

Biologically Priming Soil

Opportunities for resilience and production



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Research Purpose

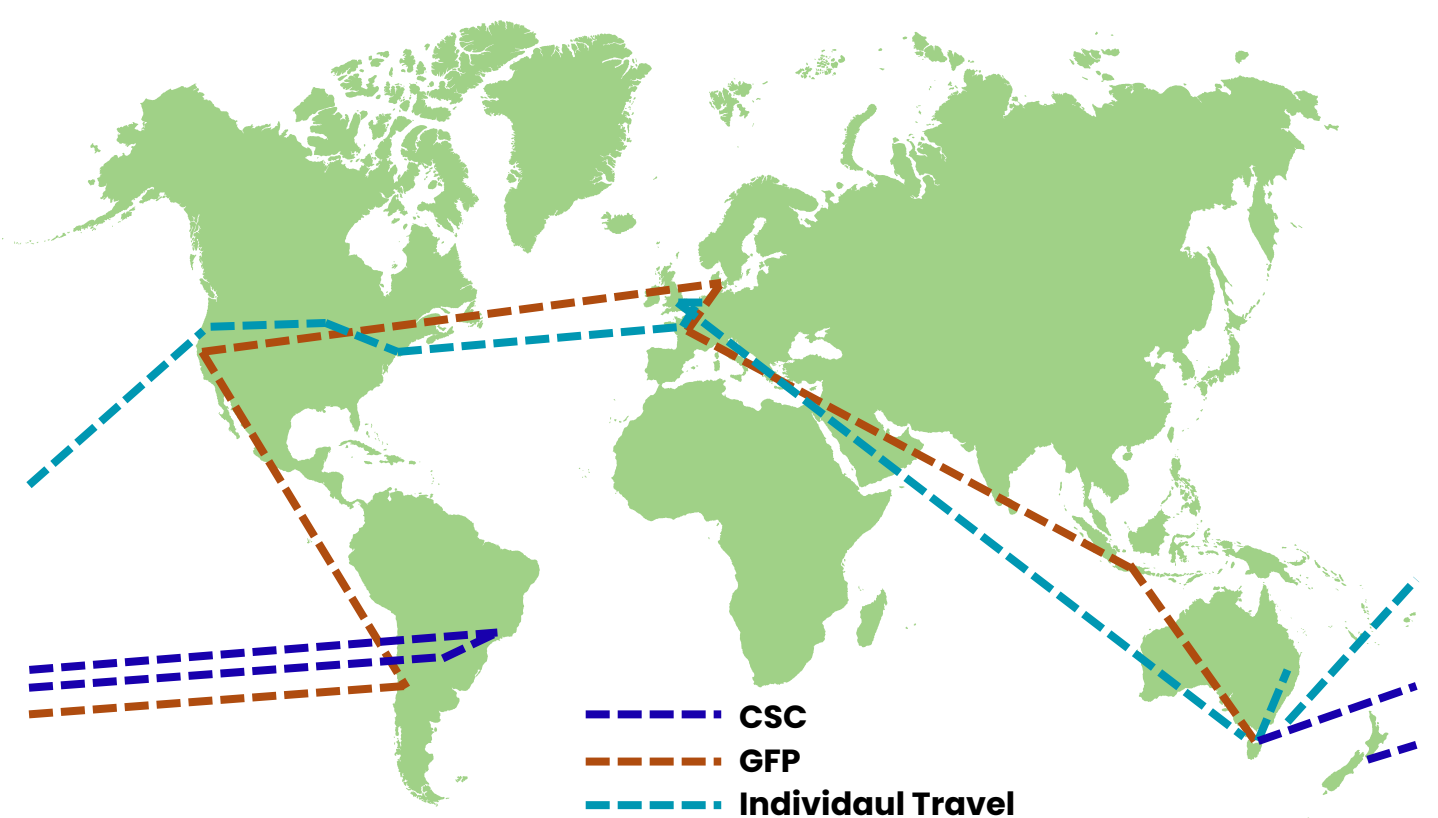
Agriculture is experiencing significant external threats from climate change, governmental restrictions and market expectations. Farmers are expected to do more with less to produce even higher quality food. Soil biology is an often misunderstood resource that can encourage disease resistant, lower input crops with potentially improved nutrition outcomes. Growing or applying biologicals to soils and seeds creates an incredible complexity of microbial interactions which results in an environment that allows epigenetic expression of plants, resulting in resilience and production outcomes.



Key Learnings

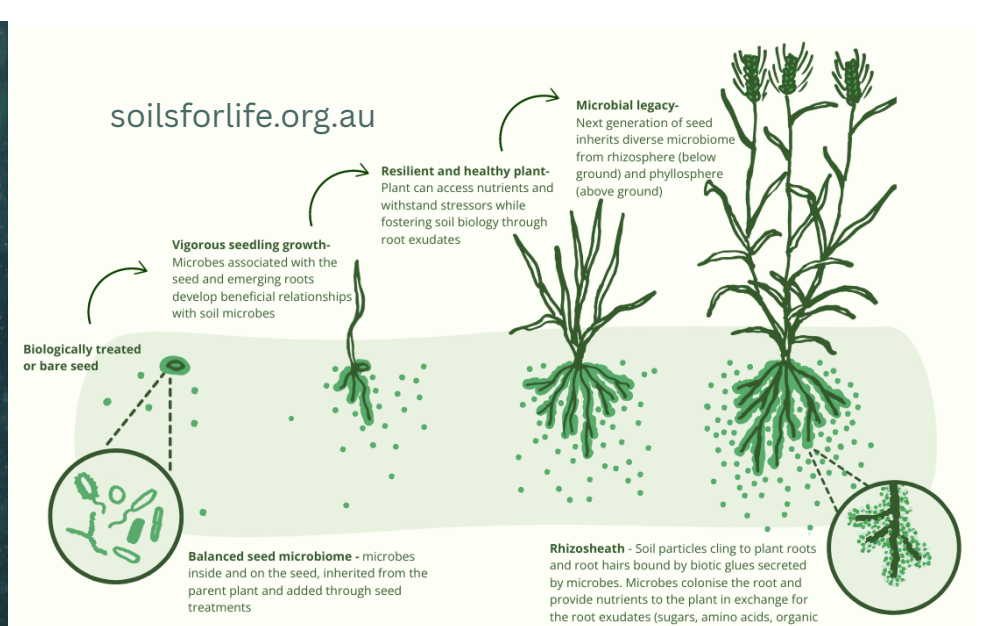
- Agronomically significant changes to the soil and plant biome can be induced in just one season.
- Biological amendments can have a great ROI.
- Applications of biological amendments don't replace good farming, but they can help jumpstart changes in the soil/plant biome.
- Feeding the plant biologically, stimulating nutrition can induce healthier plants that feed the soil; creating a healthy biome cycle.
- A biologically active soil correlates highly with high quality/high nutrition food.
- A little goes a long way. Very small amounts of applied biology can make a huge difference.

Travel



Case Studies

- G's Farm is producing more than half the lettuce for the UK. Their soil first attitude to applied biology has ripped out cost and variability from their production.
- Green Cover Seed is applying biology to all seeds sold to improve the epigenetic expression of their seed on farms, resulting in healthier crops that inoculate the soil.



Recommendations for Industry

- To grow the highest quality crops, you must follow soil health principles and encourage biologically active soil. An underpinning of good farming practice stacked with both bulk applications of biology friendly inputs and targeted biology on seed or farrow can create rapid improvements in soil and plant health.
- Observe your environment and ask questions of locals. Draw ideas from far and wide and test in your context.
- Safe to fail trials can inform your next move. You don't have to bet the farm to trial biologicals.
- Certain biological and stimulant coatings on seed are cheap, effective and can help control persistent disease issues.
- Building the biome is a story of photosynthesis, good management and amendment tweaks, you choose where you start as they all have merit. Most importantly just get started so you can get learning.

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