SW Celine$^{\Phi}$

White field pea

VMP 2008 #11

KEY FEATURES

- **High yielding white seeded variety with broad adaptation (see comments in yield section)**
- **Produces medium to large bright white grain suitable for both feed and split pea markets**
- **Semi leafless plant type with erect growth habit**
- **Early maturing variety, suitable for crop-topping in most regions**

Breeding and Development

SW Celine$^{\Phi}$ (SW965222) was bred in Sweden, released by Access Genetics and commercialised through Nuseed Pty Ltd.

Characteristics

SW Celine$^{\Phi}$ is a semi-leafless white pea of medium height with erect growth habit and white flowers. It has good early vigour and is early to commence flowering with a short to medium flowering duration with very early maturity making it suitable for crop topping in most regions.
SW Celine$^{\Phi}$ has good lodging resistance at harvest but does not have pod shatter resistance. It produces medium to large size creamy white grain that will be suitable to both human consumption and stockfeed markets. It has shown yield potential across a range of cropping zones in recent trials, but long term comparisons are limited.

Agronomic features & disease resistance

	Seed Type	Leaf Type	Plant height	Relative flowering time	Maturity	Standing at maturity	Pod shatter resistance	Black Spot	Downy mildew	Powdery mildew	*Bacterial Blight (*P. Syringae pv. syringae*)	Relative seed size (g/100)
SW Celine$^{\Phi}$	**White**	**SL**	**M**	**Early**	**Early**	**Good**	**S**	**S**	**MS-MR**	**S**	**S**	**22**
Bundi$^{\Phi}$	White	SL	M	Early	Early	Fair	R	S	R	MS	S	22
Snowpeak$^{\Phi}$	White	SL	M	Early	Early	Good	S	S	R	MS	S	22
Sturt$^{\Phi}$	White	C	T	Mid	Mid	Poor	S	S	MS	S	MR-MS	19
Excell$^{\Phi}$	Blue	SL	M	Early-Mid	Mid-Late	Good	VS	S	MR	S	S	22
Parafield$^{\Phi}$	Dun	C	T	Mid-Late	Late	Poor	S	S	S	S	MR-MS	23
Kaspa$^{\Phi}$	Dun	SL	M	Late	Late	Fair	R	MS-MR	MR	S	S	22

*Bacterial Blight testing is based on screening over the last 2 years for *Pseudomonas syringae pv.siringae* and further screening trials will continue.
Shattering: R = resistant; S = susceptible.
Leaf type: C = conventional, SL = semi-leafless.
Disease ratings: R = resistant; MR = moderately resistant; MS= moderately susceptible; S= susceptible.

Yield and adaptation

SW Celine$^{\Phi}$ has had limited evaluation in Australia and has shown yield potential across a range of environments but appears likely to be best suited to medium rainfall situations. There is however still very few site comparisons due to year's trialled and poor seasonal conditions to enable true consistency with long-term data analysis and this must be taken into account when interpreting the yield results below.

National Variety Trials – Long Term Yield as % of Kaspa, data range: 2000 to 2007

	NSW		Vic		SA			
	South-east	South-west	Wimmera	Mallee	Lower EP	Mid North	South East	Yorke P
SW Celine$^{\Phi}$	**103 (7)**	**105 (5)**	**102 (3)**	**103 (5)**	**103 (5)**	**100 (6)**	**100 (6)**	**96 (6)**
Bundi$^{\Phi}$	95 (48)	98 (21)	98 (16)	104 (26)	98 (7)	99 (19)	96 (11)	96 (11)
Snowpeak$^{\Phi}$	86 (62)	88 (30)	90 (18)	94 (30)	86 (6)	87 (18)	87 (9)	81 (8)
Sturt$^{\Phi}$	99 (59)	103 (27)	100 (18)	104 (34)	100 (11)	98 (27)	98 (17)	94 (15)
Excell$^{\Phi}$	86 (32)	87 (16)	86 (19)	87 (33)	86 (8)	85 (21)	85 (12)	83 (11)
Parafield$^{\Phi}$	100 (67)	102 (31)	93 (20)	96 (35)	97 (13)	94 (29)	95 (18)	91 (14)
Kaspa$^{\Phi}$ yield t/ha (100%)	2.37 (66)	1.64 (31)	1.97 (20)	1.56 (30)	2.42 (13)	2.56 (29)	3.11 (18)	2.41 (17)

Numbers in ( ) = site years. Yield data courtesy of Aust Crop Accreditation System – National Variety Trials.
Data also courtesy of SARDI, DPI Vic, NSW DPI before 2005

Management Package

(Consult local grower guides for more detailed information)

Sowing Date and Seeding Rate

- Due to its early maturity, avoid sowing SW Celine too early to avoid times of high frost incidence during pod fill, particularly in cooler districts such as the Victorian Wimmera and SA & Vic Mallee.
- Sowing date is similar to other early season varieties such as Bundi, Snowpeak and Excell.
- Target a minimum of 40 plants/sq m or greater relative to local recommendations increasing up to 60 plants/sq m when sown late.

Herbicide Sensitivity

It must be emphasised that crop tolerance and yield responses to herbicides are strongly influenced by seasonal conditions. Seasonal variability therefore makes it essential to validate herbicides on varieties over several seasons.

- In herbicide tolerance screening experiments in the low rainfall years of 2006 & 2007 on high pH alkaline soils at Minlaton (SA), SW Celine performed similarly to Kaspa to label rates of most herbicides recommended in field peas.
- Limited data suggests SW Celine may be more sensitive to Raptor® than Kaspa on these soil types, however further evaluation is required. Herbicide tolerance data is available on the NVT website *www.nvtonline.com.au*

Disease

- SW Celine is intermediate in it's resistance to downy mildew and may require a fungicide seed dressing in areas where the disease is a frequent occurrence, or in paddocks where downy mildew has been previously identified. Refer to *'Pulse Seed Treatments & Foliar Fungicides 2008' on www.pulseaus.com.au*
- SW Celine is susceptible to powdery mildew and foliar fungicides will be required in regions where this disease is a major problem.
- SW Celine is susceptible to bacterial blight, so bacterial blight management strategies will need to be implemented if grown in areas prone to this disease. Refer to *'Preventing Bacterial Blight in Field Peas' on www.pulseaus.com.au*
- SW Celine will need to be managed for black spot. Refer to *'Strategies for Disease Control in Field Peas' on www.pulseaus.com.au*

Harvest

- Early maturity may require harvest to be timelier to avoid severe pod shattering in areas prone to hot and dry weather. Harvest early (>12% moisture) to minimise the risk of shattering losses and cracking of grain.
- SW Celine is a semi-leafless pea with an erect habit that has shown good stand ability at maturity. Harvesting preparations are likely to be similar to Kaspa.

Grain Quality and Marketing

- SW Celine produces medium to large sized bright white grain suitable for stockfeed and human consumption markets. Market demand for whole white peas for either export or splitting domestically is currently small.
- SW Celine will likely need to be segregated from dun and blue pea types in markets other than stockfeed.

Seed Availability

SW Celine$^{\Phi}$ can only be retained by growers for their own seed as it is a protected by Plant Breeders Rights and any unauthorised commercial, propagation, or any sale conditioning export, import or stocking of propagating material of this variety is an infringement under the PBR Act, 1994.

Nuseed Pty Ltd is the marketer of the variety SW Celine.
For seed supply Phone: 1800 993 573

This variety is covered by PBR and attracts an end point royalty of $3.00 per tonne (GST Exclusive).

Further Information on growing SW Celine$^{\Phi}$

- I&I NSW publications: *Winter Crop Variety Sowing Guide; Weed Control in Winter Crops; Insect and Mite Control in Field Crops; Pulse Point Series.* (*www.dpi.nsw.gov.au*)
- SARDI fact sheet "Field pea variety sowing guide 2008" (*www.sardi.sa.gov.au*)
- Vic DPI "Winter Crop Summary 2007" (*www.dpi.vic.gov.au*).
- Pulse Australia bulletins: "Field pea disease management strategy for southern and western regions2003, (2006 update)", Pulse Tech-Note Flash "Pulse seed treatments and foliar fungicides 2008" (*www.pulseaus.com.au*).

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The contribution of the following people to either the extensive field testing, or the production of this publication is gratefully acknowledged: Peter Lockley, Technical Manager, DPI NSW; Jenny Davidson, Plant Pathologist, SARDI.