

## Disease Resistance

Morgan has similar tolerance to ascochyta and septoria as Dundale and Alma, but is susceptible to powdery mildew. It shows good resistance to downy mildew.

## Quality

Protein content and digestible energy of Morgan are similar to other varieties but cooking is quicker due to a smaller seed size.



Text:

Eric Armstrong of NSW Agriculture

Design and production:

Michel Dignand of NSW Agriculture



## Morgan field pea

A purple flowered, tall semi-leafless variety of field pea specifically selected for its high seed yield, early upright growth habit, competitive bulky growth and potential forage production and green manuring. It is a high performer throughout the southern NSW grain belt.

Morgan is late flowering and has dimpled dun/light green coloured seeds with yellow cotyledons.

### Seed Supplies



Natural Resources  
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AGRICULTURE  
RESOURCES  
CONSERVATION  
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NSW Agriculture



# Morgan



A new, vigorous, bulky, high yielding variety of field pea

# Morgan field pea

## Description

- purple flowered, semi-leafless.
- tall indeterminate growth habit, vines 1.5-2.5 m in length.
- flowers approximately 10-14 days later than Dundale.
- seed dimpled and dun/light green in colour, 15-20% smaller than Dundale, yellow cotyledons, seed coat lightly flecked. Averages 5,500 seeds per kg compared to 4,500 for Dundale.
- early growth similar to Dundale, but from early flowering onwards, grows more erect, more vigorous and produces significantly more dry matter.
- lodges towards maturity, but a bulky canopy assists lifting during harvest.

## Grain yield of Morgan

Morgan	Seed Type	Seed Size (g/100)	Yield %		Dundale *	
			South East NSW	West NSW	Central	West NSW
Alma	dun	18	105	107	100	100
Dundale	dun	22	100	100	100	100
Glenroy	dun	22	97	101	101	101
Bluey	blue	22	95	92	92	92
Bohatyr	white	24	101	99	99	99
Laura	white	16	101	103	103	103

\* Predicted yields from 30-40 trials conducted between 1992-1997 and where both seasonal and site variations have been minimised (BLUPS)

## Breeding and Development

Morgan (PSE23) was selected and developed by Dr Eric Armstrong, NSW Agriculture, at the Wagga Wagga Agricultural Institute, NSW. It originated from a cross between Dun, PS386 and Viktoria Dipp Gelbe by Dr JanBert Brouwer at the Victorian Institute for Dryland Agriculture, Horsham Victoria.



## Variety characteristics of Morgan

	Erect Habit	Leaf Type	Height	Powdery Mildew Resist.	Downy Mildew Resist.
Morgan	***	SL	T	N	VG
Alma	**	C	T	N	P
Dundale	**	C	T	N	P
Glenroy	**	SL	T	Y	M
Bluey	****	SL	S	N	M
Bohatyr	**	C	M	N	G
Laura	**	C	T	N	P

Erect Habit: the more stars, the more erect at maturity

Leaf Type: C - conventional; SL - semi-leafless

Height: T - tall; M - medium; S - short

Powdery Mildew Resistance: Y - yes; N - no

Downy Mildew Resistance: VG - very good; G - good; M - moderate; P - poor

## Commercial Licence

Morgan has been commercialised by Hart Bros. Seeds Pty. Ltd. under licence from NSW Agriculture and the Grains Research & Development Corporation.

## Seed Distribution

Hart Bros Seed, Auswest Seeds  
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## Agronomic Performance

- Morgan is widely adapted across all growing regions of southern NSW, yielding 10-15% more dry matter and 5-7% more grain than other current commercial varieties. Data from Victoria and South Australia indicates a similarly high performance.
- Morgan forms a dense canopy of foliage due to its vigorous growth and clinging tendrils, making it one of the most competitive pea varieties against weeds and also making it easier to lift at harvest.
- Morgan's smaller seed size compared to Dundale reduces the cost of sowing by 15%. Its low or nil hard-seed content compared to other dun varieties means germination and establishment are often high, and the problem of self-sown plants in subsequent crops is minimised.

## Mean DM production over 3 seasons at Wagga (1995-97)

