

Our goal is to build a globally recognized company that transforms carbon residues into sustainable solutions, addressing environmental challenges while creating value and advancing a circular economy.

ABOUT US

We produce high-quality organic fertilizers using eco-friendly technology that operates at lower temperatures and pressures.

Our innovative technology transforms crop residues, natural resources, coal, and other carbon-based materials into valuable organic products, contributing to a more sustainable future.

Our products are suitable for organic production and are OMRI Listed.

NANO-BIOSILICA

High Performance Bio-based Silica



Carbon OxyTech

For orders, please contact

 1-403-641-0111

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 *Proudly Canadian*

Based in Calgary, Alberta



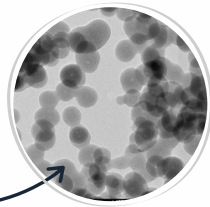
Carbon OxyTech

Transforming agricultural residues into advanced nanomaterials.

What is Nano-Biosilica?

Nano-Biosilica is a high-purity, nano-scale silica material produced from agricultural crop residues. It transforms biomass waste into a high-value, sustainable nanomaterial for advanced industrial applications.

Key Characteristics



- ✓ Nano-scale particle size
- ✓ Extremely high surface area
- ✓ High reactivity
- ✓ Compatible with existing industrial processes

Cement Applications

When incorporated into Portland cement, Nano-Biosilica:

- Improves cement hydration kinetics
- Creates denser microstructures
- Increases mechanical performance
- Maintains matrix integrity

Demonstrated Performance

- Up to 48% increase in compressive strength at optimized level (3% addition)
- Outperformed reference samples at all curing ages
- Effective at low addition rates
- No major process modifications required

Sustainability Impact

- Utilizes agricultural waste as feedstock
- Reduces reliance on synthetic silica
- Supports CO₂ reduction strategies
- Aligns with green building and ESG standards
- Nano-Biosilica expands Carbon OxyTech's portfolio into advanced materials and sustainable construction — converting waste carbon into high-value, climate-positive solutions.

Nano-Biosilica delivers superior performance at low addition rates.

