

Pulse Variety Demonstration

The aim of this demonstration is to show the wide range of varieties and crop types, how they look and perform under local conditions. The varieties are not replicated.

Method

Sea Lake: sown May 12

Table 1.10 Sea Lake Pulse Variety demonstration yields (t/ha)

Variety	Yield	Variety	Yield
Chickpeas		Fieldpeas	
Dooen	0.07	Dundale	-
Desavic	0.11	Bohatyr	-
Tyson	0.09	Laura	1.01
Lasseter	0.12	Bluey	0.58
Gully	0.19	PSH 3	0.66
Heera	0.11	PSH10	0.80
Sona	0.11	PSG 10	0.70
Bumper	0.11	PSI 5	0.73
Lentils		Prussian	0.47
Northfield	-	Maple	0.98
Cobber	0.07	Marrofat	0.39
Matilda	0.11	Magnet	0.56
Aldinga	0.09	King	0.70
Ansak	0.10		
Digger	0.19		
Cumra	0.11		
Cassab	0.11		
ILL7180	0.05		

Results/Interpretation

Sea Lake was extremely poor and the vetch was unharvestable. Laura fieldpeas yielded 1.01 t/ha, respectable for the season.

Note: If you are unfamiliar with a variety and would like some more information please contact your local Agriculture Victoria adviser.

Chickpea descriptions

Dooen	Medium to late maturity. Tendency to lodge under high rainfall conditions. Less drought tolerant than Tyson. Seed is a medium size and an attractive light brown colour.
Desavic	Tall desi-type with an erect growth habit. Flowers a few days later than Tyson, but has the ability to set pods rapidly and is well adapted to shorter growing environments. Sensitive to waterlogging and <i>Sclerotinia</i> . Seed larger than Dooen but of a darker brown colour.
Tyson	Early flowering desi-type, has some drought tolerance. Seed dark brown and not favoured by Australian processors because of its small size.
Lasseter	Early flowering desi-type with very pale mauve coloured flowers. Seed very large, even light brown colour, expected to satisfy a specialty market for whole-cooked grain. Susceptible to <i>Botrytis</i> grey mould.

Gully	Late maturing desi variety with resistance to several virus diseases occurring in northern NSW; moderately resistant to <i>Ascochyta blight</i> .
Heera	Early maturing desi variety with tolerance to low temperatures at pod set; suited to low to medium rainfall areas; moderately resistant to <i>Ascochyta blight</i> .
Sona	Early maturing desi variety with tolerance to low temperatures at pod set; suited to low to medium rainfall areas; susceptible to <i>Ascochyta blight</i> .
Bumper	Large seeded late flowering kabuli variety; susceptible to <i>Ascochyta blight</i> ; very susceptible to waterlogging.

Table I.11 Chickpea variety characteristics

Variety	Type	Ascochyta score	Flowering
Dooen	Desi	MR	Late
Desavic	Desi	VS	Late
Tyson	Desi	MR	Late
Lasseter	Desi	S	Mid
Gully	Desi	MR	Late
Heera	Desi	MR	Early
Sona	Desi	VS	Early
Kaniva	Kabuli	MS	Late
Bumper	Kabuli	S	Late

Lentil descriptions

Northfield	High yielding, mid season variety, which is moderately resistant to <i>Ascochyta blight</i> . Resistant to seed infection by <i>Ascochyta blight</i> . Small rounded seed with a pale seed coat.
Cobber	High yielding, mid season variety, which is moderately resistant to <i>Ascochyta blight</i> . Cobber has a medium sized rounded seed with a pale seed coat.
Matilda	High yielding, mid season variety, which is moderately resistant to <i>Ascochyta blight</i> . The seed size is smaller than Laird; a disadvantage for the export market.
Aldinga	High yielding, mid season variety which is moderately resistant to <i>Ascochyta blight</i> . Medium to large seed with a pale seed coat. Tends to lodge more than Cobber, Digger, and Northfield.
Ansak	Similar to Digger in disease resistance and flowering times, but not widely tested yet in Australia. Tends to lodge more than other varieties.
Digger	High yielding, mid-season variety, which is moderately resistant to <i>Ascochyta blight</i> . Digger has a medium sized seed with a dark seed coat.
Cumra	(ILL590) Early flowering red lentil variety suited to low and medium rainfall areas; susceptible to <i>Ascochyta blight</i> .
Cassab	(ILL7200) Early flowering red lentil variety suited to low and medium rainfall areas.
ILL7180	Digger type experimental line.

Fieldpea descriptions

Dundale	Dun type pea. Best suited to areas with medium (375mm) rainfall. Yellow cotyledons, suitable for splitting and stockfeed.
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Bohatyr	Pea bred in the Czech Republic. Early maturing, medium/tall variety with conventional leaves. Large even seeds, a smooth white seed coat and yellow cotyledons make it suitable for splitting.
Laura	White pea used for human consumption. Released in 1994. High yielding and widely adapted. Could suffer from small seeds (too small for splitting).
Bluey	Early maturing, high quality blue boiler variety suited to the green split pea market.
PSH3	(Excell) Semi-dwarf, semi leafless, white flower. The variety is significantly taller than other short varieties such as Bluey, King, Magnet or Bonzer. The variety has high early vigour and stands erect at harvest. Early flowering and maturing, the variety produces smooth, round blue seed suitable for splitting or canning. This variety shows moderate resistance to <i>Ascochyta blight</i> and downy mildew. Has shown a significant yield advantage in the Mallee, Wimmera, North Central, North East and South West regional variety trials in Victoria. Will not be available until the year 2000.
PSH 10	(Snowy) Semi-dwarf, semi leafless pea, but significantly taller than other short varieties such as Bluey, King, Magnet or Bonzer. Has high early vigour and stands erect at harvest. Early flowering and maturing, produces white flowers and smooth, round white seed, suitable for splitting. Shows moderate resistance to downy mildew. Shown a significant yield advantage in the Mallee, Wimmera, North Central, North East and South West regional variety trials in Victoria. Snowy will not be available until the year 2000.
PSG 10	(Paravic) Semi-dwarf pea with dun type grain. Early flowering and early maturing. Shows fair to good standing ability at maturity. It has purple flowers and produces dun type dimpled seeds with a green to brown seed coat and a yellow cotyledon. The variety has shown a significant yield advantage in the Mallee, Wimmera and North Central regions. Not available until 2000. Experimental line, semi-leafless, short purple flower.
PSI 5	Semi-dwarf, semi leafless, lodging resistant, white seed, early flowering / maturing. Large white seeded variety grown for human consumption; possible release in 1999.
Prussian	Mid season blue boiler variety; has a small potential market.
Maple	Pea type used as pigeon feed.
Marrofat	New pea type used for human consumption.
Magnet	Dun type; late flowering, short, semi-leafless variety.
King	Mid to late flowering but early maturing. Has conventional leaves and is short, with purple flowers and produces dun type dimpled seeds with a green to brown seed coat and a yellow cotyledon. Released for the medium to high rainfall regions of Western Australia. In Victoria, the line has poor early vigour, is very short and lodges badly.

Lupin descriptions

Gungurru	Adapted to medium-high rainfall areas. Outclassed by most new varieties.
Kiev Mutant	Earlier flowering than Merrit and Gungurru but slower to mature. Good aphid resistance and CMV but susceptible to BYMV. Possible lower yield compared to narrow leaf lupin. Prone to water logging.
Merrit	Standard; recommended for all rainfall environments.
Myallie	Adapted to low-medium rainfall areas. Has moderate brown leaf spot and phomopsis resistance, taller than Merrit, susceptible to aphids.

Ultra	Broad leafed, very similar to Kiev Mutant in maturing, not suited to drier areas. Under good conditions possible 10-15% yield advantage over narrow leafed varieties.
Kayla	Released in WA in 96, adapted to medium-high rainfall areas. Long term average, 112% of Merrit. Susceptible to pod shatter, lodging and premature drought stress in poor seasons. Moderate anthracnose resistance.
Wonga	Released in NSW 96, med-high rainfall alternative. Yields similar to Merrit in Victoria. Moderate anthracnose resistance.
Wodjil	Flowers 5-7 days after Gungurru but matures before. Immune to CMV but not BYMV. Very susceptible to anthracnose, insects and aphids. Possible premium in stockfeed market due to high protein and low oil.
Belara	Released in WA in 97. Long term average 107% of Merrit. Adapted to low-medium rainfall areas, greater resistance to phomopsis than all lupin varieties.
Tallerack	Experimental release in WA in 97. First restricted branching lupin release. Yield lower than Merrit in Victoria 95 and 96, 20% higher yielding than Merrit in the Mallee 97. Extremely susceptible to aphids.
Moonah	(84S017-26) A lupin variety has been released by Agriculture Victoria for Mallee and Wimmera environments. Grain yield in the Mallee is 12% greater than Merrit and superior to all current named varieties in Victoria. It is early flowering and maturing, has greater harvest height and more rapid early growth than Merrit. Moonah is under license to AWB Seeds (formally Revell Seeds), Dimboola.

Vetch descriptions

Blanchefleur	Low to medium rainfall variety (greater than 350mm). Susceptible to rust and chocolate spot. Potential stock feed for sheep, cattle and pigs.
Popany	Requires high rainfall. Late maturing variety (greater than 450mm). Resistant to rust, potential stock feed for sheep and cattle.
Morova	New common vetch variety to be commercially released in 1999; later flowering than Blanchefleur; good rust resistance and more resistant to shattering than other varieties; suitable for grain in medium and high rainfall areas and forage or green manure crop in all areas.
Capello	<i>Vicia villosa</i> (woolly podded vetch) variety licensed to Seedco; suited to high rainfall areas and soils with a pH from 4.8 to 8.5; good disease resistance but susceptible to insect attack (red legged earth mites, aphids and heliothis); produces 80-90% soft seed.
Vestar	Common vetch variety licensed to Seedco; suited to medium to high rainfall areas and soils with a pH from 4.8 to 8.5; susceptible to disease (including rust) and insect attack; produces 80-90% soft seed.