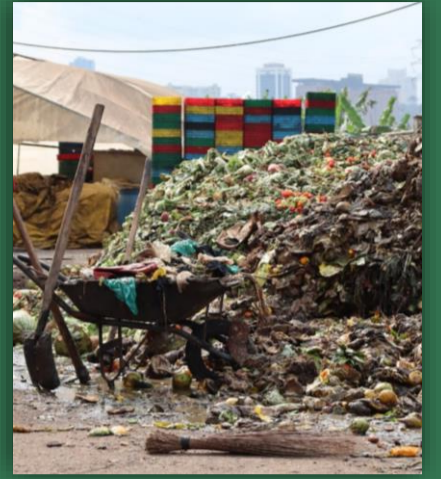


Insect-based biowaste treatment

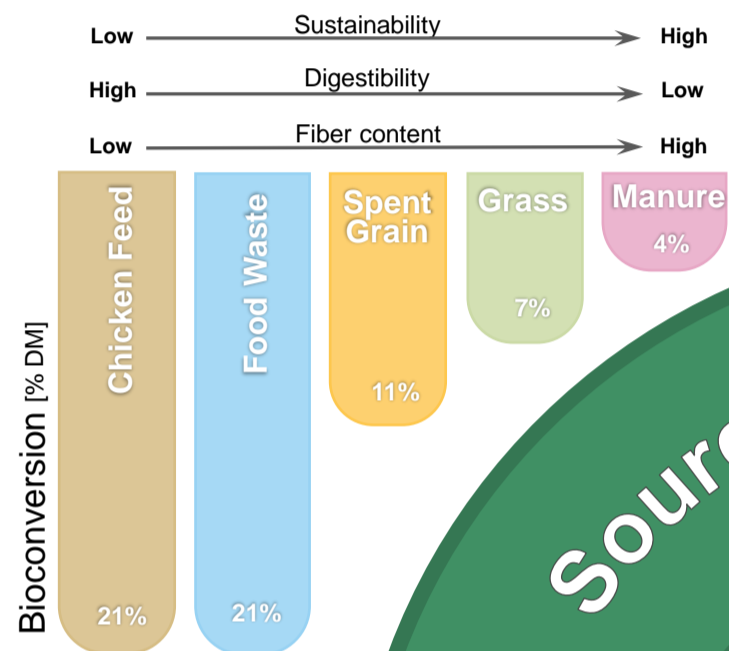
Investigating the puzzle for sustainable agriculture and animal feed

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¹Sustainable Food Processing Laboratory, ETH Zurich; ²Sandec, Eawag; ³Singapore ETH Center (SEC)



Challenges with bio-waste

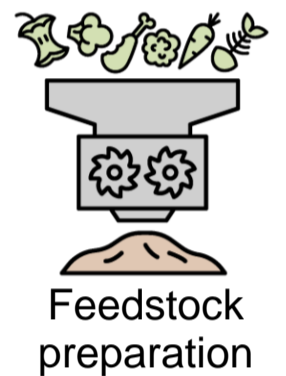


Un-locking nutrients

Pre-treatment can free nutrients and enhance larval bioconversion for feed and fertilizer

Treatments:

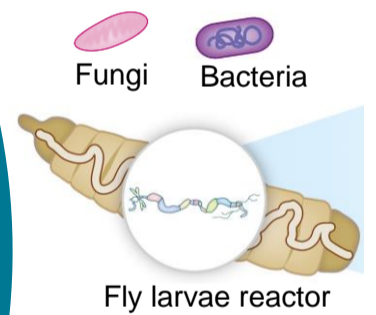
- Mechanical
- Thermal
- Chemical
- Biological



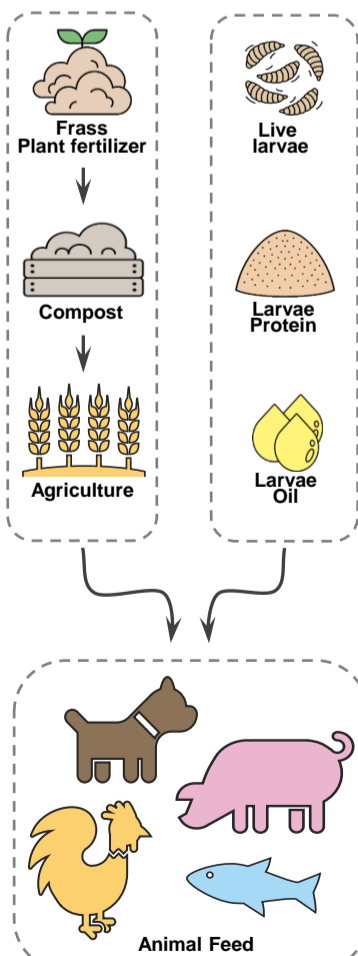
Sourcing

Pre-treatment

Microbiome



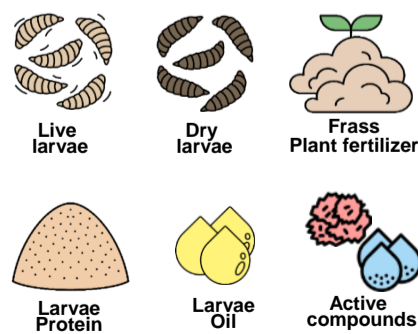
Fertilizer and Feed



Applications

Harvest

Products

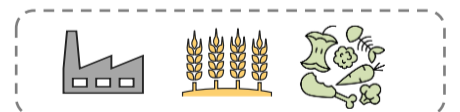


Inter-
actions

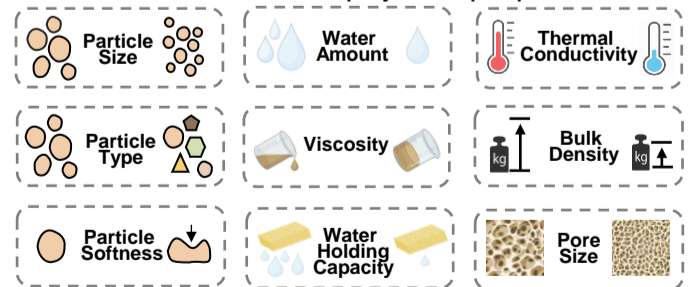
Bio-
conversion

Physical properties

Variable wastes



Variable substrate physical properties



Variable production outputs

