



## Sprouting warning system for WA wheat farmers

Dr Richard Williams  
gro.IQ 



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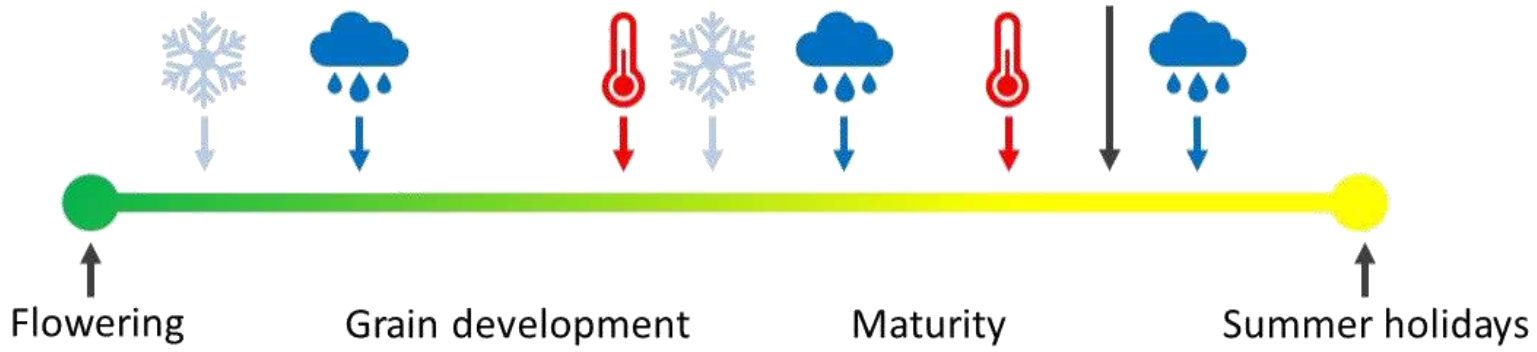
# SUMMARISED REVIEW 2012

## Highlights

Ran 5.8 million tonnes through falling numbers tests, saving growers \$195 million

Amount, level and frequency

Harvest



# Acknowledgements

- Primary research conducted under a Grower Group grant to WA Farmers by DPIRD Agricultural Sciences Research
- Falling number data provided by CBH Group
- Research collaborators were Dr Dean Diepeveen and Dr Fiona Evans

## Background

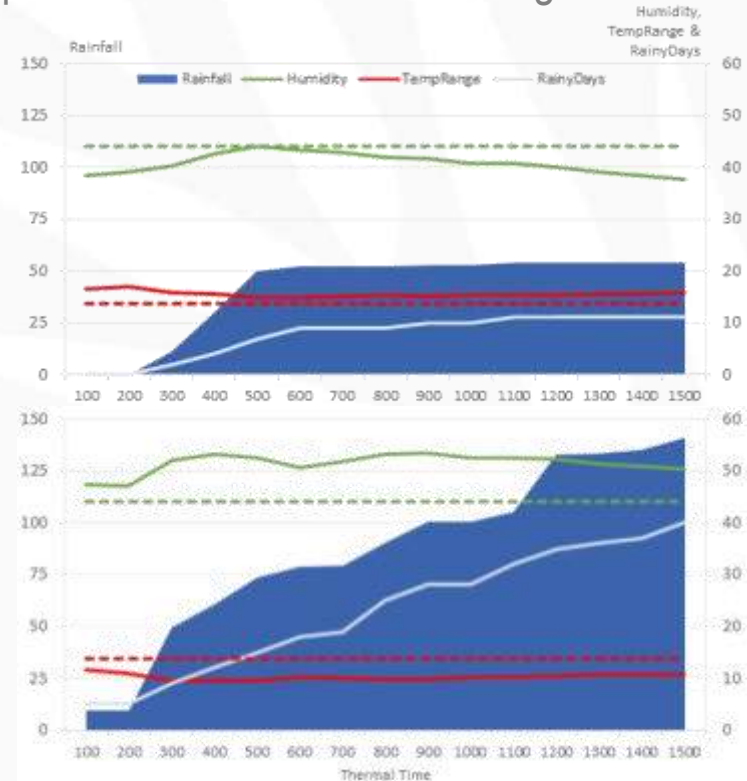
- A big data set from 7 harvest periods – over 250,000 falling number test results
- Assessed 40 different climate measurements (SILO – patched point data)
- Identified 573 correlations from 2800 combinations

# Research findings

- Repeatable link between specific weather profiles before harvest and the occurrence of low falling numbers (<300 seconds)
  - humidity (measured at maximum temperature)  $\geq 44.1\%$
  - daily temperature range  $\leq 13.7^{\circ}\text{C}$
- Less repeatable but nevertheless important was rainfall level
- Strong climate relationship north to south
  
- The detail research findings recently published by Cereal Chemistry  
<https://doi.org/10.1002/cche.10140>

# Wanted to test the theory

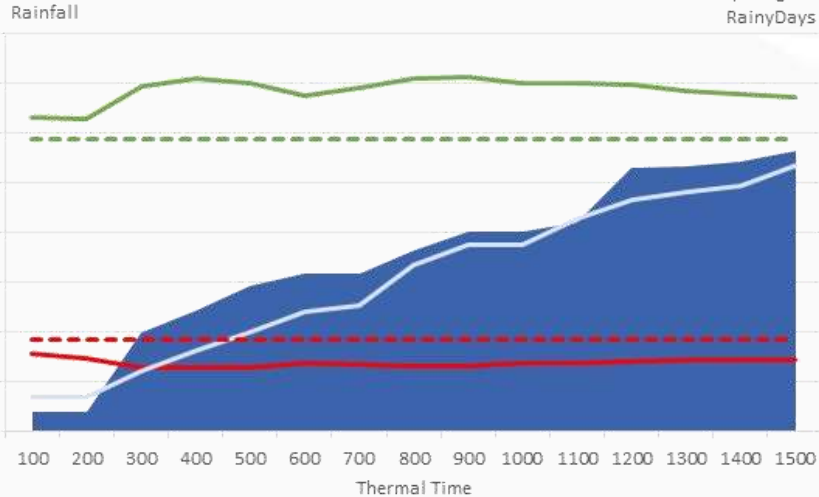
- Worked with 8 growers across the state profiling humidity and temperature range from the nearest SILO weather station for the period from their 2018 flowering to thermal time equivalent of 1500°Cd
- Good news very few loads tested for FN and those that were >300 seconds



# More complicated...on revised rainfall scale

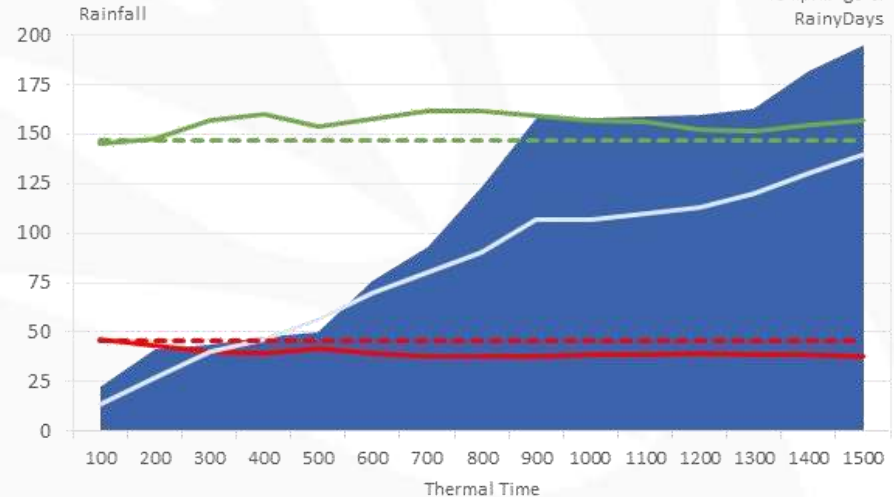
2018

Humidity,  
TempRange &  
RainyDays



2011

Humidity,  
TempRange &  
RainyDays



# Thank you

For full details check out Cereal Chemistry (<https://doi.org/10.1002/cche.10140>)  
or  
email [richard@groiq.com](mailto:richard@groiq.com)

Grains Research and Development Corporation (GRDC)

A Suite 5, 2A Brodie Hall Drive, Bentley, WA 6102 Australia

P PO Box 5367 Kingston, ACT 2604 Australia

T +61 8 9230 4600

[www.grdc.com.au](http://www.grdc.com.au)

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