Identifying factors that influence spur productivity in almond

Zelmari Coetzee

5th Australian Almond Research and Development Forum & Field Day

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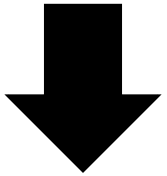
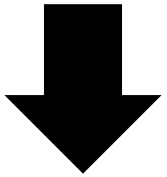
Introduction

Strong yield fluctuations between seasons



Yield = # kernels × kernel mass



Effect of management practices on spur dynamics

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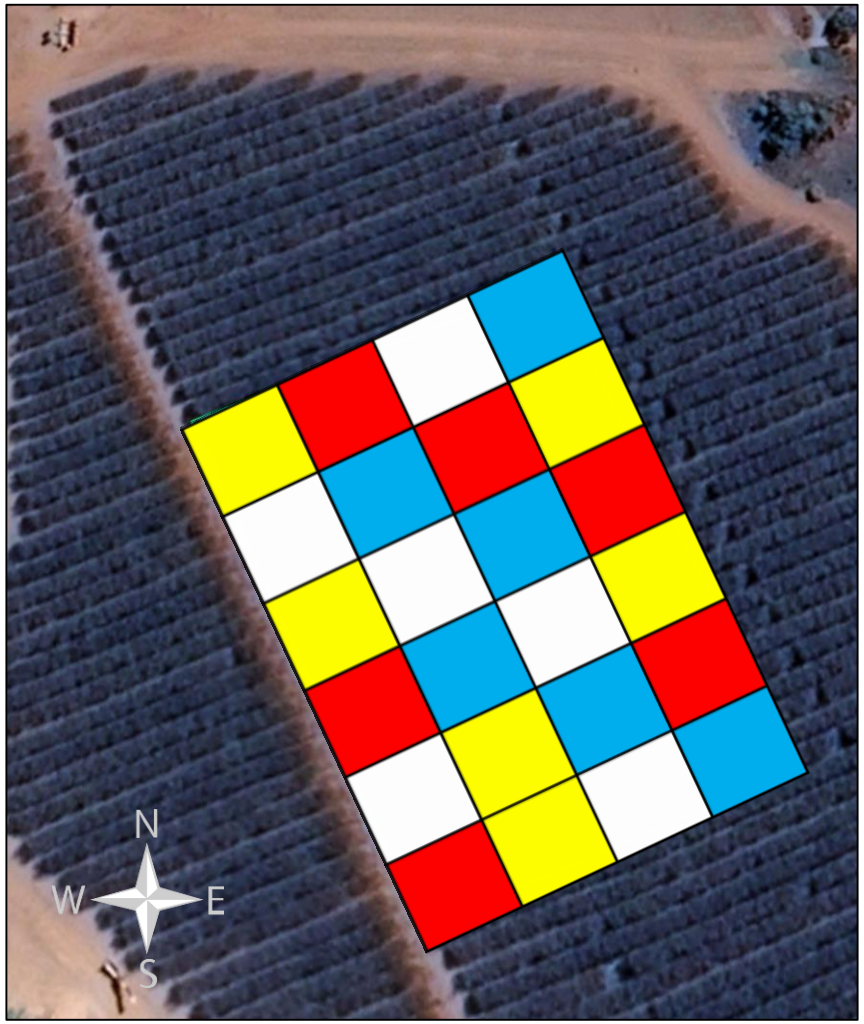
Experimental layout

- Nonpareil & Carmel
- 4 treatment combinations

	Irrigation ML/ha	
Nitrogen kg/ha	**15**	**10.5**
300	+W+N	-W+N
163	+W-N	-W-N



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Assessments

- Environment
  - climate, soil moisture, light interception
- Physiology
  - spur dynamics, leaf traits and composition, tree water status
- Productivity
  - yield, kernel mass

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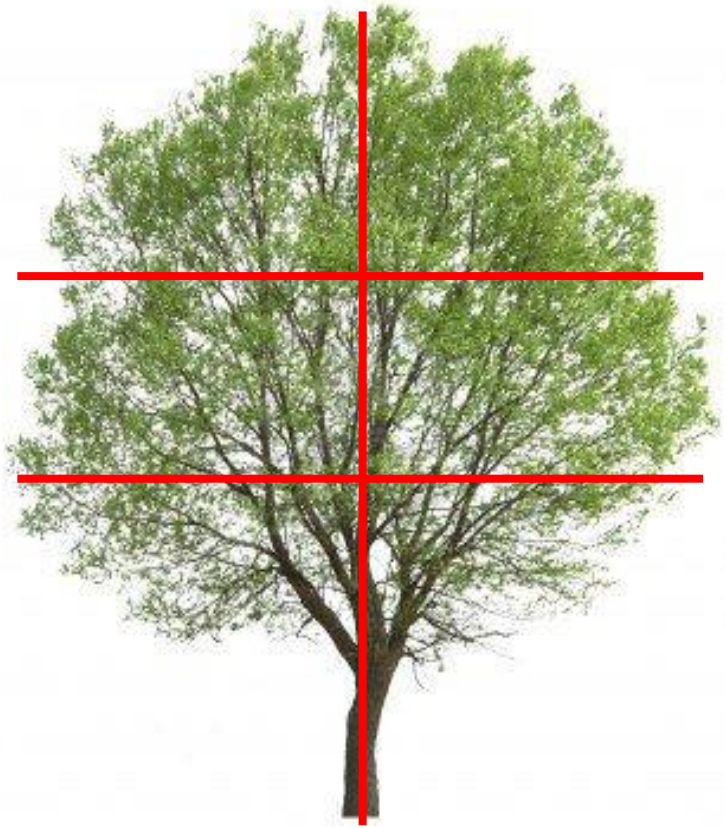
Spur behaviour

- 576 per variety
- 144 per treatment
- 24 per tree

4 QUARTERS



position 1,2

position 3,4

position 5,6

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Spur behaviour
Fertility

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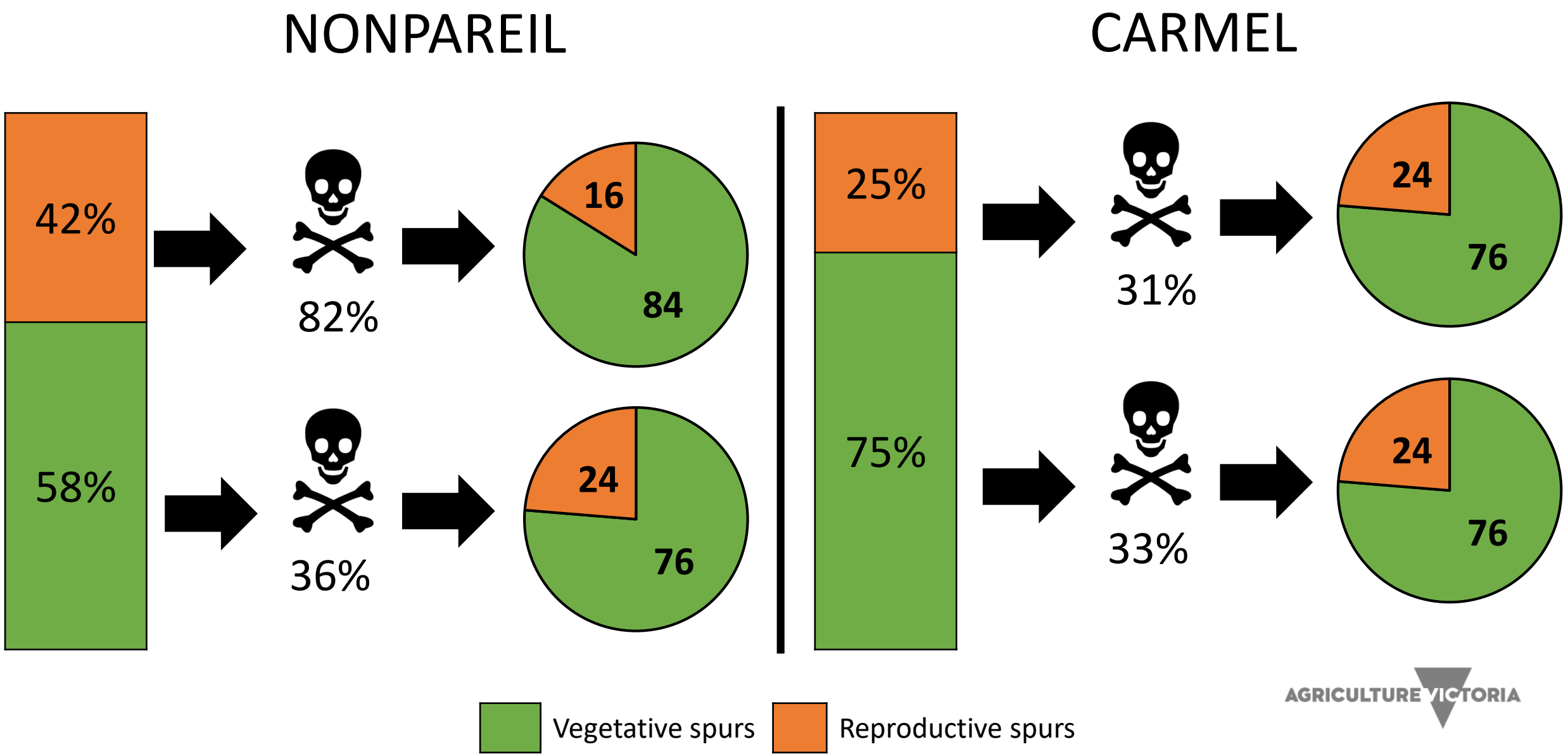
NONPAREIL
CARMEL
42%
58%
82%
36%
16
84
24
76
25%
75%
31%
33%
24
76
24
76
Vegetative spurs
Reproductive spurs
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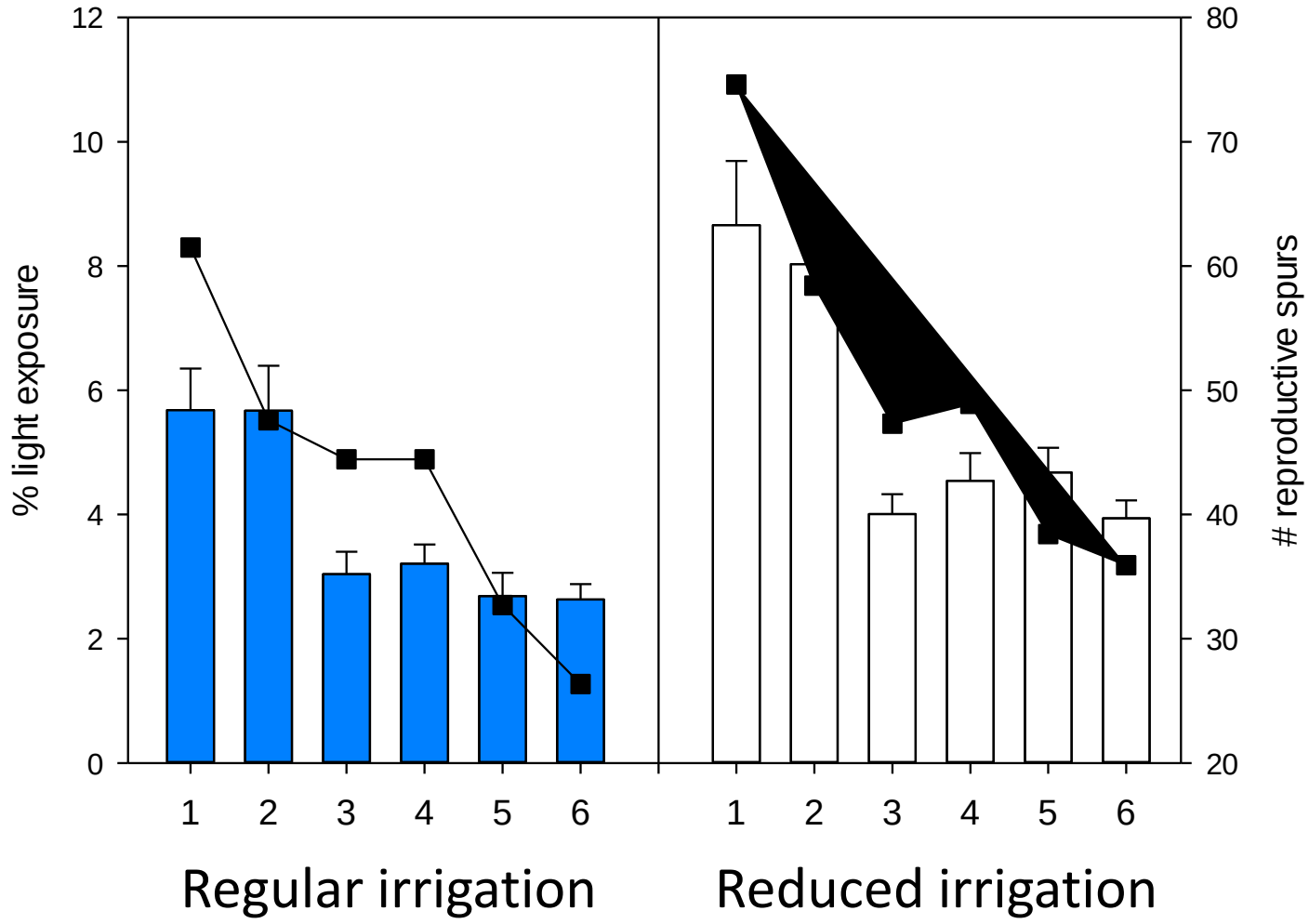
Spatial yield distribution - Nonpareil



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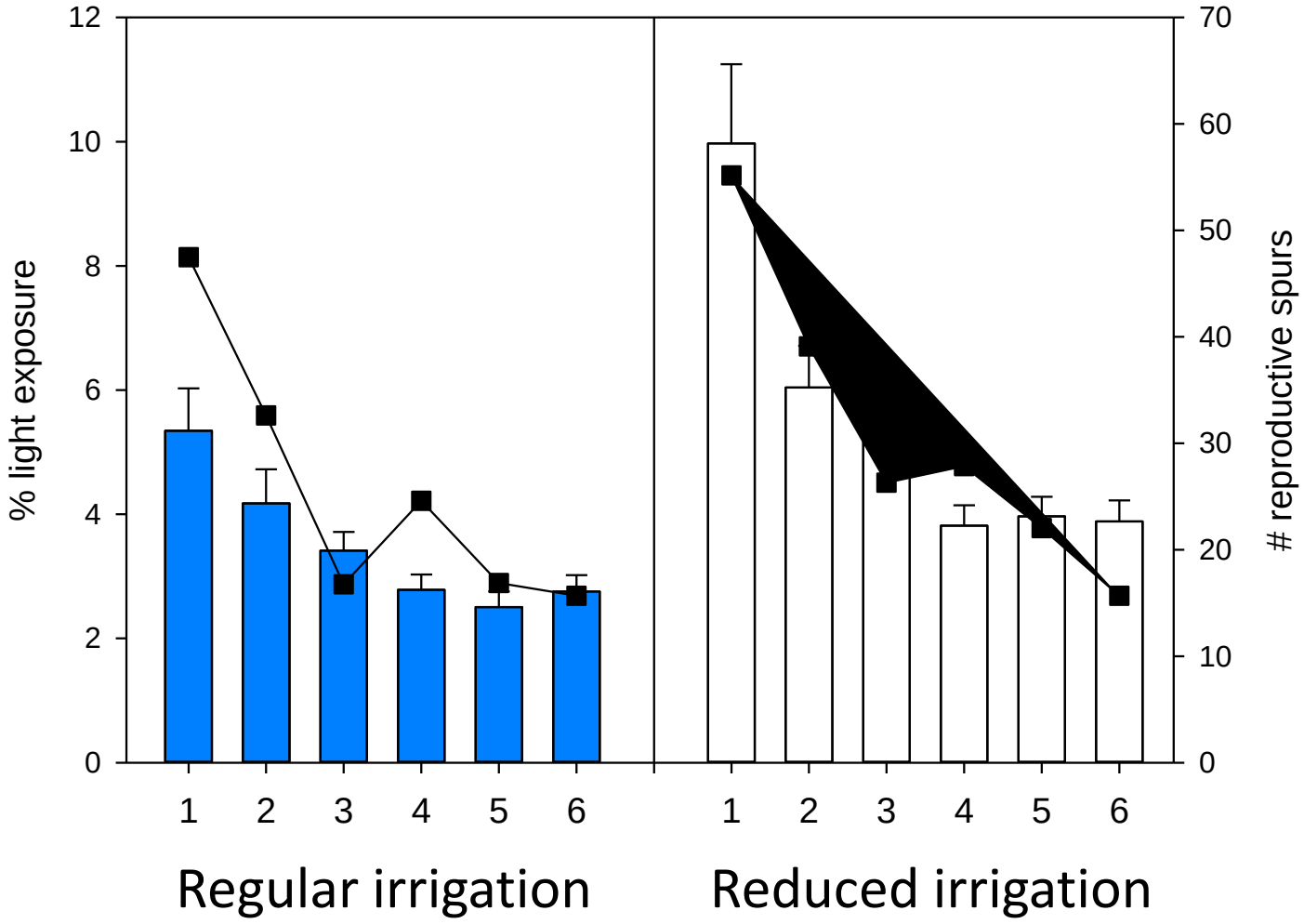
Spatial yield distribution - Carmel



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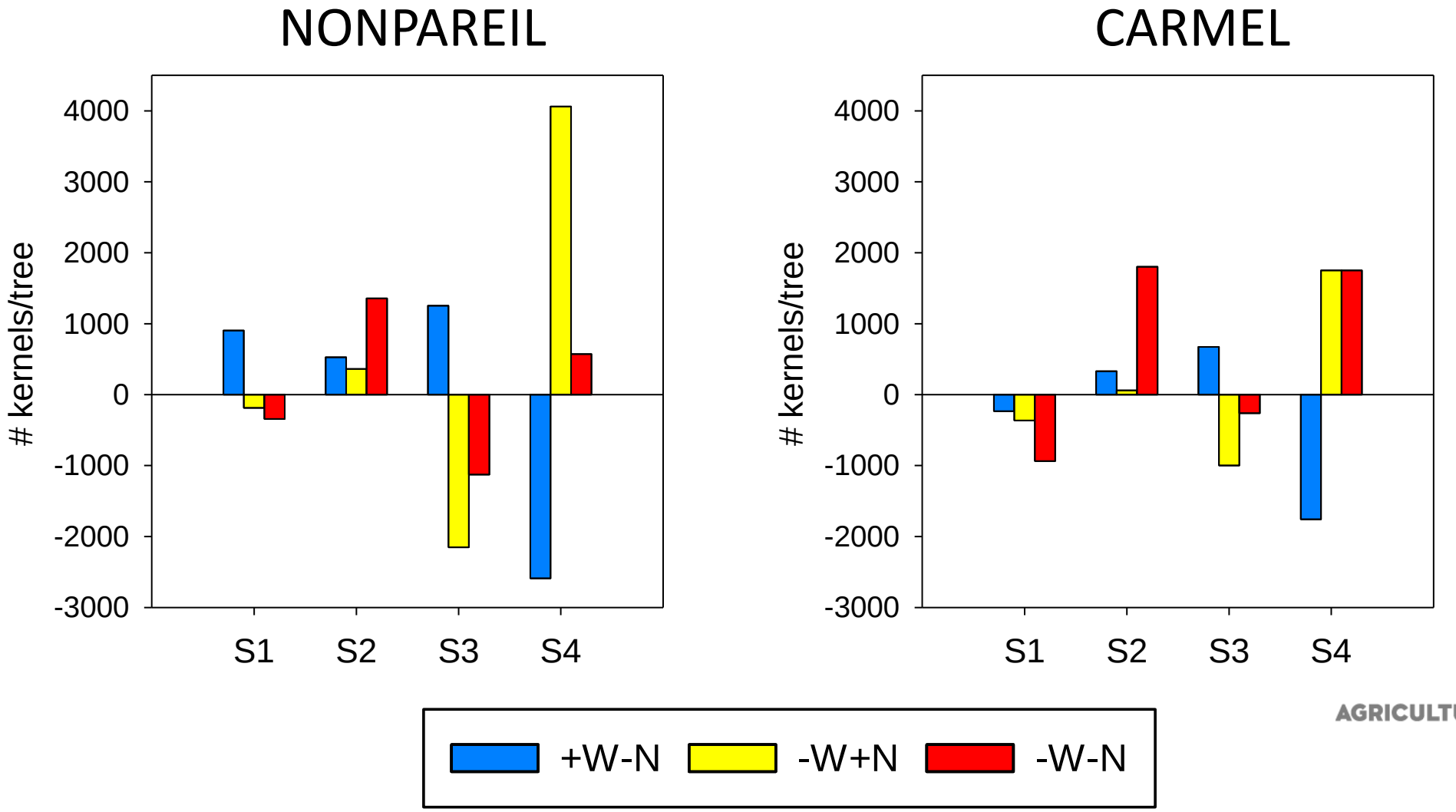
Treatment effects - # kernels/tree



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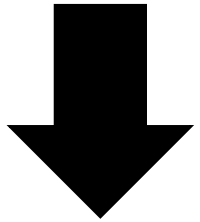
Take home message:

Yield = # kernels × kernel mass



reproductive spurs

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- CMV farms, Lindsay Point
- Research staff at Irymple
- Casual staff

Hort Innovation

VICTORIA State Government | Jobs, Precincts and Regions

CMVFARMS

Thank you.

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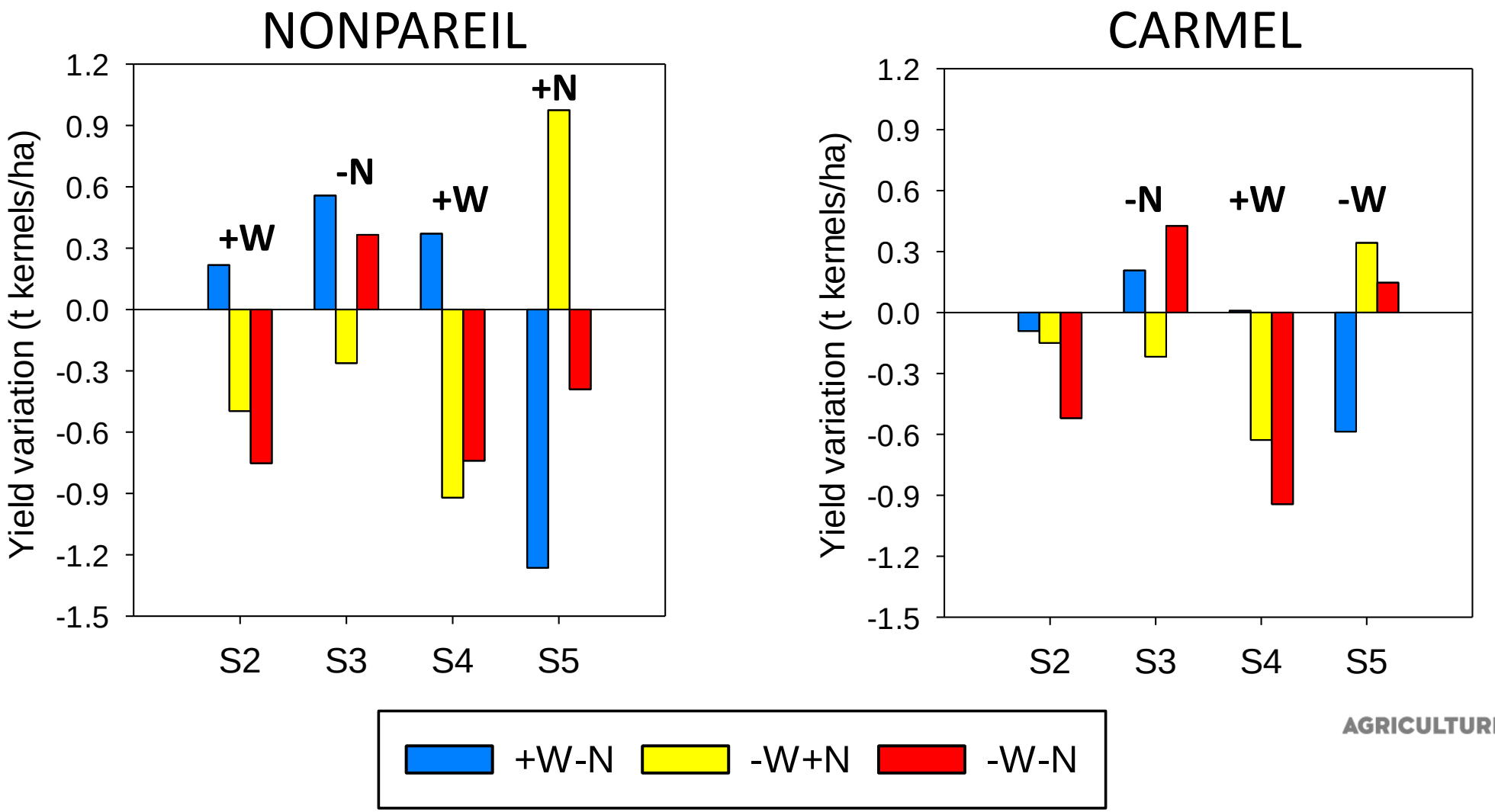
Treatment effects - kernel yield/ha



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