What's new?

Mark Seymour

Department of Primary Industries and Regional Development
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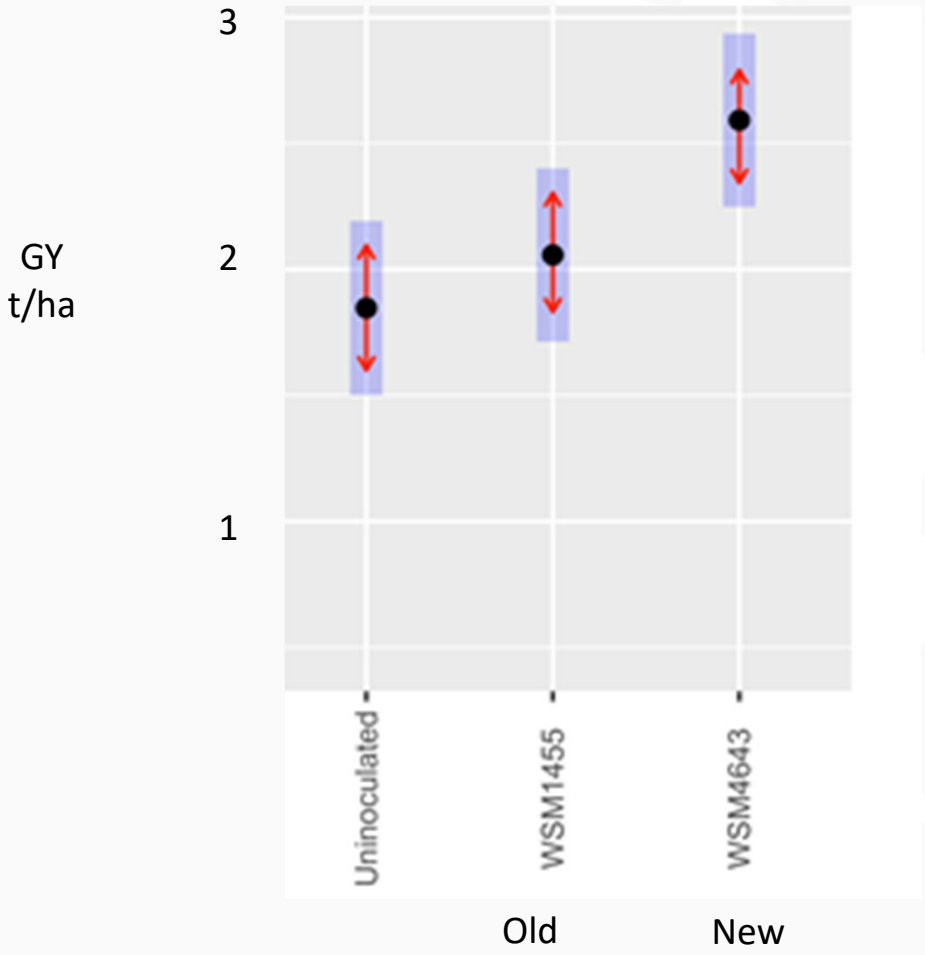
Muresk 2021 pH 4.8
14 weeks

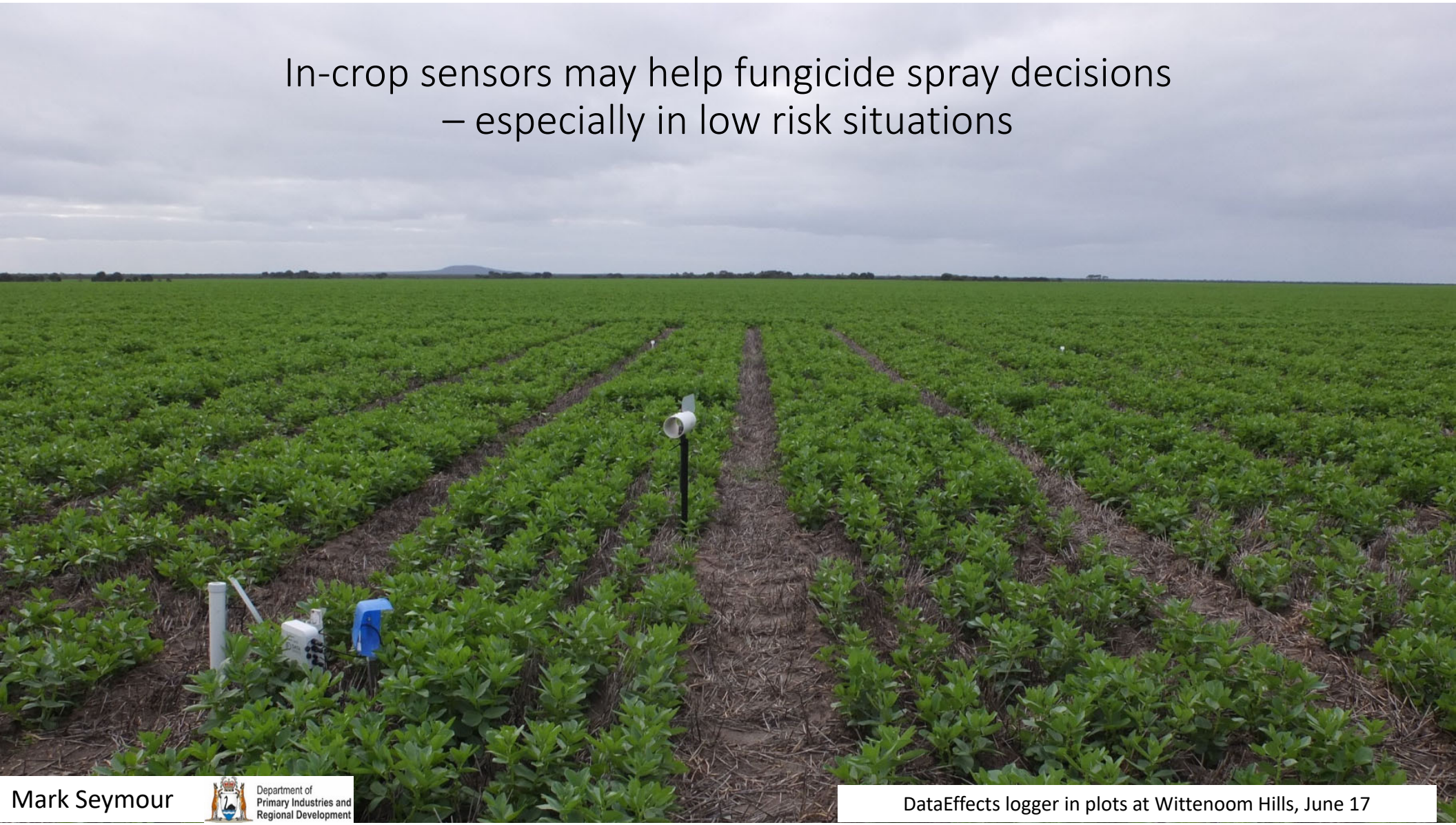
Dr Ron Yates (DPIRD/MU)

Field pea at Muresk 2021, pH 4.8



Dr Ron Yates
(DPIRD/MU)

In-crop sensors may help fungicide spray decisions – especially in low risk situations



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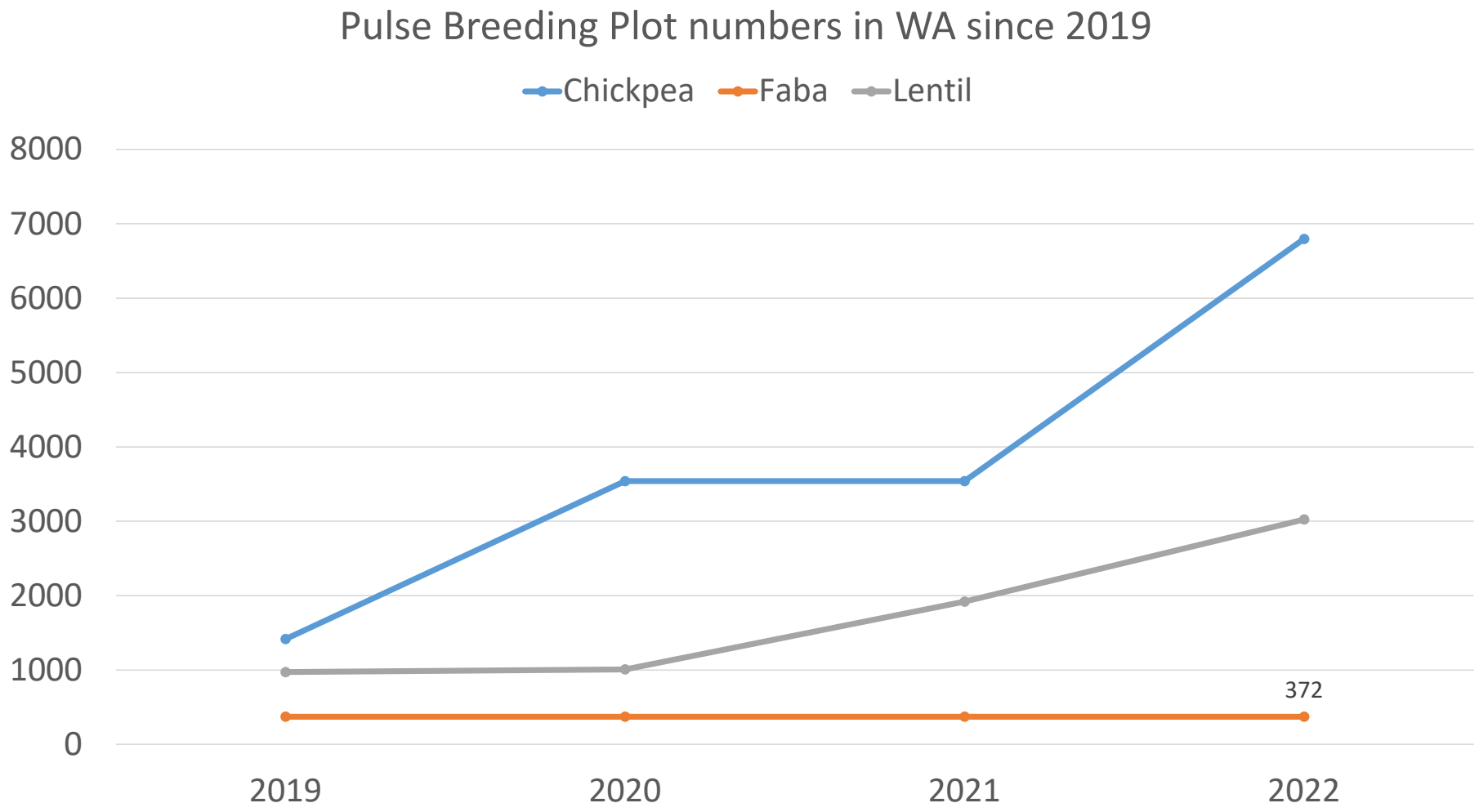
DataEffects logger in plots at Wittenoom Hills, June 17

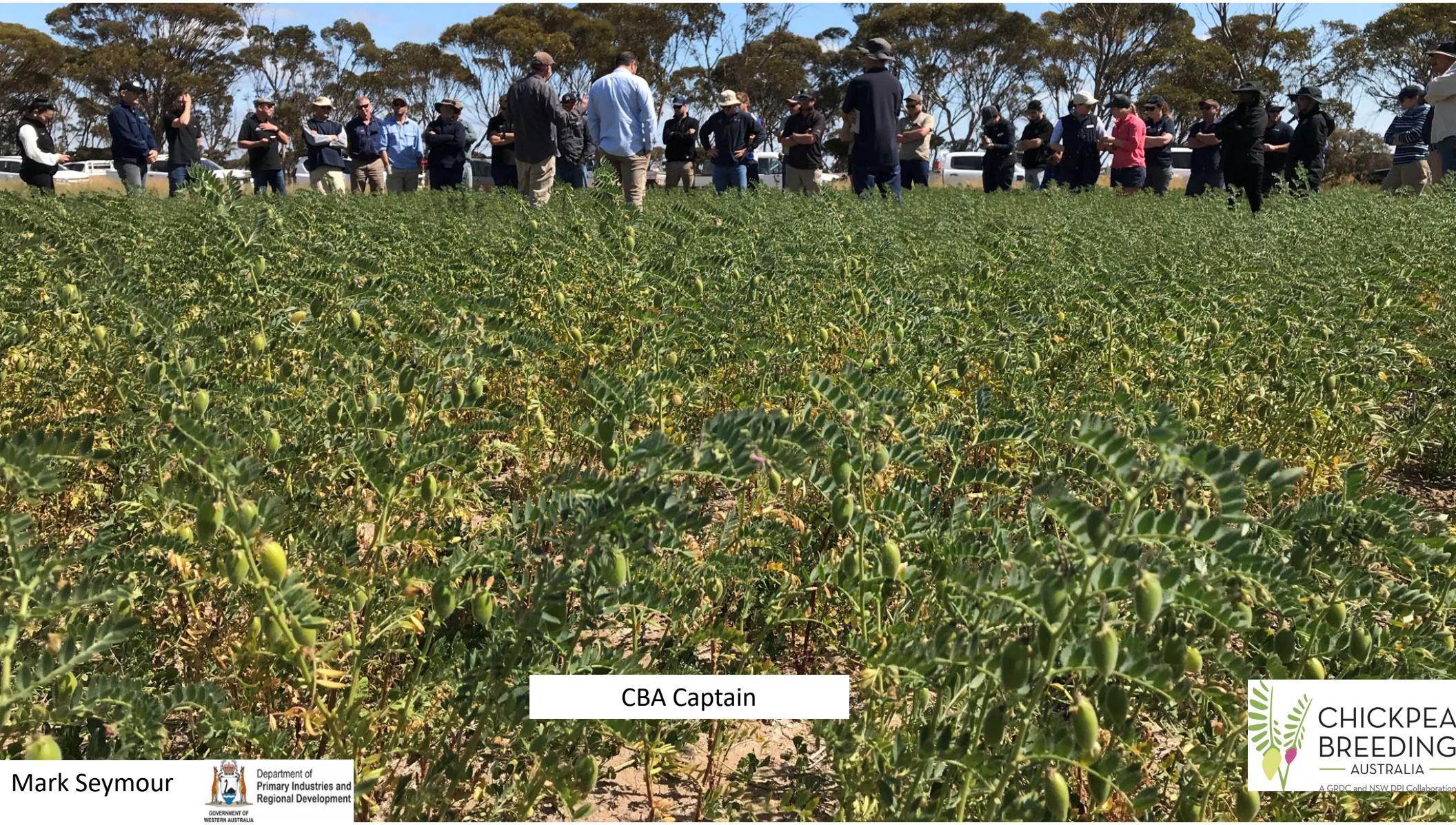
New soil applied herbicides provide longer control of weeds

Dr Harmohinder Dhammu and Stacey Power, Dalwallinu Chickpea herbicide trial, August 2021

CHICKPEA BREEDING AUSTRALIA

A GRDC and NSW DPI Collaboration


Pulse Breeding Plot numbers in WA since 2019
Chickpea
Faba
Lentil
8000
7000
6000
5000
4000
3000
2000
1000
0
372
2019
2020
2021
2022



CBA Captain

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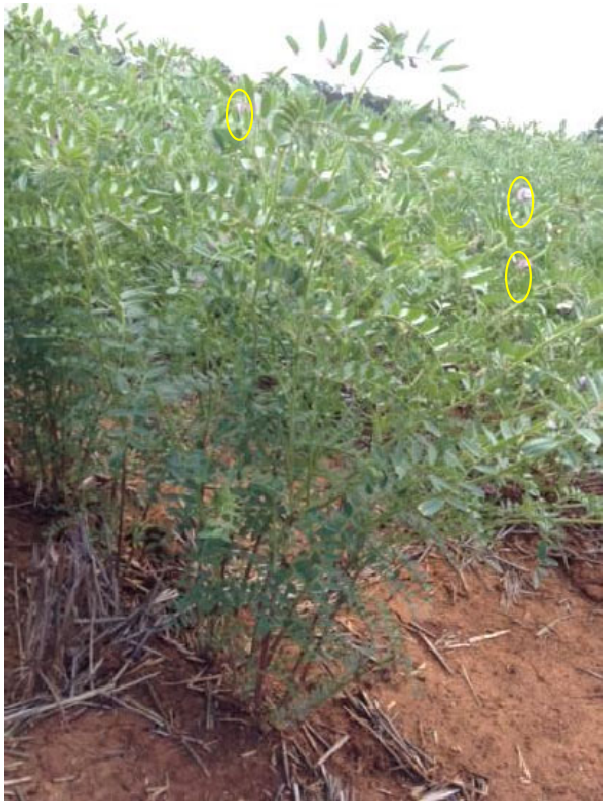
CHICKPEA BREEDING AUSTRALIA
A GRDC and NSW DPI Collaboration

Improved chilling tolerance – but not good enough!

14th October 2016



PBA HatTrick – flowering

Breeding line, pre S1 – 7 pods

Twice as good…..but

	CBA Captain		
Sown	50% flowering	% pod set*	GY
1-Apr	July 12	2%	0.3
15-Apr	July 20	8%	0.5
14-May	Aug 16	44%	1.4
8-Jun	Sept 7	57%	1.0

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* % of flowers that set into pods that filled at Grass Patch in 2021

Twice as good…..but

	CBA Captain			B001		
Sown	50% flowering	% pod set*	GY	50% flowering	% pod set	GY
1-Apr	July 12	2%	0.3	June 17	11%	0.4
15-Apr	July 20	8%	0.5	June 25	16%	0.6
14-May	Aug 16	44%	1.4	Aug 9	40%	1.0
8-Jun	Sept 7	57%	1.0	Sept 1	57%	0.6

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* % of flowers that set into pods that filled at Grass Patch in 2021

Twice as good…..but

	CBA Captain			B001			Lentil -PBA Bolt		
Sown	50% flowering	% pod set*	GY	50% flowering	% pod set	GY	50% flowering	% pod set	GY
1-Apr	July 12	2%	0.3	June 17	11%	0.4	July 6	26%	1.7
15-Apr	July 20	8%	0.5	June 25	16%	0.6	July 15	35%	1.9
14-May	Aug 16	44%	1.4	Aug 9	40%	1.0	Aug 22	63%	2.2
8-Jun	Sept 7	57%	1.0	Sept 1	57%	0.6	Sept 3	65%	1.8

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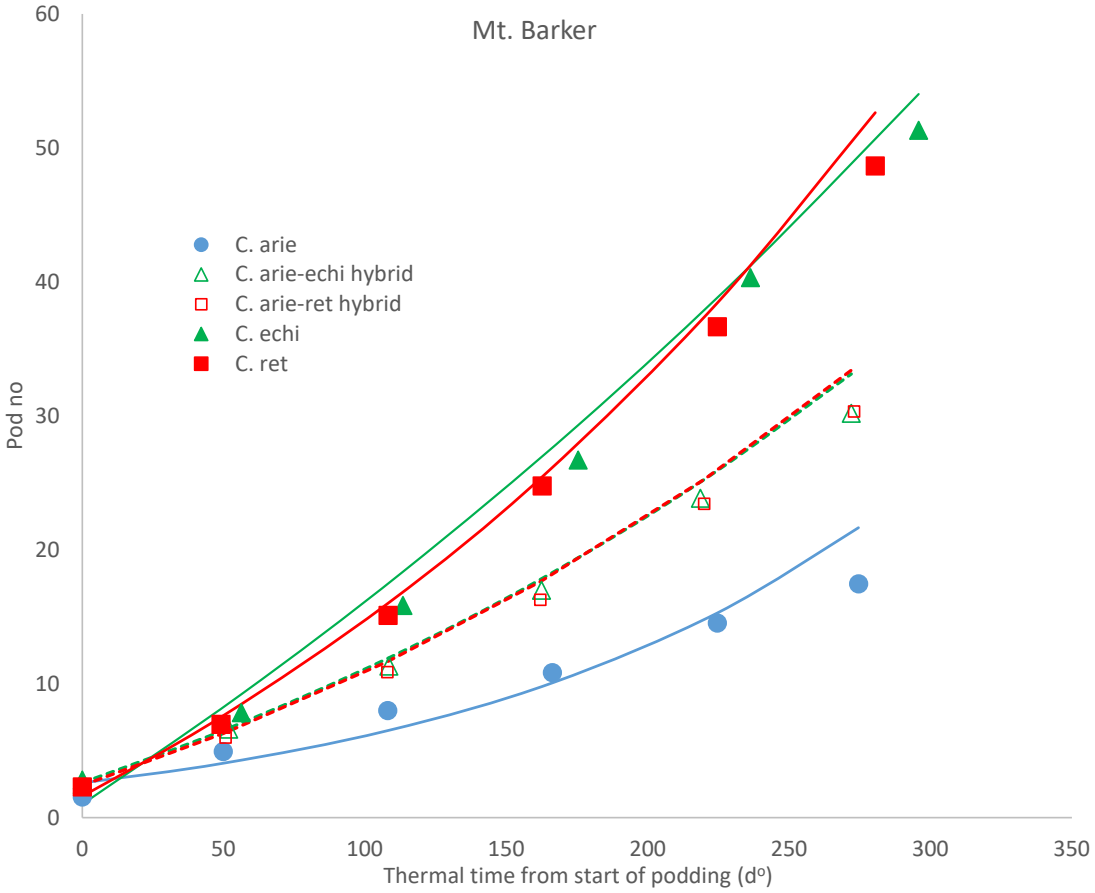
* % of flowers that set into pods that filled at Grass Patch in 2021

Chilling tolerance in wild & domestic *Cicer*



Mean temp @13.4°C

Coming soon

IMI tolerance

Intercept (33g/L imazamox + 15g/L imazapyr) @ 750 ml/ha

Conventional variety

Tolerant

Lontrel tolerance

(300 mL/ha of Lontrel Advance 600g clopyralid/L)

Conventional variety

Tolerant

CHICKPEA BREEDING AUSTRALIA

Trait identified by SARDI in SARDI/GRDC project

Lontrel tolerant lentil (GIA Sire) at Narembeen 2021

Worlds first clopyralid tolerant pulse
Tolerant to soil residues of Lontrel®
Combines IMI+CLOP(yralid) tolerance expanding lentil production

GRAINS INNOVATION AUSTRALIA

Lentil

- PBA Highland XT
- PBA Hallmark XT
- PBA Kelpie XT

- GIA Sire, GIA Metro
- GIA Lightning
- GIA Thunder
- GIA Leader

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Vetch

The sleeper crop Multi-use Very early sowing option Hay market?

WMG Field day September 21st 2021

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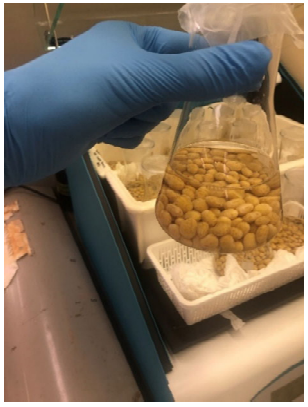
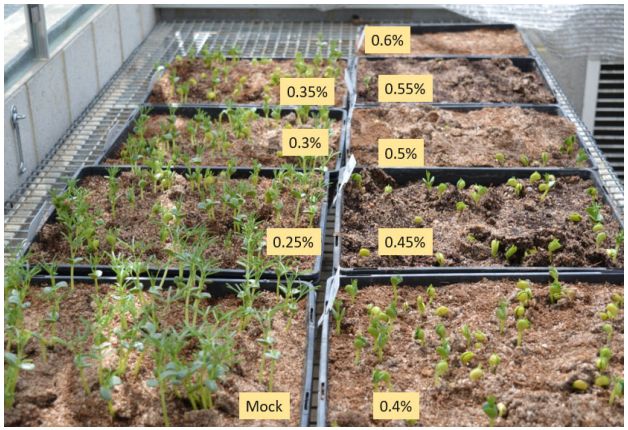
Expanding herbicide options for lupin

- Blue lupin control

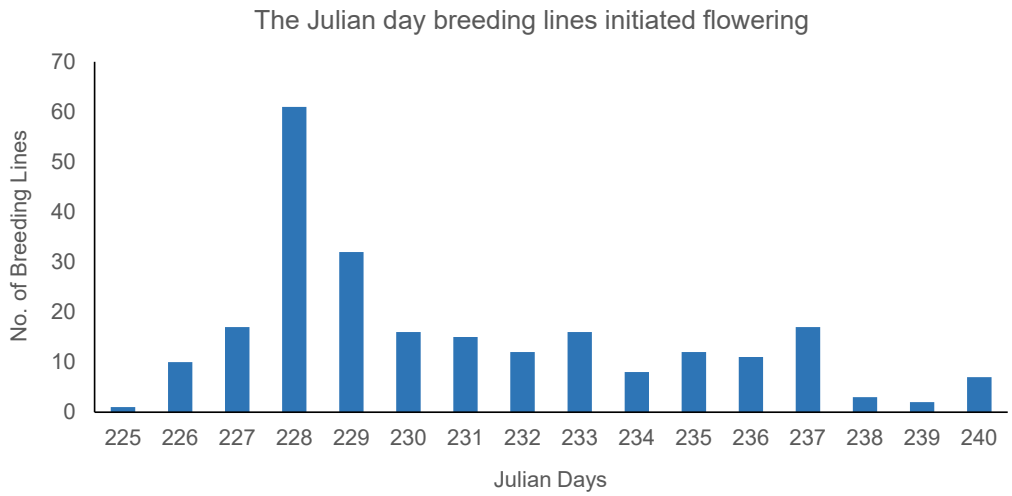
- Developed a large mutant population and now in the process of screening for herbicide tolerances and identifying genetic causes.





Images provided by Dr. Lars Kamphuis, CSIRO

Exploring alternative flowering windows in lupin



Thanks to


AGRICULTURE VICTORIA


AGT


CHICKPEA
BREEDING
AUSTRALIA
A GRDC and NSW DPI Collaboration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SOUTH
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Government
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Primary Industries
and Regions SA


SARDI
RESEARCH AND
DEVELOPMENT


THE UNIVERSITY
of ADELAIDE


GIWA
Grain Industry Association
of Western Australia

Merredin Field Pea NVT September 2019

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gia GRAINS INNOVATION AUSTRALIA

AGRICULTURE VICTORIA

Chickpea GT Investments

Chickpea Breeding & Pre-breeding Pipeline