

Editorial Contact:
Cortec® Advertising Agency

Julie Holmquist
(651) 429-1100 Ext. 1194

jholmquist@cortecvci.com

Company Contact:
Bionetix® International

David S. Llano
(514) 972-0809

dslano@bionetix.ca



Attention: Editor
May 19, 2025
PRESS RELEASE



Give Your Soil and Wastewater ‘Bugs’ the Nutritional Boost They Need

“Did you take your vitamins today?” Just like people need nutrients, so do the microbes in your wastewater and soil. [Bionetix® International](http://Bionetix.com) is here to help you make sure your “bugs” are well-nourished with [MACRO N/P™](http://MACRO.com).

Why Do Macronutrients Matter?

Beneficial bacteria need the right balance of nitrogen and phosphorus to support cell growth, metabolism, enzyme synthesis, and energy production, among other functions. Without these nutrients, microbial growth and activity are sluggish. Wastewater does not fully biodegrade. Contaminated soil stays contaminated. On the



other hand, too *much* nitrogen can cause problems and slow down the cleanup process. That is why it is important to be able to recognize nutrient deficiency and stimulate microbial activity with the right proportion of nitrogen and phosphorus when needed.



Signs of Nutrient Deficiency

Nutrient deficiency is very common in petroleum contaminated soil, which requires an [optimal level of 136 mg/kg of nitrogen](#) to support bioremediation. In wastewater, nutrient deficiency most commonly appears in industrial sewage (rather than municipal waste), affected by low-nutrient effluents such as those from paper mills or

palm oil mills, or fluctuations in the use of cleaning chemicals. Such nitrogen/phosphorus deficiencies can manifest themselves in excess sludge, poor flocculation, and slimy gray foam. Manure lagoons and compost piles that have dried out over time also tend to be deficient in the macronutrients nitrogen and phosphorus.

Solving Nutrient Deficiency with MACRO N/P™

Once identified, these problems are relatively easy to solve with nutritional supplements like MACRO N/P™. MACRO N/P™ offers a nitrogen-phosphorus ratio of 5:1, which is typically the ideal balance to stimulate healthy microbial growth. David S. Llano (Inside Sales Rep & Product Support at Bionetix® International), explained why this is the case: “Microbes need more nitrogen than phosphorus for making enzymes, proteins, and nucleic acids, but both are essential. A ~5:1 N:P ratio maximizes microbial activity without leaving excess nutrients that could cause environmental harm.”

If you think your soil, wastewater, manure, or compost piles need some biostimulation this year, [contact your Bionetix® representative today to check nutrient levels and get expert dosing recommendations!](#)

Keywords: wastewater problems, nutrient deficiency, contaminated soil, soil bioremediation, biostimulation, bioaugmentation, poor flocculation, how much nitrogen do I need for soil bioremediation, Bionetix, industrial wastewater problems





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 9001:2015, ISO 14001:2015, & ISO/IEC 17025:2017 certified. Cortec® Website: <http://www.cortecvci.com>. Phone: 1-800-426-7832. FAX: (651) 429-1122.