

Development of breakthrough technology BIOINSEC by the company HIPROMINE S.A.

Description of the project:

The project enabled the purchase of research equipment as well as conducting industrial research devoted to developing a prototype of a bioreactor in laboratory conditions. The aforementioned bioreactor is to be used for the consumption of by-products and vegetable and fruit waste produced by the agricultural-food industry which is to be applied as an element of insect larvae breeding. The larvae are used to manufacture a highly absorbable protein and fat designated for feeding livestock and production of organic fertilizer. The bioreactor consists of three modules: plant fodder for insect larvae is prepared in the first module using microbial fermentation, in this case - lactic bacteria is applied. In the second module, thanks to temperature control and recovery of water secreted as a metabolism product and released from biomass insect larvae biomass can increase. As regards the third module - the insect larvae are automatically separated and fractionated from faeces and remains of feed. At this stage the extraction of defatted protein flour due to the separation of fat and water takes place. The larvae of three following species are grown by the company HiProMine: mealworms, superworms and exotic tropical fly *Hermetia illucens*. Insect larvae require two to eight weeks to reach a form in which they can be turned into feed, depending on the species and conditions.

Detailed information:

Beneficiary:

HiProMine S.A., Robakowo, Kórnik Commune

Program:

WRPO 2014+

Fund:

European Regional Development Fund

Total value of the project:

PLN 6 900 551,66

EU contribution:

PLN 4 551 288,22

