

# Boomer

## Green Lentil

### VARIETY SUMMARY

- Broadly adapted, medium to large sized green lentil with superior seed quality
- Mid flowering variety best suited to medium rainfall areas
- Moderately resistant to ascochyta blight and improved resistance to ascochyta seed staining compared with Matilda (similar to Nugget)
- Moderately resistant to botrytis grey mould
- Excellent height, vigour and biomass production
- Suitable for human consumption



### BREEDING

Boomer (formerly CIPAL402) was bred by Dr Michael Materne, Senior Lentil Breeder, Department of Primary Industries Victoria as part of the Coordinated Improvement Program for Australian Lentils (CIPAL). Boomer was selected for its superior seed size and excellent vigour compared with Matilda. It was derived from a cross between Digger and Palouse and is the first green lentil variety to be bred in Australia for Australian conditions.



### PLANT CHARACTERISTICS

Boomer has excellent early vigour and produces greater biomass levels than all other lentil varieties. If sown too early or under high rainfall conditions, the combination of excellent height and biomass production may increase the risk of lodging and grey mould infection in Boomer. In areas where the risk of botrytis grey mould is high, sowing of Boomer should be slightly delayed and fungicides used strategically (see Pulse Australia Lentil Disease Management Guide). Boomer is more prone to shattering than other varieties and therefore early harvest is critical. Timely harvest is also important to maximise seed quality.

Boomer has similar levels of tolerance to salinity, sodicity and high soil boron levels compared to Northfield, but has lower levels of salinity tolerance compared to Nipper.



### AREA OF ADAPTATION

Boomer is broadly adapted to medium rainfall areas of south-eastern Australia suitable for lentil production. Boomer is a lower risk, better quality green lentil variety than Matilda. Early flowering and good vigour make Boomer suited to drier areas but where the season terminates quickly, seed size may be smaller.



### MATURITY

Boomer is a mid flowering variety, flowering at a similar time to Nugget but maturing later. Boomer may be sown at the same time as Nugget and Northfield.



### DISEASE RESISTANCE

**Table 3:** Key agronomic features and disease resistance of Boomer compared to other lentil varieties.

Type	Variety	Salinity*	Botrytis foliage	Ascochyta foliage	Ascochyta seed
Small red	Nipper	MT	R	R	R
	Northfield	I	S	R	R
Medium red	Digger	I	MR <sup>^</sup>	MR	MS
	Nugget	I	MR	MR <sup>^</sup>	MS <sup>^</sup>
Large red	Aldinga	I	MS	MR	MS
Large green	<b>Boomer</b>	<b>I</b>	<b>MR<sup>^</sup></b>	<b>MR<sup>^</sup></b>	<b>MS</b>

<sup>^</sup>These varieties have a lower risk of developing disease than others of the same rating. Disease Terms: R - Resistant, MR - Moderately Resistant, MS - Moderately Susceptible,

Type	Variety	Seed coat colour	Seed size relative to Nugget	Vigour	Plant type	Flowering*	Maturity*	Lodging*	Shattering*
Small red	Nipper	Grey	20%<	Poor-mod	Short	Mid-late	Mid	MR	MR
	Northfield	Tan	20%<	Poor-mod	Short	Mid-late	Mid	MS	MR
Medium red	Digger	Grey	Similar	Mod	Med	Mid	Mid-Late	MS	MR
	Nugget	Grey	-	Mod	Med	Mid	Mid-Late	MR-MS	MR
Large red	Aldinga	Green	20%>	Mod	Med	Mid	Mid	S	MR
Large green	<b>Boomer</b>	<b>Green</b>	<b>50%&gt;</b>	<b>Good</b>	<b>Tall</b>	<b>Early-Mid</b>	<b>Mid-Late</b>	<b>MS</b>	<b>MS</b>

\* Relative to Digger

Disease Terms: MR - Moderately Resistant, MS - Moderately Susceptible, S - Susceptible

 **YIELD**

Average long term yield of Boomer has been higher than Nugget and Northfield in Victoria and South Australia.

**Table 1.** Long term yield performance (2003-09) in VIC (NVT 2010)

Type	Variety	Mallee	Wimmera
		% Nugget	
Small red	Nipper	94	96
	Northfield	90	91
Medium red	Digger	95	93
	Nugget	100	100
Large red	Aldinga	96	93
Large green	<b>Boomer</b>	<b>102</b>	<b>99</b>

**Table 2.** Long term yield performance (2003-09) in SA (SARDI 2010 Harvest Report)

Type	Variety	Mid Nth	Yorke Pen	Sth East	Mallee	Lower EP
		% Site mean				
Small red	Nipper	101	98	100	98	100
	Northfield	92	94	94	90	92
Medium red	Digger	96	95	97		97
	Nugget	99	101	102	100	101
Large red	Aldinga	96	98	97		96
Large green	<b>Boomer</b>	<b>104</b>	<b>106</b>	<b>107</b>	<b>104</b>	<b>105</b>

 **SEED CHARACTERISTICS**

Boomer is a large seeded green lentil, approximately 30% larger than Matilda. It has improved levels of ascochyta blight and grey mould resistance compared with Matilda and provided high disease risks are managed and harvest is timely, Boomer should more easily achieve minimum receival standards for seed coat colour.

Boomer is suitable for human consumption markets and being larger than Matilda, is likely to be more competitive with international varieties in existing markets for green lentil. Full acceptance of Boomer into such markets is subject to further evaluation.

 **AGRONOMIC GUIDELINES**

A detailed Variety Management Package for Boomer is available through Pulse Australia or our website [www.seednet.com.au](http://www.seednet.com.au)

 **PLANT BREEDER RIGHTS AND ROYALTIES**

Boomer is protected by Plant Breeder Rights, any unauthorised commercial propagation or any sale, conditioning, export, import or stocking of propagating material of this variety is an infringement under the Plant Breeder's Rights Act, 1994.

Growers are allowed to retain seed from production of this variety for their own use as seed only. An End Point Royalty of \$5.50 per tonne (GST inclusive), which includes breeder royalties, applies to this variety.

**ACKNOWLEDGEMENTS**

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