

# KYABRA<sup>®</sup>

## Desi chickpea

## The new benchmark in chickpeas!

### FEATURES

- High yielding: 4% higher than Jimbour
- Superior seed size and quality
- Excellent early vigour: ideal for deep sowing
- Improved plant height and harvestability
- Good lodging resistance

### PRODUCTIVITY

Kyabra has consistently outyielded the most common Queensland cultivar, Jimbour by 4% (36 sites over 5 years).

Table 1: Grain yield comparison 2004 (replicated trials)

SITE	TRIAL TYPE	KYABRA yield kg/ha	JIMBOUR yield kg/ha	KYABRA yield as a % of Jimbour
Billa Billa	S4	1971	1796	110
Billa Billa	S3	2503	2419	103
Billa Billa	Interstate S4	2013	2079	97
Inglestone	S4	2547	2135	119
Inglestone	S3	2663	2497	107
Dalby	S4	2366	2091	113
Dalby	S3	2112	2258	94
Dalby	Interstate S4	1982	2037	97
Roma	S4	1786	1585	113
Roma	S3	1925	1657	116
(8 sites analyses)		2191	2030	108
2000 – 2004 predicted yield	36 trials	2055	1970	104

### GRAIN QUALITY

Kyabra possesses superior seed size and quality. It has good evenness of seed colour and improved evenness of seed size over any available chickpea cultivar. Industry feedback has suggested that Kyabra would be highly sought after by the market, and in a good season would be segregated from Jimbour and Howzat to gain a price premium.

Table 2: Seed size data - Queensland & NSW 2003

SEED SIZE (100 SEED WEIGHT IN GRAMS)			
	KYABRA	JIMBOUR	LSD (5%)
2003 S4 Billa Billa	20.6	18.6	0.9
2003 S4 Inglestone	23.1	19.4	1.0
2003 S4 Dalby	23.2	20.1	1.2
2003 S3 Tamworth	29.1	21.8	
2003 S3 Moree	27.2	20.6	
2001 Dalby	25	19.8	
2002 Dalby	24	18.9	

### PLANT CHARACTERISTICS

Kyabra is significantly taller than Jimbour, which is an advantage for harvestability, particularly when deep planting, or in country with melon holes, rocks or sticks. In most cases Kyabra flowers and matures slightly earlier than Jimbour. This is a benefit when growers are trying to harvest around summer storm events. Evidence suggests that Kyabra has superior early vigour to Jimbour and is well suited to the practice of deep sowing. Kyabra is not prone to lodging and has similar frost tolerance to current available cultivars.

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seed distributor or consultant for recommendations for your local conditions.

## DISEASE REACTIONS

Kyabra has the same level of ascochyta susceptibility and phytophthora resistance as Jimbour.

**Table 4: Disease Resistance Ratings**

RATING	DESCRIPTION	ASCOCHYTA	PHYTOPHTHORA	VIRUS
1	Highly Resistant			
2	Moderately Resistant	Flipper	Yorker	Gully
3	Intermediate	Yorker	<b>KYABRA</b> Jimbour	Howzat
4	Moderately Susceptible	Howzat	Flipper Howzat Amethyst Gully Sona	<b>KYABRA</b> Amethyst Flipper Jimbour Sona Yorker
5	Highly Susceptible	<b>KYABRA</b> Jimbour Amethyst Bumper Gully Sona Kaniva	Bumper Kaniva	

**Annual rainfall** Desi type chickpeas require more than 350mm annual rainfall.

**Soil type** Chickpeas are best suited to well-drained loams and self-mulching clay soils of good water holding capacity. Acidic, saline and/or sandy textured soils are generally unsuitable. Avoid poorly drained soils; waterlogging tolerance is poor.

**pH** Chickpeas prefer neutral to alkaline soils pH 6.5 – 8.0 (water).

## HERBICIDE TOLERANCE

Kyabra appears to be less affected than Jimbour, Howzat and Amethyst by the widely used post-plant, pre-emergent broadleaf herbicide Balance®.

## AGRONOMIC GUIDELINES

The guidelines below are considered to be the most important agronomic factors based on optimum performance. Varieties may still perform satisfactorily outside these guidelines. Contact your PlantTech

**Area of adaptation** Kyabra has similar maturity and disease reaction to Jimbour and is broadly adapted to the same production areas. It is suitable for the Western region of Queensland and the Inner Downs and should also have a good fit in Central Queensland. Kyabra is also being trialed for suitability in northern New South Wales, chickpea



growing areas of WA and minor areas of Victoria and SA.

**Inoculation** is advisable on all soils (Group N), even in paddocks where chickpeas have been grown before. Seed should be sown as soon as possible after inoculation.

**Sowing** Chickpea yields show a marked response to time of sowing. Ideally sow at 5-8cm deep into good moisture. Chickpeas can also be deep planted when seeking moisture, however, only high quality seed (high germination and high vigour) should be used and seeding rates will need to be increased.

**Seeding rate can be calculated by;**

Seeding rate kg/ha =  $100 \text{ seed weight (grams)} \times \text{target plant population} \times 10 \div \text{establishment percentage}$

Under most conditions, growers should aim to establish about 30 plants/m<sup>2</sup>. Under average to good conditions establishment should be 80-90% for high quality seed. Establishment may decrease by 5-10% for dry sowing or soils with poor surface structure.

**Fertiliser** The majority of research indicates that uptake of phosphorus is far more efficient in chickpeas than in other winter crops and responses are usually small and uneconomic, unless soils have critically low phosphorous levels and long fallow situations with low VAM levels. Nitrogen is not generally required provided seeds were inoculated and plants have effectively nodulated. Chickpeas are prone to zinc deficiency.

**Diseases/Pests** Aim to separate chickpea crops at least 500m from last seasons chickpea stubble. If sowing downhill from last years stubble or on a floodplain, 1km is preferred. Cultivation and burial of chickpea stubble will help reduce the spread of ascochyta inoculum. Seed should always be inoculated with P-Pickel T® to control ascochyta



and botrytis. Application of Apron® XL may also be warranted if there is a risk of phytophthora root rot. Heliethis are the major insect pests of chickpeas, reducing yields and quality. Crops should be regularly monitored from flowering until seed maturity.

**Weeds** Chickpeas do not compete well with weeds and there are few options for broadleaf weed control, so it is prudent to plant in paddocks with low broadleaf weed populations.

**Harvest** Commence harvesting when late maturing seed in the apical pods has dried to 15-16% moisture. Chickpeas thresh and crack easily, so reduce thresher speed and open the concave.

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### PRODUCTION AND MARKETING

Kyabra has protection under Plant Breeder's Rights. Unauthorised commercial propagation or any sale, conditioning, export, import or stocking of propagation material of this variety is an infringement under the Plant Breeder's Right Act 1994. PlantTech has an exclusive licence for the production and marketing of Kyabra. **A seed royalty applies to all sales of Kyabra.**

PlantTech is committed to the supply of quality seed to farmers throughout Australia. **PlantTech's Seed Integrity Preservation (SIP) Quality Assurance Scheme is the only Government audited QA seed scheme in Australia.** SIP involves crops being inspected by trained and independently audited Production Managers. Specifically SIP ensures varietal identity and maintenance is assured and the resultant seed is fully tested in accordance with International



Seed Testing Authority (ISTA) rules. **Seed certificates for all seed tested by Seed Services are available online [www.planttech.com.au](http://www.planttech.com.au) or contact Customer Service 1800 112 400.**



*Colin Smith PlantTech NSW Production Manager/National QA Manager inspects a chickpea production crop to ensure it meets PlantTech's stringent SIP quality standards.*

### FURTHER INFORMATION

For further information, including a Variety Management Package prepared by Pulse Australia, please visit [www.planttech.com.au](http://www.planttech.com.au), click on "Variety Search" or "New Products" and follow the directions, or contact your PlantTech seed distributor or local PlantTech Sales Manager

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