

Bionetix® Newsletter

July 2023

Meet Irving Chang – New Microbiologist and Biotechnologist Specialist!



We were pleased to welcome Irving Chang as our new Microbiologist and Biotechnologist Specialist this spring! Irving has a degree in biotechnology engineering from Saint Mary's Catholic University in Peru and specialized in Genetic Resource Preservation at Kyoto Institute of Technology in Japan. He subsequently spent nine years in professional biotechnology research and/or fermentation and is currently a member of the Microbiology Association of Quebec.

Irving is passionate about learning, science, and technology. He is fascinated with how the tiniest microorganism can do so much to improve the health of the environment and will be helping us develop new products and improve capabilities of current bacteria strains. One of his goals is to get lab scale fermentation up and running to do more extensive biological R&D onsite and ultimately develop new natural biotechnologies that make life easier and help people care for the environment.

Join us in welcoming Irving to the team!

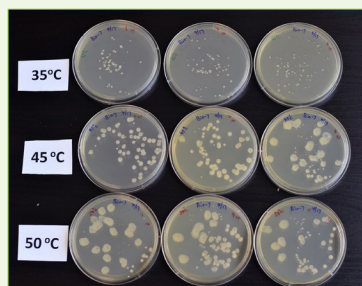
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PRODUCT NEWS

New Test Data on Product Viability at Higher Temps



Earlier this year, we decided to test some of our key bacteria strains to see how they performed at temperatures up to 50 °C (122 °F). A product containing these representative bacteria strains was incubated for 17 hours on triplicate plates of TSA (trypticase soy agar) at three temperatures—35 °C (95 °F), 45 °C (113 °F), and 50 °C (122 °F). The colonies continued to grow at all three temperatures. Growth in colony size was faster at higher temperatures, while the average number of colonies decreased.

The test confirmed that, while 25-35 °C (77-95 °F) remains the optimal growth temperature for most Bionetix® bacteria, the microorganisms remain functional at temperatures up to 50 °C (122 °F). Although many wastewater applications do not reach these temperatures, some oil and gas wastewater processing environments (e.g., thermophilic anaerobic digesters) do. While many other factors such as food, pH, and nutrients also affect bacterial growth, this test lends confidence to users considering Bionetix® bioaugmentation in similar environments! Contact us with your questions: <https://www.bionetix-international.com/contact-us/>

BCP-EU-FB™ Now Available Beyond Europe!

This summer, we are excited to release BCP-EU-FB™, a microbial wastewater treatment previously available only to a limited European audience. The product's synergistic blend of microorganisms is a powerhouse of sludge-re-

BCP-EU-FB™
MULTISPORE BACTERIA/FUNGI BLEND

PRODUCT DESCRIPTION

BCP-EU-FB™ is a multi-species blend of bacteria and fungi that are highly effective in degrading organic matter and reducing BOD and COD in wastewater. It is designed for use in municipal and industrial wastewater treatment plants, as well as in sludge treatment and stabilization.

FEATURES AND BENEFITS

- Helps oxidize and reduce malodorous compounds
- Speeds up biological processes and allows oxygen reuse
- Acts quickly because of synergistic effect of fungi, bacteria, and enzymes
- Reduces sludge production
- Reduces foaming
- Increases nitrogen active microorganisms for startup and/or repopulation of biomass in the aeration tank and to help avoid development of algae and superior organisms

TYPICAL APPLICATIONS

- Wastewater treatment
- Aerobic digesters
- Sludge treatment (both raw and digested)
- Sludge thickening and belt filtration

SPECIFICATIONS

Concentration	Slurry from flowering powder
Appearance	White
Container	Max. load of 1 kg/liter
pH (1% Solution)	6.5-8.5
Residence Time	1-3 hours (24h, custom concentrations available)

ducing wastewater treatment efficiency with multiple side benefits. BCP-EU-FB™ is a blend of fungi, bacillus spore organisms, and enzymes that are effective in degrading many types of cellulosic and other wastes. By speeding up biodegradation, the blend lowers BOD and COD and reduces sludge production and buildup. At the same time, it helps oxidize and reduce malodorous compounds and foaming. It also appears to decrease the amount of energy used during wastewater processing, making the system more efficient overall. Learn more about this microbial blend powerhouse here: <https://www.bionetix-international.com/press-release-bionetix-international-releases-microbial-powerhouse-for-wastewater-treatment/>

SOIL-BAC™
BIOLOGICAL PLANT GROWTH ACTIVATOR

PRODUCT DESCRIPTION

SOIL-BAC™ is a multi-species blend of bacteria and fungi that are highly effective in promoting plant growth and increasing nutrient availability in soil. It is designed for use in agricultural and horticultural applications, as well as in soil remediation and restoration.

FEATURES AND BENEFITS

- Helps in nitrogen fixation, phosphorus and potassium, and increases soil fertility
- Decomposes organic matter and pesticide residues
- Promotes plant growth
- Increases nutrient availability and facilitates absorption
- Helps in stabilizing phosphorus
- Helps in stabilizing nitrogen
- Helps in stabilizing potassium
- Helps in stabilizing calcium
- Helps in stabilizing magnesium
- Helps in stabilizing sulfur
- Helps in stabilizing zinc
- Helps in stabilizing iron
- Helps in stabilizing copper
- Helps in stabilizing manganese
- Helps in stabilizing boron
- Helps in stabilizing molybdenum
- Helps in stabilizing selenium
- Helps in stabilizing iodine
- Helps in stabilizing bromine
- Helps in stabilizing chlorine
- Helps in stabilizing fluoride
- Helps in stabilizing phosphorus
- Helps in stabilizing potassium
- Helps in stabilizing calcium
- Helps in stabilizing magnesium
- Helps in stabilizing sulfur
- Helps in stabilizing zinc
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- Helps in stabilizing molybdenum
- Helps in stabilizing selenium
- Helps in stabilizing iodine
- Helps in stabilizing bromine
- Helps in stabilizing chlorine
- Helps in stabilizing fluoride

TYPICAL APPLICATIONS

- Lawns
- Soil remediation
- Soil restoration
- Soil fertility
- Soil health

SPECIFICATIONS

Concentration	Slurry powder
Appearance	White
Container	Max. load of 1 kg/liter
pH (1% Solution)	6.5-8.5
Residence Time	1-3 hours (24h, custom concentrations available)

New SOIL-BAC™ Premium Offers Nitrogen Boost

In February, we announced the availability of a new version of SOIL-BAC™. SOIL-BAC™ Premium boosts atmospheric nitrogen fixation independent of symbiotic relationships with plants and is therefore a great option for early

spring soil treatment and throughout the growing season. SOIL-BAC™ Premium contains plant growth promoting rhizobacteria (PGPR) and mycorrhizae; as well as beneficial vitamins, trace minerals, and other nutrients essential to plant growth. It goes beyond regular SOIL-BAC™ by adding a bacteria strain that can enhance atmospheric-nitrogen-fixation while functioning as a free-living organism in the soil. Learn more about getting a nitrogen boost with SOIL-BAC™ Premium here: <https://www.bionetix-international.com/press-release-give-your-plants-a-nitrogen-boost-this-spring/>



CASE HISTORIES

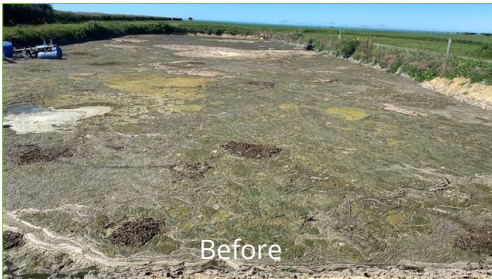
Solving Cheese Factory Grease Trap Problems

A cheese factory in Canada had so much grease in its three in line gravity grease traps that the traps needed to be pumped out five times a year at a rate of \$3,000 each time. Since following the recommendation to install a centrifuge system would have cost more than \$10,000, the factory decided to try BIOBLOC22™ in Trap 1 and BCP22™ in Trap 2 and Trap 3. BOD dropped to 3 mg/L and, best of all, treatment only cost \$350/month—much less than the price of frequent pumping or centrifuge installation. Read more here: https://www.bionetix-international.com/wp-content/uploads/Restricted_Case_Histories/ch049.pdf



Dairy Farm Effluent Pond Cleaning

One of the 10 oldest farms in New Zealand was having trouble with its effluent pond, which was used to discard manure, urine, milk, and other wastes. The pond smelled bad and had a crust on top. The water also caused blockages when used for irrigation. The farmer began applying BCP80™ and HYGIEA2400™ FF, and, after two weeks of treatment, the smell and the crust were gone. In three months, the water was almost clear blue and no longer caused irrigator blockage issues, saving the farmer time and leaving him very happy with the results. Read more here: https://www.bionetix-international.com/wp-content/uploads/Restricted_Case_Histories/ch048.pdf



Overcoming Heavy Foaming in Cosmetics Industry

A toiletry manufacturer was having trouble with heavy foaming in their wastewater aeration tank, which contained a high concentration of soap, shampoo, and sanitizers. Surfactants were the suspected cause, so BCP10™ was applied in a daily shock dose for one week, followed by a weekly maintenance dose. A few months later, BOD had dropped from an average 200-400 mg/L to 81 mg/L, leaving the customer very satisfied with the results. Read more here: https://www.bionetix-international.com/wp-content/uploads/Restricted_Case_Histories/ch047.pdf



Adobe Stock image for illustration only

CASE HISTORIES

Successful Use of AQUACLAR™ in Home Fish Tanks

Have you ever thought of using Bionetix® products in fish tanks? One distributor of Bionetix® wastewater treatments in Latin America (Aquasolutions, Costa Rica) decided to give AQUACLAR™ a try to see how it worked in home aquariums. He dosed the product into small 0.5 g capsules/tablets and added one tablet to every 38 L (10 gallons) of fresh water in his aquarium. The distributor reported very good results with a reduction in nitrogen. While the product is typically used in commercial applications, it shows great promise for home use, as well!



UPCOMING EVENTS

Bionetix® World Sales Meeting

September 20th-22nd

Hyatt Centric Ville Marie Montreal & Bionetix
Headquarters

Sainte-Anne-de-Bellevue
Montreal, Canada

[Contact us for more info!](#)

ISSA Show North America 2023

November 13th-16th, 2023

Mandalay Bay Convention Center
Las Vegas, NV

Booth #1012

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ISSA SHOW
NORTH AMERICA 2023
NOVEMBER 13 - 16 | LAS VEGAS, NV


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Keywords: Bionetix, wastewater, chemical wastewater, BOD overload, biofertilizer, grease traps, reducing nitrogen in fish tanks, nitrogen fixation, anaerobic digesters,

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