



Waste reduction and how it can power a business



Keston Williams Technical Director

Barfoots

- 100% Owned by Peter
- Formed in 1976
- Vertically Integrated
 - Farming
 - Processing
 - Marketing
 - Green Energy
- R&D Focused
- Sustainable



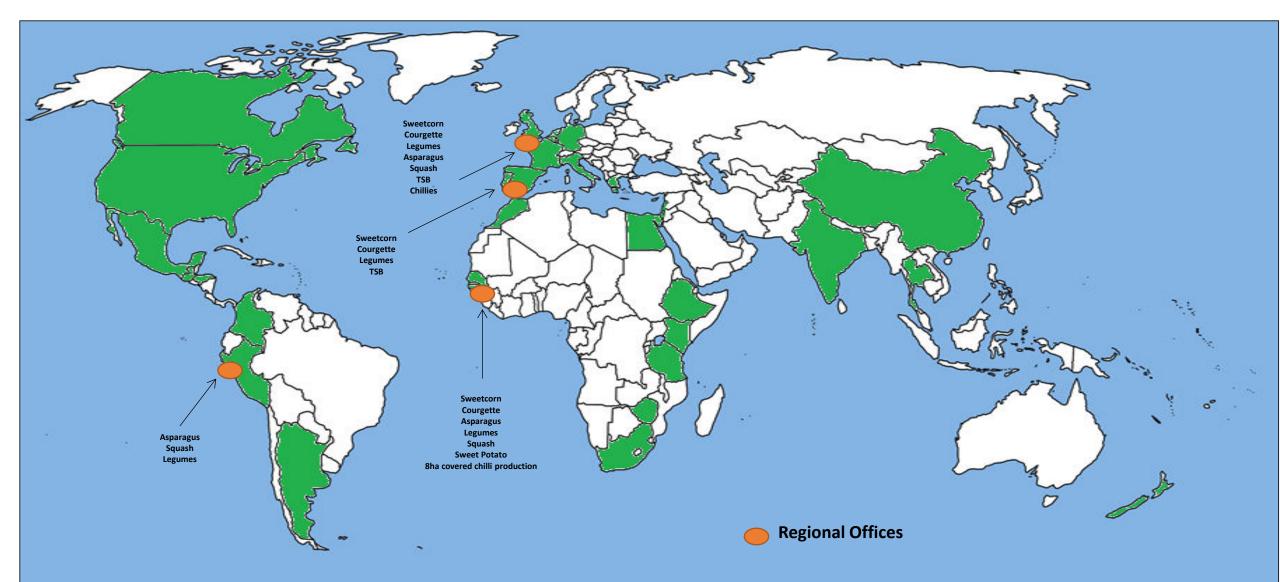


- Supply UK / European Multiple Retailers plus Food Service
- Farm 6000 acres South Coast UK and 32 countries around the world



Barfoots UK & Global Supply-Chain

Sea freight focused strategy





Sweetcorn





• <u>https://www.youtube.com/watch?v=gMmoCfUui90</u>

The Problem – Green Waste

- Waste Problem. (50,000 tn. per annum waste)
- Not enough Cows to eat Sweetcorn Byproduct.
- Considered alternatives:
 - Landfill
 - Composting
 - Own beef lot
- Government support changed. (Renewable Obligation Certificates, Development Grants)







Our Solution – AD Plant



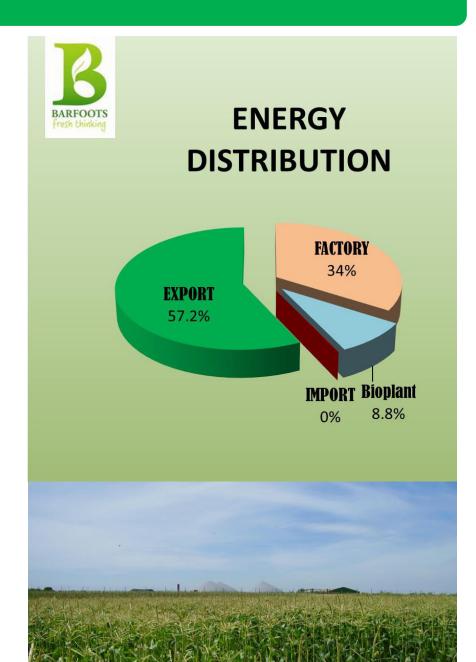


The End Result

- 100% Energy from waste
- Digestate provides fertiliser for next crop
- Soil conditioner improves soil structure
- 5000 tractor journeys removed from local roads







What else could we unlock?

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 - Gas to grid
 - Carbon dioxide
 - Heat (refrigeration and direct heating)
 - Digestate product / transport.
 - Cellulose packaging
 - Other high value by-products
- Pyrolysis
- BioChar





Waste not want not – grov

- Waste through specification
- Whole crop utilisation





Defective Produce











Don't ship in the first place



Nutrition in Senegal







Thank you

Institute of Food Science + Technology