



## White Star – a versatile cream skinned fresh market potato

By Jeff Mortimore and Peter Dawson

White Star is an improved winter variety which was selected in WA for its ability to produce, under adverse growing conditions, large tubers that have versatile culinary quality and good taste. White Star was first produced commercially in Western Australia in 2003 after identification as a superior variety in 2000 from winter planted selection plots. In 2006, approximately 300 tonnes of White Star were produced for the spring fresh market. This amount is expected to increase in the next few seasons as seed supplies increase. Consumer taste tests on White Star have indicated that 89% of consumers rated the taste as good to excellent. White Star was placed on the Potato Marketing Corporation of Western Australia's Preferred Variety List in December 2005.



### Description of White Star

#### Tuber characteristics

White Star has cream coloured skin and flesh. Under cool conditions, tubers are oblong with shallow eyes and smooth skin. It produces larger tubers than Nadine or Delaware. White Star had higher dry matter, as measured by specific gravity, in field tests compared to Nadine although White Star showed slightly more sloughing (Table 1).

#### Plant characteristics

White Star is a medium height plant with medium to large leaves in winter. In warm conditions leaves can be smaller with some rolling of the margins. Stems are strong and have a red/brown pigment. Flowers are dark mauve to purple.

#### Cooking characteristics

When grown in winter on coastal sands, White Star is a multipurpose, medium dry matter potato. It has a better mash quality compared to Nadine and is also suitable for boiling, microwaving, roasting and frying. White Star has a light fry colour.

#### Field performance

White Star is suitable for planting in the Perth region from March to June and at Myalup from June to July. It sets an average of 8 to 10 tubers per plant. Commercial tests

Table 1. Average yield and quality measurements of White Star and Nadine grown in two May planted experiments in the Perth region of Western Australia.

Measurement	Variety	
	Nadine	White Star
Grade No 1 (t/ha)	40.5	52.1
Tubers per plant	9.2	8.0
Specific gravity	1.054	1.070
Crisp colour (1-10)†	8.5	3.7
Sloughing (1-5) †	1.1	1.5
Internal disorders (%)	16	3
Mash quality (1 test)‡	**	***

† a lower score is better

‡ more stars is better

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conducted on White Star indicate yields were similar to other varieties but the pack out was superior. In 2003, 82% of White Star yield and in 2004, 75% of yield was suitable for the Class 1 grade. Less small tubers are produced by White Star (3% in 2003 and 4% in 2004 of total yield).

White Star is not recommended to be planted in other regions as during warmer conditions, tubers may become distorted with deeper eyes and production from heavier red soils will result in unacceptable after-cooking darkening. Growers intending to plant White Star should check with the Potato Marketing Corporation that it is specified as a preferred variety for their intended Pool.

#### Spacing

The recommended plant spacing is 25 to 30 cm for planting during autumn in the Perth region. The same spacing is recommended for June and July plantings in the Myalup region.

#### Pests, diseases and disorders

White Star is tolerant to powdery scab. It is susceptible to most other common diseases of potatoes, particularly if poor management practices are adopted. The potato cyst nematode (PCN) resistance of White Star is not known.

## Management

White Star is a relatively new variety and the agronomic information available is limited.

The same management strategy used for commercial crops of Nadine on coastal sands has been used by growers to produce good crops of White Star.

## Origin

White Star was bred by The Department of Primary Industries, Victoria. Its parents are Gladiator x 91-158-6. White Star was selected for winter fresh market production in WA by the Department of Agriculture and Food.

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