

Opinion of the National Institute of Horticultural Research on the suitability of soil conditioner under the name HUMIBAKT for application in the cultivation of vegetables

This Opinion was prepared on request of the manufacturer of the soil conditioner under the name HUMIBAKT, i.e. JMS-GLOBAL SŁAWOMIR HRUSZKA, ul. Graniczna 43, 93-428 Łódź.

The Opinion was drawn up based on documentation provided by the said manufacturer, including: 1) Declaration of the manufacturer, 2) list of raw materials and an abbreviated description of the manufacturing technology of the conditioner, 3) report on the physical, chemical, and biological tests carried out at the Main Laboratory of Chemical Analyses of the Institute of Soil Science and Plant Cultivation – State Research Institute in Puławy, and 4) opinion on the compliance with quality requirements and the maximum allowable concentrations issued by the Institute of Soil Science and Plant Cultivation – State Research Institute in Puławy.

1. Name of the soil conditioner: HUMIBAKT

Conditioner type: organic

Form: solid, powdery

2. Information about the composition: Lyophilized strains of soil bacteria of the genus *Bacillus* (share: not less than 0.2%), organic medium: growth medium for bacteria (lactose or maltodextrin) (share: not more than 74.8%), humic substances (share: not less than 25%). The ranges of share of specific ingredients of the formula result from the concentration of bacteria in the obtained lyophilizate. At the first stage of manufacturing, the appropriate strains of *Bacillus* bacteria are acquired in form of lyophilizates. The second stage consists in preparing mixtures with the organic medium (lactose). Then, the appropriate lyophilizates are mixed with organic media (lactose, maltodextrin) and with humic substances. The final product is packaged in unit packaging.

3. Assessment of the suitability of the soil conditioner for application compliant with the intended purpose

Pursuant to § 2 item 3, item 2 of the Ordinance of the Minister of Agriculture and Rural Development of August 9 2024 on the execution of certain regulations on fertilizers and fertilization (Journal of Laws of 2024, item 1261), agricultural tests of the soil conditioner HUMIBAKT have not been conducted, as its chemical composition does not contain substances previously unknown or not used in crop cultivation. The soil conditioner contains bacteria of the genus *Bacillus* (Test Report issued by the Department of Agricultural Microbiology of the ISSPC – SRI in Puławy of the 01.08.2023), and humic substances (Test Report issued by the Department of Fertilization and Nutrient Management of the 03.10.2023) that have a beneficial influence on the physical, chemical, and biological properties of soil. Based on the opinion on the compliance with quality requirements and the maximum allowable concentrations issued by the Institute of Soil Science and Plant Cultivation – State Research Institute in Puławy of the 08.04.2025, confirmed by the results of physical, chemical, and biological tests conducted at the Main Laboratory of Chemical Analyses of the Institute of Soil Science and Plant Cultivation – State Research Institute in Puławy (Test Report No. 23S60 of the 01.09.2023), I hereby confirm that the soil conditioner HUMIBAKT meets the specifications declared by the manufacturer and the requirements related to maximum allowable concentrations of contaminants provided in the Ordinance of the Minister of Agriculture and Rural Development (Journal of Laws of 2024, item 1261).

4. Information on the impact of the conditioner on human and animal health and on the environment

Considering that the presence of inorganic contaminants (chromium, nickel, lead, mercury, and cadmium) in the soil conditioner **HUMIBAKT** does not exceed the maximum allowable concentrations and that neither intestinal parasites *Ascaris* spp., *Toxocara* spp., and *Trichuris* spp. nor the *Salmonella* spp. bacteria were detected in the product, it may be confirmed that the application of the soil conditioner **HUMIBAKT** in compliance with the instruction manual does not pose hazards for human or animal health or for the environment.

5. Information about the possibility of simultaneous use with crop protection products

The combined use of the soil conditioner **HUMIBAKT** with plant protection products is not

envisaged.

Prepared by: Professor Stanisław Kaniszewski, DSc., hab.

Signature Not Verified

Document signed by Stanisław Kaniszewski

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