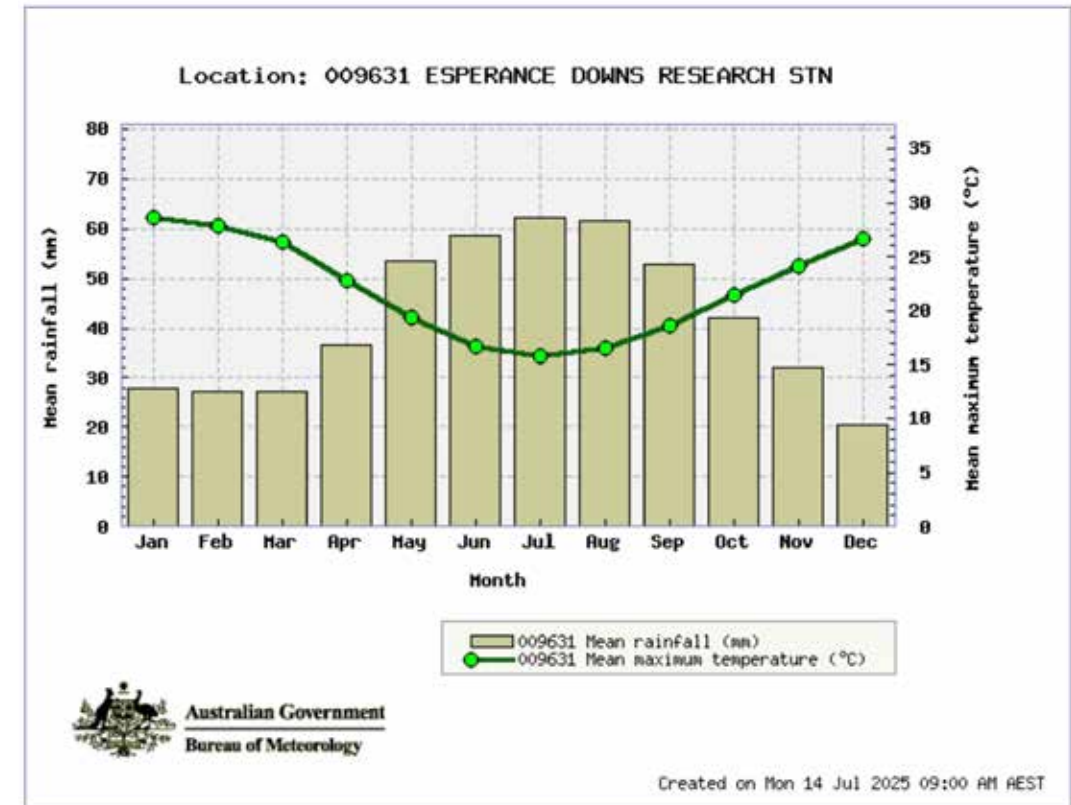
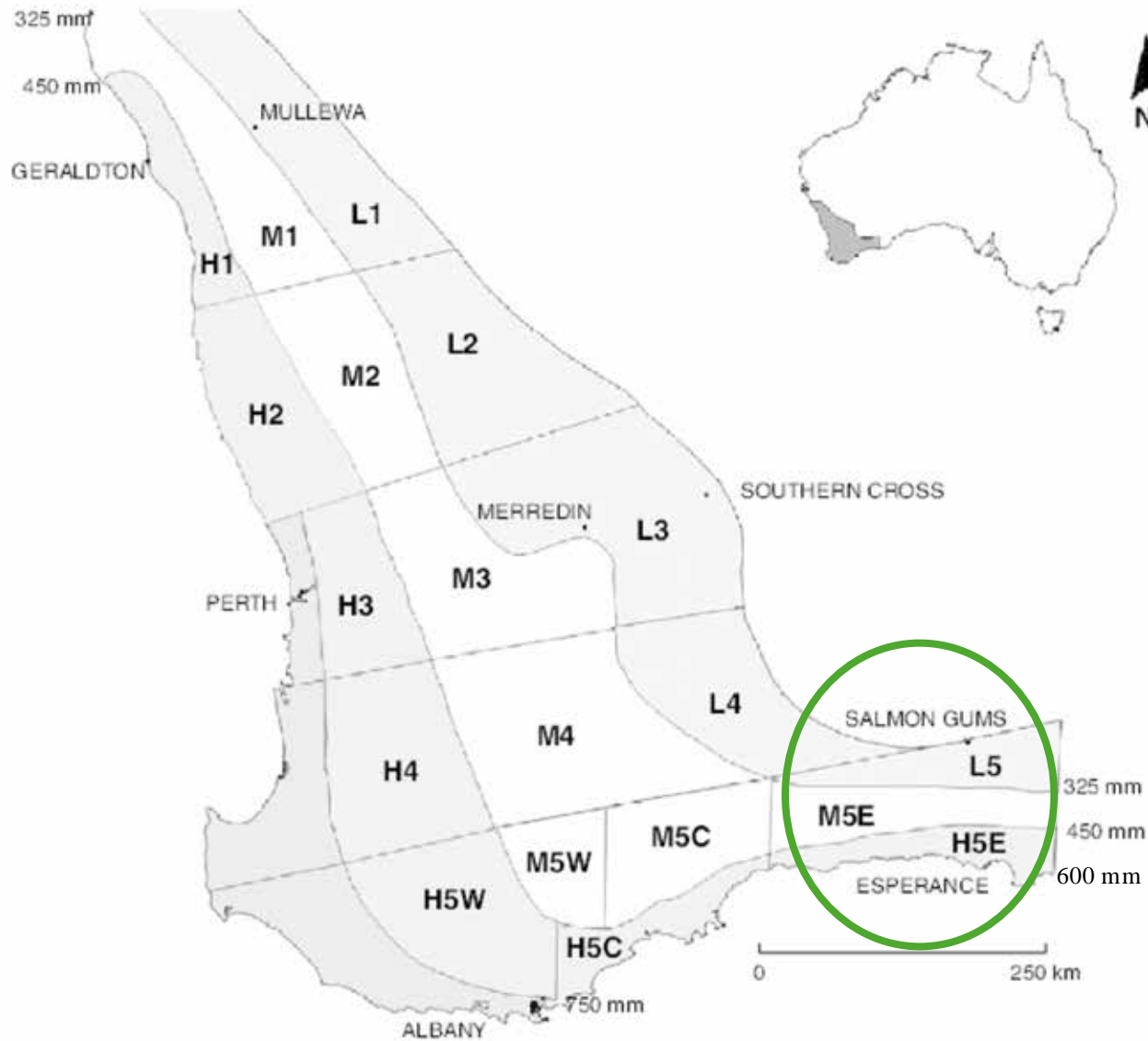




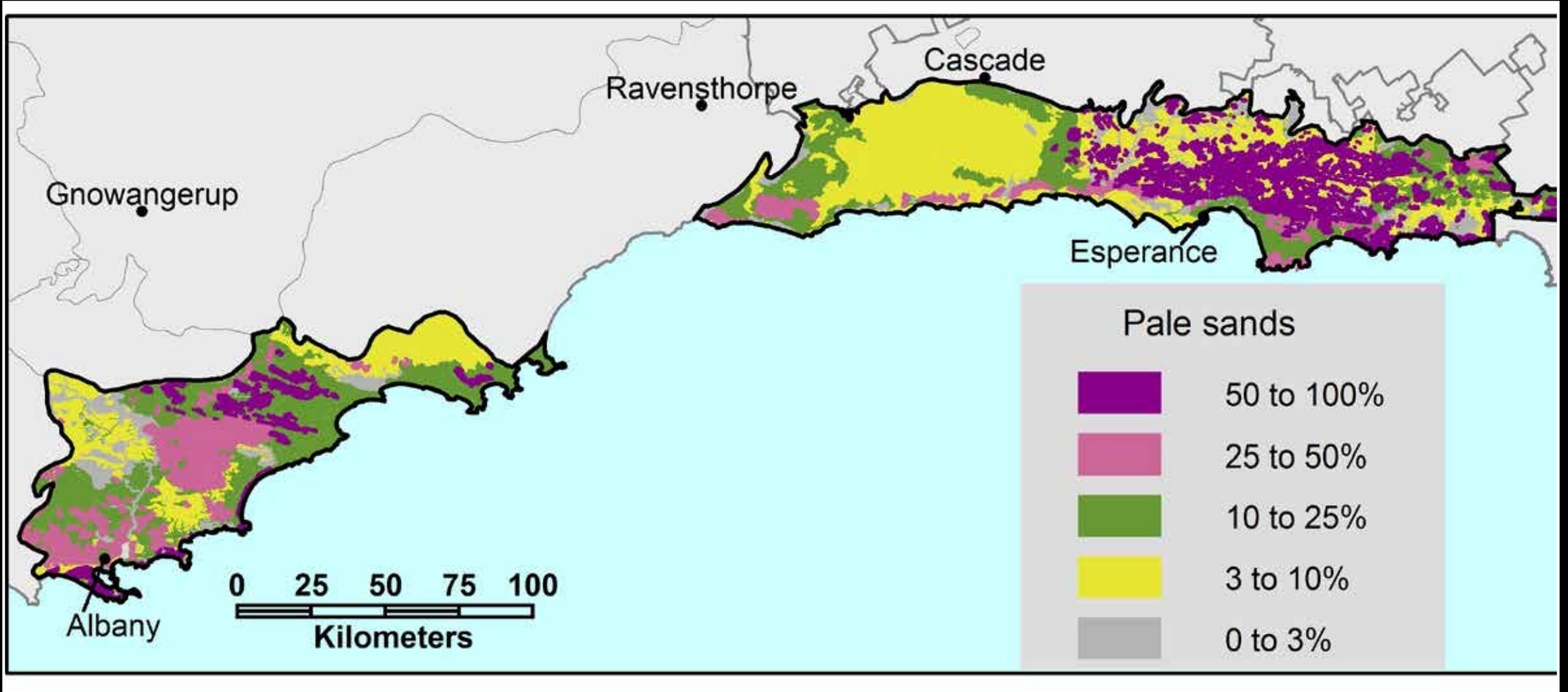
Quenten Knight  
AKA - Quokka

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# Location and rainfall



# South Coast Sandy Soils



# Pale Deep Sands (Fleming Sands)

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- Quaternary to Tertiary-aged aeolian (wind blown sands) typically deep, acidic and nutrient poor.
- Formed between 2.5 and 23 million years ago.
- Deeply weathered lateritic profiles and granite basement rocks, over millions of years, intense chemical weathering stripped nutrients and left behind silica-rich sands.
- Wind blown deposition during drier climatic periods forming vast sand plains.
- Marine influence, some sands have origins from ancient coastal dune system deposited when sea levels higher.
- Fluvial and Colluvial influence from ancient rivers and gravity.



# Constraints

Non wetting

Compaction

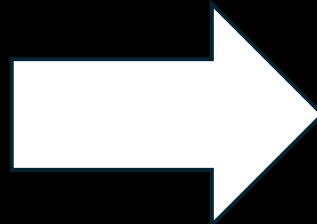
Acidic

Low  
potassium

Low CEC

Low water  
holding  
capacity

High wind  
erosion risk







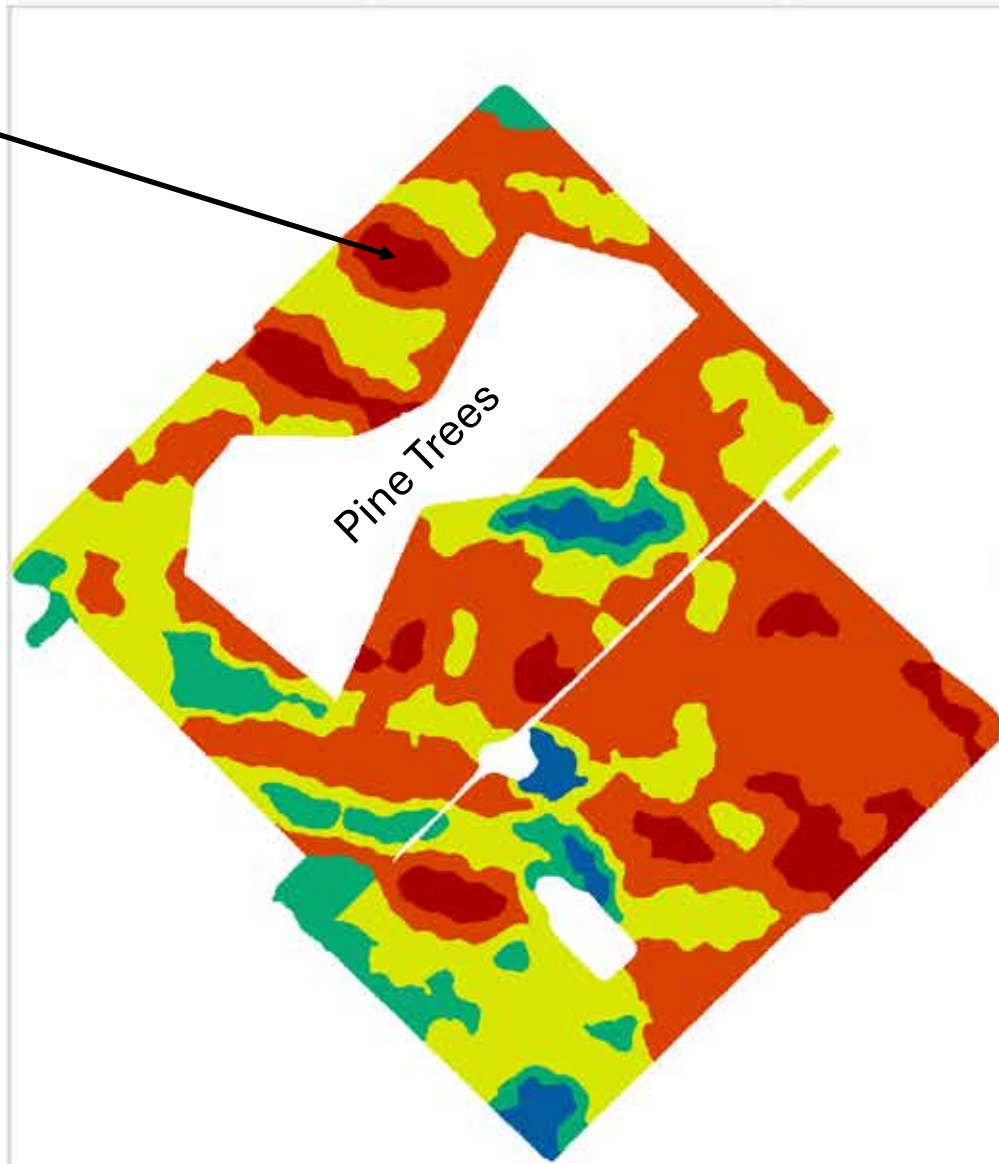


Amelioration  
putting it into  
practice

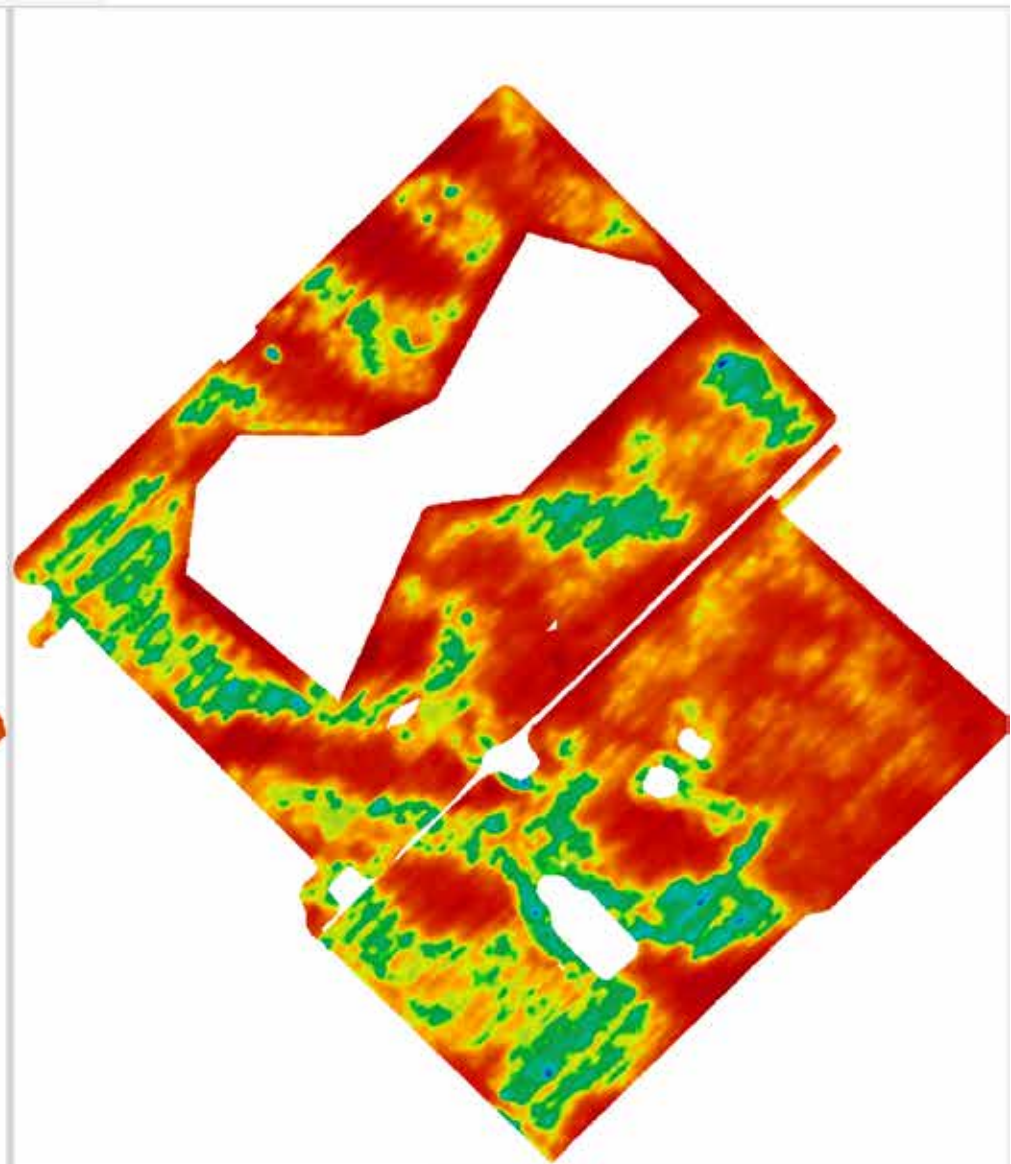




# EM soil zones vs yield before amelioration



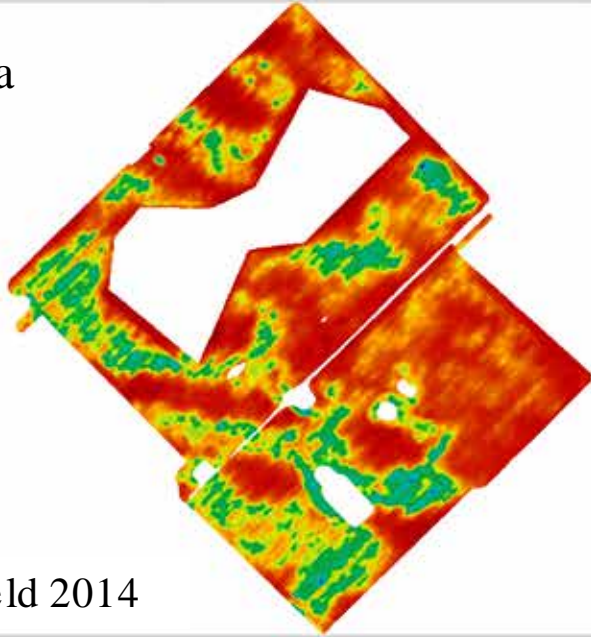
DualEM Shallow Zones 2015



Canola Yield 2014

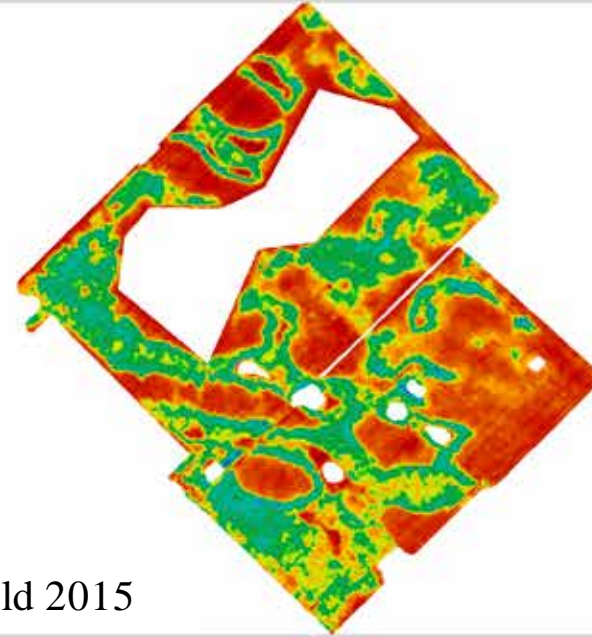
# Clay, Deep Rip, Spading, Lime, Potassium (2016)

0.97T/ha



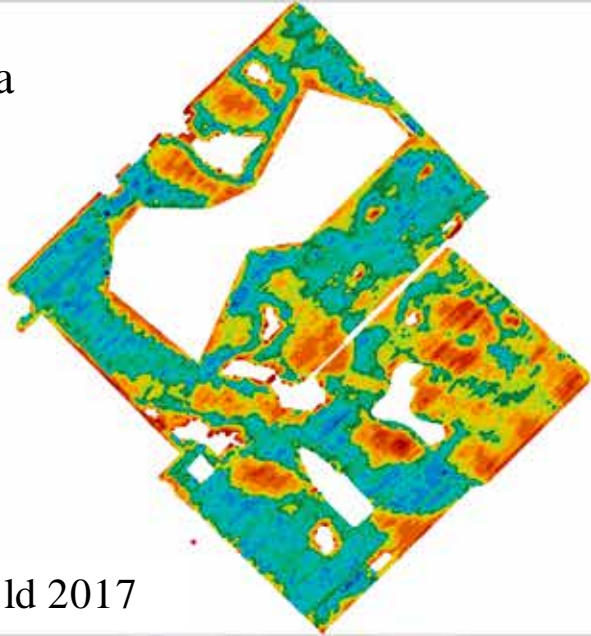
Canola Yield 2014

1.8T/ha



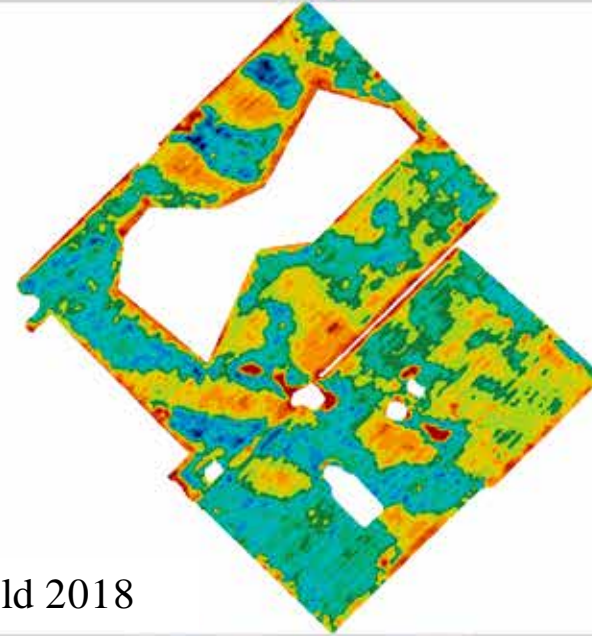
Wheat Yield 2015

2.33T/ha



Canola Yield 2017

5.1T/ha



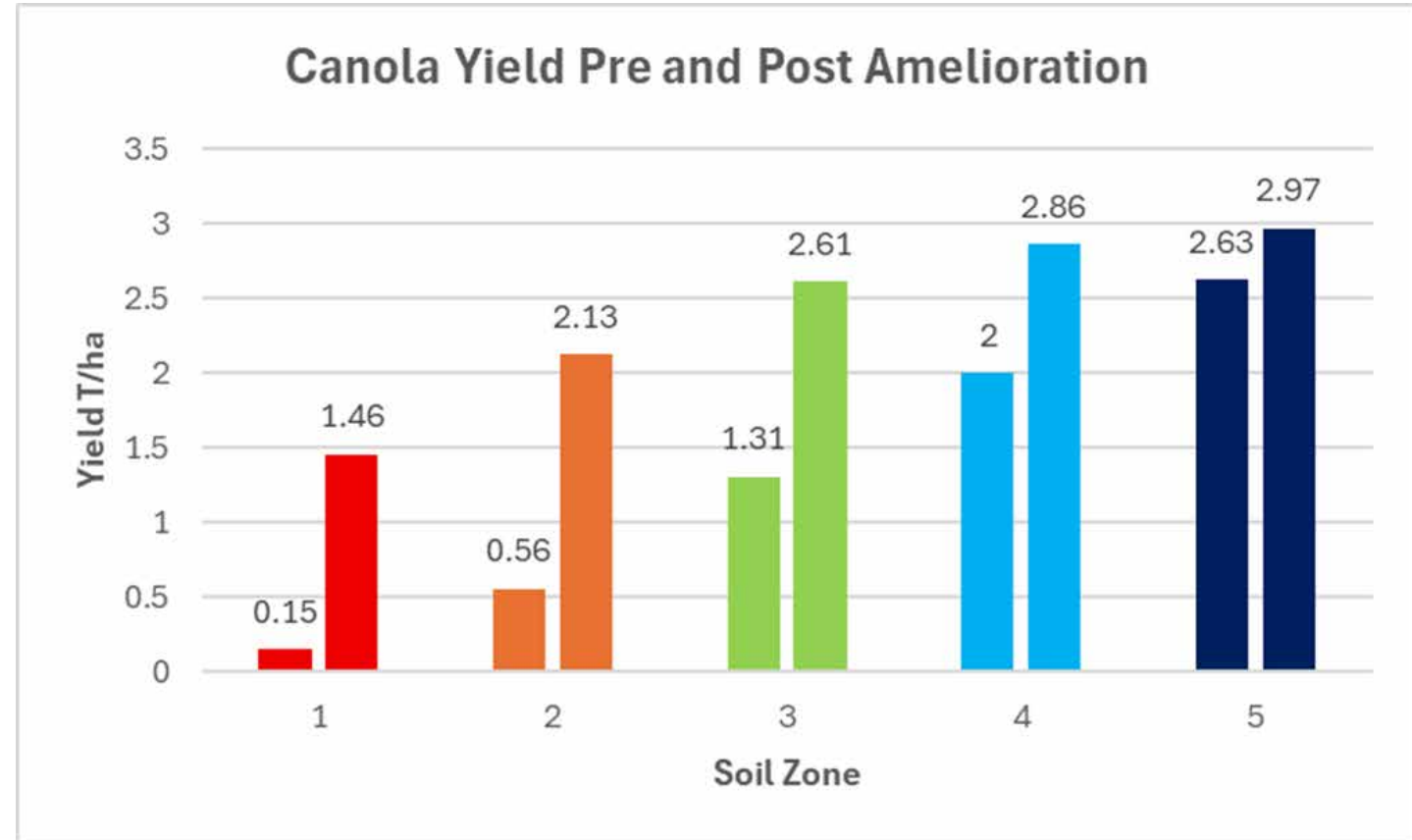
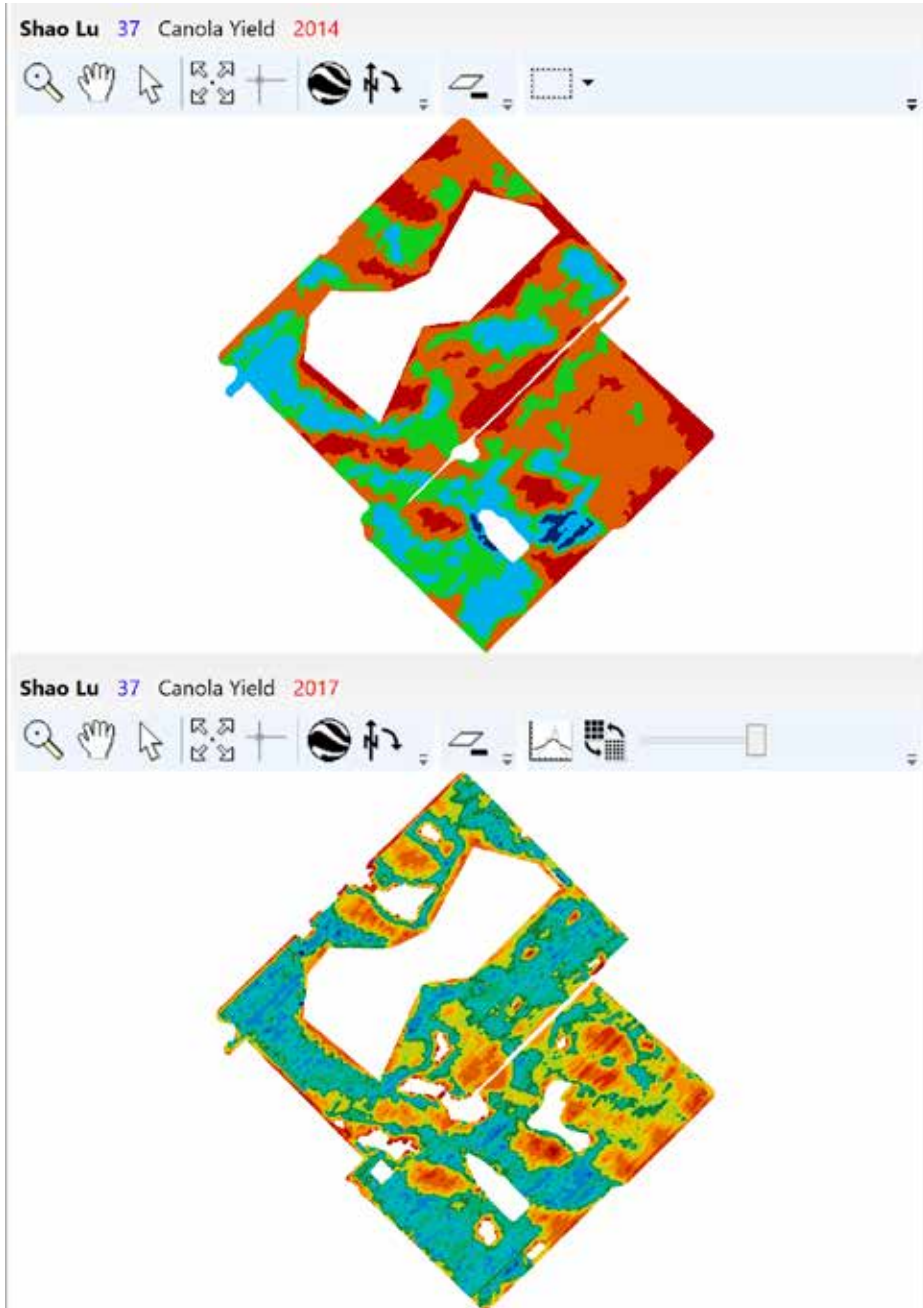
Wheat Yield 2018

Before

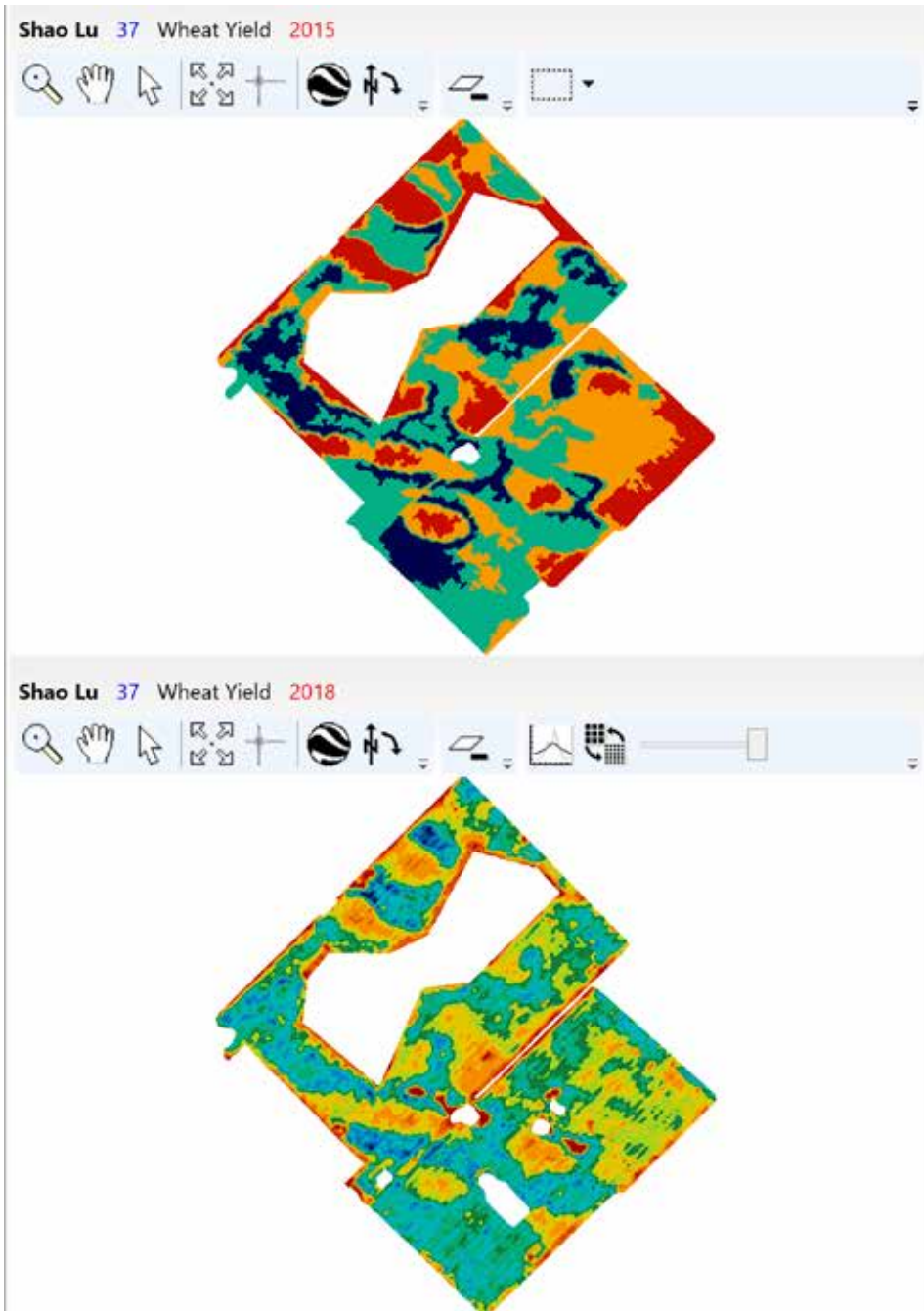
After



# Canola Yield



# Wheat Yield



Wheat Yield Pre and Post Amelioration

