

Insect-Based Protein Ingredients

ANMD-MRS13-128 · Sustainable Food & Alternative Protein Technologies

A Global Sustainability Due Diligence & Market Research Study

History 2020–2024 · Base Year 2025 · Forecast 2025–2032 · Outlooks 2035 / 2040 / 2050 · Currency US\$

WHY THIS REPORT

Insect-based protein ingredients turn black soldier fly, cricket and mealworm biomass into sustainable protein and oils — primarily for aquafeed, pet food and livestock feed, with a growing human-food edge. By converting organic side-streams into high-value protein with minimal land and water, insect farming offers a circular, efficient protein route. This decision-grade study sizes the global market three ways — value, volume (tonnes/kg) and products/SKUs — across insect type, application and channel, across seven regions and four scenarios to 2032, with outlooks to 2050.

SUSTAINABILITY & SDG IMPACT — THE ANMD LENS

Sustainability is this report's backbone, not an afterthought. Insect farming converts waste into protein with very low land and water use and reduces fishmeal pressure.

Mapped Sustainable Development Goals:

SDG 2 Zero Hunger	SDG 3 Good Health & Well-being	SDG 12 Responsible Consumption & Production	SDG 13 Climate Action	SDG 15 Life on Land
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Measurable sustainability outcomes assessed:

- Circular conversion of organic side-streams into protein
- Very low land- and water-use feed-grade protein
- Feedstock-sourcing and biosecurity as a material risk
- Energy use and human-food regulation assessed

Framework alignment: Double materiality mapped to GRI, SASB, ISSB, TCFD, TNFD, CSRD and the EU Taxonomy, with greenwashing and SDG-washing screens applied throughout.

WHAT'S INSIDE AT A GLANCE

53 Chapters	9 Report Parts	7 Regions Covered	40+ Country Markets
2025–32 Forecast Horizon	4 Forward Scenarios	25+ Companies Profiled	5 SDGs Mapped

REPORT COVERAGE

Geographic scope: North America, Europe, Asia Pacific, Latin America, Africa, Middle East and Rest of World — with named country intelligence. Europe leads industrial insect farming; North America and Canada scale feed and food; Asia Pacific and emerging hubs grow fast; other regions assessed on their own merits.

- Circular protein from organic side-streams with minimal land and water
- Aquafeed and pet food anchor the economics ahead of human food
- Black soldier fly, cricket and mealworm protein and oils
- Feedstock sourcing, biosecurity and human-food rules as material risks

MARKET OVERVIEW

From organic side-stream to circular protein — where insect farming converts waste into feed-grade protein at scale.

Insect protein is scaling fastest in feed, not food. Demand is driven by sustainable aquafeed and pet-food protein, circular side-stream valorisation, and supply-resilient feed sourcing across Europe, North America and Asia Pacific. The market is read three ways — value, volume and products/SKUs — and forecast under four scenarios, each region reported separately.

- **Europe leads industrial insect farming** — the Netherlands, France and Bulgaria, anchored by Protix B.V., InnovaFeed SAS and Nasekomo AD with large black-soldier-fly facilities
- **North America and Canada scale feed and food** — United States and Canada, with Entomo Farms, Aspire Food Group and Beta Hatch Inc. across cricket and BSF protein
- **Aquafeed and pet food are the differentiator** — high-value, sustainability-driven feed markets anchor the economics ahead of human food
- **Application segments the value** — aquafeed/pet food, livestock feed and human food, each with distinct regulation and margin

REGIONAL OUTLOOK

Across seven reporting regions, the report separates leading markets from high-growth and emerging ones — each profiled in full rather than aggregated into Rest of World.

Region	Stage	Lead Country Markets & Drivers
Europe	Industrial-farming leader	Netherlands, France, Bulgaria — Protix, InnovaFeed, Nasekomo
North America	Feed & food scale	United States, Canada — Entomo, Aspire, Beta Hatch
Asia Pacific	Fast-growing	Singapore, Australia — Nutrition Technologies, Goterra
Middle East	Emerging	UAE — feed-resilience & waste valorisation
Latin America	Emerging	Brazil — feed-protein & waste valorisation
Africa	Frontier	South Africa — BSF feed (AgriProtein legacy)

KEY MARKET DRIVERS & RESTRAINTS

Drivers	Restraints
<ul style="list-style-type: none"> • Sustainable aquafeed & pet-food demand • Circular side-stream valorisation • Land/water-efficient protein conversion • Feed-supply resilience & traceability • Fishmeal-replacement pressure 	<ul style="list-style-type: none"> • Production cost vs fishmeal/soy • Human-food regulatory approval • Feedstock-sourcing & biosecurity • Automation capex & scale-up • Consumer acceptance for food use

SEGMENTATION SNAPSHOT

By Insect Type	Black soldier fly protein · cricket protein · mealworm protein · insect oils & frass · insect protein for feed
By Application	Aquafeed / pet food · livestock feed · human food
By Output	Protein meal · oils · frass (fertiliser)
By End User	Food brands · manufacturers · retail · foodservice
By Business Model	Branded products · ingredient supply · licensing
By Channel	Retail / CPG · foodservice · ingredient / B2B

TECHNOLOGY & APPLICATION FINDINGS

Where the category is differentiating fastest — the technology and application fronts that separate leaders from followers:

- **Aquafeed & pet food** — BSF and insect meal substitute for fishmeal in sustainable feed
- **Livestock feed** — insect protein and oils supplement poultry and swine diets
- **Circular valorisation** — organic side-streams become protein, oil and frass fertiliser

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The full report is organised into nine parts across 53 chapters, listed below. Detailed sub-headings, country tables and directories are provided in the full report.

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COMPETITIVE & INVESTMENT SNAPSHOT

The competitive field is led by industrial insect-farming scale-ups. Deal activity — large-facility financing, feed-industry partnerships and automation investment — signals a market scaling around low-cost, automated feed-grade protein.

Representative players profiled in the full report:

Protix B.V. · InnovaFeed SAS · Entomo Farms · Aspire Food Group · Nutrition Technologies · Beta Hatch Inc. · Nasekomo AD · and 20+ further profiled players.

Investment intelligence: venture, infrastructure, development, climate and blended finance, green bonds and sustainability-linked loans — culminating in a bankability assessment and a conditional investment view.

KEY QUESTIONS THIS REPORT ANSWERS

- How large is the global insect-based protein market, and how fast will it grow to 2032?
- Which regions, countries and segments offer the strongest risk-adjusted opportunity?
- Which technologies and sources reshape the addressable market and the cost curve?
- Who leads, and where is the competitive and patent white space?
- Is the investment case bankable — and under what conditions?
- How does the category align with the SDGs, nutrition, food security and disclosure regulation?

WHY ANMD — THE DIFFERENCE

Most market studies stop at units and revenue. This report is built as a sustainability due diligence instrument — fusing market sizing with ESG, SDG, nutrition, climate, water and natural-capital intelligence and a decision-ready bankability view in a single architecture.

- **Triangulated sizing** — every market read three ways so value, volume (tonnes/kg) and the products/SKUs view reconcile rather than conflict.
- **Region-honest forecasting** — Latin America, Africa and the Middle East reported in full, never hidden inside Rest of World, every forecast resolved to the 2025 base year.
- **Integrated evidence base** — company, patent and project databases linked to the analysis, with published-filing patents and FTO treated as an indicator, not a legal conclusion.
- **No-fabrication discipline** — every estimate carries a data-confidence rating and disclosed sources; gaps are flagged for further diligence, never filled with invented numbers.
- **Anti-greenwashing rigour** — SDG-washing and greenwashing screens plus claim-substantiation checks built into the ESG and project analysis.
- **Decision-first structure** — 9 Parts and 53 Chapters culminating in stakeholder playbooks and a clear, conditional investment view.

WHO SHOULD BUY THIS REPORT

Feed producers, aquaculture and pet-food makers, food brands, manufacturers, investors and policymakers, and strategic corporate planners and decision-makers.

Access the Full Report

The complete report delivers all 53 chapters in full, with every sub-heading, country table, company and patent directory, forecast model and due diligence checklist.

Purchase at www.anewmarketdynamics.com · Standard & Premium licences · Single-Site (SSL) and Global-Site (GSL) options at checkout.

Want the Complete Detailed Table of Contents?

This prospectus lists the nine parts and 53 chapters. The complete detailed table of contents — every sub-heading, country table, exhibit, company and patent directory and annex — is available on request to registered users. To receive it, register with your official company email at www.anewmarketdynamics.com. The full detailed table of contents will be sent directly to your registered company email address.