

## KEY FEATURES

- Ascochyta blight resistance better than Jimbour and Howzat 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.
- Medium to large, light coloured seed well suited to the whole seed export market.

## Varietal Description

### Breeding and Development

Yorker<sup>®</sup> (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	<b>Yorker</b>		Gully
Moderately Resistant to Moderately Susceptible	<b>Yorker</b>	Flipper, Jimbour, Kyabra, Moti <sup>#</sup>		Flipper
Moderately Susceptible		Howzat	Genesis 509, Howzat, Moti <sup>#</sup>	
Susceptible	Amethyst, Howzat, Jimbour, Kyabra	Amethyst, Genesis 509, Gully	Amethyst, Flipper, Jimbour, Kyabra, <b>Yorker</b>	Amethyst, Genesis 509, Howzat, Jimbour, Kyabra, <b>Yorker</b>
Very Susceptible	Gully, Moti <sup>#</sup>		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 <sup>1</sup>	Plant height (cm)	Low pod height (cm)	Lodging <sup>2</sup>	Seed Weight (g/100)
<b>Yorker</b>	<b>5.7</b>	<b>59.0</b>	<b>31.4</b>	<b>1.6</b>	<b>21.3</b>
Flipper	6.0	63.0	37.0	1.6	18.1
Jimbour	4.9	63.2	35.1	1.7	19.7
Kyabra	5.0	66.1	36.4	1.6	24.3
Howzat	5.4	61.1	28.0	2.3	21.2

<sup>1</sup> 1 = very early harvest maturity, 9 = very late harvest maturity

<sup>2</sup> 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 2004-2008 (number of trials in parentheses).

Variety	2004 NSW <sup>1</sup>		2008 NSW <sup>2</sup>		NSW <sup>3</sup>				
	Low ascochyta pressure	High ascochyta pressure	Low ascochyta pressure	High ascochyta pressure	2008	2007	2006	2005	2004
<b>Yorker</b>	<b>3.38</b>	<b>2.11</b>	<b>2.68</b>	<b>1.63</b>	<b>2.17 (6)</b>	<b>0.90 (11)</b>	<b>1.51 (11)</b>	<b>1.58 (12)</b>	<b>1.82 (14)</b>
Flipper	2.90	2.54	2.51	1.98	2.19 (6)	0.90 (11)	1.52 (11)	1.62 (12)	1.72 (14)
Jimbour	3.12	0.43	2.83	0.02	2.24 (6)	0.97 (11)	1.65 (11)	1.67 (12)	1.90 (12)
Kyabra	-	-	2.72	0.00	2.20 (6)	1.01 (11)	1.76 (6)	-	-
Howzat	3.15	0.62	-	-	-	-	1.65 (11)	1.69 (12)	1.83 (15)

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

<sup>2</sup> Yield data is from NSW DPI TAC08 trial 2008 inoculated with Ascochyta blight solution of 440,000 conidia/mL @ 100 L/ha

- Low Ascochyta pressure was fully protected with fungicide applications being made every 14 days.

- High Ascochyta pressure has no fungicide sprays for the life of the crop.

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

# Management Package

*(Consult local grower guides for more detailed information)*

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) in the planting window due to the combination of improved Ascochyta resistance, erectness, hence better standability, less lodging and slightly later flowering (4 - 7 days).

Earlier sowing will maximize yield potential. Sow high quality seed at rates calculated to achieve 25 – 30 plants/m<sup>2</sup> establishment, typically 55 to 70 kg/ha depending upon planting conditions and seed quality.

## 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<sup>®</sup> 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 pesticide 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 formulated product containing 720g/L chlorothalonil as per current APVMA Permit 11381.

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 formulated product containing 720g/L chlorothalonil as per current APVMA Permit 11381 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<sup>®</sup> is protected by Plant Breeders Rights (PBR).

Growers can retain seed from their production of Yorker for their own seed use only.

Yorker is commercialised by AWB Seeds and is available through local seed suppliers.

Yorker<sup>®</sup>

Seed Supply enquiries:



Phone 1800 054 433

### Agronomic Enquiries

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This VMP has been jointly prepared by: Ted Knights and Kevin Moore (I&I NSW) and Gordon Cumming (Pulse Australia)

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