

PBA Butler [Ⓛ]

'Kaspa type' field pea



PBA

PULSE BREEDING AUSTRALIA

Better pulse varieties faster

Superior yielding 'Kaspa type'



MAIN ADVANTAGES

PBA Butler[Ⓛ] (tested as OZP1101) is a superior yielding 'Kaspa type' field pea. It is distinctly more vigorous than popular semi-leafless pea varieties such as Kaspa[Ⓛ], PBA Oura[Ⓛ] and PBA Gunyah[Ⓛ]. PBA Butler[Ⓛ] maintains the same level of resistance to bacterial blight as PBA Oura[Ⓛ] and combines this with the preferred 'Kaspa' seed type. It is also rated as moderately susceptible for the common pathotype of downy mildew, an improvement over most other varieties. Although it is rated as moderately susceptible for black spot, it is one of the better performing field peas in this regard.

SEED PROTECTION & ROYALTIES

PBA Butler[Ⓛ] is protected under Plant Breeder's Rights (PBR) legislation. Growers can only retain seed from their production of PBA Butler[Ⓛ] for own seed use.

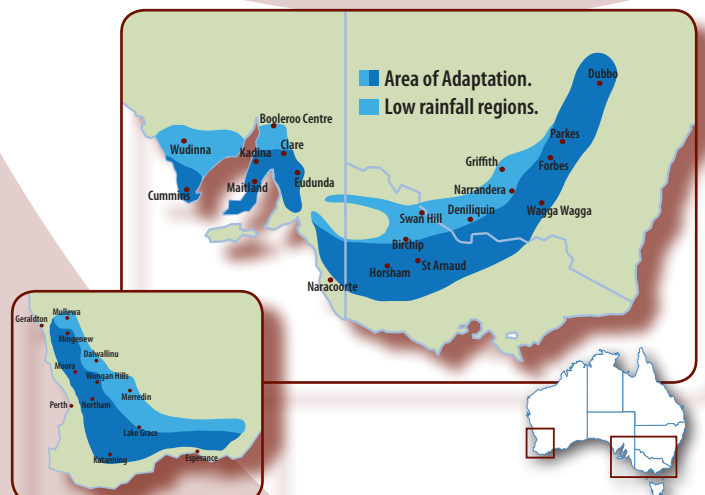
An End Point Royalty (EPR) of \$2.97 per tonne (GST inclusive), which includes breeder royalties, applies upon delivery of this variety. Seed is available from the commercial partner Seednet.

Seednet 
Planting Productivity

KEY FEATURES

- Similar seed and plant features to Kaspa[Ⓛ]
- High levels of bacterial blight resistance (same as PBA Oura[Ⓛ])
- Vigorous plant growth
- High yield and broad adaptation
- Semi-leafless, semi-dwarf plant type
- Mid-late flowering with early maturity
- Pod shatter resistant at maturity
- Superior grain quality marketable as 'Kaspa type'

AREA OF ADAPTATION

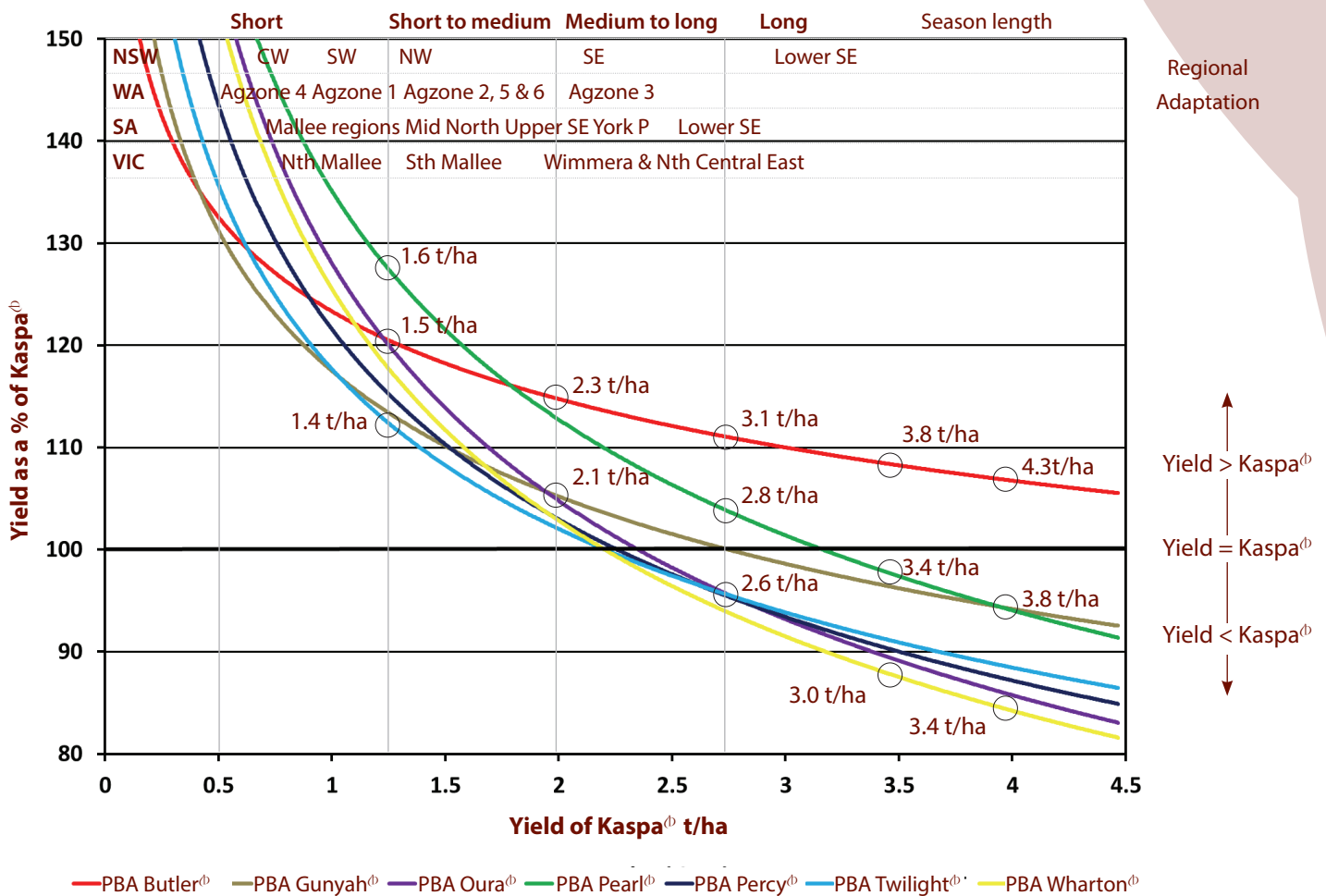


YIELD & ADAPTATION

PBA Butler[®] has high yield potential and broad adaptation across southern Australia. However, it performs best in the environments yielding better than 1.3 t/ha (medium to long season climates), particularly in SA, and in regions prone to foliar diseases such as bacterial blight. With its high biomass production and resistance to foliar diseases, PBA Butler[®] yields significantly higher than other popularly grown field pea varieties in better environments.

The relative experimental grain yield for key field pea varieties are graphically presented in Figure 1. This graph is based on NVT data from over 180 experiments grown across Australia's wheat belt cropping zone from 2013–16. This allows growers to relate relative performances of new PBA varieties against the standard Kaspa[®] (100%).

Figure 1: Average relative grain yields of PBA Butler[®] and other field pea varieties as a percentage of Kaspa[®]



AGRONOMY

PBA Butler[®] is mid-late flowering (similar to Kaspa[®]) and early-mid maturity. It has a semi-leafless growth habit, pink flowers and shatter resistant pods. Grains are similar to PBA Gonyah[®] in colour and size.

Variety	Plant habit	Plant vigour early season	Erect growth habit	Flowering time	Maturity time	Pod shattering at maturity	Soil tolerance		Seed weight (g/100)
							Boron	Salinity	
Kaspa type									
PBA Butler [®]	SD-SL	Very High	Good	Mid-Late	Early-Mid	R (SP)	S	S	22.5
PBA Wharton [®]	SD-SL	High	Fair-Good	Early-Mid	Early	R (SP)	T	MS	22.8
Kaspa [®]	SD-SL	High	Fair-Good	Late	Mid	R (SP)	S	S	23.6
PBA Gonyah [®]	SD-SL	High	Fair-Good	Early-Mid	Early	R (SP)	S	S	23.1
PBA Twilight [®]	SD-SL	High	Fair-Good	Early	Early	R (SP)	S	S/MS	23.7
Australian dun type									
Parafield	C	High	Poor	Mid	Mid	MR (NSP)	S	MS	20.0
PBA Coogee [®]	C	High	Poor	–	Mid	MR (NSP)	T	MT	24.7
PBA Oura [®]	SD-SL	High	Fair-Good	Early-Mid	Early	MR (NSP)	MS	S	23.6
PBA Percy [®]	C	High	Poor	Early	Early	MR (NSP)	S	MR	25.6
Niche grain type									
PBA Hayman [®]	Multi-branch	Moderate	Fair-Good	Very Late	Very Late	MR (NSP)	MS	MS	13.4
PBA Pearl [®]	SD-SL	High	Good	Early-Mid	Early	MR (NSP)	MS	MS	22.3
Sturt [®]	C	High	Poor	Early-Mid	Mid	MR (NSP)	MS	MS	20.3

Key: SD=semi-dwarf, C=conventional, SL=semi-leafless, S=susceptible, MS=moderately susceptible, MR=moderately resistant, R=resistant. SP=sugar pod type pod, NSP=non sugar pod type pod.

DISEASE MANAGEMENT

PBA Butler[®] has bacterial blight resistance matching PBA Oura[®] and PBA Coogee[®]. The combination of high levels of this resistance in a semi-leafless, 'Kaspa' seeded variety is a significant improvement for field peas. PBA Butler[®] is susceptible to PSbMV, BLRV and powdery mildew.

Variety	Blackspot (Ascochyta)	Bacterial blight	Downy mildew (Kaspa strain)	Powdery mildew	PSbMV*	BLRV (Field rating)
Kaspa type						
PBA Butler [®]	MS	MS/MR	MS*	S	S	S
PBA Wharton [®]	MS	S	S	R	R	R
Kaspa [®]	MS	S	MS	S	S	S
PBA Gonyah [®]	MS	S	S	S	S	S
PBA Twilight [®]	MS	S	S	S	S	S
Australian dun type						
Parafield	MS	MS	S	S	S	S
PBA Coogee [®]	MS	MS/MR	*	R	S	MS/MR*
PBA Oura [®]	MS	MS/MR	MS/MR	S	S	MS/MR*
PBA Percy [®]	MS	MR	S	S	S	S
Niche grain type						
PBA Hayman [®]	MS	MR	*	R	S	*
PBA Pearl [®]	MR/MS	MS	S	S	S	R
Sturt [®]	MS	MS	S	S	S	MS/MR*

Key: S=Susceptible, M=moderately, R=Resistant, PSbMV=Pea seed borne mosaic virus, BLRV=Bean leaf roll virus, * requires validation.

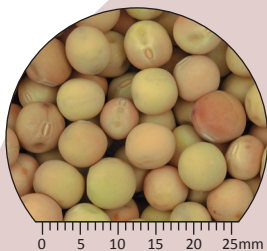
PBA Butler [®]

'Kaspa type' field pea

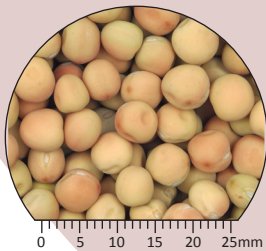
GRAIN QUALITY

PBA Butler[®] produces medium sized 'Kaspa type' grain.

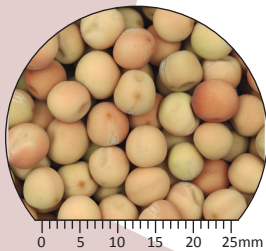
Seed coat has a uniform tan colour similar to Kaspa[®] and is suitable for dhal or split pea production. Seed coat colour may vary slightly depending on the season.



PBA Butler[®]



PBA Gunyah[®]



Kaspa[®]

MARKETING

PBA Butler[®] can be marketed as 'Kaspa type' grain, which is exported to the Asian sub-continent for production of dhal, flour and roasted snack foods.

The grain is also suitable for stockfeed.

BREEDING

PBA Butler[®] (OZP1101) was bred, extensively evaluated and selected for adaptation and performance in a range of climates across southern Australia by the PBA field pea breeding team.

Initial crosses and early generation selections were made at DEDJTR-Horsham (VIC). The objectives were to combine the Kaspa plant type with crop vigour, yield potential, improved grain splitting efficiency and disease resistance, particularly resistance to bacterial blight.

The variety is named after Butlers Beach on Yorke Peninsula in South Australia.



Better pulse varieties faster

PBA is an unincorporated joint venture between the GRDC, University of Adelaide, University of Sydney, SARDI, DEDJTR Victoria, NSW DPI, DAF QLD, DPIRD WA and Pulse Australia.

PULSE AGRONOMY

Agronomy and disease management information has been developed with the assistance of the 'Southern region pulse agronomy project' co-funded by GRDC, SARDI, DEDJTR Victoria and NSW-DPI.

FOR MORE INFORMATION

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Seednet 
Planting Productivity

Seednet's mission is:

"To deliver high performance seed based genetics to Australian grain growers and end user customers via superior product and service delivery channels".

Seednet is proud to partner with Pulse Breeding Australia and invest in the improvement of Australian lupin varieties.

AGRONOMIC ENQUIRIES

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