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.

### 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 a 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)**<br>P <br>P <br>NON <br>MIRA <br>——<br>——<br>——<br>——<br>——<br>Flowering date | Preferable same as Nonpareil, -3 to +14 days for sf, -3 to +7 for non-sf | 5 <br>8<br>Flowering | Spur bearing, flower to fruit set ratio | 6 <br>6<br>S Incompatibility group | Self-compatible pollen, flower autogamy, bag sf’s, bring bees | 0 <br>10 (sf)<br>Precocious | Precocious, first crop year 3, yield to canopy volume ratio | 6 <br>8<br>Vigour | Intermediate to high but must be balanced with fruitfulness | 7 <br>7<br>Growth habit | Upright, limbs at 40° from vertical, non-weeping, no blind wood | 8 <br>8<br>Branching density | No blindwood | 6 <br>6<br>Ease of training and pruning | Non-weeping | 8 <br>8<br>Harvest Time | No later than Nonpareil plus 30 days (i.e. < Monterey) | 6 <br>6<br>Fruit retention - Minimal windfalls | Minimise food safety risk, facilitate shake and catch | 6 <br>7<br>Fruit retention - Minimal mummies | No stick tights | 3 <br>3<br>High yielding | 2.5 - 3.0 tonnes/ hectare, yield to canopy volume ratio | 7 <br>9<br>Regular production | No alternate bearing | 7 <br>N/A<br><br>**PEST & DISEASE RESISTANCE**<br><br>Rust | | 6 <br>6<br>Hull rot | | 0 <br>5<br>Bacterial spot | | 8 <br>8<br>Anthracnose | | 6 <br>6<br>Monilinia | | 7 <br>7<br>NIBF | | 6 <br>**<br>Carob moth | | 0 <br>10<br>Mites | | 5 <br>5<br>Black Peach Aphids | | 5 <br>5<br><br>**PROCESSING**<br><br>Hulling and shelling ease | Thin hull, easily removed with minimal damage to kernel | 8 <br>8<br>Shell type | Less than or equal to “hard” | 5 <br>10<br>Shell seal | Well sealed to avoid insect damage and mould contamination | 0 <br>10<br>Crackout ratio | Good kernel to waste (hull and shell) ratio | 7 <br>7<br>Roasting | Good after roasting in terms of flavour; flesh colour; life | 7 <br>**<br>Blanching | Easily blanched | 7 <br>**<br><br>**PRODUCT QUALITY**<br><br>Double kernels | Less than 5% | 7 <br>7<br>Kernel size/ weight | Minimum 1.24g; optimum range 18-24 kernel per ounce | 7 <br>9<br>Kernel shape | Oval, smooth | 8 <br>8<br>Testa colour | Golden testa; “clean” & “clear” | 9 <br>9<br>Testa pubescence | Smooth, “clean”, no “dusty” appearance | 9 <br>9<br>Kernel meat | White, no brown areas | 9 <br>9<br>Staining propensity | Shell and kernel | 0 <br>0<br>Oil content | High but not quantified (Nonpareil 56.5% in 2013 Riverland) | 7 <br>9<br>Flavour | Sweet, strong almond flavour, typical, non-bitter | 6 <br>6<br>Storage life | Shelf life of processed product | 6 <br>**<br><br>**DISCLAIMER**<br><br>Any recommendations, suggestions or opinions contained in this publication do not necessarily represent the policy or views of the Almond Board of Australia. No person should act on the basis of the contents of this publication without first obtaining specific, independent, professional advice. The Almond Board of Australia and contributors to this Fact Sheet may identify products by proprietary or trade names to help readers identify particular types of products. We do not endorse or recommend the products of any manufacturer referred to. Other products may perform as well as or better than those specifically referred to. The ABA will not be liable for any loss, damage, cost or expense incurred or arising by reason of any person using or relying on the information in this publication.