

GREEN CIRCULAR BIOSOLUTIONS LTD

BSF circular protein & organic fertilizer

Ghana pilot — investor deck

<https://www.greencircularbiosolutions.com/>

Pre-seed / pilot stage • September 2026

Converting municipal organic waste into locally produced feed ingredients and frass fertilizer.

Founder first: why I am building this

Founder

Raymond Asante — Founder & CEO

Business development professional with B2B partnership and market-entry experience.

Bachelor's in Business Administration, Jyväskylä University of Applied Sciences.

Entrepreneurship certificate, HUGE School, Utrecht.

Master's-level studies in Management of Environment and Resources, Technical University of Freiberg.

Domain fit

Worked with Manna Insect Oy on preliminary Ghana market-entry and partnership research.

Research identified La Nkwantanang-Madina Municipality as a potential pilot location.

Focus: turning organic-waste and feed challenges into a practical circular-economy business.

Current gap: funding and pilot-stage execution resources.

One problem, two markets

ORGANIC WASTE

Madina Market: 80.4 t/day organic waste; 61% organic composition.

48–50 t/day identified as technically suitable BSF feedstock; 12–24 t/day described as realistically recoverable during pilot.

FEED INPUTS

Ghana poultry-meat consumption was estimated at 340,000 t in 2024, with domestic production 70,000 t.

BSF meal is positioned as a potential alternative protein input to soybean and fishmeal.

CIRCULAR VALUE

Waste → larvae → meal/oil + frass.

Initial customers: poultry farmers, feed mills/retailers and crop farmers.

Pilot evidence is the next value-creation step.

What is real today

Item	Status
Madina Municipal Assembly	LOI submitted; awaiting final confirmation and signing for waste-collection approval.
Armi Farms	Pilot site agreement signed; 10,000+ birds estimated capacity.
Boris B Farms	Commercial discussion; 30,000+ birds estimated capacity.
Horlali Farms	Commercial discussion; 6,000+ birds estimated capacity.
Regulatory bodies	Direct contacts established with FDA Ghana, Ghana Standards Authority and EPA Ghana.

Rule used throughout: signed = signed; discussion = discussion; LOI = LOI.

Pilot operating basis — same numbers everywhere

3 t/day organic-waste input

**90 t/month input
(30-day basis)**

**18 t/month fresh-larvae equivalent*
working assumption**

The 3 t/day input is the pilot basis requested for investor materials.

The 18 t/month figure is a working output assumption using a 20% waste-to-fresh-larvae conversion; it is not yet pilot-validated.

Final sellable mix between live larvae, dried larvae, meal and oil will be established through pilot testing.

No revenue forecast is presented here until product mix, yields, processing losses and unit costs are validated.

Cautious case: same 3 t/day input; use output as a validation variable rather than treating the 18 t/month assumption as proven.

Products & pricing — one defensible basis

Revenue stream	Working price	Status
BSF protein product	GH¢315(\$27.14) / 50 kg, excl. VAT	Business-plan working price; not a signed customer price.
Frass fertilizer	US\$75 / tonne	Derived from US\$3.75 / 50 kg; working assumption, not a signed price.
Tipping / gate fee	\$4.84 / tonne	Business-plan working price; requires commercial validation.

Product forms: live larvae, dried larvae, BSF meal and oil.

Frass is a by-product of production and is positioned for crop production.

Unit economics: show the gap instead of filling it

PLAIN CASE — working assumption

Input: 3 t/day organic waste

Monthly input: 90 t

Output: 18 t/month fresh-larvae equivalent

Frass price: US\$75/t working assumption

Production cost/t: NOT YET VALIDATED

Gross margin: NOT YET VALIDATED

CAUTIOUS CASE — validation case

Input: 3 t/day organic waste

Monthly input: 90 t

Output: VALIDATE IN PILOT

Frass price: US\$75/t working assumption

Production cost/t: NOT YET VALIDATED

Gross margin: NOT YET VALIDATED

*20% waste-to-fresh-larvae conversion is a working assumption from the earlier feasibility work; pilot data will replace it.

Competition exists — differentiation is the point

Cycle Farms

Existing Ghana BSF competitor.
Industrial operation in Tema since 2024 (as reflected in the revised investor brief).

Green Circular BioSolutions

Madina-focused municipal organic-waste sourcing.
Pilot customer pipeline in poultry.
Product mix: protein products + frass + waste service revenue.

Where we intend to differ

Feedstock access and municipal relationships.
Local collection/logistics model.
Commercial validation before scale.

Risks we are deliberately taking off the table

Risk / open item	Current position	Next proof point
Municipal waste access	LOI submitted; signature pending.	Signed municipal agreement.
Customer demand	Armi pilot site signed; Boris B and Horlali discussions continue.	Product trials + repeat orders / contracts.
Frass market	US\$75/t is a working assumption.	Customer price validation.
Permits / compliance	Initial contacts with FDA, GSA and EPA.	Required approvals for operations.
Technology / IP	Preliminary work with Manna Insect Oy.	Separate written licence/IP/equipment agreement if needed.
Insurance	Not yet purchased.	Policy in place before operations.

The ask is milestone-shaped

TOTAL PILOT + START-UP REQUIREMENT	IMMEDIATE FUNDING NEED	GRANT TARGET
\$166,395	\$25,000	\$83,197.5

Immediate \$25,000: accommodation and vehicle / mobilisation for Ghana operations.

Grant target: approximately \$83,197.5 through Finnpartnership or Business Finland-type support.

A \$22,000 shareholder-loan indication exists from the founder's personal network.

Investment instrument are Equity/Grant and we are offering 15% ownership stake of our company for an equity investment of US\$ 83,197.5

Milestones: secure site and municipal agreement → permits → pilot mobilisation → commissioning → customer trials → repeat orders → unit-economics validation.

What the next 12 months should prove

FOUNDER

Raymond Asante — Founder & CEO

Business development + B2B partnership experience

BSF market-entry research in Ghana

EXECUTION

Municipal agreement

Pilot site and customer trials

Permits, insurance and operating setup

Production and collection system

EVIDENCE

Validated yields and product mix

Validated frass and feed pricing

Production cost per tonne

Repeat customer demand

Investor proposition: fund the evidence-generating pilot, not the full three-year vision.