



PRESS RELEASE

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## Protix insect-based proteins and ingredients achieve new levels of sustainability with unprecedented scores

New DIL report underscores Protix's profound positive impact on our planet

Protix, the global leader in insect ingredients for feed and food, unveils the outstanding results of a new Life Cycle Assessment (LCA) conducted by the German Institute of Food Technologies (Deutsches Institut für Lebensmitteltechnik, DIL e.V.). The figures follow on from impressive numbers published in an earlier assessment conducted in 2022, and demonstrate that Protix's black soldier fly ingredients are crushing it again in terms of environmental footprint.

Driven by its mission to help feed the growing global world population while taking good care of our planet, Protix works tirelessly to further reduce the footprint of its ingredients for pet food, animal feed and fertilisers. The improved results are driven by continuous improvement across operations, genetics and nutritional science.

All Protix products yielded standout results:

- ProteinX<sup>®</sup> insect meal reduces CO<sub>2</sub> emissions by 78% compared with poultry meal. Poultry meal is often used in pet food and livestock feed. Compared to soy protein concentrate, an ingredient often used in aquaculture, ProteinX lowers CO<sub>2</sub> emissions by as much as 89%.
- LipidX<sup>®</sup> insect fat dramatically reduces land use, using 99.9% less than coconut oil. Coconut oil is commonly used as a fat source in livestock and aquaculture feed as well as in pet food.
- PureeX<sup>®</sup> insect meat uses a staggering 99.8% less water than poultry meat. Poultry meat is commonly used in pet food as a high moisture protein source.

Kees Aarts, CEO of Protix, comments: "We take pride in leading innovations within our industry on a pathway to low-footprint-no-footprint proteins. With our previous LCA, we shared the vision that the environmental footprint of our black soldier fly ingredients could be reduced and we have lived up to that promise: the latest DIL figures once again demonstrate an improvement in the footprint of our Protix ingredients. We look forward to translating these LCA numbers into new commercial opportunities to help our customers produce better and greener."

Data to count on

Protix understands the importance of a robust scientific foundation for its products. The company is heavily invested in substantiating its findings and sharing data that manufacturers can translate into compelling claims.

This latest LCA was conducted by DIL, the German Institute of Food Technologies. This is a private, non-profit research provider with around 150 member companies from the food industry

and related fields. As in the previous LCA, the results are based on the established and proven IMPACT 2002+ methodology. To further support the robustness of the findings, the results were compared against benchmark results from literature and relevant databases.

#### Making a real difference

However, Protix's mission extends beyond the numbers and methodologies. The company is driven to create genuine, meaningful change in the food system. The data were taken from the year 2023, with the plant running at designed capacity. Protix is uniquely positioned to calculate with real production data from an industrial-scale facility operating at full capacity. Every kilogram of its products used in pet food, animal feed, or organic fertiliser represents a tangible step towards a healthier planet, for Protix, its customers, and all of us.

#### Wings of power

The LCA was carried out on Protix products which are based on the black soldier fly (BSF). Protix selected the BSF as its preferred and sole source of protein following in-depth research in the company's infancy, 15 years ago. The BSF was found to be a superior source of protein for a raft of reasons. Essentially, the black soldier fly is one of nature's most efficient upcyclers.

While these latest LCA data relate directly to Protix insects derived from larvae of the black soldier fly, they also shine a light on exciting potential for the insect industry as a whole to reduce the environmental impact of feed and food.

#### A high-flying future

There is growing interest in insects as a sustainable source of protein. Protix remains at the forefront of developments with new production facilities and international expansion high on the agenda. Kees Aarts concludes: "This is an exciting time for change in the pet food, animal feed and fertiliser industries and we are scaling up our operations to meet demand. We are confident that we can achieve further outstanding figures in the future as we invest in improved genetics and build on our already deep knowledge of insect farming. When feedstock legislation changes, this will be a further driver of a lower footprint for our beloved black soldier fly. A tiny creature, but an impactful eco-warrior."

Download the paper here. <https://protix.eu/white-paper-lca/>

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#### About Protix

Protix is the leading company in insect-based ingredients for healthy and sustainable pet food, aqua culture, livestock feed and organic fertiliser. The company is on a mission to create low-footprint ingredients that solve major issues in the current food system. Protix contributes to a circular food chain by using waste from the food industry as feed for insects. In turn, the insects are processed into valuable nutrients such as proteins and lipids. Protix's customers use these proteins and lipids as high-quality ingredients for animal feed and pet food. Moreover, residual streams from the insects are used as organic fertiliser. This way, insects close the loop and bring the food system back in balance with nature. Since its foundation in 2009, Protix has developed state-of-the-art, scalable technology, enabling the efficient use of resources and supply chain optimisation, including the reduction and recycling of residues and waste. Protix has been producing insect ingredients at its fully ramped-up industrial scale plant in The Netherlands since 2019. The company takes a measured approach to growth, resulting in profitable and cost-effective operations. Emphasising the power of partnerships, Protix actively collaborates with forward-thinking entities to unlock the full potential of insect ingredients worldwide.

[www.protix.eu](http://www.protix.eu)