

CHAR21 SW™

REVOLUTIONIZING STORMWATER MANAGEMENT

To address the growing challenge of stormwater pollution, MASBio has partnered with industry to bring practical solutions to the market. Char21 SW™, a revolutionary stormwater filter media, is one such example, targeting pollutants from construction sites.

Developed in 2023, Char21 SW™ is a cutting-edge blend of biochar, switchgrass, re-activated carbon, and calcium silica sand. This powerful combination works together to clean stormwater with a flexible, broad-spectrum approach. Whether it's sediment, acidic water, or oily runoff, Char21 SW™ can be customized to meet the specific challenges of any site.

Why does this matter?

Char21 SW™ is lightweight, shelf-stable, biodegradable, cost-effective, and even doubles as a soil amendment at the end of its life cycle. It's an earth-friendly solution for managing stormwater pollutants while supporting sustainable practices.

With funding from MASBio's USDA NIFA grant, and in collaboration with WVU researchers, the project was able to move forward. Metzler Biochar and Ruckus Environmental carried out the testing, simulating 20 rain events over three months. The results were impressive: Char21 SW™ demonstrated strong and increasing effectiveness in reducing stormwater pollutants.

Academic perspective:

Shawn Grushecky, currently an associate professor for Energy Land Management in the School of Natural Resources and the Environment at West Virginia University, shared his experience in facilitating academic and stakeholder collaboration:

“I would say that entrepreneurs need to seek strategic partnerships, leverage funding opportunities, focus on practical applications and market needs, and emphasize sustainability and environmental benefits.”

Industry perspective:

From the industry perspective, Pat Sherren, New Product Development and Sales Director at Metzler shared:

“Char-21 SW is very scalable since all inputs are sustainable or recycled. Bringing new products to market is not easy, but we feel the biochar buzz will help springboard a beneficial product.”



Buy Char21 SW™:

This innovative solution is a testament to what can be achieved when government, academia, and industry join forces. Char21 SW™ is currently available on the market through HalenHardy:

- <https://www.halenhardy.com/shop/product/stormwater-filter-media-char21-heavy-metal-stormwater-filter-sock/>

Learn more:

- <https://biochartoday.com/2025/01/14/a-new-stormwater-filter-media-featuring-wait-for-it-biochar/>
- <https://www.halenhardy.com/wp-content/uploads/Char21-Overview.pdf>

Learn more about this MASBio initiative and Ongoing research using the QR code:

For more information about Char21 SW™ or to explore opportunities for collaboration, contact WVU or MASBio today at Shawn.Grushecky@mail.wvu.edu

