TECHNOTE 2019

HYOLA 530XT





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



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

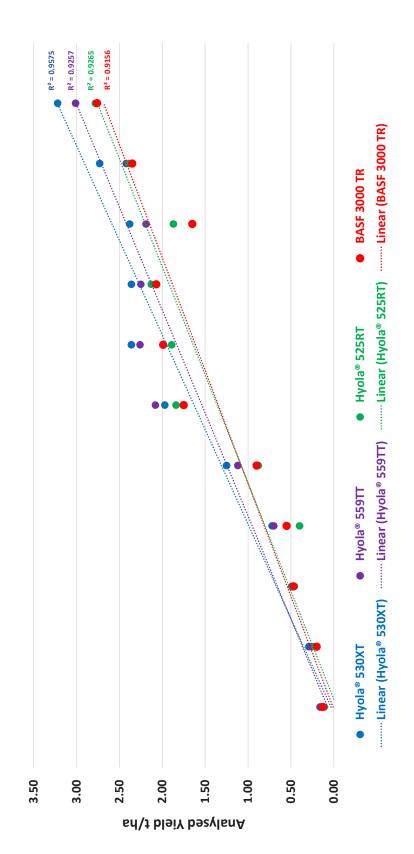
^ Indicates calculated weight rating from Pacific Seeds R&D internal replicated research trial evaluations

Scale: 1 = poor - 9 = best

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SHOWS HIGHER YIELDS VS 3000TR AND HYOLA 559TT







HYOLA 530XT INDIVIDUAL TRIAL LOCATION RESULTS

HYBRID	Cunderdin WA	Badgingara WA	Kendenup WA	Temora NSW	Greenthorpe NSW	Yarrawonga VIC	Lake Bolac VIC	MEAN
VARIETY	Yield t/ha	Yield t/ha	Yield t/ha	Yield t/ha	Yield t/ha	Yield t/ha	Yield t/ha	Yield t/ha
HyTTec Trophy	2.56	2.15	3.40	0.51	0.22	0.16	2.60	1.93
Hyola® 550TT	2.49	2.19	3.27	0.54	0.28	0.15	2.48	1.90
Hyola® 530XT	2.73	1.97	3.22	0.49	0.29	0.16	2.36	1.87
Hyola® 350TT	2.50	2.14	3.10	69'0	0.26	0.19	2.37	1.86
SF Ignite	2.44	2.11	3.26	0.38	0.15	0.1	2.57	1.83
InVigor T4510	2.70	1.90	3.17	0.51	0.23	0.14	2.27	1.82
Hyola® 580CT	2.48	2.03	3.33	0.46	0.19	0.11	2.30	1.82
Hyola® 559TT	2.42	2.08	3.01	0.48	0.26	0.16	2.26	1.78
Hyola® 650TT	2.40	1.97	3.13	0.41	0.16	0.1	2.27	1.74
DG670TT	2.24	1.95	3.15	0.38	0.15	80:0	2.47	1.74
Pioneer 44T02	2.24	1.84	2.91	0.55	0.32	0.21`	2.56	1.74
Hyola® 525RT	2.39	1.84	2.78	0.46	0.22	0.11	1.89	1.61
BASF 3000 TR	2.35	1.75	2.76	0.47	0.20	0.13	1.99	1.61
ATR Wahoo	1.85	1.73	3.08	0.44	0.07	90:0	2.01	1.54
ATR Bonito	1.90	1.70	2.91	0.44	90.0	0.07	1.85	1.49
ATR Stingray	1.93	1.58	2.68	0.35	0.10	90.0	2.20	1.48
MEAN YIELD	2.35	1.93	3.07	0.47	0.20	0.11	2.28	1.74

SOURCE: 2018 PACIFIC SEEDS HYOLA RESEARCH AND TECHNICAL DEVELOPMENT TRIAL RESULTS



HYOLA XT - AGRONOMIC BENEFITS TO GROWERS

Hyola® 530XT combines the benefits of TruFlex® and triazine tolerant herbicide technologies, and can be utilised by growers as a preferred alternative to hybrid and OP TT varieties either as a important new IWM tool in high level weedy paddocks or when adjusting paddocks requiring enhanced herbicide resistance management programs across seasons.

Mixing and rotating herbicide actives in crop is now the most valuable tool in resistance management when compared to rotating over successive seasons with individual chemistries. Visit www.crop.bayer.com.au/tools-and-services/mix-it-up/ for more details.



"Hybrid and high vigour canola cultivars offer a simple opportunity to reduce annual ryegrass seed set by providing extra competition during the season. Switching from an open-pollinated cultivar to a hybrid can reduce annual ryegrass seed set by 50%.

"Dual tolerant canola offers new opportunities for managing clethodim-resistant annual ryegrass in canola, by providing the ability to attack annual ryegrass multiple times.

"It will be important to maintain effective control of annual ryegrass during the canola phase due to the lower number of weed management opportunities to control annual ryegrass in wheat. Pre-emergent herbicides, post-emergent herbicides, competition and seed set control will all be crucial in achieving this."

Dr Chris Preston, Associate Professor, University of Adelaide.

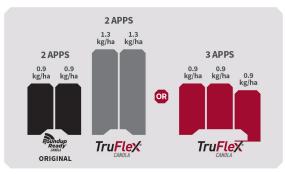


EXTENDED SPRAY WINDOW – EMERGENCE TO FIRST FLOWER

THE RATE FARMERS NEED FOR THEIR WEED CHALLENGES*







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.

- * 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.ol 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.

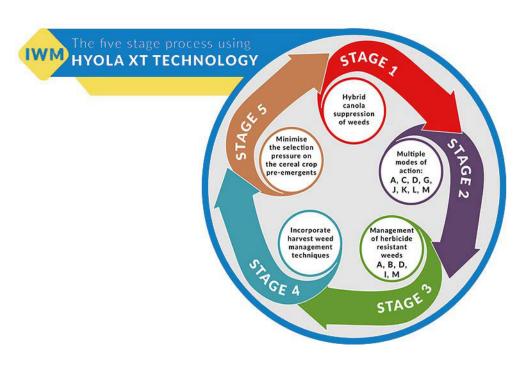




HYOLA XT INTEGRATED WEED MANAGEMENT

When utilising the XT 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.).



Through Pacific Seeds leadership in developing new and novel canola dual herbicide tolerant technologies, we can provide growers with increased options and flexibility... "more tools in the tool box" during the canola phase of their cropping rotation. 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



HYOLA XT DELIVERS IWM VALUE TO CROPPING SYSTEMS

XT hybrids are a good rotational tool for the whole farm as they are ideal for bringing paddocks that have high weed pressures or that have resistance issues back into play, and lowering that soil weed seed bank pressure.

The TruFlex® + Triazine Tolerant hybrid gives growers access to multiple modes of action in-crop on ryegrass, wild radish and other difficult weeds and in rotation with the pre and post emergent herbicides used in cereals, growers can get the integrated cropping system back in order.

Pacific Seeds technical extension trial results have shown that using the combination of glyphosate and triazine chemistries into a cropping system improves ryegrass control up to 4% higher than the two Roundup spray strategy and up to 30% higher than the two triazine spray strategy.

The combined glyphosate and triazine system also improved wild radish control up to 3% higher than the two Roundup Ready spray strategy and up to 10% higher than the two triazine spray strategy.



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