



Department of
Primary Industries and
Regional Development

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What's new in decision support

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GRAINS RESEARCH
& DEVELOPMENT
CORPORATION



NetBlotchBM – a decision support tool for management of net blotches in barley

New barley tool due in mid-2023



- ❖ Phones and tablet devices
- ❖ Location specific climate risk
- ❖ Meta-analysis of +20 years of net blotch data from WA and Victoria plus some recent data from Queensland – agroecological zones
- ❖ National team of plant pathologists guiding development (Kith Jayasena, Geoff Thomas, Andrea Hills, Jason Bradley, Kylie Chambers, Mark McLean and Lisle Snyman)

UCI BlacklegCM – a decision support tool for management of upper canopy infection in canola



Released nationally July 2022



- ❖ Phones and tablet devices
- ❖ Location specific climate risk
- ❖ Steve Marcroft and national canola pathology team guided development
- ❖ Used all available data, current knowledge
- ❖ The tool will be updated each season as new information becomes available
- ❖ Currently not much known about varietal resistance

UCI Symptoms occur on flowers, peduncles, branches and pods



Flower infection
(photo Jean Galloway)



Branch infections



Pod infection
(photo Andrea Hills)

Spray decisions are made before UCI is visible



InVigor 4022P on 21 June 22

4:41 pm Thu 24 Nov 4G 39%

Nearest rainfall information Northern Crop growth stage at spray 30% bloom

Scenario (edit mode) Import Export Refresh

Crop circumstances

Target yield	2 t/ha	Spray cost	30 \$/ha spray
Yield range	1.8 to 2.1 t/ha	Mitigation by spray for UCI	75 %
Grain price	900 \$/t	Other diseases	
Grain price range	720 to 990 \$/t	Expected loss	0 %
Production cost	400 \$/ha	Weather Forecast	
Canola in district	20 %	Forecast wetdays next week	4
Distance 1 yo stubble	100 m	Forecast wetdays in week after next	3
Distance 2 yo stubble	1 km		

Current conditions

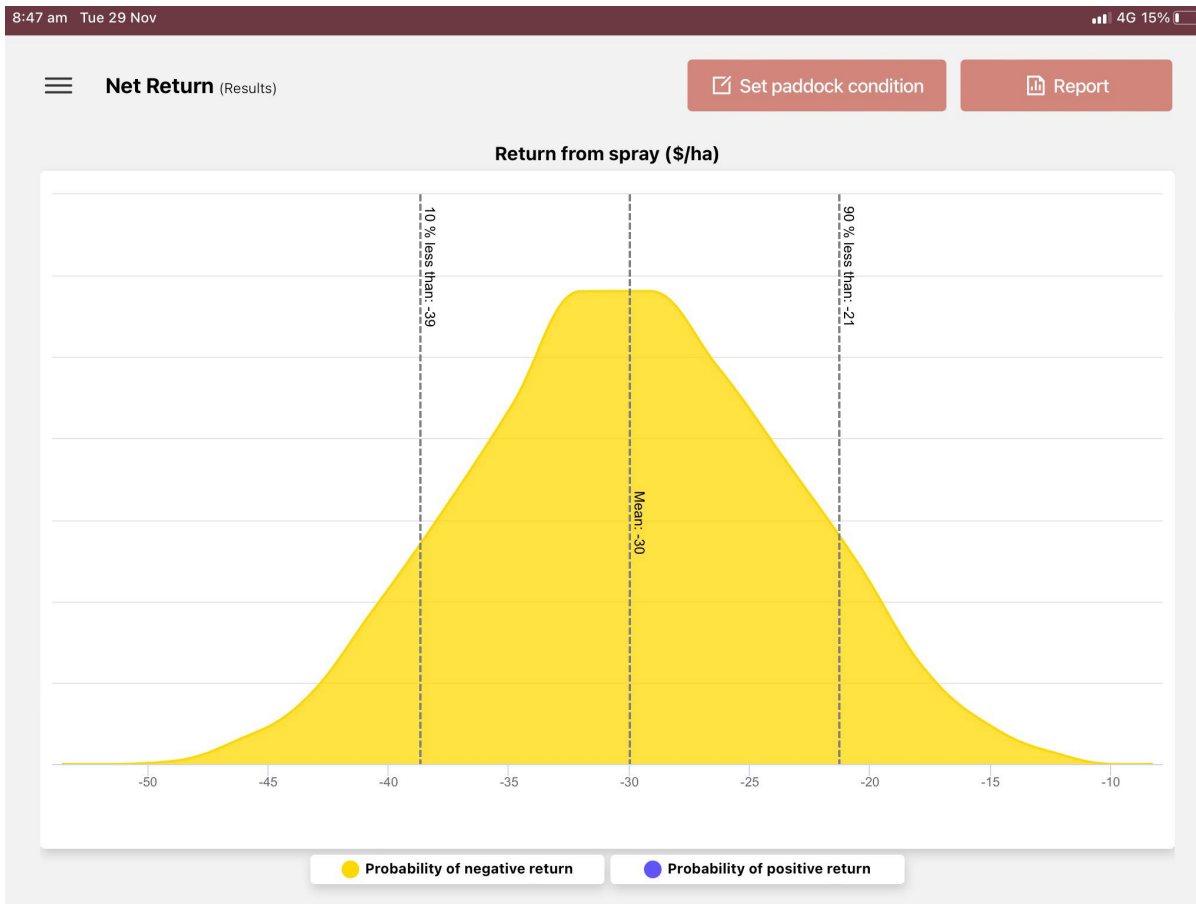
Lesions on leaves	<input checked="" type="checkbox"/>
Crop growth stage	First flower
Date at growth stage	2022-06-15

Show results >

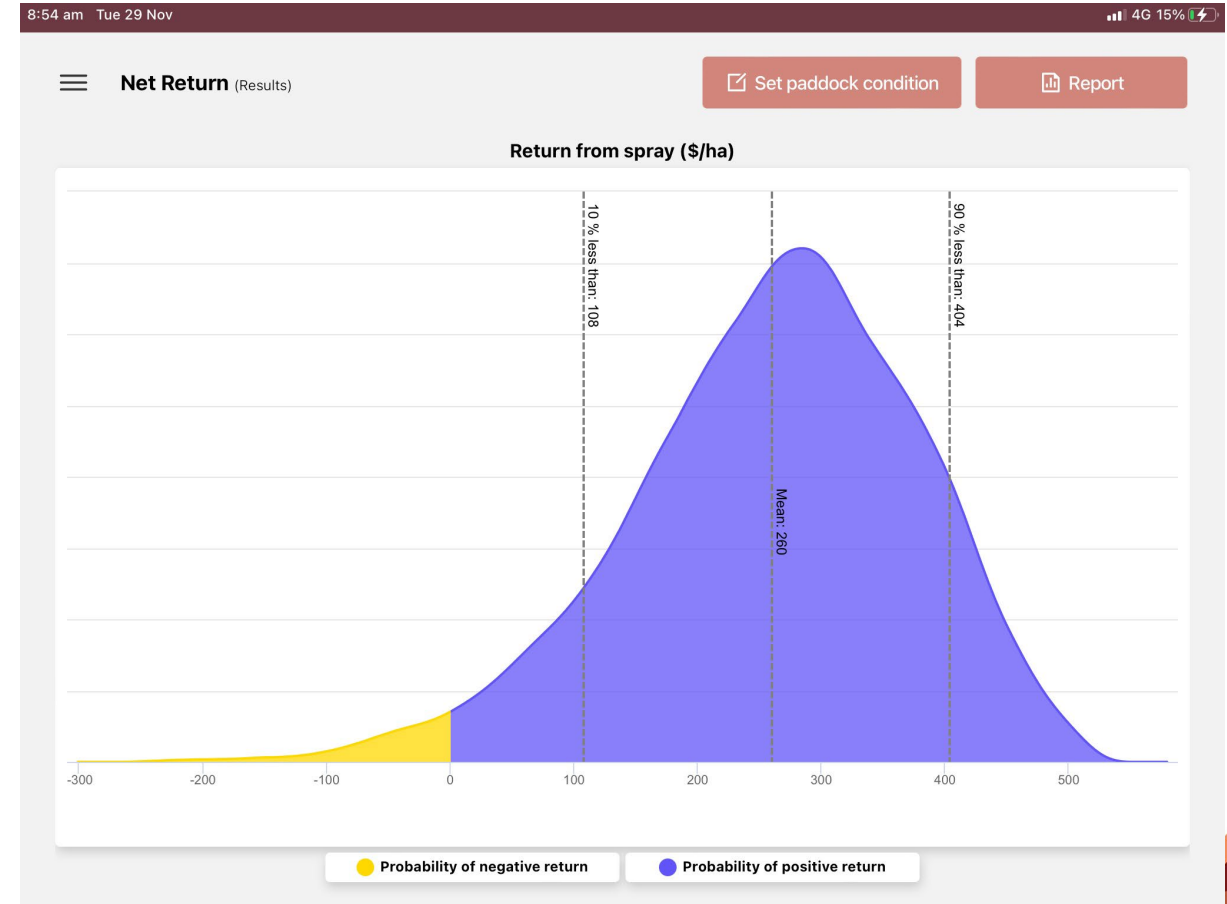
UCI BlacklegCM is currently heavily weighted for the presence of leaf lesions at the start of flowering

Indication that the major genes your variety has are not effective and crop will be susceptible to UCI

No leaf lesions – no probability of a positive return



Leaf lesions – strong probability of a positive return





BlacklegCM – a decision support tool for management of crown canker in canola

Updated blackleg variety resistance



- ❖ Tablet devices only
- ❖ Updated twice/year with the latest variety resistance information
- ❖ All variety information is supplied and checked by Marcroft Grains Pathology

Summary



Click on the 'Hamburger' icon

SCENARIO A SCENARIO B

- Crop circumstances ▶
- Paddock setup ▶
- Variety options ▼
 - Variety: Hyola 970CL (R , H) ⌵ 🔗
 - Seeding rate (2 kg/h) ⌵ 🔗
 - Resistance status: Not reduced ⌵ 🔗
- Fungicide options ▶

A		B		Difference	
Expected yield (t/ha)		Expected yield (t/ha)		Expected yield (t/ha)	
Minimum	1.3	Minimum		Minimum	
Mean	1.5	Mean		Mean	
Maximum	1.7	Maximum		Maximum	
Loss to blackleg (t/ha)		Loss to blackleg (t/ha)		Loss to blackleg (t/ha)	
Minimum	0.02	Minimum		Minimum	
Mean	0.05	Mean		Mean	
Maximum	0.08	Maximum		Maximum	
Net return (\$/ha)		Net return (\$/ha)		Net return (\$/ha)	
Minimum	175	Minimum		Minimum	
Mean	293	Mean		Mean	
Maximum	402	Maximum		Maximum	

*1 year in 10 values will be less than the minimum or more than the maximum

- Summary >
- Net return >
- Yield >
- Grain price >
- Disease impact >
- Mitigation by fungicide >
- Variety >**
- About >

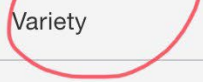
SCENARIO A SCENARIO B

- Crop circumstances ▶
- Paddock setup ▶
- Variety options ▼
 - Variety: Hyola 970CL (R , H) ⌵ 🔗
 - Seeding rate (2 kg/h) ⌵ 🔗
 - Resistance status: Not reduced ⌵ 🔗
- Fungicide options ▶

A		B	
Expected yield (t/ha)		Expected yield (t/ha)	
Minimum	1.3	Minimum	
Mean	1.5	Mean	
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Loss to blackleg (t/ha)		Loss to blackleg (t/ha)	
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Minimum	175	Minimum	
Mean	293	Mean	
Maximum	402	Maximum	

*1 year in 10 values will be less than the minimum or more than t

Choose variety from the drop down menu





Variety name	Resistance rating	Resistance group	Seed price (\$/kg)	Seed type	Herbicide tolerance	Endpoint royalties (\$/t)	Favourite	Note
InVigor R 4022P	MR	ABC	40	Hybrid	TF	0	★	
ATR-Bonito	MS	A	17	OP	TT	5	★	
Hyola 970CL	R	H	28	Hybrid	CL	0	☆	Winter
Hyola Equinox CL	R	ADF	28	Hybrid	CL	0	☆	
Hyola Feast CL	R	H	28	Hybrid	CL	0	☆	Winter
Phoenix CL	R	B	28	Hybrid	CL	0	☆	Winter
Pioneer 45Y93 CL	R	BC	28	Hybrid	CL	0	☆	
RGT Clavier CL	R	NO	28	Hybrid	CL	0	☆	Winter
RGT Nizza CL	R	B	28	Hybrid	CL	0	☆	Winter
Hyola Solstice CL	RMR	ADFH	28	Hybrid	CL	0	☆	
Pioneer 43Y92 CL	RMR	B	28	Hybrid	CL	0	☆	
Pioneer 44Y94 CL	RMR	BC	28	Hybrid	CL	0	☆	
Pioneer 45Y95 CL	RMR	C	28	Hybrid	CL	0	☆	

Thank you

dpird.wa.gov.au    

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