BACTO-C

FOR HEALTHY SOIL

FIBL – Registered
BE – No. EM735.H

BIO ENERGY LT

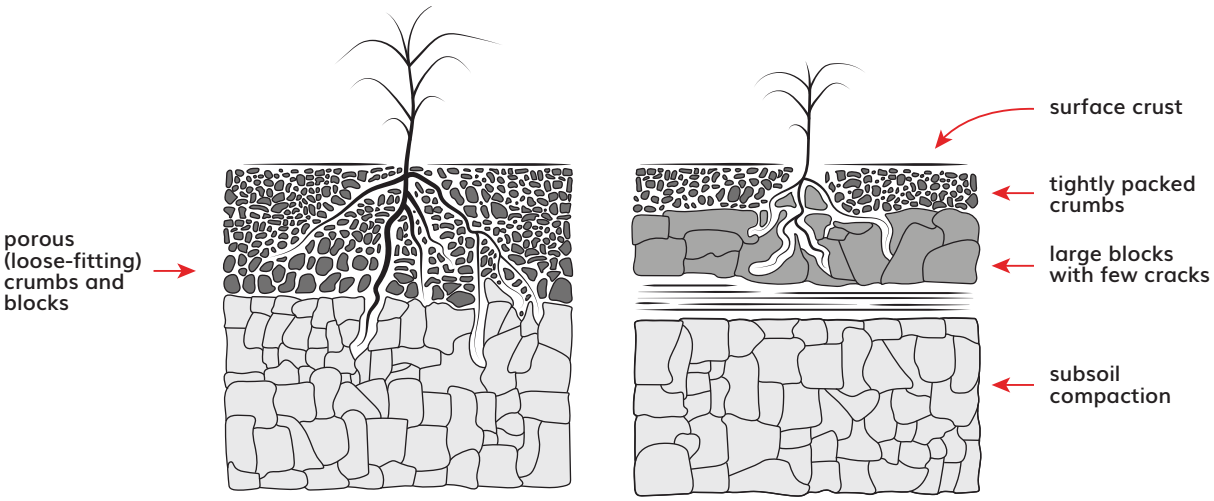
LABORATORY CERTIFICATE QUALITY CONTROL

APPROVED FOR ORGANIC FARMING

Introduction

Carbon is the most important element to life. The carbon cycle closely correlates to plant cycles that perform carbon fixation and to microorganisms, that perform carbon release reactions. Humus, which is a key element of soil quality, is the most important carbon accumulating molecular structure. Organic matter directly controls soil fertility which affects crop yields. The more carbon in the soil leads to the bigger humus amounts, meanwhile, the yields and quality of yields depend on the humus.

Figure 1.



a) good soil structure

b) compacted soil

Challenges

When soils are depleted, organic carbon is needed to restore the natural soil balance. Lack of carbon in the soil may lead to the lack of moisture in the soil, to soil compaction, to the nutriment shortage and subsequently, can be a limiting factor in crop productivity.

Solution

Bacto-C – soil amendment for enhancing organic carbon content in the soil.

Registration information and certificates
Suitable for: cereals, rapeseed, sunflower, corn, sugar beet, vegetables, fruit trees, fruit bushes, berries.

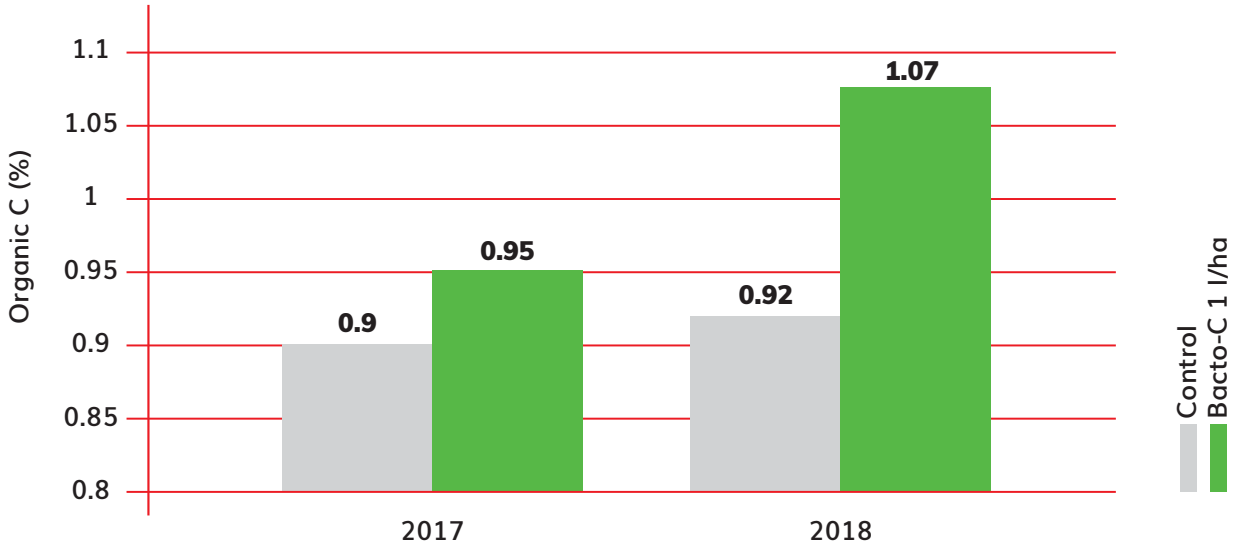
Mode of action

Bacto-C contains carbon supplemented with humic acids, fulvic acids and algae extract. This whole complex of substances also contains microelements and macroelements, ant their action is enhanced by the organic matter of the product. A very important component of this product is natural soil microorganisms, which contribute to the biological activity and the quality of the soil and ensure better nutrition, and consequently, better resistance to pathogens and a good quality of future crops. Organic carbon, trace elements and microorganisms in common action contribute in order to create a synergistic effect and maximize the full potential of soil fertility.

Benefits and Results

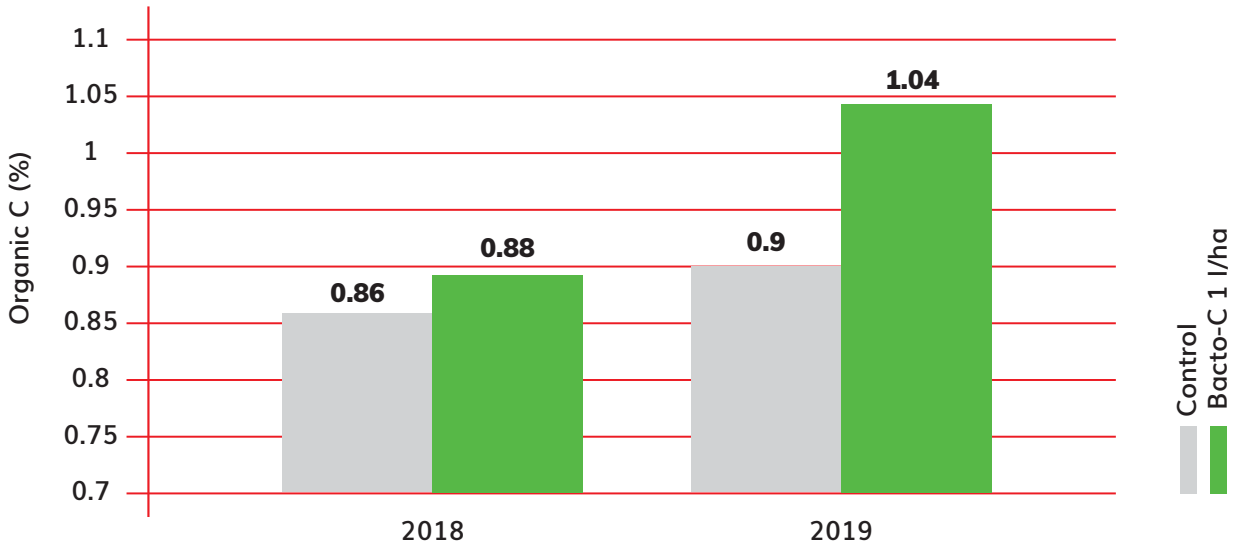
- Improves soil structure and organic carbon content;
- Promotes soil biological and enzymatic activity;
- Promotes plant growth and resistance to stressful situations;
- Prolongs the action of other biological preparations;
- Enhances higher yield and quality.

Figure 2.



LAMMC Dotnuva Research Center 2017-2018

Figure 3.



ASU Research Center, 2018-2019

Application rate, technology

Application rate: cereals: 1-5 l/ha – before seeding, BBCH 01-30, after harvest; rapeseed: 1-5 l/ha – before seeding, BBCH 01-30, after harvest; corn, sunflowers: 1-5 l/ha – before seeding, BBCH 01-16, after harvest; sugarbeet: 1-5 l/ha – before seeding, BBCH 01-16, after harvest; vegetables: 1-5 l/ha – before seeding, BBCH 01-40, after harvest; fruit trees, fruit bushes: 1-5 l/ha – after harvest; berries: 1-3 l/ha – after harvest.

Application time: spray on to the soil before sowing or until the plants do not cover the whole soil surface. In other cases it is recommended to consult with a sales representative.

Application requirements: the sprayer pressure must be 1-10 bar or 15-145 psi; nozzle size is at least 50 µm.

Safety and storage: product can be mixed with all kinds of fertilizers and pesticides unless the manufacturer of fertilizer or pesticide states otherwise. May contain natural sediments. Storage at high temperature above 30 °C must be avoided. Use Bacto-C as soon as possible after opening or store in the refrigerator (4 °C) once it is opened and use it within 72 h. Contamination of the product may occur at any time after opening and the manufacturer takes no responsibility for opened and unused product.

Product is non-toxic and has no irritating compounds. There is no risk to humans, animals and the environment. After contact with the skin or eyes, wash with running water. Microorganisms may have the potential to provoke sensitising reactions.

Specifications

Composition: humic acids-9.4%; fulvic acids-2.3%, *Bacillus amyloliquefaciens* MVY-008 (1.2×10^{11} CFU/l); K-57100 mg/l; Na-54800 mg/l; S-11500 mg/l; Ca-1750 mg/l; P-847 mg/l; Mg-228 mg/l;

Packaging: 20 l; 10 l; 5 l; 1 l.

- **Biological activity:** product is intended for restoration of soil structure, development of plant roots and promotion of biological activity; free-living microorganisms;
- **Physical state:** liquid biological product;
- **Viability, shelf life:** 12 months. The manufacturer does not recommend storing the product above 30 °C.
- **Working conditions:** 5-44 °C soil temperature; 4.5 to 10 pH;
- **Chemical parameters:** dry matter 8.8%; pH 6.8; organic matter 38.6%;
- **Physical parameters:** black colour; dynamic viscosity 15.8 mPas; density 1.08 g/cm^3.

Manufacturer: "Bioenergy LT", Staniunu str. 83/1, LT 36151 Panevezys, Lithuania.

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