



Primary  
Industries

# Assessing controlled release and deep placement N fertilizer technologies in subtropical sugarcane

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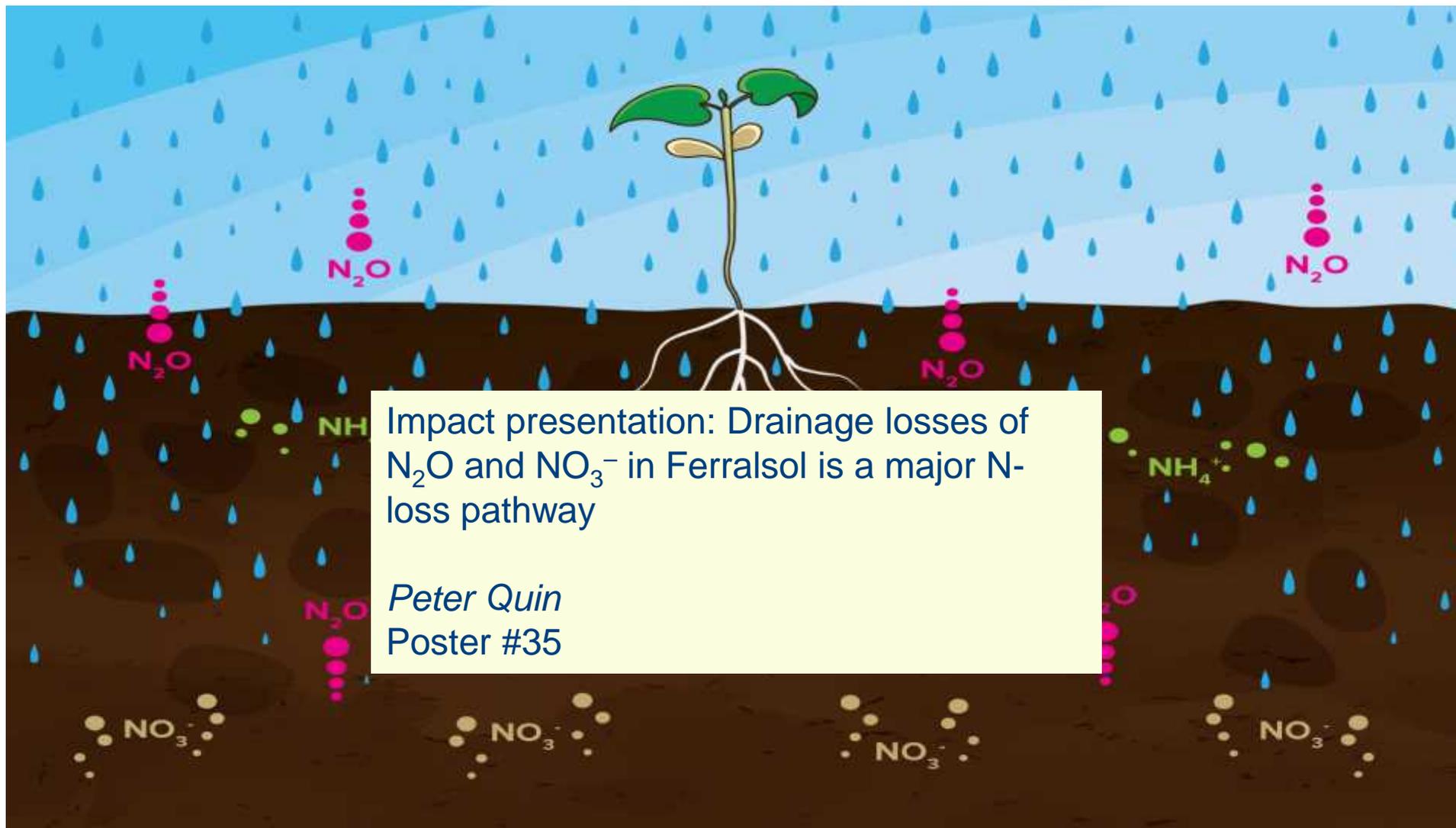
## NSW Farming Systems Group and Growers

- Robert Quirk
- Alan Munro
- Wayne Rodgers
- Tom Walsh
- Geoff Pye





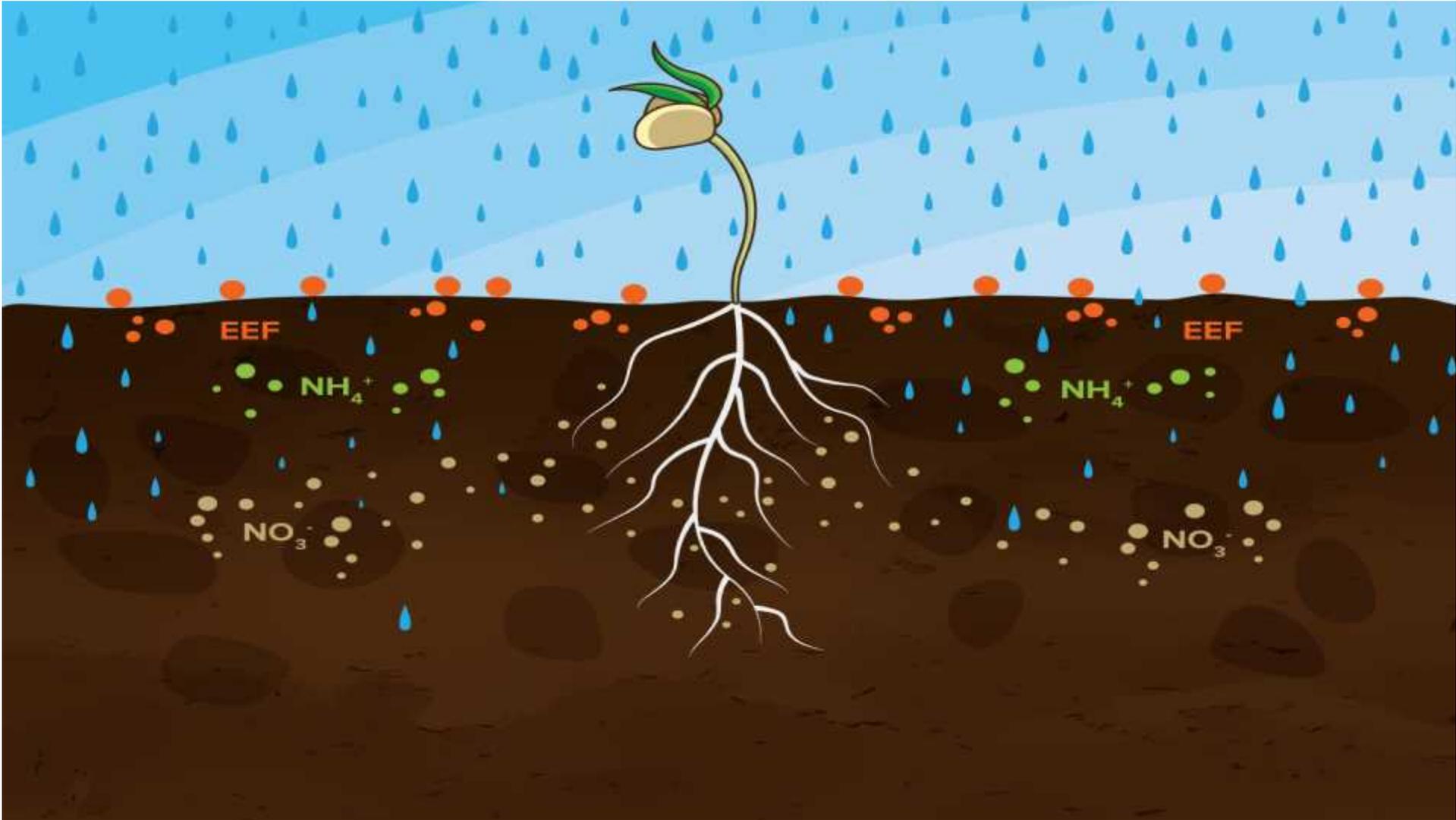


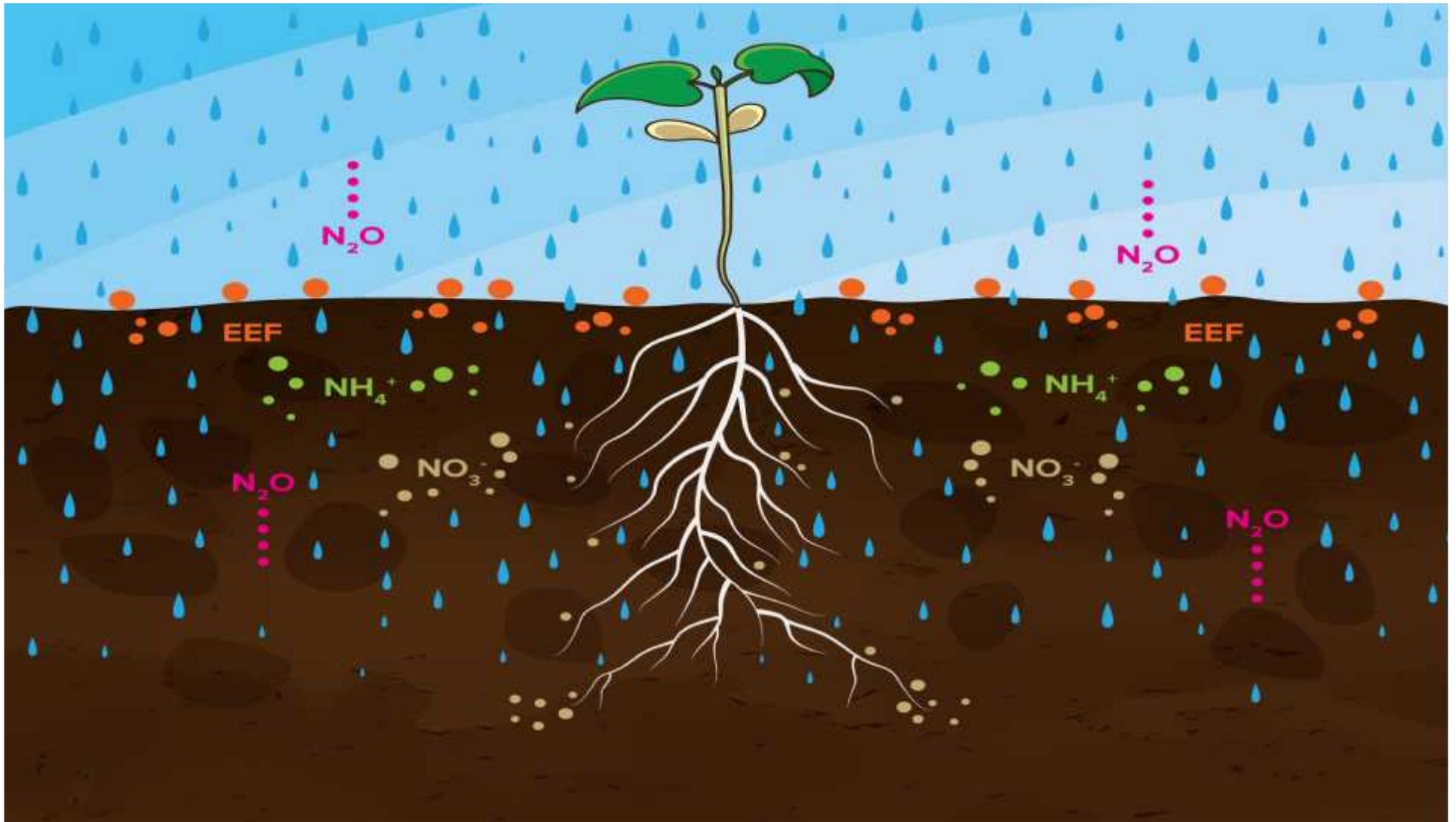


Impact presentation: Drainage losses of N<sub>2</sub>O and NO<sub>3</sub><sup>-</sup> in Ferralsol is a major N-loss pathway

*Peter Quin*  
Poster #35







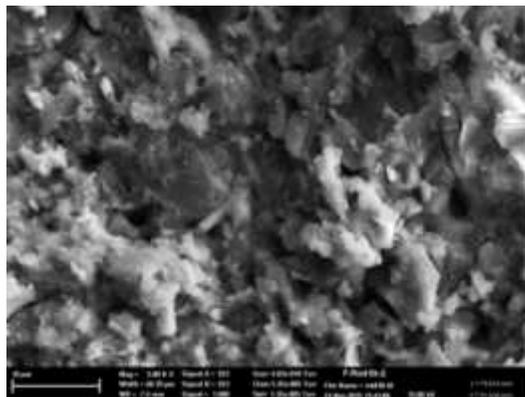
# Three N-fertiliser technologies



Acknowledgement:  
Charlie Walker, Incitec Pivot



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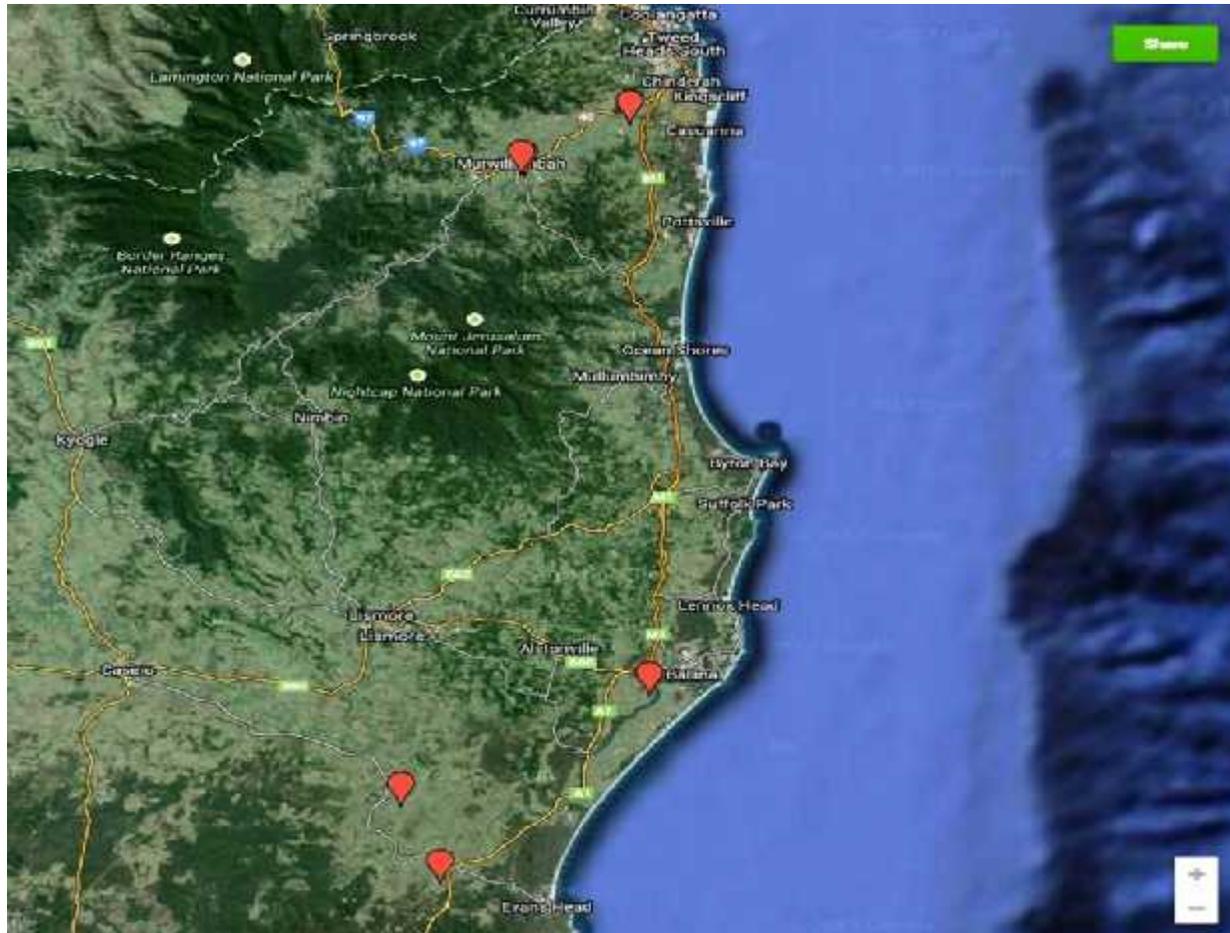


# Pelletised C-matrix N fertiliser

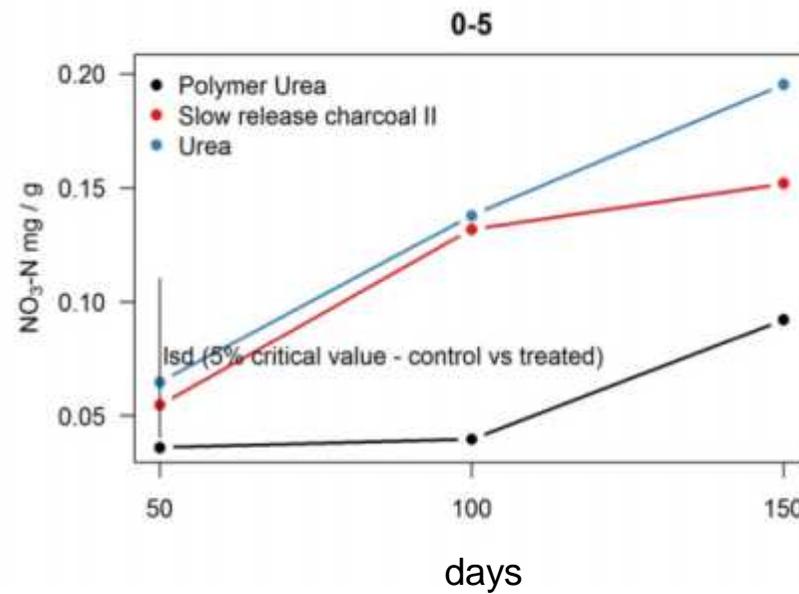
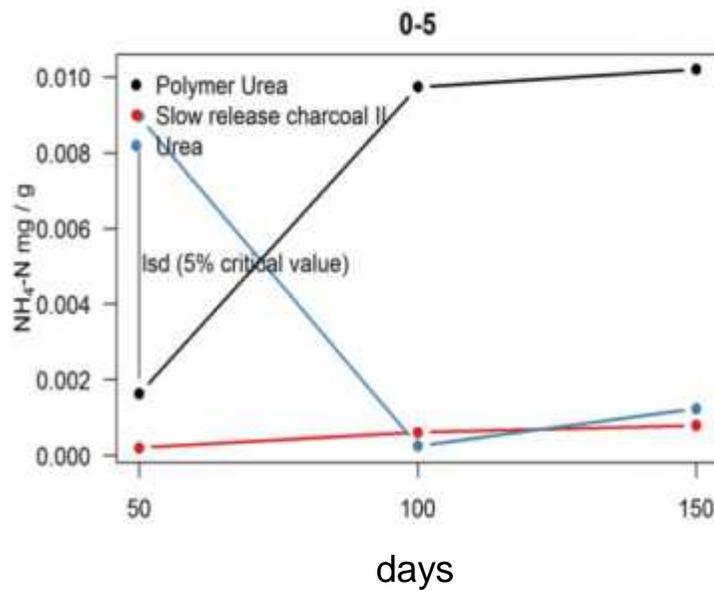


EC	160 dS/m
pH (CaCl <sub>2</sub> )	7.5
Total Nitrogen	16%
Total Carbon	5.4%

## Location of the 6 field trial sites



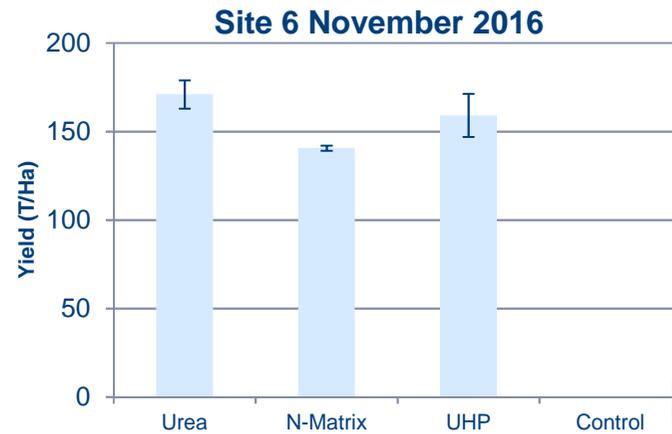
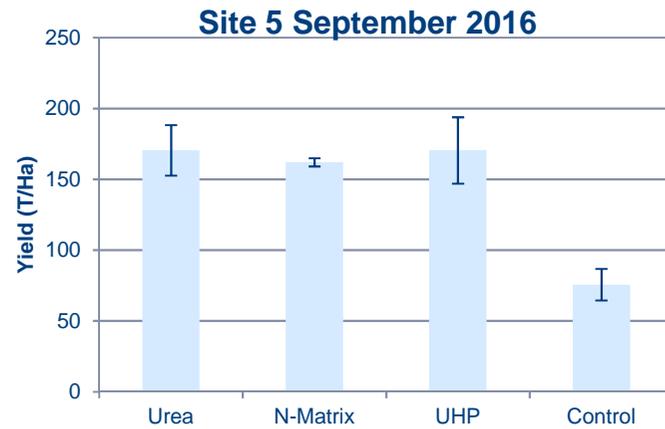
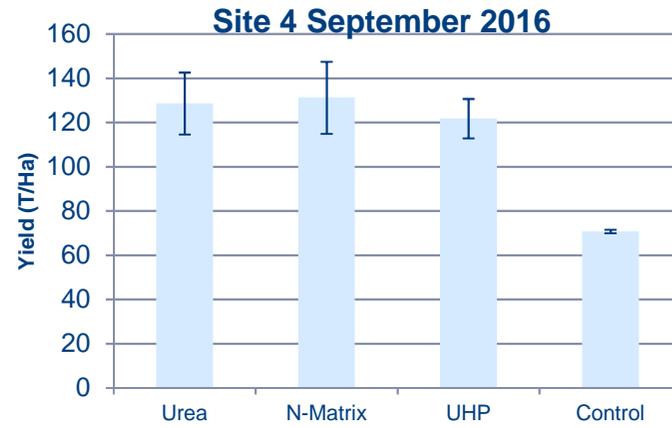
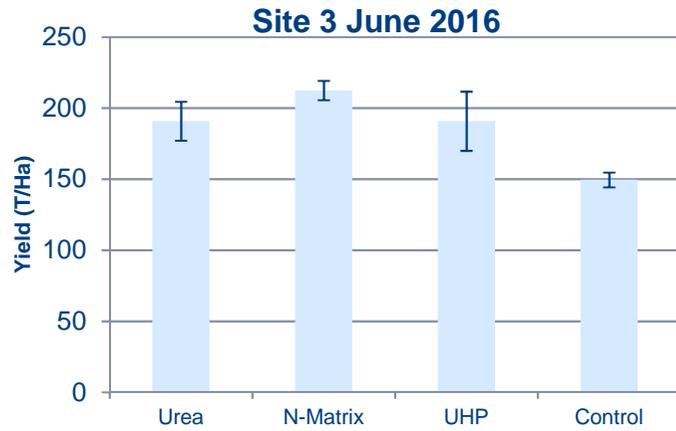
# Assessing mineral N from PCU and C-matrix N fertiliser



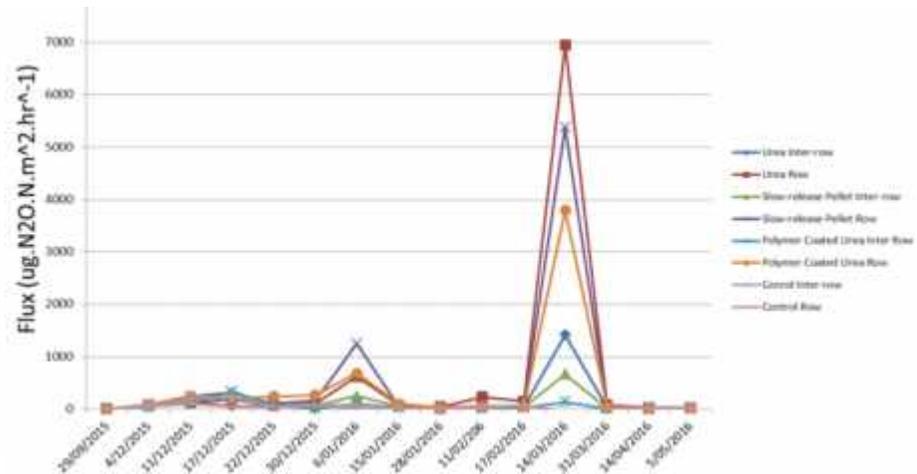
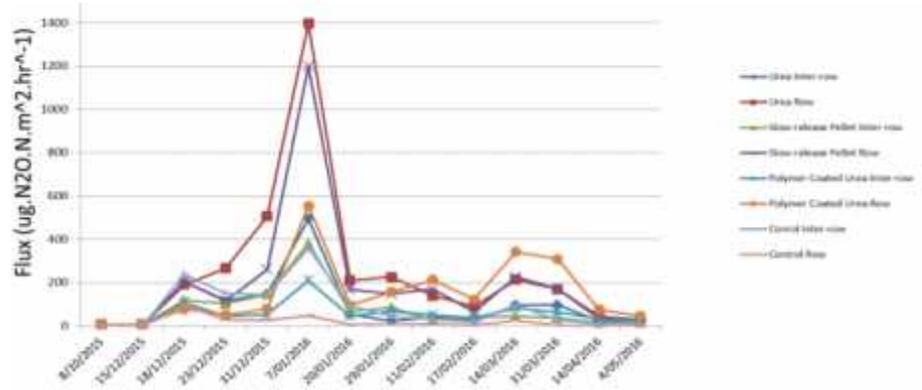
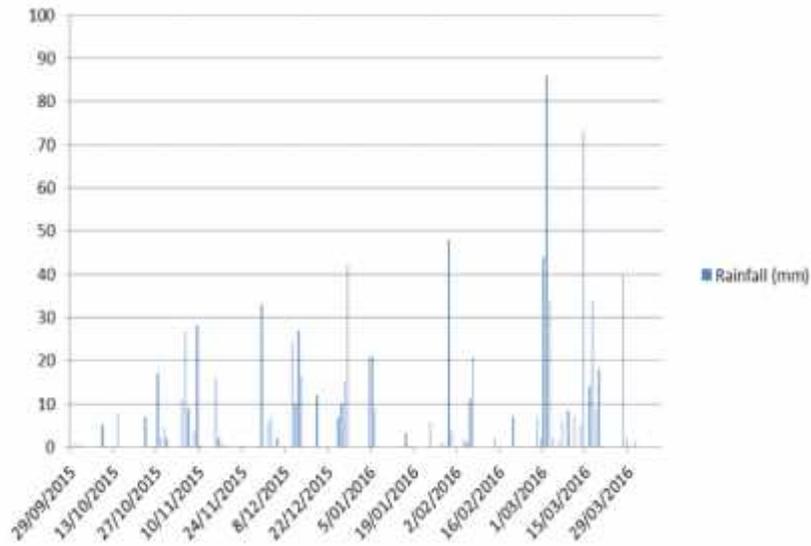
## Harvesting a 2-year cane trial



# Yield from 2-year cane trials



# N<sub>2</sub>O emissions



## Conclusions

- Release of mineral N is delayed with PCU and C- matrix pellets
- When N content is matched, yield of 2-year sugarcane was not different
- Need to develop N-response curves to PCU vs urea (currently underway)- benefit may be in lower N doses
- Emissions of N<sub>2</sub>O are lowered due to restricted mineral N content during periods of heavy rain