



Changing the world, one sustainable
ingredient at a time



The largest producer of insect-based ingredients for animal and plant nutrition in North America.



Our challenge

As the world's population continues to grow, so does the demand for sustainable, nutritious animal feed.

By 2050, the global population is projected to reach 9.7 billion people, driving the need for a 74% increase in food production.



Feeding a growing world

We are proud to be apart of the U.S. agriculture industry.

- World population continues to grow
- Over 9 billion people by 2050 requires:
 - More food
 - More protein
 - More resources
- Insects are one piece of the puzzle
- Global crisis cannot be solved by one industry alone



Mission, vision and values

Mission

Enviroflight is the leading producer of sustainable black soldier fly larvae ingredients supporting a growing population. Our innovative platforms are designed to produce the highest quality and nutritionally consistent functional ingredients for animals and plants.

Vision

EnviroFlight aims to change the way the world views insects as feed. By leveraging our science and technology, EnviroFlight will continue to drive this sector forward, producing the highest quality sustainable insect-based ingredients trusted by customers across the globe.

Core Values

1. Sustainability
2. Innovation
3. Quality
4. Integrity
5. Growth



Earth's inhabitants

Insects: 52%

Other invertebrates: 19%

Plants: 16%

Fungi and Lichen: 6%

Chordates: 3%

Diatoms, bacteria, viruses, etc.: 3%

Insect Biodiversity

5,500 mammals

10,000 birds

33,000 fish

1,500,000 insects

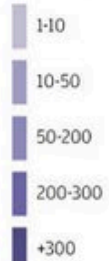
>1.5 million animals



Human consumption of insects

Edible insects species

Number of species by country



Latin America

Life cycles of insects have long been well documented by the indigenous people in Mexico, who harvested the insects according to plant life and moon cycles, and seasonal changes

DR Congo

When staples are scarce, insects become important sources of food. Caterpillars are popular during the rainy season, when hunting game and fishing become difficult. 96 tonnes of caterpillars are estimated to be consumed annually in Kinshasa alone

Thailand

Migration patterns in many Asian countries help distribute the spread of present day entomophagy, especially in Thailand, where labour workers from northeastern Thailand migrate to southern parts of the country, including Bangkok, with an estimated 81 insect species for consumption

Southeast Asia

Consumes around 150-200 species of edible insects, of which the red palm weevils are especially popular and viewed as a highly prized delicacy. Many aquatic species can be found year-round, while some non-aquatic ones are available on a seasonal basis



Commonly reared insects for animal feed

Black soldier fly (BSFL) (*Hermetia illucens*) – larval life stage

Mealworm (*Tenebrio molitor*) – larval life stage

Cricket (*Acheta domesticus*) – juvenile and adult life stage



BSFL



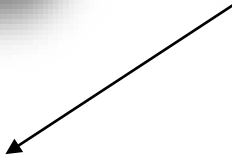
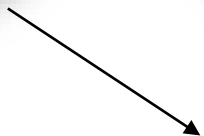
Mealworm



Cricket



Variety in insect product options



Protein-rich meal

Processed meal

Oil

Fertilizer



Black soldier fly is the ideal choice

Thrive on many feed options

Not considered pests

Native worldwide

Do not carry zoonotic disease

Does not bite or sting

Sustainable and ecofriendly



Black soldier fly lifecycle



Enviroflight builds first commercial black soldier fly larvae facility in Maysville, Kentucky

Enviroflight considering \$32M investment in new Maysville facility

© January 26, 2017 458 Views



High quality ingredients derived from dried black soldier fly larvae

Nutrients	EnviroBug	EnviroMeal	EnviroOil	EnviroPro
Protein	34 %	50%	--	All-natural fertilizer N-P-K and minerals
Fat	26 %	9-15 %	98 %	
Calcium	2 %	2 %	--	
Fatty-acids	Medium	Low-Med	High	



EnviroProducts

EnviroBug: Nutritious, premium ingredient composed of oven-dried whole black soldier fly Larvae.

EnviroMeal: Created by pressing fat out of dried black soldier fly larvae, making a high-protein, finely ground product.

EnviroOil: Derived from pressed dried black soldier fly larvae, resulting in an oil rich in lauric acid.

EnviroPro: A nutrient-rich product derived from black soldier fly larvae frass.

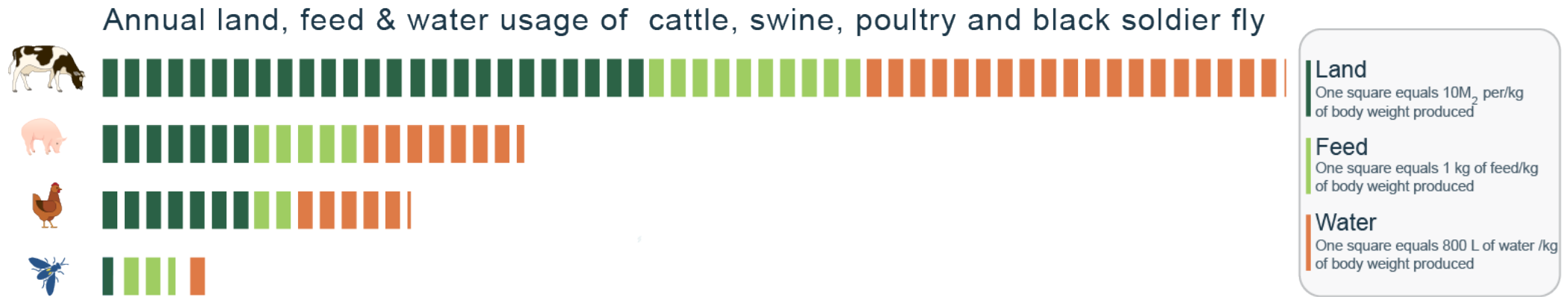
EnviroFeed: A nutrient-rich product derived from the production of black soldier fly larvae, used as a feed ingredient.



Efficiencies in insect production systems



Efficiencies in sect production systems



Animal feed and pet food safety

The Food and Drug Administration (FDA) makes sure that all animal feed and pet food is made safely through the Food Safety Modernization Act (FSMA).

This regulation has **7 rules**:



U.S. regulatory status of black soldier fly larvae

Definition Status as of August 2024		
Markets	EnviroBug/EnviroMeal	EnviroOil
Dogs	All life stages (EnviroFlight exclusive*) Official – Adult dog (AAFCO)	All life stages (EnviroFlight exclusive*) Official – Adult dog (AAFCO)
Cats	All life stages (EnviroFlight exclusive*) Tentative – Adult cat (AAFCO**)	All life stages (EnviroFlight exclusive*) Tentative – Adult cat (AAFCO**)
Poultry	Official (AAFCO)	All life stages (EnviroFlight exclusive*) Under FDA review (AAFCO***)
Swine	Official (AAFCO)	Official (AAFCO)
Aquaculture	Official – Salmon Tentative – Finfish (AAFCO**)	Official (AAFCO)

*EnviroFlight exclusive – Self-determined GRAS

**Official vote expected Jan 2025

***Official vote expected Aug 2025



Supported by our parent company: Darling Ingredients

A leading innovative developer and producer of sustainable ingredients.

Technical expert in the scale-up and engineering for the commercial production of food ingredients.



A growing industry can grow a career



Research and Development



Operations



Quality



Sales



Maintenance





Thank you!

For questions or more information, visit
darlingii.com/enviroflight.

