FARMLAND BIOREMEDIATION TECHNOLOGY
SEQUESTER CO2 & NITROGEN IN SOIL AND INCREASE CROP YIELDS

INTRODUCTION

FREYTECH INC. provides solutions ranging from the repair and reclamation of degraded, damaged and over-farmed soil, through to maximizing crop yield. Benefits of the FREYTECH Environmental Balance Device System (EBD), include treating and curing numerous agricultural diseases in edible as well as non-edible crops including forests, improving soil quality, crumb structure, nutritional value, obviating the need for pesticides, insecticides, greatly reducing the need for fertilizers as well as detoxifying soil contaminated by chemicals, heavy metals and wastewater.

We provide optimal solutions for difficult soil conditions such as water stress, chemical damage and erosion and can help convert farms large and small alike, to 'organic' without interruption in production. Our unique and proprietary methods are based on harnessing nature's natural and organic processes to restore the balance and health of ecosystems. We proudly offer accessible, reliable and environmentally sustainable solutions which are fully backed by scientifically demonstrable data.

WHAT IT IS: Environmental Balance Device (EBD) technology is the result of extensive research and development focused on natural regenerative processes. EBD naturally enhances native, indigenous microbial activity, facilitating degraded soil restoration and improvement through bioremediation and the removal of trace heavy metals, pesticides, and other agrochemical residues. This process operates without the need for electricity, chemicals, or additional consumables. EBD Stakes have been associated with increased crop yields, reduced disease incidence, and enhanced plant nutrient uptake. EBD technology has reached TR 9 maturity since 2018 and is deployed at an industrial scale in Europe, North America, South America, and the Middle East.

HOW IT WORKS: During EBD technology development, we focused, in part, on Reactive Oxygen Species (ROS) which are a collection of highly unstable, oxidizing oxygen-containing molecules that originate from agrochemicals, industrial activities, combustion processes, pollution, as well as biological and environmental generators. High levels of ROS are known to damage microbial DNA, proteins, and lipids, significantly inhibiting their metabolic functions essential for effective bioremediation and conditioning. High ROS levels limit microbes' ability to break down pollutants and disrupt delicate ecological balances that are necessary to maintain critical symbiotic ecosystem relationships.

EBD Stake units measure 30cm x 3 cm x 3 cm and are buried in the soil 40 cm in depth and at 35 meter (119 ft) equidistant intervals along the outer perimeters of agricultural fields and reforestation areas. The Stakes are engineered systems designed to interact with natural ambient environmental fields, influencing local electrochemical conditions and energy balance within air, water, and soil environments. These interactions are proposed to modulate local electrochemical balance, contributing to more stable molecular and ionic conditions that influence redox behavior and microbial energy exchange. Our proprietary, science-driven approach manages disorder and energy dispersal in a nature positive manner. EBD systems contain proprietary mineral compositions, including high-entropy metal oxides, that are hypothesized to support electrochemical stabilization and facilitate more favorable electron-transfer conditions within the

surrounding environment. This process is proposed to reduce the persistence of unstable ROS, contributing to a shift toward more stable oxygen species within air, water, and soil matrices. This unique process reduces microbial stress, promoting optimal conditions for their metabolism and ion regulation. These small yet cumulative, progressive, stabilizing effects are greatly amplified and sustained over time via biological feedback loops, leading to significant, verifiable and continuous, long-term improvements in soil crumb structure, water quality, plant nutrient uptake, disease control and crop yield without adding electricity, chemicals or any other consumables.

EXCESS NUTRIENTS, PATHOGENS AND HEAVY METALS: EBD systems are proposed to influence local energy distribution and electrochemical interactions in ways that support native microbial activity and enzymatic function, which contribute to improved plant nutrient uptake capacity, as well as reduction / removal in heavy metals and soil born pathogen concentrations including Zinc, Arsenic, Copper, Fusarium (including variants 4 & 5), Escherichia Coli, Salmonella, Clostridium Perfringens, Total Coliforms and Total Enterobacteria. These observed reductions are hypothesized to result from a combination of enhanced biological processing and altered chemical stability, with downstream transformation pathways remaining an active area of investigation.

ENERGY SAVINGS & INCREASED PRODUCTION: EBD Stakes promote soil and crop health on a long-term basis. EBD Water Pack systems can complement the treatment package by improving the quality of water used in irrigation systems. By securing the EBD Water Pack units to the outer diameter of irrigation pipes, these systems are designed to control and remove material buildup preserving pipe inner diameter, keeping drip irrigation emitters clog free, and improving production efficiency. This also reduces electricity use since pumps do not need extra pressure to compensate for restricted flow, supporting efficient and sustainable operations. The EBD treated water is also purported to improve plant nutrient uptake processes.

EBD IS ALSO A FINANCIAL TOOL: Farmers and other land management entities that implement EBD technology and improve their sustainability profile, can qualify for Sustainability Linked Loans (SLL), which offer reduced interest rates, usually 5-25 basis points — for meeting sustainability targets following SLL Principles. SLLs are flexible and may be used for general business needs including refinancing, M&A, or working capital.

SERVICE LIFE: EBD system service life exceeds 15+ years. Our systems help achieve net zero by 2050 since they are affordable, highly scalable and sustainable.

Farmers profit since crop yields increase by up to 30 % (in most cases). Farming operational costs drop considerably, since farmers can eliminate the use of pesticides and reduce chemical fertilizer use by over 70%. EBD induced balanced environments also enable the farmer to reduce labor as well as other operational costs. A number of studies also confirm that EBD systems enable atmospheric CO2 and N sequestration in the soil thus providing farmers with natural fertilizer as well as a new revenue sources by generating recurring nature based CO2e credits for sale.

All materials contained in EBD units comply with OSHA 29 CFR XVII-1910.1200 Section (i). Affidavit: EBD systems do NOT contain hazardous components under current OSHA definitions, or EPA listing. The EBD materials do NOT contain any ingredients that are on the NPT list or registered with IARC for carcinogens and the material mixture tested as a whole has been found to be: Nontoxic • Non-corrosive • Not an irritant • Not a sensitizer in oral, dermal and ocular tests (see US Federal Hazardous Substance Act 16 CFR 1500) Section 3. Physical & Chemical Characteristics.

In addition, please request a copy of the report issued by Florida International University (FIU) confirming that EBD is safe to use in soil and water matrixes.

Reference # 1: Analysis using Nuclear Magnetic Resonance

NMR stands for "Nuclear Magnetic Resonance", which is a device which observes the physical phenomenon of nuclear spin, in which nuclei in a magnetic field absorb and re-emit electrical radiation and thus analyze the molecular structure of materials at an atomic nucleus level.

The analysis, of the effects of "EBD units" at the molecular structure level involves an electron microscope and an X-ray diffraction device; however, NMR has an advantage, in that it can analyze a sample without destroying it. In addition, less preprocessing of samples is needed as compared to other analytical detection devices. The application fields include not only pharmaceutical, bio, or chemical fields, but also new fields such as organic electroluminescence or battery films which develops with improving speeds. NMR is an indispensable analysis device in advanced scientific fields.

Following, please see the Table below, reflecting various NMR measurements taken after analyzing a control sample of municipal tap water in a glass jar placed on top of various different types of EBD units for varying amounts of time.

Nuclear Magnetic Resonance Apparatus

NMR – ANALYSIS: Glass Jar Filled with Municipal Tap Water in Contact with Various Types of EBD Units

CONTROL MUNICIPAL TAP WATER SAMPLE IN GLASS JAR (1 Sample for 7 Tests)	**125.11 Hz**
EBD Type 1 (Water Filled Jar in contact with EBD for 15 minutes)	106.29 Hz
EBD Type 2 (Water Filled Jar in contact with EBD for 1 minute)	108.20 Hz
EBD Type 2 (Water Filled Jar in contact with EBD for one week)	98.25 Hz
EBD Type 3 (Water Filled Jar in contact with EBD for 15 minutes)	102.95 Hz
EBD Type 4 (Water Filled Jar in contact with EBD for 15 minutes)	102.79 Hz
EBD Type 5 (Water Filled Jar in contact with EBD for 15 minutes)	78.11 Hz
EBD Type 6 (Water Filled Jar in contact with EBD for 15 minutes)	131.53 Hz

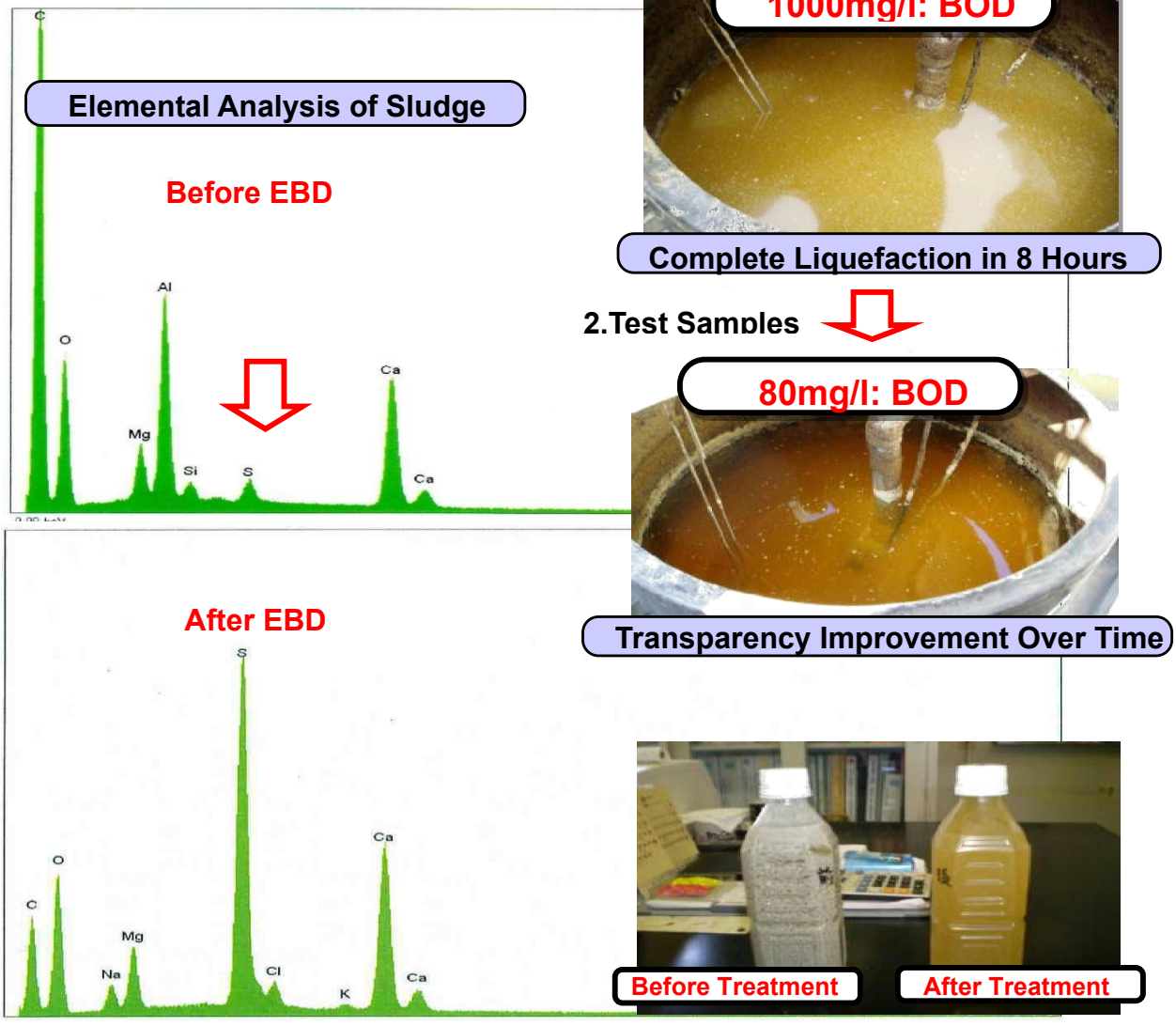
Reference # 2: Analysis using Energy Dispersive X-ray Spectrometry

Elemental Analysis Results

	Detection Element (Semi-quantitative Value wt%)
1.Test samples	C (61.3) O (30.1) Al(3.8) Ca(2.9) Mg(1.2) S (0.4) Si(0.3)
2.Test samples	C (39.5) O (39.2) S (9.8) Ca(6.3) Mg(2.6) Na(1.6) Cl(0.8) K (0.2)

(Remarks) C: Carbon O: Oxygen Al: Aluminum Ca: Calcium Mg: Magnesium S: Sulfur
Si: Silicon Na: Sodium Cl: Chlorine K: Potassium

1. Test Samples



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Remediation: Air, Water and Soil

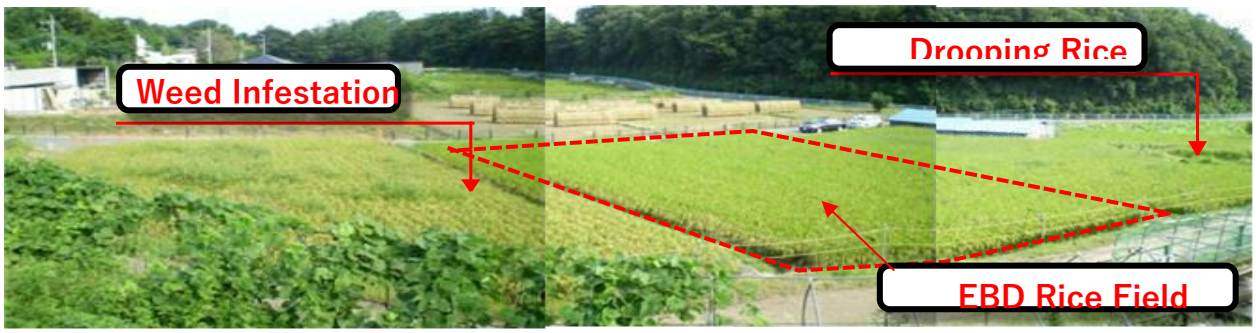
Reference # 3: EBD Field Results in Rice Farming

EBD Stake Unit
30 CM X 3 CM X 3 CM

Improved Plant Stability and Increased Yield

RICE FARMING

	EBD Balance Farming	Conventional Farming
Rice Variety	Glutinous Rice	Glutinous Rice
Number of Roots for 3.3m^2	36 roots /3.3m^2	60 roots /3.3m^2
Planting Number	2 plants (By Hand)	5～8 plants (By Machine)
Height	1200mm	1040mm
Root Depth	100mm	80mm
Diameter of One Joint	6.5mm	4.0mm
Number of Joints	4	4
Numbers of Rice Plants	25 plants	18 plants
Number of Rice Grains	3725 grains	1802 grains
Average Number of Rice	150 pieces	100 pieces
Number of Rice Pieces	245 pieces	134 pieces



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EBD Farming

Conventional Farming

EBD Balance Farming

EBD rice plants are larger compared to conventional rice farming methods.

EBD Stake Unit

30 CM X 3 CM X 3 CM

Each EBD Farming unit is 30 cm long & 2.5 cm wide. They are shaped like stakes to facilitate installation at 40 cm in depth below ground at equidistant intervals surrounding the entire farmland perimeter. EBD is effective for all crops located within the installation perimeter.

Number of Hectares / Acres (Assuming Square Plot Configuration)	Required Number of EBD Stakes
1 Hectare / 2.47 acres	12 EBD Stakes
2 Hectares / 4.94 acres	16 EBD Stakes
3 Hectares / 7.41 acres	20 EBD Stakes
4 Hectares / 9.88 acres	20 EBD Stakes
5 Hectares / 12.36 acres	24 EBD Stakes
10 Hectares / 24.71 acres	32 EBD Stakes
Contact Freytech Inc. for larger plot calculations.	

Laboratory and field data corresponding to additional EBD treated crops are available upon request.