

Versatile biocomposite with numerous positive effects on healthy and damaged plants, crops, shrubs and trees.

Summary

Profile type	Company's country	POD reference
Business Offer	Czechia	BOCZ20240612008
Profile status	Type of partnership	Targeted countries
PUBLISHED	Commercial agreement Supplier agreement	• World
Contact Person	Term of validity	Last update
Noriko MITA	12 Jun 2024 12 Jun 2025	12 Jun 2024

General Information

Short summary

A Czech company has developed and sells biocomposite that significantly reduces negative effects of biotic and abiotic stresses and helps to cope with negative swings in climate. It was field tested on plants, crops, shrubs and trees. It also quickly revitalizes injured cultivations and improves their growth. The company is looking for distributors and/or manufacturers interested either in manufacturing product under license or in fortification of their products, e.g. fertilizers.

Full description

A Czech company has developed and manufactures a biocomposite based on a complex of organic and inorganic substances such as peptides, proteins, organically bound trace elements and inorganic nutrients altogether uniquely stabilized - phytohormones like auxines, gibberelins, cytokines, enzymes and amino acids with higher phosphorus and nitrogen. Their appropriate ratio and the unique stabilisation method allows exclusive absorption by the above-ground parts of the plant. The applied product has significant stimulating effects on existing plant's parts and especially activates its dormant eyelets.

The substances applied and physiologically produced in a plant as a result of the application are also translocated back to the roots, where they promote their growth and multiplication. This results in a substantial increase in the nutritional quality of the rhizosphere.

In addition, when applied to the soil, the complex is rapidly broken down into its individual components, which further serve to promote the rhizosphere activity of microorganisms and the process thus contributes to a further increase in plant nutrition, while promoting the quality of the rhizosphere has a long-term character.

Another feature of the product is its role in stress prevention when selective herbicides are used and increases green mass, improves regeneration when cut, prevents stress (when spraying herbicides, fungicides and insecticides), increases the number of flower spikes

The product can serve as a supplement of inorganic fertilizers, it enhances them and decreases their needed quantity by 50% thus having a positive environmental impact. The same applies to supplementing of herbicides, pesticides, insecticides a fungicides.

The product can be also well exploited in bioremediation of contaminated soil with xenobiotics such as dioxins, especially those based on 2,4,5-Trichlorophenoxyacetic acid (2,4,5-T). It revitalizes not only alkali soil but also soil contaminated with toxins or the soil that is over-fertilised. It induces multiplication of bacteria in soil and enzymatic reactions.

The product is regenerative, builds up the autoimmune response and has a healing effect on mechanically or naturally damaged plants (frost, drought, wind). Causes better plant establishment, multiplies the root system, faster tillering and increases crop yields.

It dissolves old inorganic residues from overfertilisation and desalinates the soil.

The product can be delivered with additives of fungicidal, insecticidal, nutritional nature, extending its functionality. For example, application of the product together with a fungicide proved to be very effective against *Chalara* sp. Fungi, when applied on forest vegetation. It has a dampening effect on all airborne fungi, e.g. knot nematodes, powdery mildew, fusarium, downy mildew, etc. And it acts as a very gentle fungicide (although it is not), removing herbicide, pesticide and fungicide stress.

Some specs

- The product is manufactured in a form of liquid concentrate
- Some 4-5 litres are enough to treat 1 ha (treatment of the crops)
- After two hours after its application, it cannot be washed off by rain
- in combination with inorganic fertilizers it decreases needed quantity of the fertilizers in soil
- non-toxic, no accumulation in a body
- less inorganic fertilizers are needed in soil when mixed with the product
- it can be mixed with other products like with preparations against fungi and pests.

The company seeks distributors and/or manufacturers interested either in manufacturing product under license or in fortification of their products, e.g. fertilizers.

Advantages and innovations

They composite is generically versatile:

- it has a highly positive preventive and curative effect on plants exposed to various types of stresses, damaged by various biotic or abiotic factors.
- it can be used to prevent losses because of cold during the winter period, to promote the formation of biomass
- it can be used as an activating agent in the construction of artificial wetlands as part of phytoremediation.
- it is a one-off spray solution that significantly increases biomass production
- it reduces loss of vegetation in case of adverse conditions or during pest infestation
- The product can be freely mixed with products against pests and diseases, where the product activates the immune system of the plants and helps to enhance the effect of the substances used, with increased plant protection
- non-toxic, no accumulation in a body

Technical specification or expertise sought

Stage of development

Already on the market

IPR Status

Secret know-how

IPR Notes

Sustainable Development goals

• **Goal 2: Zero Hunger**

Partner Sought

Expected role of the partner

. The company is looking for distributors and manufacturers interested either in manufacturing product under license or in fortification of their products, e.g. fertilizers.

Type of partnership

Type and size of the partner

Commercial agreement

Supplier agreement

• **SME 11-49**

• **SME 50 - 249**

• **Big company**

Dissemination

Technology keywords

Market keywords

• **09005 - Agriculture, Forestry, Fishing, Animal Husbandry & Related Products**

Targeted countries

Sector groups involved

• **World**