Marketing Bloom™
MABA Fall Symposium

District of Columbia Water And Sewer Authority
Bill Brower, PE, Program Manager, Biosolids Operations
370 million gallons/day design capacity
Largest advanced Water Resource Recovery Facility in the world
Agriculture: Backbone of the program (1930s-present)
New solids processing equipment: Anaerobic digesters and thermal hydrolysis
Thermal Hydrolysis Digested Dewatered Products

- Class A EQ
- Very stable
- No debris, weeds
- Low odor
Pre-CAMBI: Composted biosolids used as “gateway” material for urban use
Renewed effort

- Compost product in the ‘80s & ’90s
- Large % of total production
- Demand > supply
- Bags or bulk to: professional landscapers, contractors, grounds managers, nurseries, homeowners
- Used on the lawns at the White House, Mount Vernon, the Maryland Governors Mansion and the National Arboretum
- Awarded winning program
Community & school gardens
Street tree plantings with DC government
Connecting with the DC Gardening Community

ROOTING DC

An annual forum. A perennial movement.

FIRST ANNUAL HOME GROWN DC FAIR

A Celebration of DC Farms and Gardens

SATURDAY, SEPTEMBER 7TH
4PM - 7PM
Old City Farm & Guild: 925 Rhode Island Ave. NW

THE FIRST DC ONLY FARMERS MARKET
DC STATE FAIR
VEGETABLE JUDGING CONTESTS
LIVE MUSIC, COMMUNITY AND FOOD

organized by:

DPR SUMMER
GARDEN WORKSHOP SERIES

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

• 765+ tons of compost to employees and on-site
Digester launch event

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 power & recoverable heat. This 'green gold' will reduce greenhouse gas emissions & save taxpayers money. Turning #poooptopower is just another way we...
Planting our @dcwater garlic bulbs using #PoopToPower soil. Can't wait for summer harvest #PoweredByDC
Bloom is Here!

Bloom is a new soil amendment that boosts the quality and productivity of crops and gardens. It is made from wastewater, which is a valuable resource that is otherwise treated as a waste. Bloom is produced at the DC Water Water Resource Recovery Facility and is an example of how we can turn waste into resources.

Bloom is Good Soil, Better Earth.

**WHAT'S SO GOOD ABOUT BLOOM?**

**GOOD SOIL**
- Bloom is a soil amendment that boosts crop yields and drought tolerance.
- It improves soil structure and texture.
- Bloom is a natural, sustainable, and eco-friendly alternative to chemical fertilizers.

**DARK AND EARTHY**
- Bloom provides greater crop yields and drought tolerance.
- It improves soil structure and texture.
- Bloom is easy to use and requires no special equipment.

**BUILD COMMUNITY**
- Bloom provides greater crop yields and drought tolerance.
- It improves soil structure and texture.
- Bloom is easy to use and requires no special equipment.

**BETTER EARTH**
- Bloom is a soil amendment that boosts the quality and productivity of crops and gardens.
- It is made from wastewater, which is a valuable resource that is otherwise treated as a waste.
- Bloom is produced at the DC Water Water Resource Recovery Facility and is an example of how we can turn waste into resources.

**WHAT ARE BIOSOLIDS?**

Bloom is produced from biosolids, which are organic byproducts of wastewater treatment. These byproducts are rich in nutrients and can be used to improve soil quality and productivity.

**IDEAL FOR USE ON YOUR LAWN AND GARDEN**

- Bloom is a soil amendment that boosts the quality and productivity of crops and gardens.
- It is made from wastewater, which is a valuable resource that is otherwise treated as a waste.
- Bloom is produced at the DC Water Water Resource Recovery Facility and is an example of how we can turn waste into resources.

**OUR TEAM**

**CHRIS MARTIN**
- Director of Resource Recovery
- The man who makes Bloom

**BILL BROWER**
- Manager of Operations
- He grows Bloom

**DC WATER**
- Bloom is made by DC Water

**GOOD SOIL, BETTER EARTH.**
Marketing approach

- Focus on soil blenders, landscapers, nurseries, bulk suppliers, turf growers, government agencies
- Assistance from outside marketing expertise
- Trade shows, public speaking, tours
- Employee & community giveaways
- Purchasing our own delivery vehicles
- Free/cheap trials for early adopters but otherwise insisting on market rate
# Bloom™ Pricing Guide

<table>
<thead>
<tr>
<th>Blend</th>
<th>Stage</th>
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<tbody>
<tr>
<td>Fresh Bloom</td>
<td>Pilot</td>
<td>fee</td>
<td>waived</td>
<td>$2.50</td>
<td>$3.76</td>
<td>$5.00</td>
<td>$7.51</td>
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<td>waived</td>
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<td>Early market development</td>
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<td>Non-profits</td>
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<tr>
<td>Cured Bloom</td>
<td>Pilot</td>
<td>$2.50</td>
<td>$4.12</td>
<td>$5.00</td>
<td>$8.23</td>
<td>$10.00</td>
<td>$16.46</td>
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<tr>
<td>Sawdust/sand blend</td>
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<td>N/A</td>
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<tr>
<td>Mulch blend</td>
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<td>TBD</td>
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<td>Delivery</td>
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<td>Dump truck: $125 within 20 mi. Pickup truck: $75 within 20 mi.</td>
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- Fee waived for non-profits in Pilot and Early market development stages.
- Sawdust/sand blend and Mulch blend are not available for delivery.

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**dc water is life**
## Regulatory hurdles

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<tr>
<th>State</th>
<th>Issues</th>
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<tr>
<td>Virginia</td>
<td>• Restrictive interpretation of regs—didn’t anticipate marketable cake</td>
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<td>• Pushing for different approaches</td>
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<tr>
<td>Maryland</td>
<td>• Working through new regs</td>
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<td>• P restrictions for turf</td>
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<tr>
<td>DC</td>
<td>• Initially copied MD</td>
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<td>• Revised to an approach more suitable for a jurisdiction with no agricultural areas</td>
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<tr>
<td>Pennsylvania</td>
<td>• Staff changes</td>
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<tr>
<td>Others (DE, WV)</td>
<td>• Mo issues</td>
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# Bloom distribution (non-land app; thru 11/14/16)

<table>
<thead>
<tr>
<th>Bloom Distribution</th>
<th>Total tons</th>
<th>Tons of biosolids</th>
<th>Fresh-tons (approx)</th>
<th>Cubic yards</th>
<th>Total revenue</th>
<th>Savings</th>
<th>Revenue + Savings</th>
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</thead>
<tbody>
<tr>
<td>504</td>
<td>501</td>
<td>599</td>
<td>799</td>
<td>$1,074</td>
<td>$26,951</td>
<td>$28,025</td>
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*dc water is life*
Building a small onsite curing/blending facility
Proactive outreach avoids potential confrontation
Concerned citizens tour
Positive feedback from biosolids opponents

Kama Allen  Goochlanders Against Sludge
September 2 ·
Hello from Spotsylvania! Yesterday found our motley crew joining 55th District's Buddy Fowler on a field trip to Blue Plains WWTP in Washington DC. This is the country's largest and most forward-thinking operation in processing waste. They only produce Class A biosolids and all is currently being placed in Virginia. The first positive thing we've seen on this journey. Many thanks!

Like Comment Share

2 people like this.

Kama Allen Class B biosolids are so antiquated. Let's insist our magnificent Virginia set the pace rather than accepting yesterday's tired diatribe. Go Goochland. Work today for a better tomorrow!
Like · Reply 1 · September 2 at 11:51pm

Kathie Walker It was an honor to be invited and I learned so much, thanks to our guides.

Like · Reply · September 12 at 9:57pm

Kathie Walker These are the newly online thermal units which heat up the sludge to three times what hospitals use to sterilize instruments. Pretty neat.
Like · Reply · 1 · September 12 at 10:00pm
1. **Blue Drop Arrangement for Bloom™**

   - **Sales revenue to Blue Drop**: Invest in marketing program

   - **Blue Drop** Receives Bloom at $0 cost to DCO

   - **Blue Drop** Cures Bloom:
     - *Curing involves drying and turning Bloom over a period of 30 to 60 days to reduce the pH, ammonia levels, and moisture content*

   - **Blue Drop** Markets Cured Bloom to soil blenders, landscaping companies, and other commercial customers

   - **Operational Savings**: $43/wt to DCO
Future plans

Near-term
• Contract up for renewal in April 2017
  • Want diversity of outlets
• Direct marketing to farmers
• Research into marketable attributes
  • Beneficial micro-organisms
  • Humic/fulvic acids
  • Plant-growth hormones
  • Bioaugmentation

Long-term
• Experiment with drying—to only ~60% solids
  • Waste heat
  • Solar
• Buy land offsite for processing and storage?
Thank you!

Bill Brower, PE
bbrower@dcwater.com
bloomsoil.com