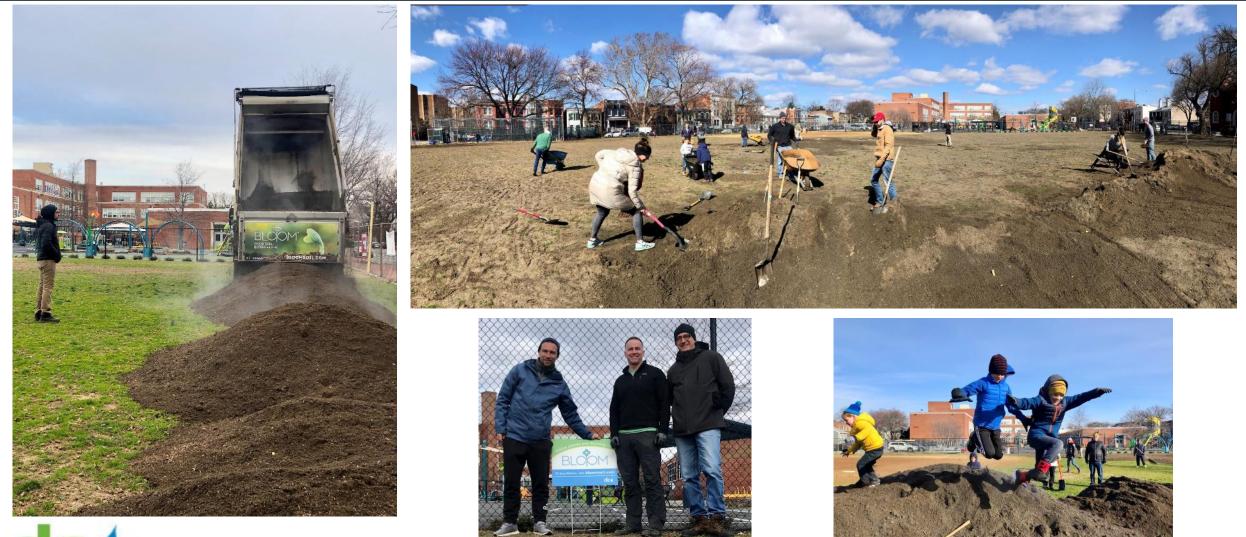




DDOT Urban Forestry Administration & Casey Trees: Tree plantings w/cured Bloom



School Athletic Field Rehab





DC Water Bloom[®] Biosolids Products





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