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Bacteria biomass

Description

Bacteria biomass is manufactured by a fermentation process with fungus and bacterial. Raw materials are to a very large extent agricultural material such as proteins, sugars, syrups, trace elements and vitamins. After a 3 to 4 hours drying process with almost 130 °C we are producing a granular which is easy to apply with standard commercial fertilizer spreaders.

Bacteria biomass activates the soil life and regenerates the soil with a lasting effect. Higher humus value, better rooting and vitalization are specific characteristics of the organic finished fertilizer. A further asset of Bacteria biomass is the so called priming effect: The activated soil organisms mineralize more nutrients from the soil substance – additional nutrients for the plants.

Analysis

	Calculated as	In original %	In dry matter	Unit
Moisture (calculated)		7,1		%
Dry matter (drying at 130°C. gravim.)		92,9		%
Ash (Combustion at 550°C. gravim.)		4,8	5,2	%
Organic matter (calculated)		88,1	94,8	%
Nitrogen total (Elemental analysis)	N	8,1	8,62	%
Nitrate-Nitrogen watersoluble (Destillation)	NO3	0,04	0,04	%
Phosphorus total (photometric)	P2O5	4,77	5,14	%
Potassium total (flamephotometric)	K2O	1,01	1,09	%
Calcium (flamephotometric)	CaO	3,93	4,23	%
Magnesium (ICP-OES)	MgO	0,74	0,8	%
Sodium (flamephotometric)	Na2O	2,74	2,95	%
Chloride watersoluble (potentiometric)	Cl	0,01	0,01	%
Sulphur total (ICP-OES)	S	0,90	0,97	%
pH-value (CaCl2)		7,1		%
Copper (ICP-OES)		14,9	16,0	mg/kg
Aluminium (ICP-OES)		3937	4238	mg/kg
Iron(ICP-OES)		2,02	2,17	%
Zinc (ICP-OES)		102	110	mg/kg
Molybdenum (ICP-OES)		1,23	1,32	mg/kg

Heavy Metals

Lead (ICP-OES)	Pb	2,32	2,5	mg/kg
Cadmium (ICP-OES)	Cd	0,23	0,25	mg/kg
Chromium III (ICP-OES)	Cr	7,65	8,23	mg/kg
Nickel (ICP-OES)	Ni	4,38	4,71	mg/kg
Mercury (ICP-OES)	Hg	0,014	0,015	mg/kg
Arsenic (Hydrid-AAS)	As	0,67	0,72	mg/kg

Agronomic Information

a) Information on the use of the product according to good agricultural rules:

Bacteria biomass should always be applied topically. The application rates may be adjusted to fit any special soil or nutrient requirements. It will stimulate the microorganisms in the soil. Bacteria biomass can be dry broadcasted with the help of regular fertilizer spreader or by hand. One fertilizer application per vegetation period is sufficient for most forms of cultivation. Intensive forms of cultivation (vegetables, ornamental shrubs) may in certain circumstances require subsequent fertilization with reduced quantities. Care should be taken to apply fertilizer only topically, particularly when planting and in the case of afforestation. Using for young plants the fertilizer should be spread out at least two weeks before planting. Directly put to young plants there should be a gap of 5 cm between plant and fertilizer.
The product should not be applied to strawberries and root vegetables.

b) Primary and secondary effects and mode and field of activity:

Due to the high content of organic substance, Bacteria biomass improves the humus supply in the soil and optimizes its biological and physical properties. The result: intensive activity of the soil organisms and high crumb stability, as well as improved water storage capacity and water conductivity. As a further advantage, the plants benefit from the so-called priming effect: more nutrients are available that are released from the soil supply.

Identify data

a) Type of fertilizer:	Organic Fertilzer
b) Apperance/physical state:	yellow brown, solid granulates
c) Storage condition:	keep dry; max. storage temperature (for safety reason only): 70°C
d) Shelf life:	unlimited, when stored correctly

Bacteria biomass - Application rates and directions of use

Bacteria biomass is the ideal fertilizer for **arable farming, vegetables, fruit and vineyards**. The **high nutrient** content, together with the high content of organic substance in Bacteria biomass, result in activation of the soil life and therefore **permanent regeneration** of the soil.

Vegetation or Plant Type	Annul Application Rate	Recommended Time for Fertilization
vineyards	400-700 kg/ha	spring or autumn
pulses	500-800 kg/ha	prior to cultivation
cereals	600 kg/ha	prior to cultivation
corn	800 kg/ha	prior to cultivation
potatoes	800 kg/ha	prior to cultivation
sugar beet	800 kg/ha	prior to cultivation
fodder beet	1.00 kg/ha	prior to cultivation
sunflower	600-800 kg/ha	prior to cultivation
squash	700 kg/ha	prior to cultivation

hop	800 kg/ha	spring or autumn
rape	500 kg/ha	spring or autumn
young fruit plantation	600-800 kg/ha	spring or autumn
fruit plantation	500-700 kg/ha	spring or autumn
berry shrubs	700-900 kg/ha	spring
tomatoes, paprika	800-1.500 kg/ha	prior to cultivation
meadow, pastures: 3 cuttings	800-1.000kg/ha	while vegetation period
ornamental trees, shrubs	200 kg/m^2	spring
window boxes	4-6kg/m3	while vegetation period
plantation of young trees	100-150g/Pflanze	while vegetation period
forest maintaining	1.100 kg/ha	while vegetation period
young forest plant and trees in nursery	1.000-1.200 kg/ha	spring
compost preparation	5-10kg/m3	all the year

Packaging

Bacteria biomass is marketed as standard granules (2-4mm)
Other granule qualities are available upon request.

25 kk plastic tube bags, palletized in 1.000 kg units.
500 or 1.000 kg big bags.

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