

Editorial Contact:
Cortec® Advertising Agency:

Jeni Duddeck
(651) 429-1100 Ext. 1114

jduddeck@cortecvci.com

Company Contact:
Bionetix® International

Tonya Decterov
(514) 457-2914 Ext. 6589

tdecterov@bionetix.ca



Attention: Editor
April 13, 2022
PRESS RELEASE



Harnessing Nature's Biological Processes for Cleaner Pond Water

A common problem for ornamental ponds and fish farms is dirty water with a high amount of sediment and sludge buildup. This occurs as organic waste such as dead leaves, grass, or fecal matter accumulate. To make matters worse, a nutrient rich environment from fertilizer runoff (nutrient pollution) supports the growth of algae in the water. One problem adds to another,



often leading to an oxygen-starved pond that smells bad, looks bad, and is unhealthy for fish. Bioaugmentation with BCP54™ is one exciting strategy to combat this problem by harnessing nature's own biological processes.

Good Bacteria to the Rescue

The success of BCP54™ lies in its blend of aerobic and facultative anaerobic bacteria that work in high or low oxygen conditions. The underlying technology—bioaugmentation—involves adding

microorganisms to the pond environment to speed up the decomposition of unwanted materials. The “good” bacteria present in BCP54™ produce amylase, lipase, cellulase, and protease—four enzymes involved in the digestion of proteins, fats, carbohydrates, and other organic compounds found in organic waste residues. The microorganisms consume organic wastes and excess nutrients to support their metabolism and reproduce in proportion to the level of contaminants available as a food source. The end result is a cleaner, clearer, healthier pond environment.

Counteract Nutrient Pollution



One of the exciting benefits of BCP54™ is that it can be used to naturally counteract algae growth without the use of algaecides. This is because BCP54™ goes after the heart of the algae problem: nutrient pollution. Nutrient pollution occurs when excess nitrogen or phosphorous enter the waterways. This is typically due to the heavy use of

fertilizers. The same nutrients that make grass grow rich and green and healthy can run off via rainwater into a pond, where they provide a rich food source to support a healthy population of algae. BCP54™ counteracts this problem by competing for the same nutrients that algae feed on. The microorganisms in BCP54™ consume nitrogen and phosphorus, reducing nutrient pollution and giving algae less reason to grow.

Other Benefits of BCP54™ Bioaugmentation

The bacteria of BCP54™ also take care of other water quality problems by reducing organic waste, sludge, ammonia, and various toxins that create bad odors and murky ponds. BCP54™ can potentially reduce higher pH and help suspended solids settle. All these advantages are especially beneficial for aquaculture applications (e.g., fish and shrimp farms)



where there is excess organic waste from fecal matter and food particles and a natural tendency

toward higher levels of ammonia. Such an environment stresses aquatic species' health; emits bad odors; and requires extra time and labor to drain, clean, and refill ponds at the end of the production cycle. A weekly dose of BCP54™ boosts biological processes to reduce the level of contaminants and suspended solids for important savings of time and effort in the long run.

BCP54™ in Action

But how does BCP54™ actually work in the field? Before deciding to use BCP54™, it is helpful to take a closer look at the experience others have had to evaluate whether this biotechnology is worth trying. Results are exciting.



In one case, a fly-fishery in Wales experienced an unprecedented algal bloom and a high level of suspended solids in April, threatening the loss of the fishing season that year. The client started adding BCP54™ to the water in May with some benefit that suddenly backtracked in warmer weather at the beginning of June. He upped the dose and had clean water by the end of the month, but

he was worried about how the lake would do in the heat of July. However, his fears proved unfounded as the water stayed clear, July fishing was the best it had ever been at those temperatures, and fish mortality dropped by 60%.

In another case, a fish farm in Brazil did a trial of BCP54™ in conjunction with AQUA-FEED™ (a probiotic added to fish food). AEROBOOSTER-O2™ was also added at one point during the rainy season to boost oxygen levels. In the end, the treated pond had better fish production, odor control was excellent,



and there was no need to discharge water contaminated with fish waste and clean out the tank at the end of the production period.

Achieve Cleaner Ponds and Fish Farms Naturally

BCP54™ is a natural way to clean up dirty, contaminated ponds for better aesthetics and a healthier aquatic environment. Microorganisms perform an important function simply by consuming the nutrient rich contaminants that support their natural biological processes. This promotes water clarity and, by extension, the health of the fish or shrimp that live in the ponds. BCP54™ is available in three forms: BCP54™ (standard 5 billion CFU/g powder), BCP54-20B™ (high concentration 20 billion CFU/g powder), and BCP54T™ (2 billion CFU/g tablets for dosing convenience). Contact Bionetix® for assistance selecting the best version for your application:

<https://www.bionetix-international.com/contact-us/>

To view the BCP54™ product data sheet, please visit:

<https://www.bionetix-international.com/products/bcp54/>

To read the Brazil aquaculture case history, please visit:

[https://www.bionetix-international.com/wp-content/uploads/Restricted Case Histories/ch026.pdf](https://www.bionetix-international.com/wp-content/uploads/Restricted_Case_Histories/ch026.pdf)



Keywords: cleaner pond water, ornamental ponds, fish farms, aquaculture, pisciculture, nutrient pollution, bioaugmentation, odor problems, Bionetix, water quality



Need a High-Resolution Photo? Please Visit: www.cortecadvertising.com

Bionetix® International is a Canadian-based company that produces biological products used in thousands of field applications worldwide. We promote a healthy environment by providing superior, environmentally friendly alternatives to current treatment methods. Our customers are able to clean and remediate contaminated systems or boost agricultural productivity in a cost-effective, natural, and non-intrusive way through the application of our biological products. Headquartered in Quebec, Canada; Bionetix® International is a subsidiary of Cortec® Corporation. ISO 9001:2015 Certified.

Cortec® Corporation is the global leader in innovative, environmentally responsible VpCI® and MCI® corrosion control technologies for Packaging, Metalworking, Construction, Electronics, Water Treatment, Oil & Gas, and other industries. Our relentless dedication to sustainability, quality, service, and support is unmatched in the industry. Headquartered in St. Paul, Minnesota, Cortec® manufactures over 400 products distributed worldwide. ISO 9001, ISO 14001:2004, & ISO 17025 Certified. Cortec® Website: <http://www.cortecvci.com> Phone: 1-800-426-7832 FAX: (651) 429-1122