

Desi Chickpea

Version 1: January 2008

KEY FEATURES

- Ascochyta blight resistance superior to Howzat and Jimbour which means **FEWER** fungicide sprays will be required, but possibly more sprays required than with Flipper;
- **IMPORTANT** Yorker should be sprayed with fungicide prior to the detection of Ascochyta blight.
- Yorker has improved Phytophthora root rot resistance compared to Jimbour.
- Good lodging resistance, plant height / lowest pod height similar to Amethyst.
- Medium to large, light coloured seed well suited to the whole seed export market.

Varietal Description

Breeding and Development

Yorker (Formerly 9113-13N-2) was bred by NSW DPI plant breeder Ted Knights, supported by funding from GRDC

Disease Reaction (Common Desi varieties)

Description	Ascochyta	Phytophthora Root Rot	Botrytis Grey Mould	Virus
Resistant	Genesis 509			
Moderately Resistant	Flipper	Yorker		Gully
Moderately Resistant to Moderately Susceptible	Yorker	Flipper, Jimbour, Kyabra, Moti#		Flipper
Moderately Susceptible		Howzat	Genesis 509, Howzat, Moti#	
Susceptible	Amethyst, Howzat, Jimbour, Kyabra	Amethyst, Genesis 509, Gully	Amethyst, Flipper, Jimbour, Kyabra, Yorker	Amethyst, Genesis 509, Howzat, Jimbour, Kyabra, Yorker
Very Susceptible	Gully, Moti#		Gully	

Note: These are provisional Pulse Breeding Australia national ratings. They are for average disease pressure at the start of the season and average conditions for the disease during the season. Ratings will vary with inoculum load and seasonal conditions.
Moti is not to be grown south of Theodore, Central Queensland.

Agronomic Features

Variety	Maturity score ¹	Plant height (cm)	Low pod height (cm)	Lodging ²	Seed Weight (g/100)
Yorker	5.7	59.0	31.4	1.6	21.3
Flipper	6.0	63.0	37.0	1.6	18.1
Jimbour	4.9	63.2	35.1	1.7	19.7
Howzat	5.4	61.1	28.0	2.3	21.2
Amethyst	4.8	60.2	31.4	1.4	15.1

¹ 1 = very early harvest maturity, 9 = very late harvest maturity

² 1 = fully erect, 9 = flat

Yield and adaptation

Grow Yorker in the drier areas of NSW where Phytophthora rather than Ascochyta is considered the greater risk. It is suitable for the higher rainfall areas of southern Qld where its improved Ascochyta resistance needs to be balanced against a slightly later maturity and potential yield penalty. NOT recommended for Central Queensland.

Grain yield (t/ha) in Northern NSW field trials 2003-2007 (number of trials in parentheses).

Variety	NSW ¹		NSW ²				
	Very low ascochyta pressure	Very high ascochyta pressure	2007	2006	2005	2004	2003
Yorker	3.38	2.11	0.90 (11)	1.51 (11)	1.58 (12)	1.82 (14)	1.42 (12)
Flipper	2.90	2.54	0.90 (11)	1.52 (11)	1.62 (12)	1.72 (14)	1.38 (12)
Jimbour	3.12	0.43	0.97 (11)	1.65 (11)	1.67 (12)	1.90 (12)	1.50 (11)
Kyabra	-	-	1.01 (11)	1.76 (6)	-	-	-
Howzat	3.15	0.62	-	1.65 (11)	1.69 (12)	1.83 (15)	1.62 (13)

¹ Yield data is from NSW DPI TAC04 trial 2004 inoculated with diseased chickpea residue.

² Yield data is from NSW DPI stage 3 trials and Pulse Breeding Australia Nation Variety Trials, under low ascochyta pressure (No. of trials).

Disclaimer:

Recommendations have been made from information available to date and considered reliable, and will be updated as further information comes to hand. Readers who act on this information do so at their own risk. No liability or responsibility is accepted for any actions or outcomes arising from use of the material contained in this publication.

Agronomic Management

Follow the chickpea planting and management recommendations for your area with the following modifications:

Sowing Date and Seeding Rate

Yorker can be planted earlier (up to 10 days) due to the combination of Improved Ascochyta resistance, erectness hence better standability, less lodging and slightly later maturity. Earlier sowing will maximize yield potential. Use a sowing rate to achieve the same plant population as for Jimbour and Howzat.

Weed control

Residual Herbicide use - **Do not apply if rain is imminent**. Maintain at least 7.5 – 10 cm soil coverage. Avoid leaving a furrow or depression above the seed that could allow water (and chemical) to concentrate around the seed/seedling. Avoid leaving an exposed, open slot over the seed with disc-openers and avoid a cloddy, rough tilth with tined-openers

Yorker has exhibited sensitivity to Balance[®] in some NSW DPI trials. In 2003 Yorker displayed more visual damage in the vegetative stage than Jimbour, Howzat and Amethyst, but there was no (statistically significant) reduction in yield.

Bayer CropScience on the Balance label state **“Balance is NOT recommended on the chickpea variety Yorker”** and suggest the use of alternative herbicide programs.

Disease management

Follow the seed, paddock selection and hygiene recommendations in the most current publication “Chickpea Disease Management Strategy – Northern Region”. Check the registration/permit status of any pesticides prior to use.

Ascochyta Blight

Yorker crops should be sprayed before Ascochyta is detected.

Experience in 2006 showed that Ascochyta became established in several Yorker crops, partly because the disease was difficult to detect early in the season.

For all situations, apply a fungicide prior to the first rain event after crop emergence, or three weeks after emergence or at the three branch stage of development (whichever occurs first). Use 1 kg/ha of dry formulation product containing 750 g/kg mancozeb (or equivalent liquid). Or 1.0L/ha of one of the 4 products currently listed on the APVMA permit 9814 containing 720g/L chlorothalonil.

Monitor the crop 10-14 days after a rain event and if Ascochyta is found, apply 2 kg/ha of dry formulation product containing 750 g/kg mancozeb or 1.0L/ha of product containing 720g/L chlorothalonil prior to the next rain event. Continue monitoring and spray again if weather and disease levels indicate Ascochyta is spreading.

Botrytis Grey Mould (BGM)

As fungicide usage for Ascochyta is expected to be less with Yorker than Jimbour or Howzat, monitor for BGM in spring as temperatures and humidity rise. Apply a suitable fungicide as required containing either carbendazim or mancozeb. Fungicides used for ascochyta control may not necessarily be as effective as those that specifically target BGM.

Seed Commercialisation

Yorker[®] is protected by PBR. Growers can retain seed from production of Yorker for their own seed use. Seed is commercialised through AWB Seeds and is available through local seed suppliers.

Yorker[®] Seed Supply enquiries:		Phone 1800 054 433
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Agronomic Enquiries

Ted Knights (NSW DPI)	phone: 02 6763 1179	email: ted.knights@dpi.nsw.gov.au
Kevin Moore (NSW DPI)	phone: 02 6763 1133	email: kevin.moore@dpi.nsw.gov.au
Jon Thelander (AWB Seeds)	phone: 07 4637 3070	email: jon.thelander@awb.com.au
Gordon Cumming (Pulse Australia)	phone: 0408 923 474	email: pulse.gordon@bigpond.com

This Yorker[®] VMP was jointly prepared by Ted Knights and Kevin Moore (NSW DPI) and Gordon Cumming (Pulse Australia).
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