

Improvement of comprehensive bio-waste transformation and nutrient recovery treatment process for production of combined natural products

BIOCHAR AUTHORITY PERMIT - HUNGARY CASE STUDY

- ✓ **National Authority/Hungary:** National Food Chain Safety Office.
- ✓ **HU permit number: 02.5/67/7/2009, upgraded in 2015, meets the past 5 years EU regulation changes.**
- ✓ **Applicant:** Terra Humana Ltd., **Product:** Animal Bone bioChar+fungus, **yield enhancing substance.**
- ✓ The permit **sets the quality and safety requirements:** minimum nutrient content, maximum level of contaminants and product labelling conditions in line with EU CLP Regulation.
- ✓ The permit and test procedure has been executed in the Government Authority accredited test fields and accredited laboratories between 2005-2009.

LIMIT VALUES for toxic elements	
As (mg/kg)	10
Cd (mg/kg)	2
Co (mg/kg)	50
Cr (mg/kg)	100
Cu (mg/kg)	100
Pb (mg/kg)	100
Hg (mg/kg)	1
Se (mg/kg)	5
PAH ₁₉ (mg/kg)	1
QUALITY PARAMETERS	
Particle size distribution	Below 3.2 mm (100 %)
Dry matter content	>80 %
pH	8
N and K total	declaration
Total P (P ₂ O ₅)	>29 %
Total Ca	>25 %
Germination inhibition assay	No inhibition
Phytotoxicity	No phytotoxicity
Agronomic efficiency	Proved

ABC biochar quality and safety parameters in the permit
(FVM decree 36/2006 V.18. HU)

- ✓ HU permit extension to other MS: by Mutual Recognition (EC 764/2008)



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