

# Yorker

## Desi Chickpea

### VARIETY SUMMARY

- Improved Ascochyta resistance which will reduce the need for in-crop fungicides.
- Most Phytophthora resistant variety available.
- Compact plant type with good lodging resistance.
- Highly attractive seed type well suited to the premium whole seed export market.

### BREEDING

Yorker (formerly 9113-13N-2) was bred by Ted Knights and the NSW Department of Primary Industries Chickpea breeding team as part of the National Program. It continues the tradition of naming the varieties after cricketing terms to appeal to the Indian Sub-Continent (ISC) target market.

### AREA OF ADAPTATION

Yorker and Flipper are two new varieties bred for Northern NSW / Southern QLD with improved Ascochyta resistance. Yorker is a preferred variety where Phytophthora rather than Ascochyta is considered the greater risk.

Suggested areas are northern NSW, west of the Newell Highway, and the Darling Downs region of Queensland.

Trial data has suggested it is not well adapted to the Western areas of Southern Queensland.

### PLANT CHARACTERISTICS / GRAIN QUALITY

Yorker is a compact semi-erect variety.

Mature plant height and height to lowest pod is similar to Amethyst.

Harvestability is enhanced by good lodging resistance expressed even under conditions of early sowings.

It flowers up to 1 week later compared to other desi chickpea varieties (e.g. Jimbour, Howzat, Amethyst) and attains harvest maturity up to 3 days later.

Yorker produces a very attractive large-sized grain suitable to the whole seed and/or splitting market.

### DISEASE RESISTANCE

Yorker has shown an Intermediate rating (5) to Ascochyta Blight, compared to Howzat (Mod. susceptible 7), and Jimbour (Highly susceptible 8).

Current recommendations for High Risk situations are to apply a fungicide prior to the first rain event, 3 weeks after emergence, or at the 3 branch stage of development.

For Moderate risk situations, Tamworth trials show there is no cost benefit in applying a fungicide to Yorker until after Ascochyta is detected.

(Please refer to the Pulse Australia Yorker VMP for further details: [www.seednet.com.au](http://www.seednet.com.au)).

Yorker is moderately resistant to Phytophthora (4), compared to Jimbour (5).

 **YIELD**

Yorker has the potential to significantly outyield Ascochyta susceptible varieties (e.g. Howzat, Jimbour, Amethyst) where the disease is not adequately controlled.

For example, in Disease Management trials at Tamworth a yield advantage of up to 1.7 t/ha has been demonstrated under high disease pressure.

Yorker also has the potential to confer a significant yield advantage (up to 0.6 t/ha) in Phytophthora-prone situations.

Yorker has yielded slightly less than Jimbour and Howzat, but similar to Amethyst in NSW DPI trials, under Ascochyta-free conditions.

**Table 1: Yield (t/ha) of four chickpea varieties under low and high levels of Ascochyta.**

Ascochyta Pressure	Yorker	Flipper	Jimbour	Howzat
Very Low	<b>3.38</b>	2.90	3.12	3.15
Very High	<b>2.11</b>	2.54	0.43	0.62

Data source: NSW DPI TAC04 trial 2004  
(Note: Trial was inoculated with diseased chickpea residue)

**Table 2: Predicted yield (t/ha) under very low Ascochyta conditions.**

	Yorker	Flipper	Jimbour	Howzat	Amethyst
2004	<b>1.82 (14)</b>	1.72 (14)	1.90 (12)	1.83 (15)	1.70 (10)
2003	<b>1.42 (12)</b>	1.38 (10)	1.50 (11)	1.62 (13)	1.42 (9)
2002	<b>0.78 (6)</b>	0.82 (6)	0.76 (6)	0.72 (6)	0.75 (6)

Data source: NSW DPI S3 trials (No. of trials)

 **AGRONOMIC GUIDELINES****PLANTING**

- Can be planted earlier (up to 10 days) in the planting window due to the combination of improved Ascochyta resistance, better standability and slightly later maturity.
- Sow high quality seed at rates calculated to achieve 25-30 plants/square metre field establishment (55-70 kg/ha depending on planting conditions and seed quality).
- Seed should be treated with a registered fungicide to reduce the risk of infection with Ascochyta Blight and other diseases.
- All chickpeas should be inoculated with Group N Chickpea inoculant immediately before sowing.

**WEED CONTROL**

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 does NOT recommend the use of Balance on Yorker and to use alternative herbicide programs

 **PLANT BREEDER RIGHTS AND ROYALTIES**

Yorker is protected by Plant Breeder Rights, any unauthorised commercial propagation or any sale, conditioning, export, import or stocking of propagating material of this variety is an infringement under the Plant Breeder's Rights Act, 1994.

Growers are allowed to retain seed from production of this variety for their own use as seed only.

An End Point Royalty of \$3.30 per tonne (GST inclusive), which includes breeder royalties, applies to

**ACKNOWLEDGMENTS**

Yorker was bred by the NSW Department of Primary Industries with support from other partners in the National Breeding Program (especially QDPI&F and Agriculture Victoria Services) and growers through the GRDC.



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