The three domains of quality soils:

- Soil Chemistry
- Soil Physics
- Soil Microbiology

Microbiology the last untapped domain for sustainable agriculture and horticulture
FORCES FOR CHANGE

WHY?

Legislation:
Removal of pesticides and fungicides soil fumigants from allowable treatments

Science:
New tools allowing for a greater understanding of plant interaction mechanics: $P$ pathways

Farming / Hort:
Precision planting technologies allowing for seed / plant dosing

Environmental:
Soil loading to high, high run off, soil organic matter reducing

Supply stresses:
Peak P, cost of inputs etc

Corporate strategy:
As the world population grows at tremendous pace over the next decades, we will need to significantly increase the output from our land while at the same time making sure we use our resources most efficiently to protect our environment.
Biofertilisers: Mycorrhizal fungi and friends

• Formed in 2000 as a spin out of the International Institute of biotechnology.
• Produce 100 tonnes of mono cultured mycorrhizal fungi (AMF) p.a.
• Produce 7 species of Plant Growth Promoting RhizoBacteria (PGPR).
• Supporting the UK's research base
What we grow...

AMF the value in media

λ Increase nutrients flow
λ Increase biotic and abiotic stress tolerance
λ Improves media structure (glomalin)
λ Community effects
λ Improve water use efficiency
λ Less chemical inputs

...one time application
Work with the supply chain...

Funded projects

• Interreg – strawberry and tomato in coir
• Innovate UK – strawberry in coir

Other projects

• Total Berry – raspberry in coir
• Tomatoes in rockwool

Supplying agronomy companies, Agrovista, Agrii, Hutchinsons etc…
Supplying inoculum to most research institutes and universities across UK…