

# Layman's Report



LIFE 18 ENV/DE/000011

Life Waste 2 Protein

Insect Farming for Sustainable Solutions



made**by**made

# Introduction

Insect farming, also known as insect rearing or insect cultivation, involves the controlled breeding and raising of insects for various purposes.

This practice has gained significant attention in recent years due to its potential to address critical global challenges, such as **food security**, **environmental sustainability**, and **resource efficiency**.

In this layman report, we will explore the fascinating world of insect farming, its benefits, and its applications in different industries.



*Sustainability is in our hands:  
Black Soldier Fly in  
different stages.*

# Benefits / SDGs

Insect farming comes with benefits in **ecologic**, **social** and **economic** areas that contribute to making our world more sustainable.

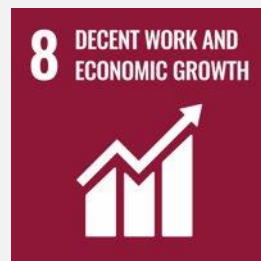
Most importantly, it creates novel and flexible links between waste products of one industry to provide valuable materials to another.

Those materials, mainly insect protein meal, are far more sustainable than conventional feed additives.



Advocating  
Circular Economy

Creation of  
Green Jobs



Protection of  
Wild Animal Species

Saving of  
Greenhouse Gases



Multiple Marketing  
Opportunities

Sustainable  
Value Creation





*In the reproduction room, some of the flies  
are allowed to live their best life.*

# Why Insects?

Insects are incredibly diverse and abundant creatures, representing over 80% of all animal species on Earth.

They possess remarkable adaptability, reproduce rapidly, and convert feed into body mass quite efficiently.

This makes them a valuable resource for various purposes, including food, animal feed, fertilizer, and more.

*The inconspicuous hero behind this project:  
The Black Soldier Fly – *Hermetia illucens**



# Animal Feed

Insects, with their high protein content, are an excellent source of nutrition for livestock, aquaculture, and pets making insect farming a crucial approach in addressing the demand for animal feed .

Insect-based feed reduces the reliance on conventional feed sources, such as fishmeal and soy, which can contribute to overfishing and deforestation.

Additionally, the use of insects in animal diets can improve the health and growth of animals while reducing the need for antibiotics.

*Best served fresh:*

*Larvae are high quality live feed for poultry and aquaculture.*



*Versatile and healthy:*

*Insect meal replaces other protein additives in animal feed.*



# Waste Management and Fertilizer

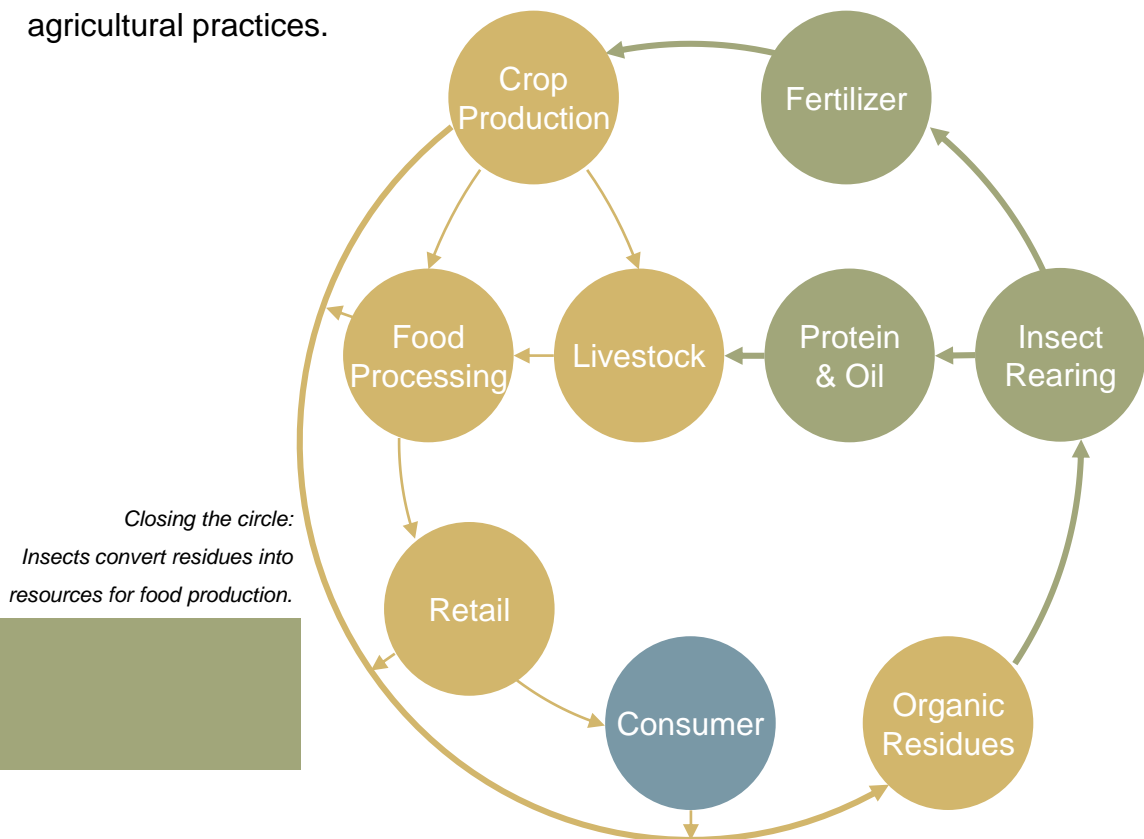


Insects are efficient decomposers, capable of converting organic waste into valuable resources.

Black soldier flies can consume large amounts of organic waste, such as **food scraps** and agricultural byproducts and convert them **into nutrient-rich larvae**.

While the larvae are processed into feed their excrements also serve as a **potent organic fertilizer**.

Insect farming enables a circular economy approach, closing the loop on waste management and contributing to sustainable agricultural practices.



# Environmental Sustainability

The environmental benefits of insect farming are significant:

Compared to traditional livestock farming, insect farming requires less land, water, and feed resources.

It produces fewer greenhouse gas emissions and contributes to biodiversity preservation.

Furthermore, insect farming can be implemented in urban areas, utilizing vertical farming techniques.

This means less transport effort and support for local food production.



*Small footprint, large output:  
The production is designed for automation and modularity.*



# Challenges and Future Outlook

While insect farming shows great promise, several challenges need to be addressed for its widespread adoption.

These include regulatory frameworks, public perception, scaling up production, and optimizing farming techniques.

However, with increasing awareness and support from governments, researchers, and entrepreneurs, the future of insect farming looks promising.

It has the potential to revolutionize our approach to food production, waste management, and resource utilization, contributing to a more sustainable and resilient future.



*Getting acquainted:  
Giving a closer look  
through product samples  
and a microscope*



*Full speed ahead:  
Insect farming products  
ready for shipping.*



*One mans trash:  
Organic residue should  
not be wasted.*



# Conclusion

Insect farming offers a sustainable and efficient solution to some of our pressing global challenges.

From food production to waste management, these tiny creatures have the potential to make a significant impact on our environment, economy, and overall well-being.

Embracing insect farming as a viable and innovative practice can pave the way for a more sustainable future, where we can harness the power of nature's smallest creatures to create a better world for all.



Into a sustainable future.  
Now.

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