

THE PROJECT

FLIES4VALUE want to offer an economic, efficient, competitive and low-impact system to enhance wastes from regional agri-food industries by exploiting the effectiveness of bioconverting insects, soldier fly larvae, for the production of feed for laying hens and other substances with high added value for the food sector and agriculture. The soldier flies will be bred on a mixture of by-products chosen on the basis of nutrients and pigment content, optimized to maximize growth. Both incoming biomass (by-products) and outgoing biomass (mature larvae) will be characterized and stabilized. An integrated plant for mass production, suppression and functional stabilization of soldier flies will be created which will make the larvae immediately available for animal feed. The feed obtained, in addition to proteins and lipids, will provide ideal natural pigments to obtain eggs with intensely colored yolks, as required by the market, thus reducing the use of synthetic pigments, which are expensive and have a negative impact on the health of the hens. The parameters of hens fed on soldier fly larvae feed and the quality of the eggs will be evaluated. Protein, lipid and chitinous fractions with high added value and extracts with high enzymatic activity, of great interest for the food/feed industry, will be obtained through biorefinery processes of larval biomass. To maximize the exploitation of resources with a view to circular economy, the enhancement of the post-larval organic residue is envisaged as a conditioner for crops and for the potential for biomethanation. The environmental/economic/social impacts of the system will be quantified to assess its regional industrial feasibility

Lead partner



Partners



Businesses



Contacts

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FLIES



VALUE

Insects for the bioconversion
of agri-food by-products
in food and high-value
added substances

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Call for Research Grouping



Nutritional and economic value of products

