Insects as an organics management technology

Tyler Isaac
Slightly Nutty, Inc.
President and co-Founder
City of Los Angeles

406,000 Tons of Annual Commercial Food Scraps

43,303 Tons Recycled

Tyler Isaac 2015
Composting and Anaerobic Digestion

Large enough capacity?

Economically viable?
Insects are an organics solution

Naturally consume organic waste
- Efficient feed conversion
- No additional water necessary

Industrial production tech developed
- Scalable system capacities greater than 100 tpd
- Designs in place for multiple species

Create natural, high quality feed
- Non-GMO, organic, highly nutritious
- Produces higher quality livestock
Economics

55,000 sq. ft. facility

Capital Costs: $8.7 million
Operational Costs: $1.0 million
Discount Rate: 10%

Capacity: 36,000 tons per year
Estimated Production: 2,500 tons per year
Value: $500 - $1,500 per ton

Net Present Value: -$6.4 to $15.4 million
Demand for poultry and aquaculture is increasing.

**Global Demand for Farmed Seafood and Poultry (in tons)**

- **Aquaculture**
  - 2013: 66.5 M
  - 2050: 88.5 M

- **Poultry**
  - 2013: 95.7 M
  - 2050: 181 M

Source: Mordor/Transparency Market Research
Protein Production is Resource Intensive

30.5 million tons of soymeal used in U.S. livestock feeds last year

10.9 trillion gallons of water

94% GMO

84.8 million acres of cropland used
Insect Production is Resource Efficient

- Minimal additional water required
- Low feed conversion ratio
- Can be grown vertically
Local and Sustainable Food Production Fueled by “Waste”
Slightly Nutty
Santa Barbara, CA
Nutritious, delicious crickets and cricket powder coming soon!

It'll put a jump in your step!
Thanks!

tylerisaac@gmail.com