

## **CONTROLLED VERMICULTURE TECHNOLOGY**

# **DNIPRO UNIVERSITY**<br/>of TECHNOLOGY<br/>1899**DEVELOPERS:** Oleksandr KOVROV, Anastasiia GETTA

### PROJECT ESSENCE

Vermiculture is the process of converting organic waste into high-quality organic fertilizer using the red California worm Eisenia fetida, which is ideally adapted to environments with a high content of decomposed organic material. The result of this process is vermicompost ("biohumus").



#### **APPLICATION AREA**

The project is focused on agriculture, horticulture, restoration of degraded land and landscape design.



#### FINAL PRODUCT

Vermicompost ("biohumus") is a 100% organic fertilizer that does not contain pathogenic microflora and helminth eggs, strengthens plant immunity and contributes to an environmentally friendly harvest.

#### **APPLICATION FEATURES**

1. Biohumus can be used as an independent fertilizer or as an additive to increase soil fertility, improve yields and green areas.

2. The efficiency of biohumus is 10-15 times higher than other organic fertilizers.

3. The positive effect lasts up to 3 years after application.

4. Absolutely harmless to any soil, regardless of concentration.

5. Stimulates biological processes, increases the activity of beneficial microorganisms and natural plant growth regulators, which contributes to the healthy development of crops.

#### ECONOMIC AND INVESTMENT ATTRACTIVENESS

- High productivity - up to 600 kg of biohumus can be obtained from 1 ton of dry manure, which ensures high profitability while reducing raw material costs.

- Long-lasting effect on the soil allows to save on fertilizers for several years and reduce the cost of soil cultivation.

The increase in yields will lead to a significant increase in income for farmers and landowners.
Environmental benefits promotes organic farming, which makes products more attractive to consumers and can open up new growth markets.
Biohumus helps to restore degraded land, which increases the area of productive land and can increase its value.



The research is conducted in the framework of a project with the University of Lancaster (UK)





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