



Department of
Agriculture and Food



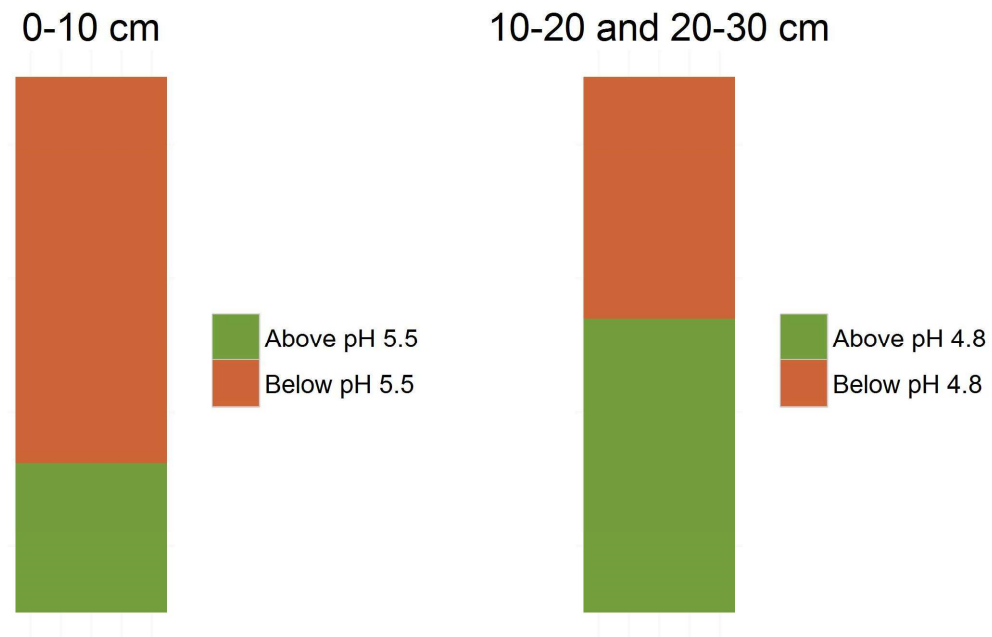
GRDC Grains Research &
Development Corporation
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Shifting investment from nutrients to lime and cultivation.

Craig Scanlan, Ross Brennan and Gavin Sarre
(DAFWA)



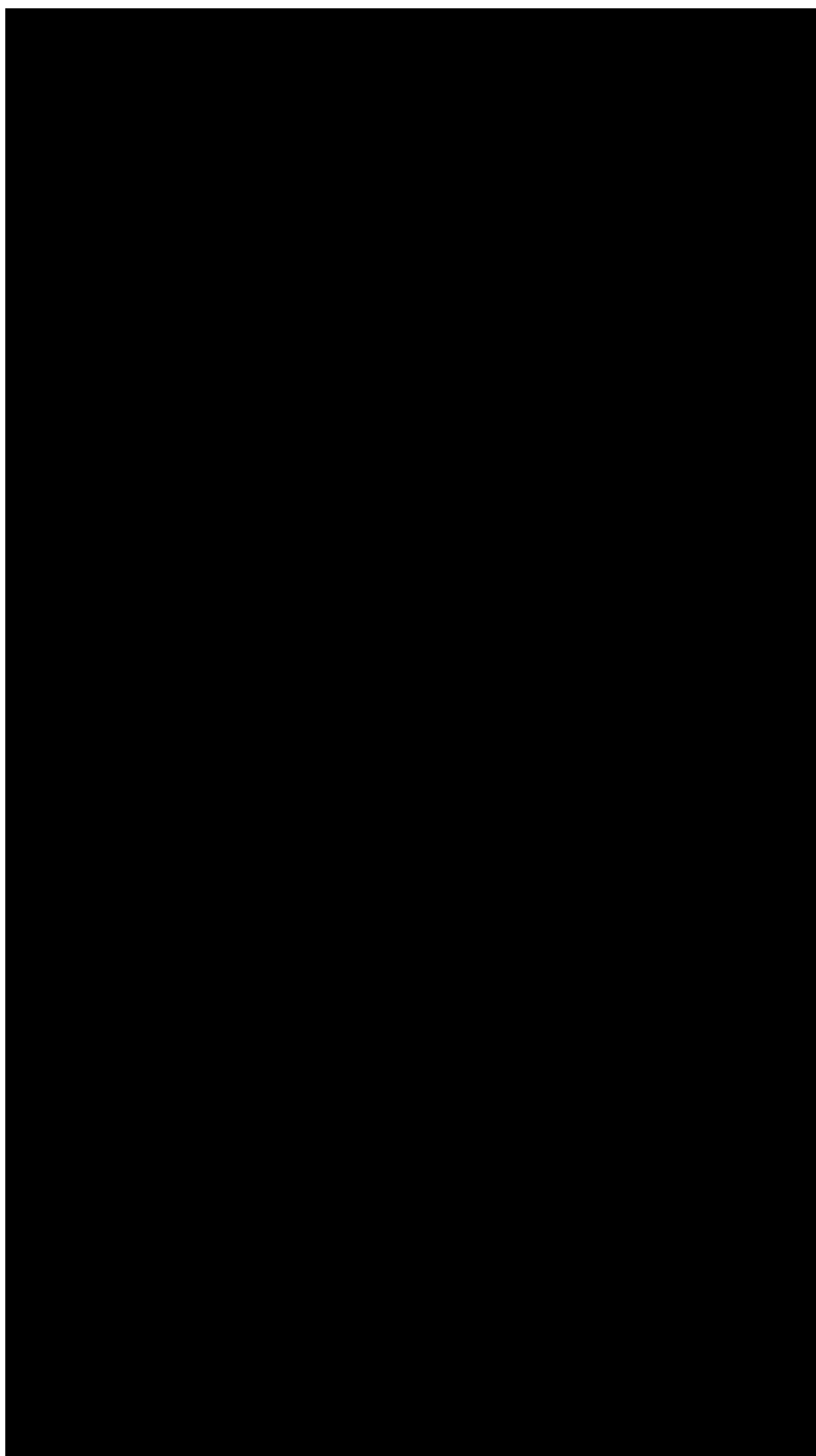
The soil acidity problem is undeniable.

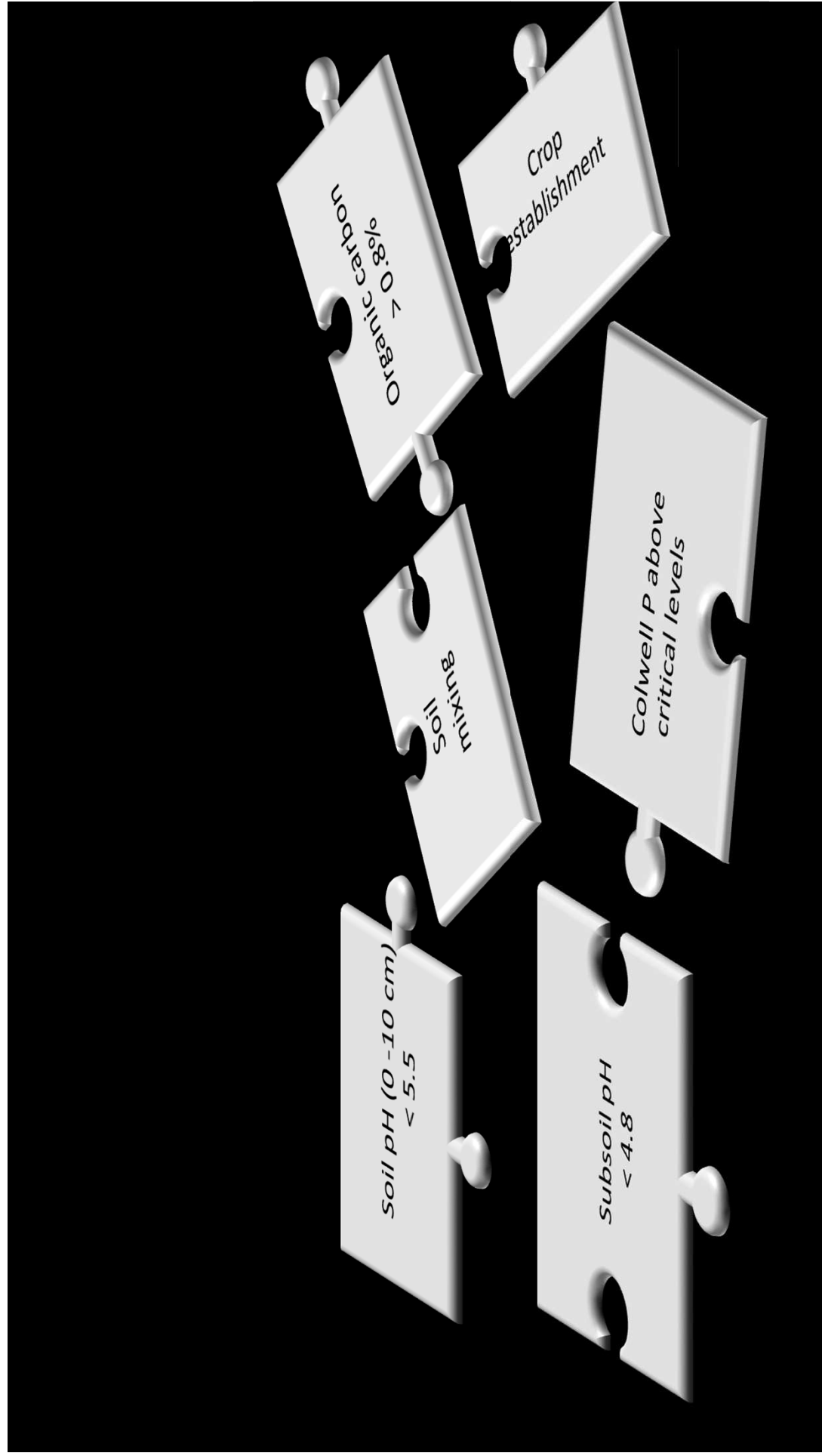


(Source: Gazey and Andrew 2013)

Changes in subsoil pH
after surface incorporation of lime
were found after 4 to 7 years.

(Source: Whitten et al. 2000)





Trial design

Main treatments

1. Control

2. Cultivation

3. Lime + cultivation

Sub treatments

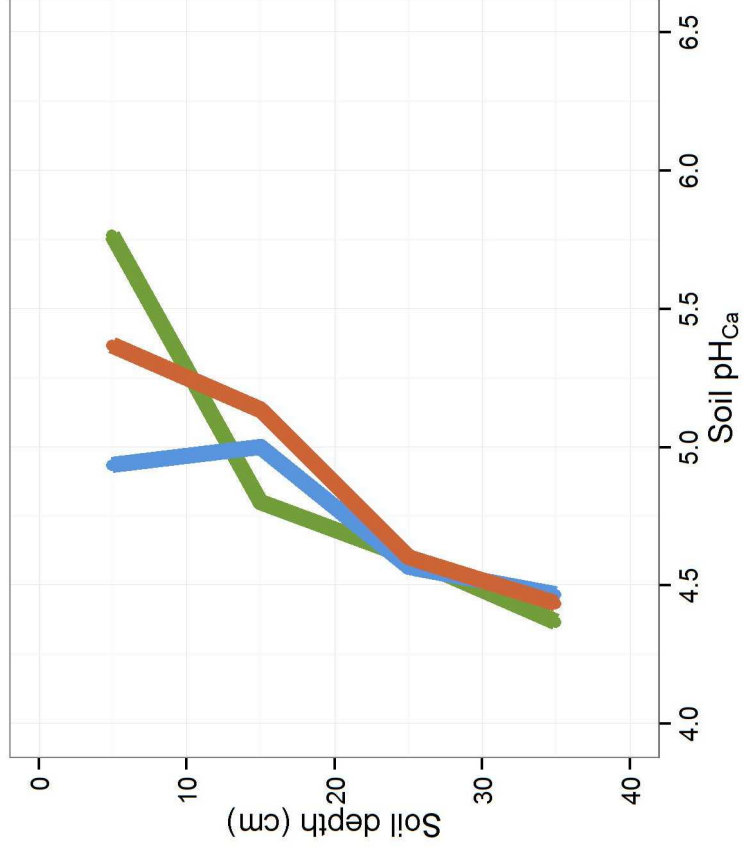
All
All-K
All-N
All-P
All-S
Nil

All
All-K
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All
All-K
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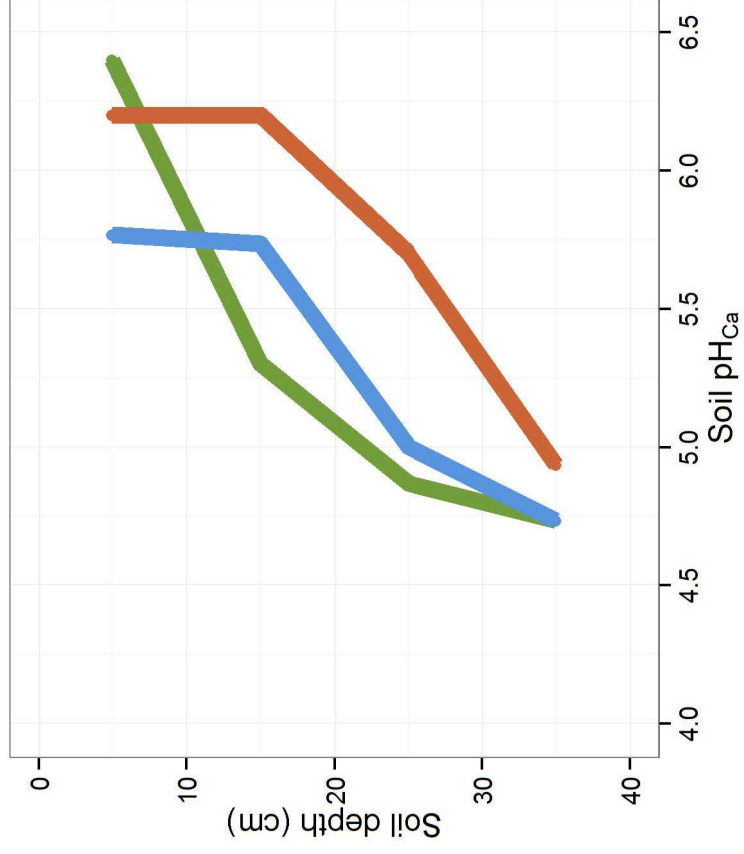
Dalwallinu

- 1. Control
- 2. Deep rip and one-way plough
- 3. Lime, deep rip and one-way plough

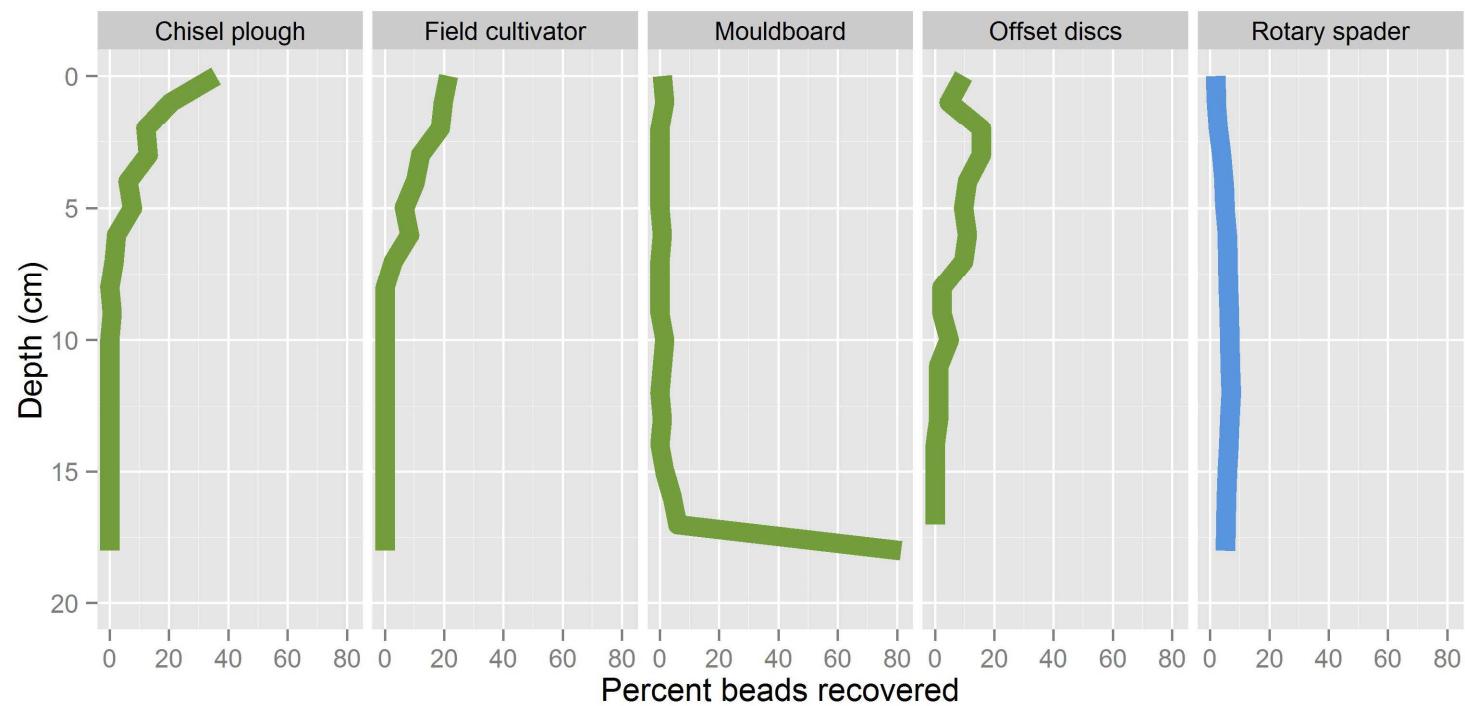


Dandaragan

- 1. Control
- 2. Rotary spader
- 3. Lime + rotary spader

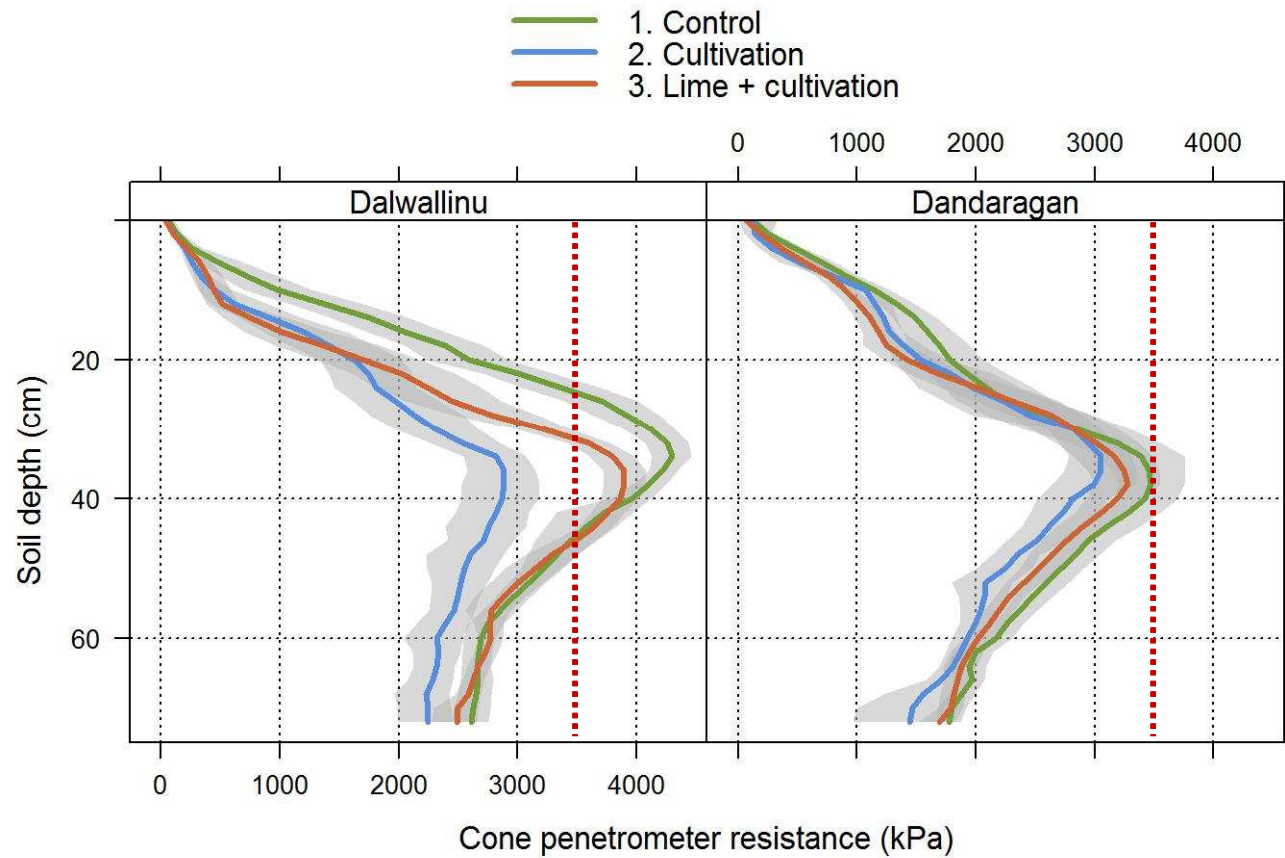


The effectiveness of soil mixing depends on the implement.

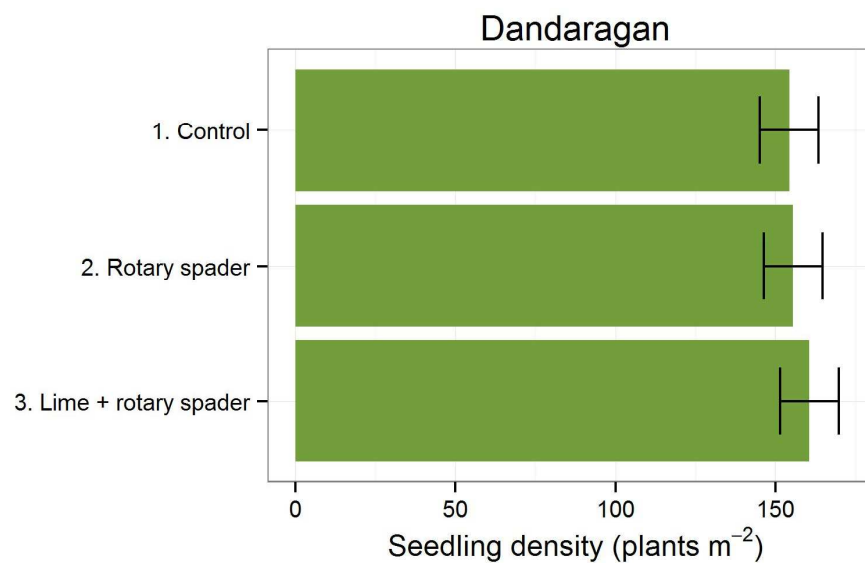
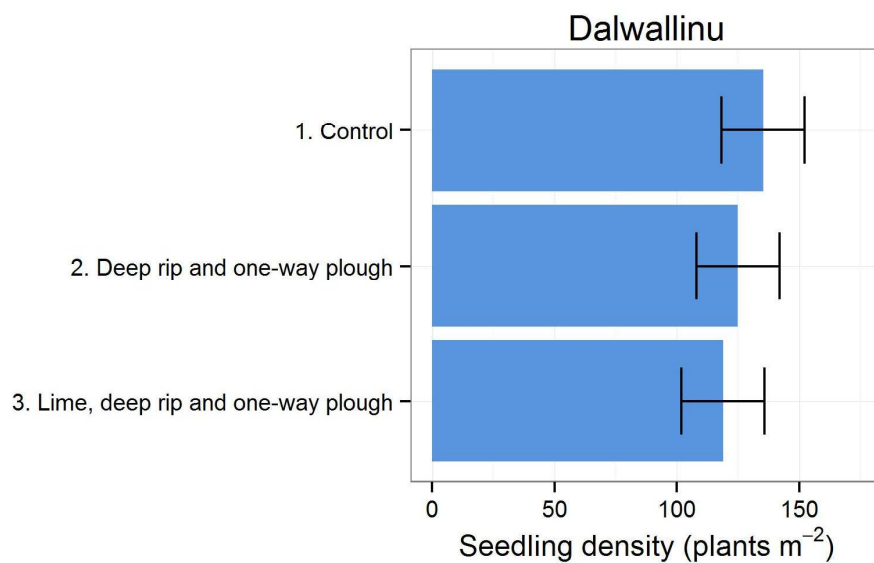


(Source: Spokas et al. 2007)

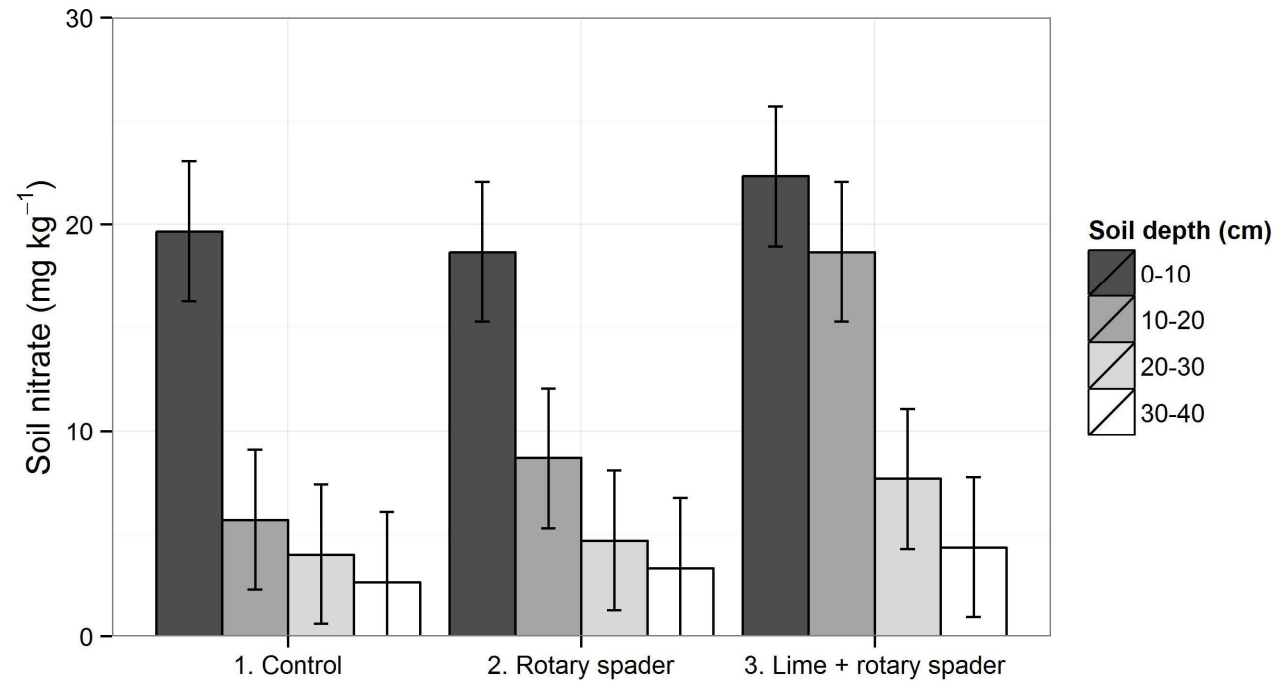
Cultivation reduced soil strength at Dalwallinu.

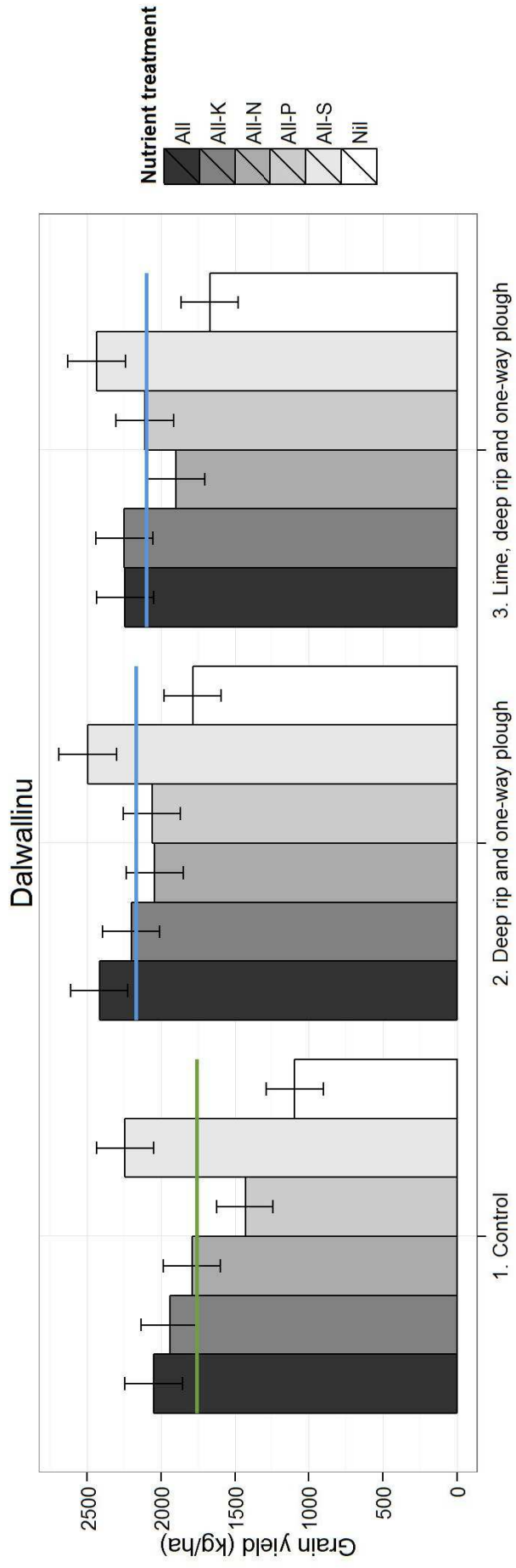


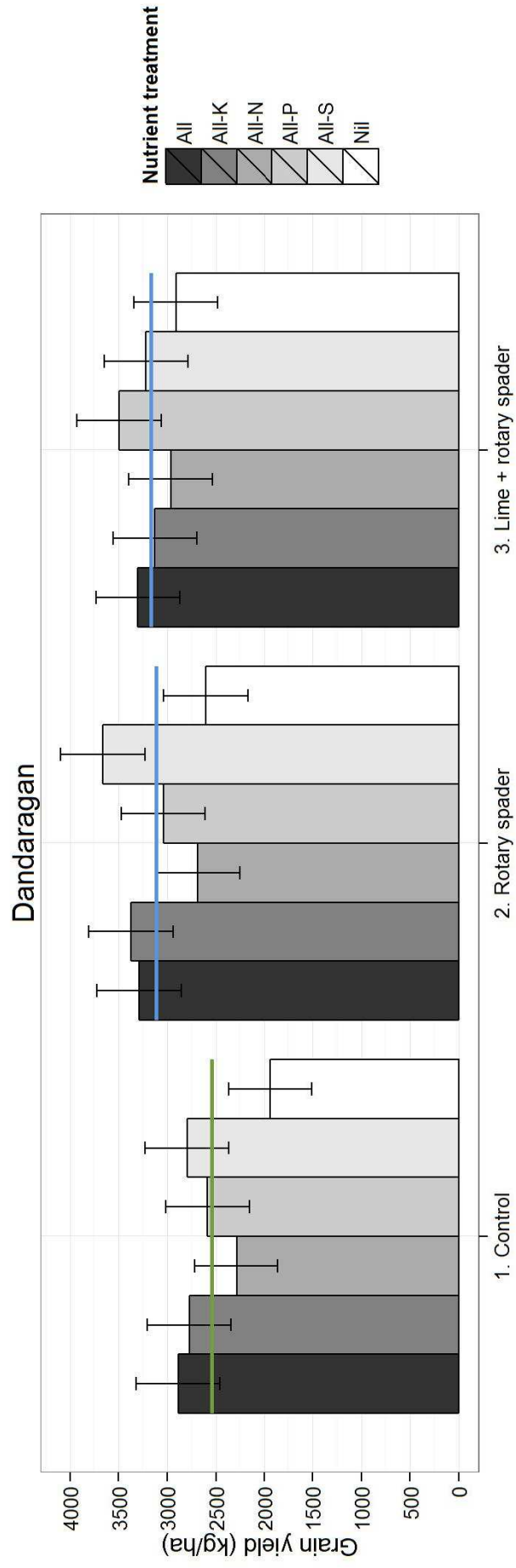
Seedling density was not affected by cultivation.



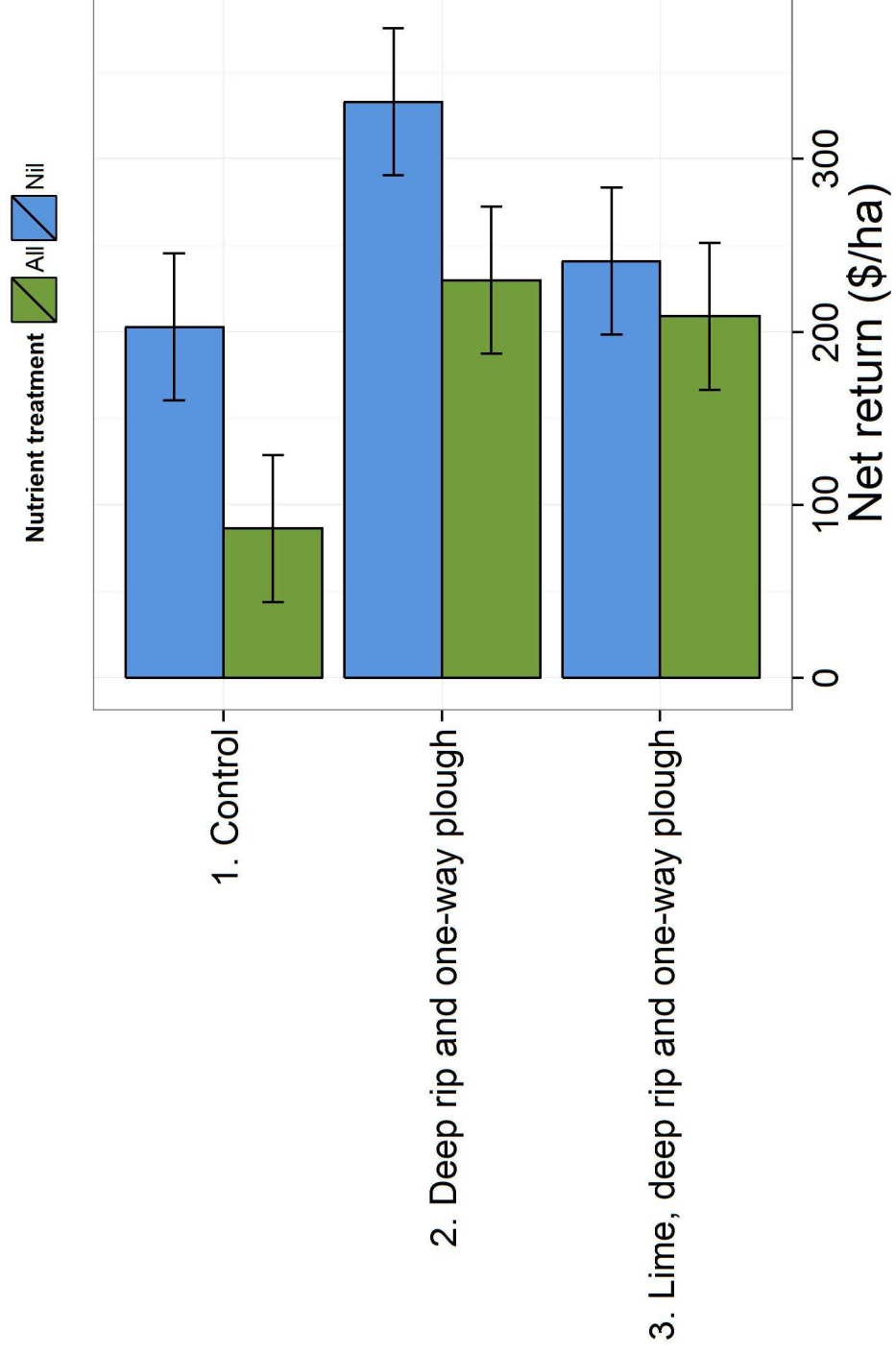
Incorporating lime only increased soil nitrate at Dandaragan.



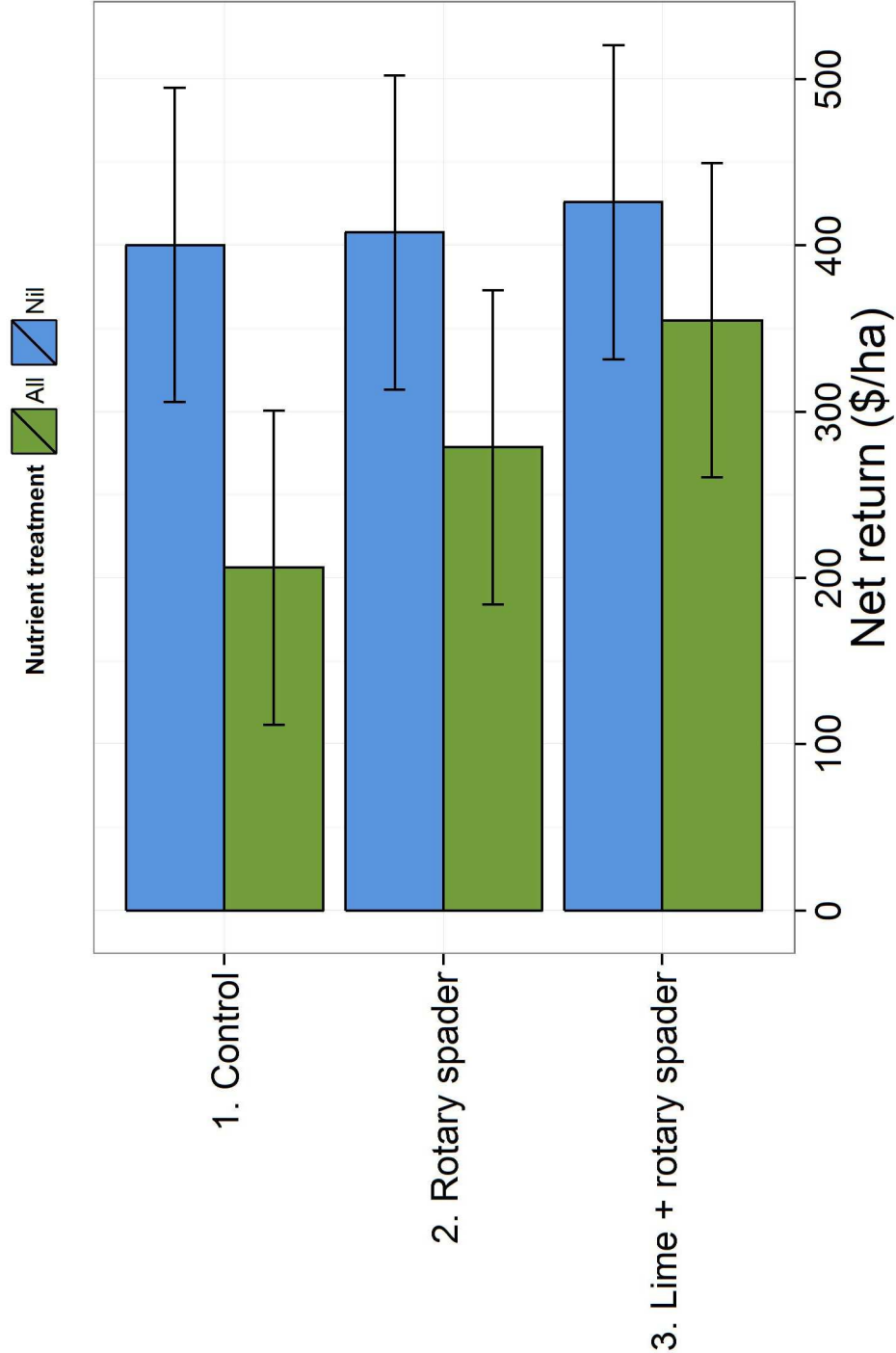




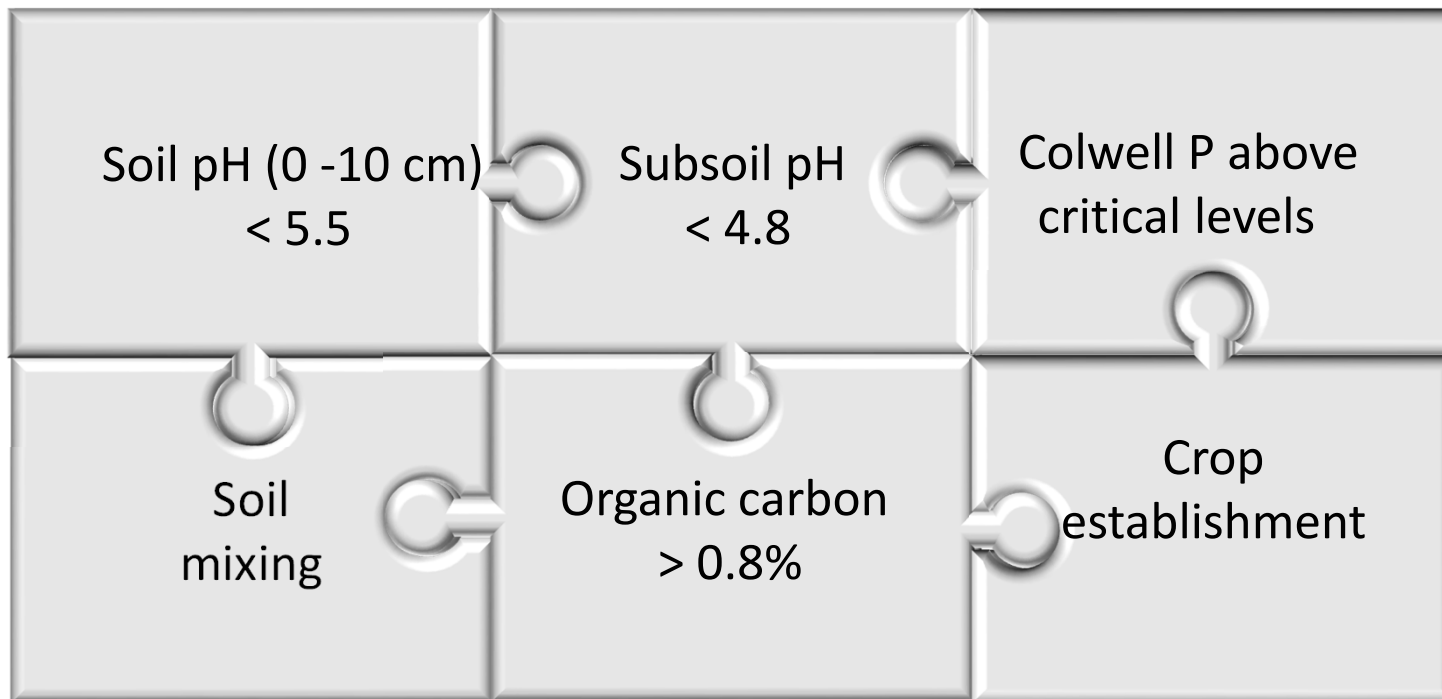
Dalwallinu

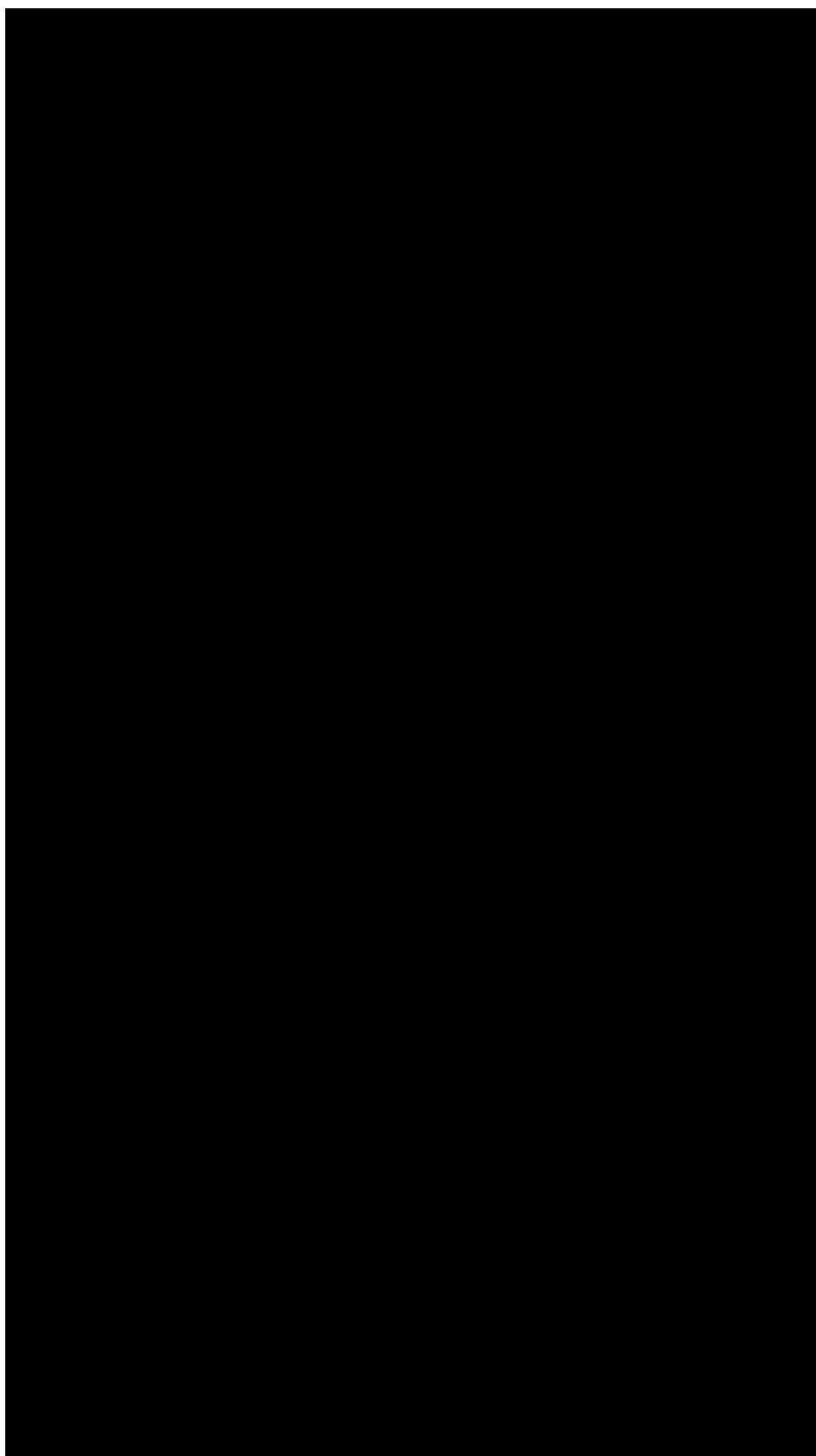


Dandaragan



You need a clear picture of existing soil fertility and how incorporating lime will change this.





Acknowledgements

DAFWA

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Damian Priest

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Dave Gartner

Anne Wilkins

Negus family

Liebe Group

Clare Johnston

Allen Morton

Pearse family





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Thank you.



**WEST MIDLANDS
GROUP**

