



BETTER MICROBES
BETTER CROPS
BETTER WORLD



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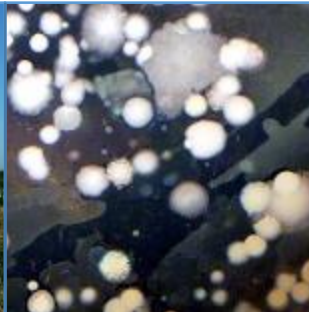
AGBIOME™

AgBiome: Background and Technology



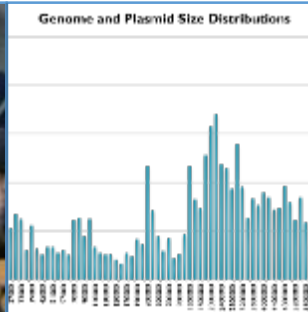
Field Collections

- Diverse samples to expand discovery



Strain Isolation

- Store microbes for future analysis



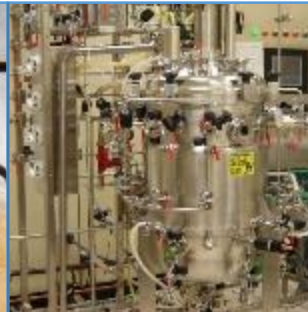
Sequencing & Bioinformatics

- Obtain full genome sequence for all isolates



Activity Screens

- Test microbes on major crop pests and diseases



Confirmation & Scale Up

- Scale production to ensure commercial feasibility



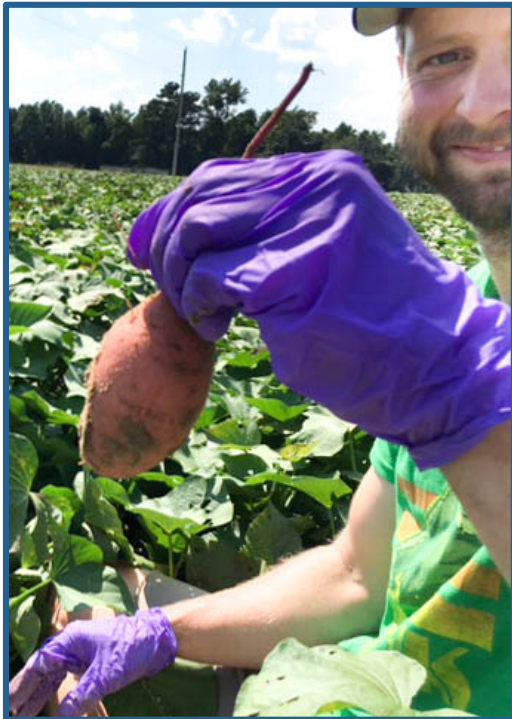
Field Trials

- Conduct real-world trials in field settings to prove leads

Strategy

- **Ultimate Goal:** Develop a biological for control of larval and/or adult sweetpotato weevils in Africa
- **Phase I:** 3 year discovery project (initiated July 2016) to identify microbes with activity against sweetpotato weevil

Field sampling



Microbe isolation & sequencing



Screen for activity



Development

- **Activity against surrogates initiated**
 - To date: 12 strains with activity towards 2 beetle species
 - Verification will occur on USA and African weevil species
- **Microbes from African soils have greatest potential**
 - *Cylas brunneus* and *C. puncticollis* endemic to Africa
- **Successful weevil control based on multiple strategies**
 - A biological will be a critical part of an IPM approach