JANUARY 2017

ALL ABOUT ALMONDS

ESTABLISHMENT

AUSTRALIAN ALMOND VARIETY - MIRA

Mira is an upright spur bearing tree that is suited to planting in traditional orchard densities. The hull flares away from the shell in a 'banana' fashion and the semi-hard shell reduces kernel quality downgrades and late season bird damage.

KEY POINTS

- Self-fertile variety
- Spur bearing
- Late Pollinator for Nonpareil
- High cropping capacity

POMOLOGICAL TRAITS

Growth habit Slightly open
Branching density Medium
Nut location Mainly one year old wood
Flowering time Medium, full bloom 3 days later than Nonpareil
S compatibility genotype S7Sf
Pollination Self-fertile variety. Cross pollination unnecessary. Good level of autogamy
Compatible Pollinators Nonpareil, Carmel, Padre, Butte, Wood Colony, Capella, Maxima
Flowering density High
Length of flowering Medium, approx. 3 weeks
Bearing precocity Precocious
Cropping capacity High
Cropping regularity Good. Little to no alternate bearing
Bacterial spot tolerance Good
Harvest season Mid
Harvest ease Good
Husking ease Good. Hull is easily separated from shell

COMMERCIAL TRAITS

Nut shape Cordate
Kernel size Medium (1.27 g)
Crackout percentage 30%
Shell texture Semihard shell
Double kernels No doubles
Kernel appearance Attractive, skin colour light
Kernel composition Oil 61.3%; oleic acid 59.3%; Vitamin E 59.3 mg/100g oil

GLOBAL ASSESSMENT

Mira has an upright to slightly spreading growth habit and has consistently out yielded the current industry benchmark, Nonpareil by 17% (eight years of yield assessments). It has superior fruit characteristics with a semi-hard shell, fully sealed shell and sweet tasting, lightly coloured kernel. The kernel is less likely to be damaged by insects and moisture due to the fully sealed shell, enabling a higher quality kernel. The semi-hard shell is less likely to result in bird damage during the growing season. It can be used as an late pollinator for Nonpareil, replacing Carmel or Wood Colony. Mira crops mostly on spurs and the in-shell and kernel appear very similar to Carina The hull detaches easily from the shell at harvest, a characteristic that may lend itself to in-field de-hulling in the future. Mira is self-fertile and can pollinate itself in single variety orchards.

TRAIT	ASSESSMENT CRITERIA	RATING (/10)	
		NON PAREIL	MIRA
PRODUCTION			
Flowering date	Preferable same as Nonpareil, -3 to +14 days for sf, -3 to +7 for non-sf	5	8
Flowering	Spur bearing, flower to fruit set ratio	6	6
S Incompatibility group	Self-compatible pollen, flower autogamy, bag sf's, bring bees	0	10 (sf)
Precocious	Precocious, first crop year 3, yield to canopy volume ratio	6	8
Vigour	Intermediate to high but must be balanced with fruitfulness	7	7
Growth habit	Upright, limbs at 40° from vertical, non-weeping, no blind wood	8	8
Branching density	No blindwood	6	6
Ease of training and pruning	Non-weeping	8	8
Harvest Time	No later than Nonpareil plus 30 days (i.e. < Monterey)	6	6
Fruit retention - Minimal windfalls	Minimise food safety risk, facilitate shake and catch	6	7
Fruit retention - Minimal mummies	No stick tights	3	3
High yielding	2.5 - 3.0 tonnes/ hectare, yield to canopy volume ratio	7	9
Regular production	No alternate bearing	7	N/A
PEST & DISEASE RESISTANCE			
Rust		6	6
Hull rot		0	5
Bacterial spot		8	8
Anthracnose		6	6
Monilinia		7	7
NIBF		6	**
Carob moth		0	10
Mites		5	5
Black Peach Aphids		5	5
PROCESSING			
Hulling and shelling ease	Thin hull, easily removed with minimal damage to kernel	8	8
Shell type	Less than or equal to "hard"	5	10
Shell seal	Well sealed to avoid insect damage and mould contamination	0	10
Crackout ratio	Good kernel to waste (hull and shell) ratio	7	7
Roasting	Good after roasting in terms of flavour; flesh colour; life	7	**
Blanching	Easily blanched	7	**
PRODUCT QUALITY			
Double kernels	Less than 5%	7	7
Kernel size/ weight	Minimum 1.24g; optimum range 18-24 kernel per ounce	7	9
Kernel shape	Oval, smooth	8	8
Testa colour	Golden testa; "clean" & "clear"	9	9
Testa pubescence	Smooth, "clean", no "dusty" appearance	9	9
Kernel meat	White, no brown areas	9	9
Staining propensity	Shell and kernel	0	9
Oil content	High but not quantified (Nonpareil 56.5% in 2013 Riverland)	7	9
Flavour	Sweet, strong almond flavour, typical, non-bitter	6	6
Storage life	Shelf life of processed product	6	**

** Yet to be assessed.

MORE INFORMATION

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PROJECT CODE

AL12015

This project has been funded by Horticulture Innovation Australia Limited using the almond research and development levy and funds from the Australian Government.

Acknowledgements:
Dr. Michelle Wirthensohn, University of Adelaide

The input and suggestions made by Australian almond processors, marketers and growers.