



The Future of Food

Food Waste Bio Conversion by

Black Soldier Fly Larvae

to deliver

Nutrient Circularity

Safe and effective bioconversion of (selected) food waste

- 10m tonnes imperfect fruit and veg (UK) – 1m tonnes in Scotland

Higher environmental and ecological potential

- 10% emissions savings per tonne of food waste over landfill and AD
- Protein replaces soy and fishmeal and frass replaces fertiliser

Whole supply chain benefits

- Farmers, processors, manufacturers and retailers share value
- Supports circular economy, creates jobs and advances sustainability
- Enables increased resilience through shorter more local supply chains

So, what's holding this emergent sector back?

1. **EU Legislation** – national and EU
2. **Regulation** – Supermarkets can't accept PAP in feed
3. **Competition** – Soy at £300 tonne. Fishmeal at £1200 tonne
4. **Commercial models** – Large Centralised units take years in funding, planning and building
5. **Enabling Technology** – Trays remain the basis of most production systems meaning low productivity
6. **Grant** – Applications are time consuming and often result in failure – Eastern Agri Tech excluded!
7. **Investment** – Dragons Den's sap time and energy and are a poor investment selection method

How can the potential be released?

- **National Legislation (post Brexit) needs to quickly align on substrates and markets:**

Cat III waste (safe for human consumption) could be fed and the larvae used for livestock for human consumption

All mono gastric livestock (including pig) could be fed insects (live and processed) for human consumption.

Animal By Products (ABPs) could be fed and the products used in non-human markets - pet food and biodiesel

- **Supermarket regulations**

Supermarkets to allow Processed Insect Protein in livestock feeds

- **Competition – Soy at £200-300 tonne. Fishmeal at £1200 tonne**

More level playing field by incentivising more sustainable supply chains

- **Commercial models**

More flexible dispersed commercial models that bring the process to the waste rather than just centralised units

Greater incorporation of existing infrastructures such as waste handling systems and AD networks.

How can the potential be released?

- **Technology**

Trays remain the basis of most production systems meaning low productivity

At InsPro we are industrialising the process

This will enable a Hub and Spoke dispersed model that brings the process to the waste and enable/enhance local nutrient circularity

- **Grant**

Application and response time needs to be shorter (Eastern Agri Tech excluded!)

- **Investment**

Dragons Den's sap time and energy and are a poor investment selection method

Investment incentives such as SEIS need to be expanding (currently £150k) for the green economy