HyTTec® Velocity
TIME OF SOWING

Early sowing of canola has led to higher yields when using varieties with appropriate phenology, but with the introduction of HyTTec Velocity growers can sow canola at more traditional sowing dates and match or even better the grain yield of early sown canola. In fact, early sowing of HyTTec Velocity exposes the crop to a greater risk of frost, disease and lower yield compared with sowing at more traditional sowing dates.

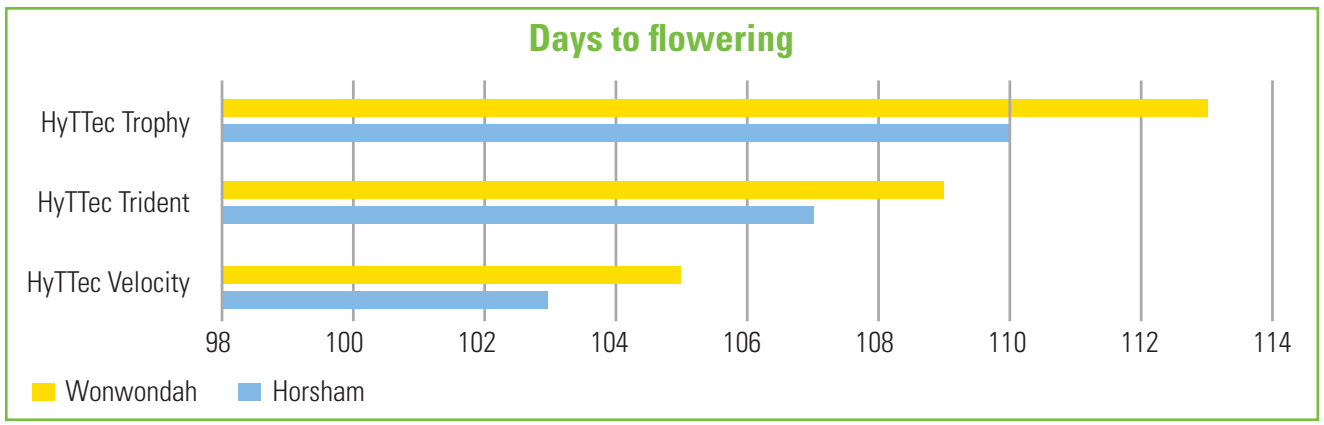
To aid management decisions, it is important to understand that canola varieties are influenced by a mix of environmental factors which determine when a variety will reach certain physiological growth stages. These environmental factors include climatic factors such as mean daily temperature, cold accumulation (vernalisation), daylength and moisture.

Understanding how a variety is going to respond to the environment allows us to target the optimum flowering window, which will minimise the effect frost/heat/moisture stress will have on potential yield and performance. Sowing windows and emergence dates can be managed at a farm level to then target ideal flowering window for **HyTTec Velocity**.

HyTTec Velocity is a 'spring' canola variety that responds to temperature in a linear way, the warmer it is the faster it develops. When sown in late March or early April, development will be rapid and the crop will flower too early, exposing it to frost risk and disease risk that lead to potential lower yield. Many other Early/Mid varieties have a small vernalisation response which acts as a handbrake to slow them down when sown early.

Due to the speed of flowering when sown early, **HyTTec Velocity** is highly susceptible to frost damage as the flowering window could be during the coldest period of the year, June to July. In targeting a flowering window of August by changing our emergence dates (sowing window), the impact of a cumulation of frost events can be minimised while still giving the variety enough time to flower and pod up before moisture and heat stress begins.

For comparison on how fast **HyTTec Velocity** can be on a May emergence:



nuSEED®

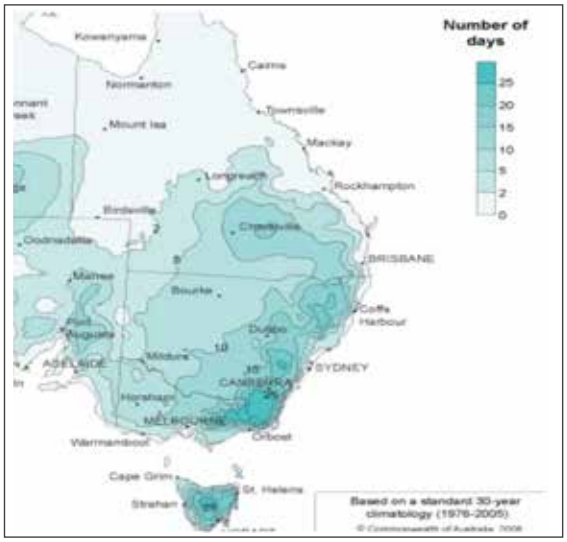
Frost Damage in Canola

Frost damage can influence the canola plant's overall grain yield, oil content and oil quality during key periods of the plant's physiological life. Damage can occur to canola plants during the flowering window and the pod/seed development window. The largest degree of damage to canola is during early pod development while pods have a high concentration of moisture, at this point damage is pod abortion. Frost damage later while pods have formed seeds is more likely to see damage to individual seeds and missing seeds in each pod, not full pod abortion.

Number of frost days in the east of Australia are highest in July. Most canola growing regions in Eastern Australia have an optimum start of flowering date very late in July to the first half of August. This is based mainly on weighing the risk of running out of moisture with frost risk.

HyTTec Velocity is a fast maturity product and the key flowering windows that should be targeted for the optimum performance in various regions is set out below. These flowering windows will attempt to minimise the effect a multitude of frosts can have on **HyTTec Velocity** while also giving the variety enough time to flower and pod up before heat and moisture stress becomes damaging. These flowering windows can be managed by moving the seeding operations and ultimately the emergence date of **HyTTec Velocity**. The following recommendations are based on the canola profitability work completed by GRDC in 2019.

Number of Frost days in July



Source: Bureau of Meteorology

If you have any further questions around the timing and placement of HyTTec Velocity on your farming system, please do not hesitate in contacting your local Nuseed Area Sales Manager to discuss.

GRDC GRAINS RESEARCH & DEVELOPMENT CORPORATION

Early – risk of frost, disease infection and lower potential yield

On time

Late –risk of drought and high temperature stress

Region	Month and week	March				April				May			
	Phenology	1	2	3	4	1	2	3	4	1	2	3	4
Central West (north) Trangie, Gilgandra	Slow												
	Mid												
	Fast												
Central West (east) Canowindra, Wellington	Slow												
	Mid												
	Fast												
Central West (south) Condobolin, West Wyalong, Rankins Springs	Slow												
	Mid												
	Fast												
South West Slopes Young, Cootamundra, Culcairn	Slow												
	Mid												
	Fast												

Region	Month and week	March				April				May			
	Phenology	1	2	3	4	1	2	3	4	1	2	3	4
Riverina Coolamon, Lockhart, Corowa	Slow												
	Mid												
	Fast												
Murray Mallee Lamaroo	Slow												
	Mid												
	Fast												
Adelaide Plains Hart	Slow												
	Mid												
	Fast												
Lower Eyre Peninsula Yeelanna	Slow												
	Mid												
	Fast												

MARKET DEVELOPMENT TEAM

Chris Roberts
National Market Development Manager
M 0437 178 296

Michael Hickey
Regional Market Development Manager West
M 0438 913 106

Eleanor Lee
Specialty Oils Operations Manager
M 0439 354 440

SALES TEAM

Andrew Suverijn
National Sales Manager
M 0409 484 702

General Enquiries and Customer Service: 1800 NUSEED (1800 687 333)
Email: seedorders@nuseed.com
Fax: 1800 302 884

@NuseedAustralia
Follow our Twitter and Facebook page to keep up to date with Nuseed

WEST

Hugh Trenorden
Regional Sales Manager – West
M 0437 206 313

Callum Pestell
Area Sales Manager Northern WA
M 0427 168 356

Andrew Royce
Area Sales Manager Southern WA
M 0427 466 916

Pippa Reilly
Customer Sales Representative
M 0436 856 840

EAST

Sally Broadhead
Regional Sales Manager – East
M 0436 849 292

James Cook
Area Sales Manager SA & Southern Vic
M 0430 353 006

Brett Mawbey
Area Sales Manager Central & Southern NSW
M 0428 638 918

Nuseed Pty Ltd. 5 Ballinger Street
PO Box 377 Horsham Vic 3402

nuSEED®