

2021

Platinum Ag

GM Canola & Technology Trial

Site

Malinong



PLATINUM

Ag Services

A NUTRIEN AG SOLUTIONS PARTNER

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Site Details

Rainfall

230mm Growing season rainfall

295mm Year to date

165mm in June and July

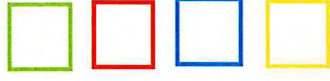
Fertiliser

Pre- Seeding	150 kg SSP 100 kg MOP
Seeding	40kg MAP
Spread 1	200kg SOA
Spread 2	140 kg UREA
Total nutrients applied	630 kg

Paddock VR limed

12T – 8ha 1.5 T/ha Average

Trial Site Plan



- Imi Cereal Matrix
- Canola Herbicide matrix
- Demo Strips GM Canolas
- Canola post em demo

DEMO STRIPS

	Variety	Supplier	Trait	Comment
1	44Y94CL	Gentech Seeds	Clearfield	Non GM District Standard CLR
2	45Y28RR	Gentech Seeds	Roundup Ready	GM Roundup Ready
3	InVigor T4510	BASF	Triazine Tolerant	Non GM District Standard TT
4	Hyola Enforcer CT	Advanta Seeds	Clearfield, Triazine Tolerant	Non GM Stacked
5	Hyola 540 XC	Advanta Seeds	TruFlex, Clearfield	GM Stacked
6	Xseed Raptor	Nuseed	TruFlex	GM
7	Hyola 530XT	Advanta Seeds	TruFlex, Triazine Tolerant	GM Stacked
8	InVigor 4022P	BASF	TruFlex, Podguard	GM Stacked
9	InVigor 4530P LT	BASF	LibertyLink, Triazine Tolerant, Podguard	GM Stacked

Current Commercial GM Traits

	GM Trait - Glyphosate tolerance trait allowing the spraying of glyphosate between cotyledon and first flower. Registered Herbicides: Crucial, Roundup Ready Plantshield Maximum Rate – 900g/a Glyphosate in one application (Crucial @ 1.5L/ha) Total Maximum applied to Crop – 1800g/a (Crucial @ 3L/ha)
	GM Trait - The pod guard trait really comes into play at harvest where it can increase yield and reduce losses through mechanical shattering. Extra pod fill and extended harvest window. Average 13% yield benefit over non pod guard varieties in trials.
	Non GM Trait - Triazine tolerant technology which allows the application of triazine herbicides, pre-emergent, post sowing pre-emergent and post emergent up to the two-leaf stage. Can be very useful in the herbicide rotation system as group C herbicides are often not used anywhere else in the system. Registered Herbicides: Atrazine, Simazine, Terbethylazine Total Maximum Applied to crop – 2.2kg/ha
	Non GM Trait - Clearfield trait which allows the use of imidazolinone herbicide groups on the crop. Can be active on a range of weeds including annual grasses and some broadleaf weeds. Can be extremely useful in the cropping system due to the persistence of the herbicide. Registered Herbicides: Sentry, Intercept, OnDuty, Intervix Total Maximum Applied to crop – Sentry 55g/ha, Intervix 750ml/ha
	GM Trait - Good way to introduce a new mode of action into the herbicide rotation. Unique MOA (group 10 or old group N) allows better control of annual grasses that may have a resistance to clethodim and glyphosate. Liberty causes a breakdown of enzymes leading to a build up of Ammonium within the plant, disrupting photosynthesis. Predominantly contact herbicide so requires good coverage. Requires two sequential sprays on the crop when weeds are at the 2-4 leaf stage, the sprays can be done 7-14 days apart. Registered Herbicides: Liberty 200 Total Maximum Applied to crop – 7.5L/ha
	GM Trait - The Roundup Ready technology allows for the use of glyphosate post emergence in canola. The Roundup Ready trait allows for spraying of up to 1200g/a of Glyphosate between crop emergence and the 6 leaf crop stage, prior to bud formation. Maximum Rate – 600g/a Glyphosate in one application (Crucial @ 1.5L/ha) Total Maximum applied to Crop – 1200g/a (Crucial @ 3L/ha)

NEW

GET THE
Y SERIES®
GENETIC ADVANTAGE

NEW PIONEER® HYBRID 44Y94 CL



PIONEER®
BRAND • SEEDS

AN EXCITING NEW HYBRID OFFERING MORE OPTIONS IN THE EARLY-MID SEASON CLEARFIELD® SEGMENT

The newest addition to the Y Series portfolio, 44Y94 CL offers an impressive package of agronomic traits and performance. Excellent early season growth coupled with outstanding yield and oil potential delivers greater returns per hectare.

KEY FEATURES

- Highly adaptable to suit a range of growing zones including dryland and irrigation.
- Early-mid (4) maturity, displaying excellent adaptability. Ideally suited to low to medium rainfall growing zones.
- The combination of both major gene & polygenic blackleg resistance alongside market leading seed treatments offers a robust blackleg management package.
- Exceptional early growth resulting in superior crop competition and early canopy closure resulting in enhanced weed control and reduced weed seed set.

AGRONOMIC PROFILE

Product type: Y Series® Clearfield® hybrid

Herbicide tolerance trait: Tested for tolerance to imidazolinone herbicides, OnDuty® and Intervix®.

Maturity: Early-mid season (4)

Phenology Class: Mid-fast

Blackleg rating: R*

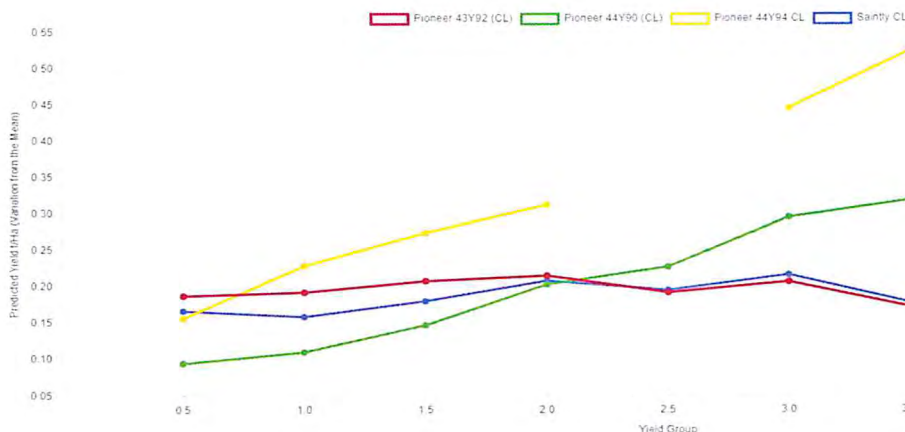
GRDC Blackleg Group: B,C

Grain oil content:	8
Plant vigour:	9
Plant height:	7
Crop standability:	8
Shatter tolerance:	8
Grain test weight:	9

RATING: 1 = poor 9 = excellent

*2020 GRDC rating with standard Beta Strike® treatment

GRDC Long Term MET Yield Report (Imidazolinone Tolerant Canola NSW, SA, VIC, WA - All Regions)



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Exclusive product distributor
of Pioneer® brand products

**A YATES FAMILY
BUSINESS**

**Y SERIES
CANOLA**

Clearfield®
Production System for Canola



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NEW

GET THE
Y SERIES®
GENETIC ADVANTAGE

NEW PIONEER® HYBRID 45Y28 RR



PIONEER®
BRAND • SEEDS

EXCITING NEW MID MATURITY ROUNDUP READY HYBRID THAT TRUMPS THE PERFORMANCE OF CURRENT SEGMENT LEADERS

This Exciting Y Series® hybrid combines market leading yield potential and oil content to deliver greater income per hectare. Coupled with an unmatched agronomic package of medium plant height, excellent standability and harvestability, makes for an easy decision when selecting a mid maturity Roundup Ready® hybrid.

KEY FEATURES

- Sets a new industry benchmark for performance and profitability in the mid Roundup Ready® segment.
- Mid (5) maturity, with Phenology class of Mid for April sowing.
- Ideally suited to medium and high rainfall environments. New Roundup Ready® planting option under irrigation.
- Medium plant structure, exceptional standability and uniform ripening aids ease of management and direct heading.
- Delivers excellent early growth resulting in superior crop competition and early canopy closure resulting in enhanced weed control.
- Recommended planting partner to Pioneer® 44Y27 RR.

AGRONOMIC PROFILE

Product type: Y Series® Roundup Ready® hybrid

Herbicide tolerance trait: Tested for tolerance to the registered formulation of Roundup® herbicide for in-crop application in canola.

Maturity: Mid season (5)

Phenology Class: Mid

Blackleg rating: R*

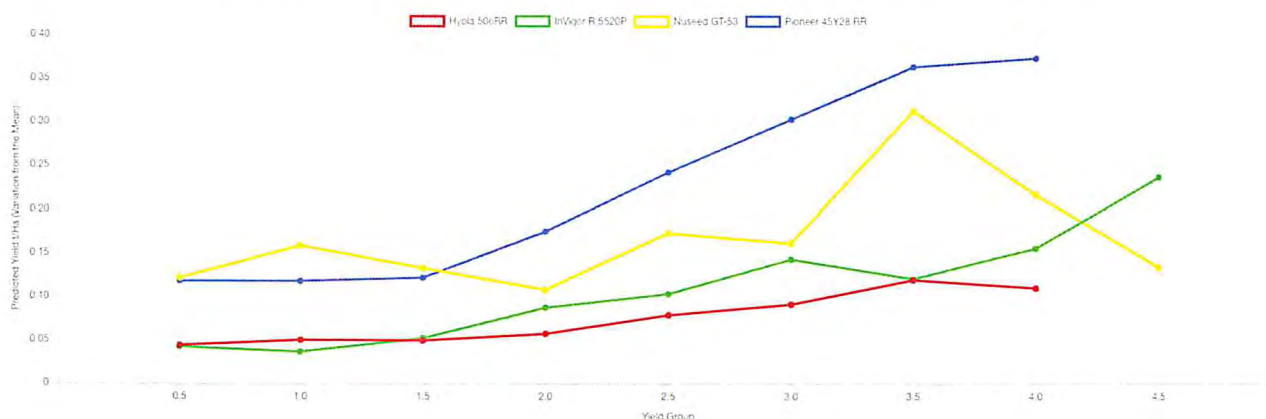
GRDC Blackleg Group: B, C

Grain oil content:	9
Plant vigour:	9
Plant height:	7
Crop standability:	8
Shatter tolerance:	8
Grain test weight:	9

RATING: 1 = poor 9 = excellent

*2018 GRDC rating with standard Betta Strike® treatment

2014-2018 GRDC Long Term Yield Chart - Mid Roundup Ready, National Data.



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WITH YOU
FROM
THE WORD

GO



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MySeed®

**CONFIDENCE
GROWS
HERE**

**The proven performer
you can bank on**



InVigor® T 4510 has been offering growers solid and dependable performance across a range of growing regions since it was first trialled in 2013. That's why it's one of the most popular TT hybrids on the market.

So why choose InVigor T 4510?

- Higher yields and gross margins than other well-established TT hybrids.
- Great financial returns when compared to farmer-retained TTs.
- Ideally suited to low-medium to medium rainfall areas – offering solid results in an average season and great results in a good one.

Plus, enjoy all the MySeed program benefits:



Pay@Harvest™

Sow and grow this top performing InVigor variety and don't pay a cent until **Nov. 30, 2021**. See your agent or visit myseed.com.au



Replace MySeed™

Our seed replacement guarantee** to help you offset risk in your program.

** Terms and conditions apply. Visit myseed.com.au for details.

VARIETY PROFILE

Herbicide tolerance: Triazine Tolerant

Flowering maturity: Early-Mid (4.5)

Blackleg rating: R (with ILeVO® or Jockey® Stayer®)
MR (with EverGol® Xtend)

Blackleg grouping: BF

Alternative to: Hyola® 559TT, Hyola 650, 44T02, HyTTec® Trophy, SF Turbine, SF Ignite, DG 670, Stingray, Bonito, Wahoo

Vigour: Excellent

Oil: Good

Plant height: Medium

Lodging resistance: Good

PodGuard®: No

SEED TREATMENT OPTIONS

Poncho Plus
Insecticidal Seed Treatment

A highly effective broad spectrum insecticide.

+ either:

ILeVO
Seed Treatment Fungicide

The new benchmark treatment for blackleg.

or

Jockey Stayer

Blackleg suppression.

or

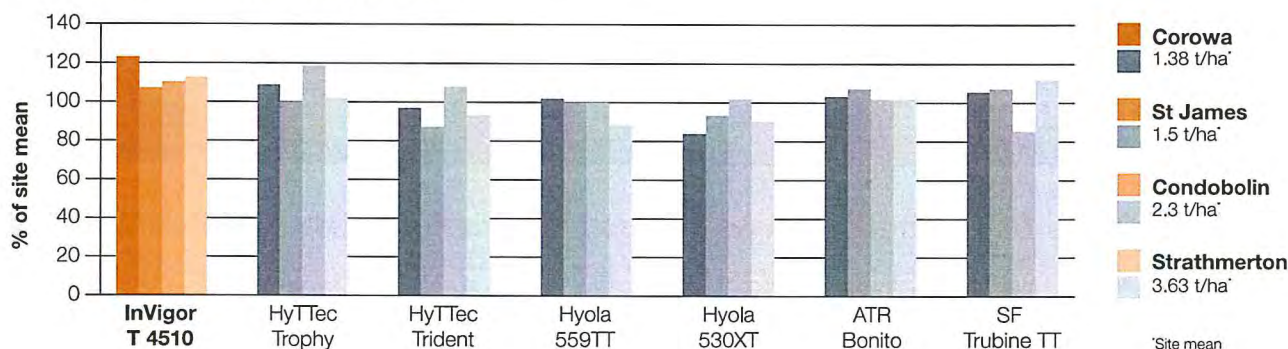
EverGol Xtend

Advanced control of Rhizoctonia and Fusarium.

BASF
We create chemistry

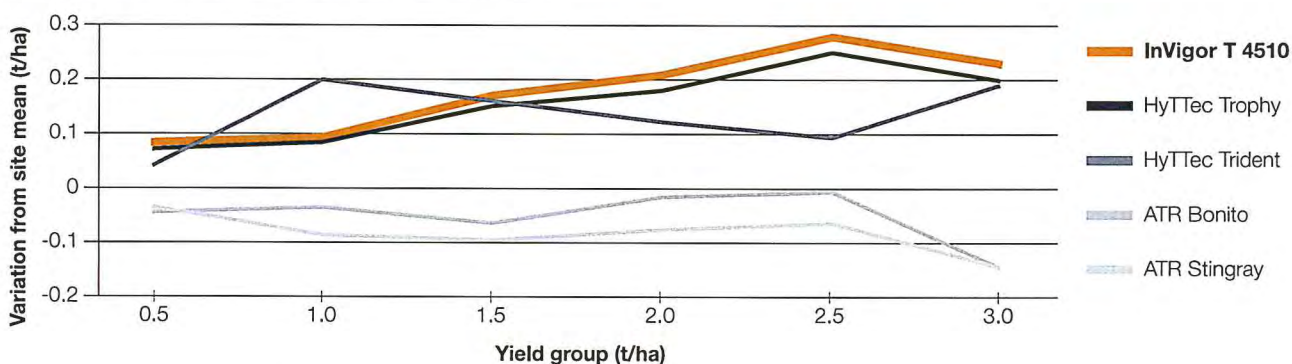
Consistent results across varying conditions

2019 trial results across multiple sites



AGnVET/IK Caldwell 2019 canola variety trial results.

Long-term NVT results in NSW, SA and Victoria



Long-term predicted results from all SA, NSW and Vic early-season TT NVTs.

A profitable alternative to OPs

Still growing OP TTs? There's enormous value in switching to InVigor T 4510. The average gains in yield and profit shown here are based on three years of NVT data comparing Bonito with InVigor T 4510.

	NSW	SA	VIC	WA
EXTRA YIELD/ha =	360 kg	350 kg	400 kg	380 kg
EXTRA PROFIT/ha =	\$137	\$131	\$159	\$148

Yields based on long-term mid NVTs 2016–18. Profitability calculations based on these assumptions: canola grain delivery price \$550/t, hybrid seed cost \$70/ha sown at 2.5 kg/ha, farmer-retained Bonito graded and treated cost \$10/ha sown at 3 kg/ha. Additional Bonito cost of \$5/t EPR on grain delivery has not been factored in.

myseed.com.au

BASF Australia Ltd. ABN 62 008 437 867. Level 12, 28 Freshwater Place, Southbank, Vic 3006.

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HYOLA 540XC



TruFlex[®]
CANOLA Technology

Clearfield[®]
Production System

World's first TruFlex[®] + Clearfield[®] dual tolerant canola hybrid from Pacific Seeds



CANOLA

HYBRID ATTRIBUTES

XC technology shows up to \$750/ha value in crop protection from group B IMI soil residue (*PSPE application timing)

Excellent crop protection for group B IMI soil residue management as an enhanced risk mitigation tool after low rainfall summer dry profiles

Reliable 5 series hybrid with competitive yield potential with specific adaptation to the 1.75t/ha to 3.50t/ha growing regions

High blackleg rating of "R" official canola industry rating

Good lodging resistance, even flowering and manageable height for direct harvesting

No vernalisation hold, with a moderate thermal time requirement: i.e. Early sowing leads to earlier flowering maturity

Yield adaptability	1.75 - 3.5t/ha
Blackleg rating	R
Blackleg groups	BF (P)
Oil potential	Moderate - High
Herbicide tolerance	XX + CL
Maturity	Mid - Early
Plant vigour	8
Plant height	Medium - High
#Lodging resistance	9
**Shatter tolerance	8
^Hectolitre weight	8
Growing regions	NSW, SA ⁺ , Vic, WA
Irrigation/dryland	Both
Alternatives to	Xseed Raptor, 45Y28, GT53, InVigor R5520P, InVigor 4022P

+ means only if approved for commercial release in 2021 by SA government regulations.

(P) Indicates provisional rating and blackleg groups from Pacific Seeds blackleg nurseries and R gene screening
Indicates observed visual rating from Pacific Seeds R&D internal replicated research trial evaluations

*Indicates observed visual rating from Pacific Seeds R&D internal replicated research trial evaluations

**Indicates observed visual rating from Pacific Seeds R&D replicated research trial evaluations comparing Hyola products

^ Indicates calculated weight rating from Pacific Seeds R&D internal replicated research trial evaluations

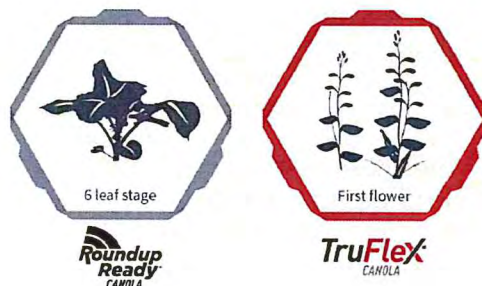
Scale: 1 = poor - 9 = best

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Roundup Ready[®] and Truflex[®] are trademarks of Monsanto Technology LLC, used under license from Monsanto Australia Pty Ltd

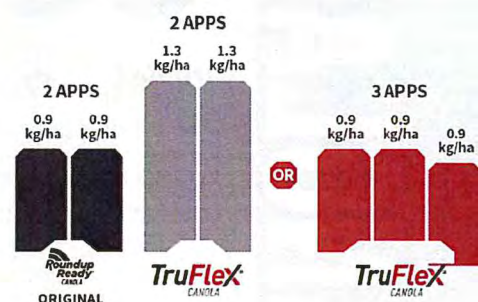
HYOLA XC - GROWER BENEFITS OF TRUFLEX TECHNOLOGY

EXTENDED SPRAY WINDOW EMERGENCE TO FIRST FLOWER



The window of application for Roundup Ready Herbicide with PLANTSHIELD by Monsanto will extend past the six-leaf stage all the way to first flower.

THE RATE FARMERS NEED FOR THEIR WEED CHALLENGES*



- * Of Roundup Ready Herbicide with PLANTSHIELD by Monsanto.
- * Either apply three applications at 0.9 kg/ha or apply two applications of 1.3 kg/ha of Roundup Ready Herbicide with PLANTSHIELD by Monsanto.

One of the smartest routes to high yield potential is through effective weed control. Here's how TruFlex® canola with Roundup Ready® Technology can help make it happen:

WEED CONTROL GROWERS CAN RELY ON

TruFlex® canola with Roundup Ready® Technology and Roundup Ready® Herbicide with PLANTSHIELD® by Monsanto were designed to work with each other. This combination provides you with the tools you need to effectively control weeds in your canola fields.

FLEXIBILITY IN SPRAY RATES AND TIMING

TruFlex canola gives you increased weed control flexibility. The window of application for Roundup Ready Herbicide with PLANTSHIELD by Monsanto will extend past the six-leaf stage to first flower. From emergence to first flower either apply three applications at the current rate of 0.9 kg/ha or apply two higher rates of 1.3 kg/ha.

SUPERIOR YIELD POTENTIAL

New advances in trait technology will help enable better weed control and crop safety compared to Roundup Ready® canola. It's a combination that could give you the opportunity to see a lot more yield potential at harvest time.

TruFlex®
CANOLA with Roundup Ready® Technology

HYOLA XC - CLEARFIELD HERBICIDE CHEMISTRY MANAGEMENT

When utilising the XC technology, a sound IWM strategy utilizing alternative modes of action across pre-emergent, post emergent and fallow application in different crops should be adopted.

Also, the ongoing strategy should consider non-herbicide control measures such as harvest weed seed control (chaff carts, seed destructors, narrow windrow burn, chaff lining, Chaff baling etc.).

Clearfield canola

Apply to canola crop at the 2 to 6 leaf stage. Apply to actively growing weeds in the 3-leaf to 2-tiller stage and broadleaf weeds in the 2 to 6 leaf stage. DO NOT apply **Clearfield** canola after 6 leaf stage.



To preserve the effectiveness of any herbicide a good resistance management approach is recommended. Intervix herbicide is a Group B herbicide. Other group B (ALS inhibitors) include sulfonylureas, and triazolopyrimidines (sulphonamides). To assist with resistance management, rotate Clearfield winter crops with spring crops to break the cycle of winter annual weeds and allow the use of alternate site of action herbicides.

If winter cropping is rotated with a fallow season, control weeds before they set seed and use alternate mode of action herbicides. ALS-inhibiting herbicides should not be used more than 2 out of 4 years.

This aligns well with the industry WEEDSMART's "The Big 6" basis for an IWM program (<https://weedsmart.org.au/the-big-6/>), which can be summarized as followed:

1. ROTATE CROPS AND PASTURES
2. DOUBLE KNOCK – TO PRESERVE GLYPHOSATE
3. MIX AND ROTATE HERBICIDES
4. STOP WEED SEED SET
5. CROP COMPETITION
6. HARVEST WEED SEED CONTROL

BASF
We create chemistry

Clearfield
Production System

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HYOLA GARRISON XC



TruFlex
CANOLA with Roundup Ready® Technology

Clearfield
Production System

High yielding TruFlex® + Clearfield® hybrid protecting growers' investment & returns



HYBRID ATTRIBUTES

XC stacked technology shows up to \$1550/ha* value in crop protection from group B IMI soil residue (*Summer application timing)

Excellent crop protection for group B IMI soil residue management as an enhanced risk mitigation tool after low rainfall summer dry profiles

Competitive grain yields across MRZ-HRZ rainfall zones across Australian environments vs hybrids Raptor TF, InVigor R 4022P, 43Y29, InVigor R 4520P, Hyola 410XX and DG408RR

High quantitative resistance with a blackleg rating of "R" with Tri-gene groups ADF, great for rotating effective combinations of major genes

Good lodging resistance, even flowering and manageable height for direct harvesting

Good early plant vigour and biomass similar to Hyola 410XX

Yield adaptability	1.5 - 3.5t/ha
Growing Zones	MRZ - HRZ
Blackleg Rating/Groups	R - ADF
Oil potential	High
Herbicide tolerance	XX + CL
Maturity	Mid
*Plant vigour	8.5
Plant height	Medium - High
#Lodging resistance	8.0
**Shatter tolerance	8.0
^Hectolitre weight	8.0
Growing regions	NSW, SA, Vic, WA
Irrigation/dryland	Both
Alternative to	Raptor TF, Condor TF, InVigor R 4022P, 44Y27, 43Y29, 45Y28, InVigor R 4520P, DG408RR, Hyola 410XX

Indicates observed visual rating from Pacific Seeds R&D internal replicated research trial evaluations

*Indicates observed visual rating from Pacific Seeds R&D internal replicated research trial evaluations

**Indicates observed visual rating from Pacific Seeds R&D replicated research trial evaluations comparing Hyola product

^ Indicates calculated weight rating from Pacific Seeds R&D internal replicated research trial evaluations

Scale: 1 = poor - 9 = best

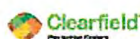
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HYOLA ENFORCER CT



**CLEARFIELD®
+ TRIAZINE TOLERANT**



High yielding Clearfield® + Triazine hybrid
protecting growers' investment & returns



HYBRID ATTRIBUTES

CT Technology shows up to \$1000/ha*
value in crop protection from Group B
IMI soil residue (*Summer application
timing)

Dual herbicide tolerance perfectly
designed for use of either or both
chemistries in IWM cropping
rotations and for herbicide resistance
management

High grain yields and oil% with
competitive gross returns in \$/ha across
some environments vs hybrids; InVigor
T4510 and HyTTec Trophy.

Specifically adapted to the 1.25t/ha to
3.5t/ha growing regions

Excellent Blackleg Tri-Gene Rating of R,
much higher resistance than all OP TT
varieties

Excellent early vigour providing higher
weed suppression than most OP TT
varieties

Additional protection from boom spray
contamination with IMI residues in tank

Yield adaptability	1.25 - 3.5t/ha
Growing Zones	MRZ - HRZ
Blackleg rating/groups	R - ADF
Oil potential	High
Herbicide tolerance	CL + TT
Maturity	Mid - Early
Plant vigour	7.5
Plant height	Medium
#Lodging resistance	7.0
**Shatter tolerance	8.0
^Hectolitre weight	8.0
Growing regions	NSW, SA, Vic, WA
Irrigation/dryland	Both
Alternatives to	HyTTec Trophy, InVigor T4510, InVigor T6010, RGT Capacity TT, ATR Bonito, ATR Wahoo, HyTTec Trifecta

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internal replicated research trial evaluations

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replicated research trial evaluations comparing Hyola products

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internal replicated research trial evaluations
Scale: 1 = poor - 9 = best

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Xseed™ Raptor

Weed control is about to get a little bit easier for you.



With the security of Nuseed's canola genetics and TruFlex® herbicide technology, you can get on top of those difficult paddocks with **Xseed™ Raptor**.

Xseed Raptor will transform your weed control strategy with a whole new battle plan, combining Nuseed's market-leading breeding program with cutting-edge **TruFlex® technology**. **Xseed Raptor** is an early-mid maturing canola hybrid which has shown robust yield performance against current **Roundup Ready®** hybrid varieties in both NVTs and internal trials.

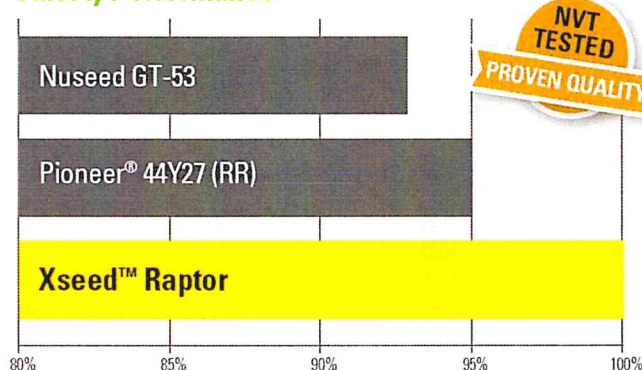
In the fight for weed control and paddock performance, you'll want **Xseed Raptor** on your side.

TruFlex®
CANOLA with Roundup Ready® Technology

Key Points

- Robust yield performance against current Roundup Ready® varieties
- All the benefits of next generation TruFlex® technology to give you a wider spray window
- The security of Nuseed's superior hybrid genetics so you know there's quality in every single seed of **Xseed Raptor**

Variety Performance



Yield % is an average of trial mean yield. 12 NSW & VIC NVT and T3 trials with all varieties represented, with an average trial mean yield of 2.00MT/HA (2019). Information based on data available as at 14/03/2020.

Description

Development Code	NCH15Q290
Bag size	20kg
Maturity	Early-Mid
Type	F1 Hybrid
Blackleg rating	R*
Blackleg group	AD
Height	Medium
Alternate to	Nuseed GT-53, Hyola 404RR, Pioneer®44Y25 & 44Y27, InVigor R5520P
Recommended growing areas	WA, VIC, NSW

*2020 Blackleg rating bare.

Variety Comparison

Variety	Nuseed GT-53	Pioneer® 44Y27 (RR)	Xseed™ Raptor
Type	Hybrid	Hybrid	Hybrid
Blackleg Rating*	R	R-MR	R
Oil Average (%)	41.88	41.65	42.77
Yield Average (MT/HA)	1.86	1.91	2.00
Yield % of Trial Mean	93%	95%	100%

12 NSW & VIC NVT and T3 trials with all varieties represented, with an average trial mean yield of 2.00MT/HA (2019). Information based on data available as at 14/03/2020. For the most up-to-date NVT Data in your region please contact your local Nuseed representative today.

 **NUSEED®**

HYOLA 530XT



TruFlex
CANOLA Technology

World's first TruFlex® + Triazine dual tolerant canola hybrid from Pacific Seeds



CANOLA

HYBRID ATTRIBUTES

Dual herbicide tolerance perfect for IWM cropping rotations

Management tool for herbicide resistant weeds and addressing Clethodim resistance

New improved genetics with a reliable blackleg tri-resistance groups combination of A, B, D

Great lodging resistance, even flowering and shorter height perfect for direct harvesting

Reliable 5 series hybrid with competitive yield potential

Specifically adapted to the 1.5t/ha to 3.5t/ha growing regions

Very high oil content similar to Hyola 404RR to provide additional bonuses at harvest time

Yield adaptability	1.5 - 3.5t/ha
Blackleg rating	R-MR (P)
Blackleg groups	ABD (P)
Oil potential	High
Herbicide tolerance	XX + TT
Maturity	Mid
Plant vigour	7
Plant height	Medium
#Lodging resistance	7
*Shatter tolerance	8
^Hectolitre weight	8
Growing regions	NSW, Vic, WA, SA ⁺
Irrigation/dryland	Both

+ means only if approved for commercial release in 2020 by SA government regulations.

(P) Indicates provisional rating and blackleg groups from Pacific Seeds blackleg nurseries and R gene screening

Indicates observed visual rating from Pacific Seeds R&D internal replicated research trial evaluations

*Indicates observed visual rating from Pacific Seeds R&D internal replicated research trial evaluations

^ Indicates calculated weight rating from Pacific Seeds R&D internal replicated research trial evaluations

Scale: 1 = poor - 9 = best

Roundup Ready® and TruFlex® are trademarks of Monsanto Technology LLC, used under license from Monsanto Australia Pty Ltd.

CHOOSE FREEDOM

with extra in-crop flexibility



InVigor® LT 4530P



Choose the freedom to use a new MoA **plus** hybrid TT performance **plus** extra harvest flexibility

As Australia's first LibertyLink® canola variety InVigor® LT 4530P will give you a new level of flexibility in post-emergence weed control as well as delivering competitive yields locked in by exceptional pod resilience at harvest.

So why choose InVigor LT 4530P?

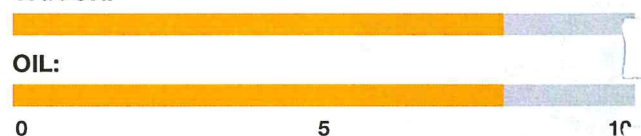
This ground-breaking variety combines tolerance of both Liberty and triazine herbicides with the flexibility of PodGuard® so you can:

- Introduce a new herbicide MoA into the cropping system
- Improve control of annual ryegrass with resistance to glyphosate and clethodim
- Reduce the selection pressure on all other post-emergent herbicides
- Maintain the benefits of atrazine with Liberty herbicide as needed
- Use the flexibility of PodGuard to give you more yield protection and better choices at harvest
- Gain early experience in getting the best results from an important new herbicide

Variety profile:

Herbicide tolerances:	LibertyLink + Triazine Tolerant
Maturity:	Early-Mid (4.5)
Blackleg rating:	R* (with ILeVO®)
Blackleg group:	BF
PodGuard®:	Yes
Height:	Medium

VIGOUR:



* Breeders assessment...

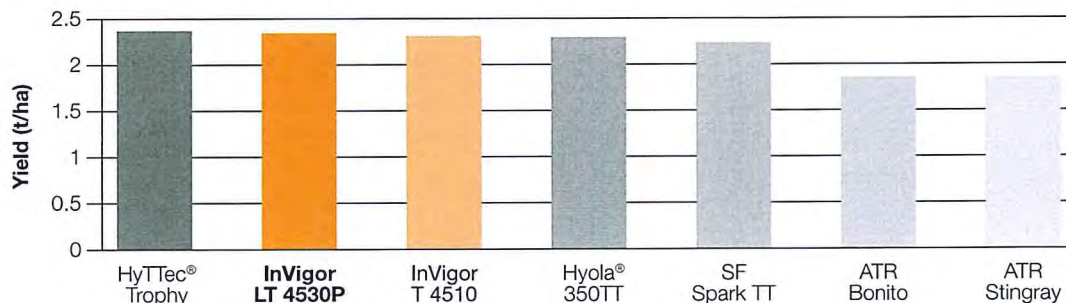


InVigor[®] LT 4530P

TT hybrid performance

As well as improving weed management, InVigor LT 4530P delivers strong hybrid yields to help you keep canola in the rotation.

Averaged results from nine BASF trial sites



TRIAZINE TOLERANT

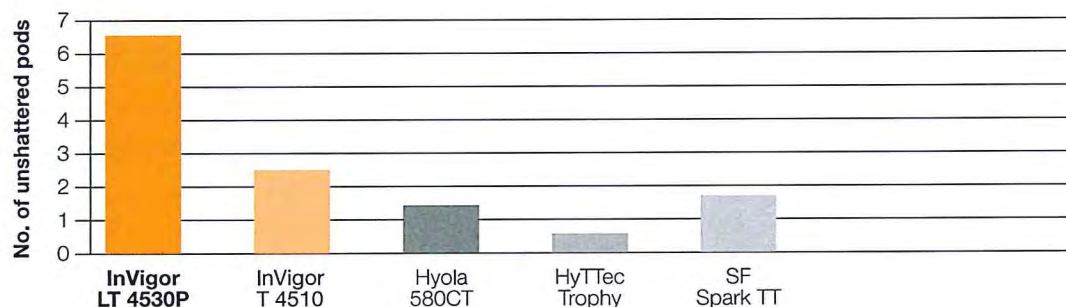
InVigor LT 4530P is competitive with the leading TT hybrids

Average 2019 BASF internal trial results
Trial code: A9N86F

Added flexibility at harvest

These results show just how much more resilient our unique PodGuard trait makes mature pods, reducing the losses associated with delayed windrowing, direct heading and extreme weather at harvest.

Comparative pod strength



MUCH stronger pods protect yields against extreme weather

Random impact testing, Longerenong 2020. No. of unshattered pods out of 20 after 90 seconds @5 Hz. LSD = 3

Grow your InVigor hybrid canola variety with extra MySeed[®] confidence



Replace MySeed[™]

You're covered for the first 45 days if your crop fails to establish and you have to re-sow.



Pay@Harvest[™]

Pay nothing for your InVigor[®] hybrid seed until Nov. 30, 2022.

- ✓ No contracts
- ✓ Trait technology fees included
- ✓ Straightforward online stewardship training

Terms and conditions apply.

The best seed comes with the best seed treatments:

Poncho[®] Plus

Insecticide

A highly effective broad-spectrum insecticide



Seed Treatment Fungicide

A powerful fungicide for protection against blackleg

Find out more at myseed.basf.com.au

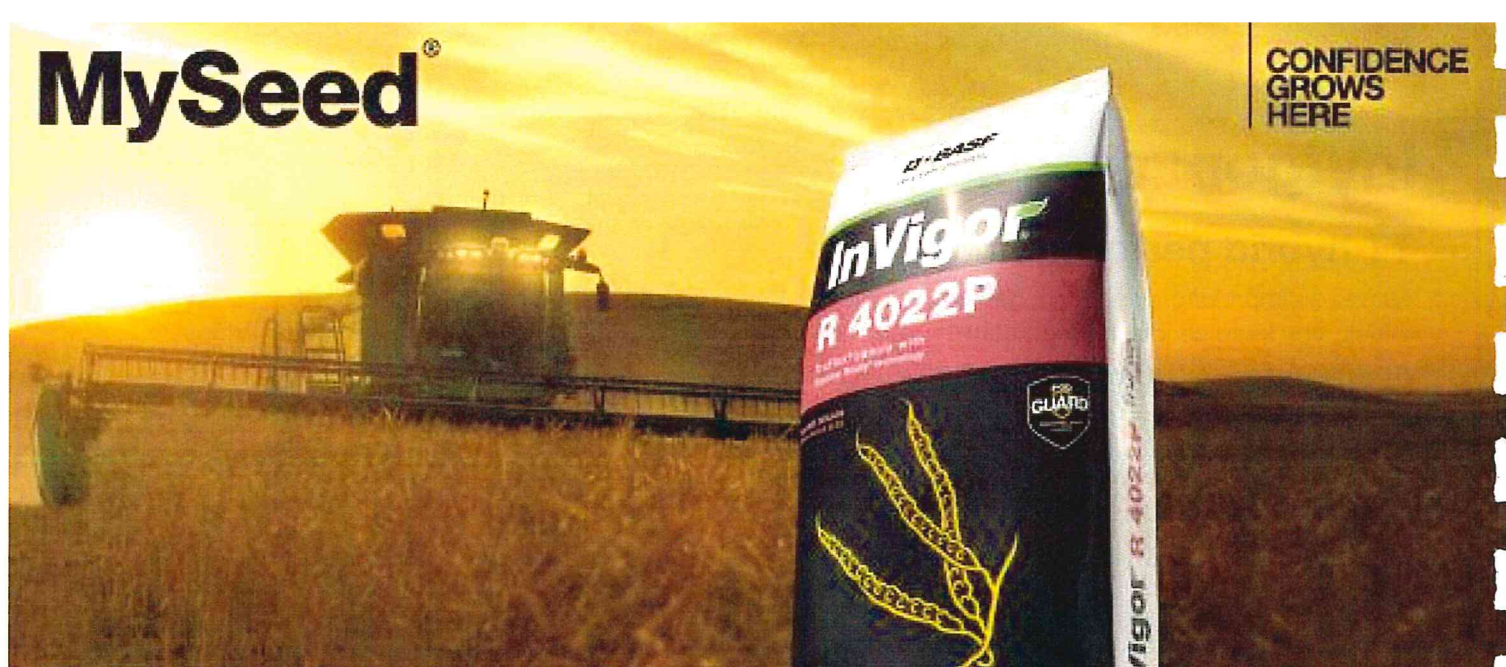
BASF Australia Ltd. ABN 62 008 437 867. Level 12, 28 Freshwater Place, Southbank, Vic 3006.
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BASF
We create chemistry

LIBERTY LINK

MySeed®

CONFIDENCE
GROWS
HERE



InVigor® R 4022P

TruFlex®
CANOLA with Roundup Ready®
Technology



Get higher yields
plus unrivalled harvest
flexibility **plus** superior
weed control

This game-changing InVigor® variety combines BASF's unique PodGuard® trait technology and TruFlex® with Roundup Ready® technology to give growers greater yield potential and true flexibility from sowing to harvest.

So why choose InVigor R 4022P?

It is a high-yielding and highly blackleg-resistant variety that has performed well in industry trials, making it ideal for growers seeking the added security and comfort of growing a variety with:

PodGuard:

- Greater flexibility to harvest when you're ready
- Windrow later to achieve maximum pod fill
- Direct head when you're ready, even bigger crops
- Less loss through mechanical shattering during harvesting or unpredictable weather

PLUS

TruFlex with Roundup Ready technology:

- Extended application window from emergence to first flower
- Greater flexibility in spray rates to help improve weed control

Variety profile:

Herbicide tolerance:	Roundup Ready
Maturity:	Early-Mid (4)
Rating:	R (with ILeVO®)
Blackleg group:	ABC
PodGuard:	Yes
Height:	Medium

VIGOUR:



OIL:



0 5 10
Rating: 0 = Poor 10 = Excellent

BASF
We create chemistry

Enjoy the benefits of true flexibility that only InVigor R 4022P can deliver

Extended spray window
– greater flexibility in spray rates to help improve weed control

NEW TruFlex
CANOLA Technology

ROUNDUP READY
Emergence to 6-leaf

Extended harvest window with PodGuard varieties
Windrow later or direct head with less risk of shattering and yield loss.
90% seed colour change.

InVigor R 4022P

STANDARD VARIETY

YIELD

YIELD

THE PODGUARD PADDOCK ADVANTAGE

Replace MySeed™

You're covered by our 45-day crop establishment cover.**

60-70%
seed colour change. Windrow ordinary TruFlex varieties here.

- ✓ Plant additional canola with more time to harvest
- ✓ Worry less about the threat of extreme weather
- ✓ Allow time for the whole paddock to mature
- ✓ Direct head or windrow
- ✓ Harvest more valuable crops first
- ✓ Up to 13%* yield gain through extra pod fill and less shattering during the harvest process

**Terms & Conditions apply. See myseed.com.au for full details.

*Data compiled from 26 paddock demonstration trials in 2015 (with IH51RR) and 19 trials with IH51RR and InVigor R 5520P in 2016.

CLEARFIELD® BARLEY GUIDE 2021/22

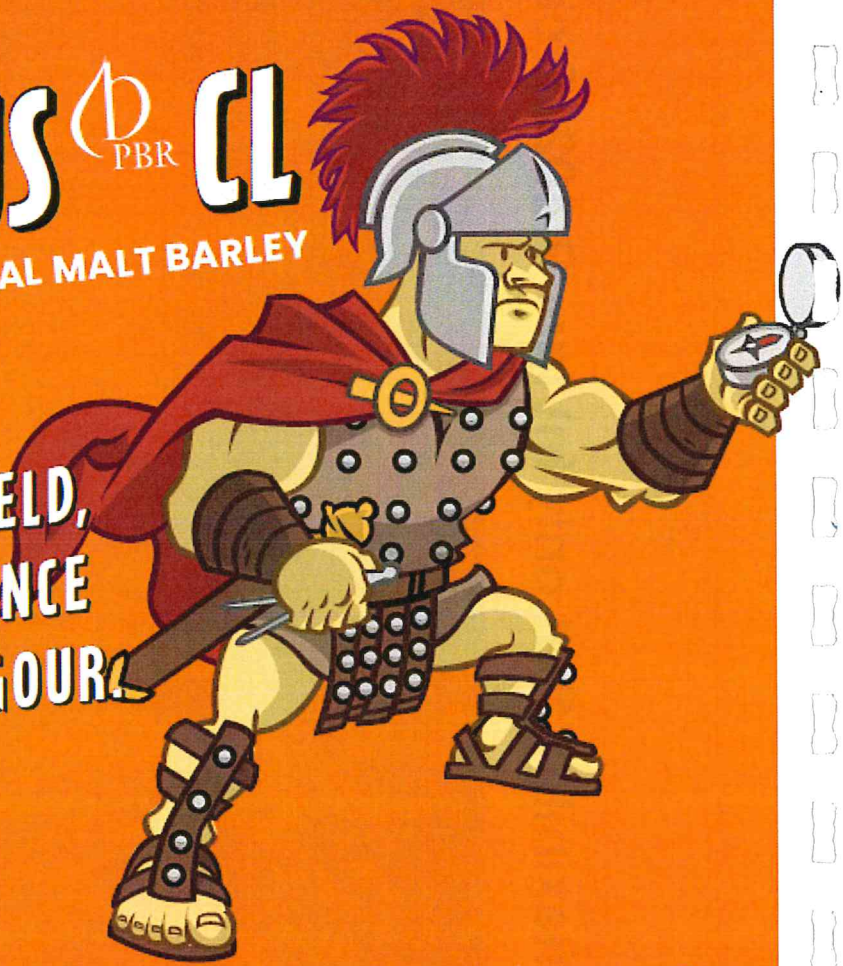


SOUTHERN ZONE
(SOUTH AUSTRALIA/VICTORIA)

COMMODUS CL

POTENTIAL MALT BARLEY

A COMPASS  BARLEY
DESCENDANT WITH YIELD,
CLEARFIELD® TOLERANCE
AND GOOD EARLY VIGOUR.



MAXIMUS CL

MALT BARLEY

THE SPARTACUS  CL
MALT SUCCESSOR!



Clearfield®
Production System

WHAT IS MY RAINFALL ZONE?

Low-medium Rainfall Environment
Commodus[®] CL

Low-medium Rainfall Environment
Maximus[®] CL

Commodus[®] CL
Currently classified as a feed variety. Earliest potential malt accreditation in 2023.

Maximus[®] CL
Malt accredited

Commodus[®] CL has a semi-prostrate early growth plant type

Maximus[®] CL has an erect plant type

Do I want a malting variety?

What plant type am I requiring?

What soil type do I have?

Can I manage lodging and head loss risks in my system?

Plant Height

WHAT ARE MY IMI BARLEY REQUIREMENTS?



MEET INTERGRAIN'S NEW IMIDAZOLINONE [IMI] TOLERANT GLADIATOR TROUPES!

InterGrain has an exceptional reputation of delivering high performing Clearfield[®] barley varieties with the suite of options ever increasing.

2021 marks the entry of two new gladiators to the arena in Maximus[®] CL and Commodus[®] CL. Both are high yielding, quick-mid maturing, Clearfield[®] barley varieties. However, both possess very different characteristics providing options for different farming systems.



COMMODUS[®] CL

Commodus[®] CL is a high yielding, quick-mid maturing Clearfield[®] barley derived from Compass[®]. The variety is agronomically similar to Compass[®] and is ideally suited to lighter soils and medium-low rainfall environments. The variety has a comparable yield potential to Compass[®] based on InterGrain trials and 2020 NVT yield performances.

It offers an effective disease resistance and a profile, including CCN resistance and a useful level of spot form of net blight resistance. Commodus[®] CL has excellent grain size and a similar lodging tolerance and head loss risk to Compass[®]. Harvest management strategies should be considered in higher yielding seasons and or when harvest delays may occur to maximise varietal productivity.

Commodus[®] CL has recently been accepted into the Barley Australia Malt Accreditation program with earliest potential final accreditation in March 2023.

MAXIMUS[®] CL

Maximus[®] CL is a high yielding, quick-mid maturing, malt accredited, Clearfield[®] barley. Maximus[®] CL represents a general disease improvement compared to Spartacus[®] CL, particularly to both spot form and net form of net blight.

Similar to Spartacus[®] CL, Maximus[®] CL has an erect plant type, strong lodging tolerance and a low-medium head loss risk. The variety also has very good physical grain qualities, including excellent grain plumpness (plumper than Spartacus[®] CL) and hectolitre weight. The variety has a short coleoptile and it is recommended that sowing depth be considered carefully when planting this variety.

Maximus[®] CL received malt accreditation in February 2021.

Key Features

- > Kingbale^(b) is a single gene IMI tolerant oaten hay variety – a world first
 - > Mid-maturing variety with improved tolerance to soil residual imidazolinone herbicides
 - > An ideal variety for use where there are IMI residue concerns from previous crops
 - > Tall variety with good early vigour
 - > Preliminary data shows Kingbale^(b) has a similar disease and agronomic profile to Wintaroo^(b)
 - > CCN resistant
 - > Rust (likely susceptible) will require proactive management
 - > SVS to red leather leaf, similar to Wintaroo^(b)
 - > Yield information is currently limited
 - > Kingbale^(b) is a single gene IMI tolerant variety
 - > End Point Royalty (EPR) \$3.65/tonne + GST
-
- > Please contact for further information on 2022 seed availability

OATS

KINGBALE[®]

HAY OAT



KINGBALE



Kingbale Hay Oats 2016

A DYNASTY FIRST, SINGLE GENE IMI OATEN HAY!

ALTERNATIVE TO: CARROLLUP[®], BRUSHERO[®], WINJARDIE[®] AND WINTAROO[®]

Variety Overview

KINGBALE[®] is a world first IMI tolerant oat hay variety.

KINGBALE[®] is a mid-maturing IMI tolerant oat hay variety with improved tolerance to soil residual imidazolinone herbicides. It is an ideal variety for use where there are IMI residue concerns from previous crops.

KINGBALE[®] is a tall variety with good early vigour and is suitable for planting in the major hay growing regions of Australia. Preliminary data shows KINGBALE[®] has a similar disease and agronomic profile to Wintaroo[®] and indicates that it is resistant to CCN although rust (likely susceptible) will require proactive management. Yield information is currently limited.

KINGBALE[®] is a single gene IMI tolerant variety. The original breeding work was undertaken by Grains Innovation Australia (GIA) and the line is being commercialised by InterGrain. A Sentry[®] registration has been received by APVMA for pre-emergent use for seed and hay production. However, the variety will ONLY be released for planting in 2022 if a grain registration is received.

Without a grain registration growers are unable to deliver any grain into the food chain and requires any screenings cleaned from grain to be burnt, buried or destroyed.

Seed may be available for planting in 2022 - pending a Sentry[®] registration for use in grain. We strongly encourage expressions of interest to be placed with Seedclub members for potential planting in 2022.

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IMI TOLERANT
SEED MAY BE USED IN A GRAIN
CULTIVAR - PENDING A SENTRY[®]
REGISTRATION