



# ALL ABOUT ALMONDS

AUSTRALIAN  
ALMONDS

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## Californian Varieties: Monterey

Brett Rosenzweig, Almond Board of Australia



### Origin

Chance seedling of Nonpareil x Mission released in 1974 by Burchell Nursery

### Pomological Traits

**Tree vigour:** Moderate

**Foliage density:** Medium

**Growth habit:** Very spreading

**Branching density:** Medium

**Nut location:** Spurs and one year old wood

**Flowering time:** -5 to 0 days Nonpareil

**S compatibility genotype:** S<sub>1</sub>S<sub>8</sub>

**Genetic compatibility to Nonpareil:** 50%

**Pollination:** Cross-pollination needed

**Pollinators:** Nonpareil, Carmel, Wood Colony, Livingston

**Flowering density:** High, low/moderate pollen load

**Length of flowering:** Medium

**Bearing precocity:** Precocious

**Cropping capacity:** Heavy

**Cropping regularity:** Good

**Bacterial spot tolerance:** Good

**Hull Rot tolerance:** Good

**Harvest season:** +22 days Nonpareil

**Harvest ease:** Good

**Husking ease:** Good, hull is easily separated from shell



### Commercial Traits

**Classification:** California

**Nut shape:** Elliptical

**Kernel size:** Large (1.40 – 1.68g)

**Crack-out percentage:** 31 - 34%

**Shell texture:** Medium

**Shell seal:** Good

**Double kernels:** Yes

**Kernel appearance:** Large, slightly dark skin colour with pronounced wrinkles



### Comments

Very prone to limb breakage. Requires careful scaffold selection and tree training when young. Very late harvest.

CHARACTERISTIC	COMMENTS	SCORE (/10)											(** Yet to be assessed)			
		Nonpareil	Carmel	Price	Peerless	Butte	Padre	Monterey	Livingston	Wood Colony	Sonora	Avalon		Independence		
<b>PROCESSING</b>		5	5	5	5	4	4	5	5	5	5	5	5	5	5	5
Flowering Date	Preferable same as Nonpareil, -3 to +14 days for sf, -3 to +7 for non-sf															
Flowering	Spur bearing, flower to fruit set ratio	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
S incompatibility Group	Self-compatible pollen, flower autogamy, bag sfs, bring bees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10 (sf)
Precocious	Precocious, first crop year 3, yield to canopy-volume ratio	6	7	6	6	6	6	7	8	7	6	6	6	6	6	6
Tree- Vigour	Internediate to high but must be balanced with fruitfulness	7	8	7	7	7	7	8	7	7	7	7	7	7	7	7
Tree- Growth habit	Upright, limbs at 40° from vertical, non-weeping, no blind wood	8	8	9	8	8	9	4	8	9	8	9	8	9	8	8
Tree- Branching density	No blindwood	6	6	7	6	6	7	4	6	7	6	7	6	7	6	6
Tree- Ease of training and pruning	Non-weeping	8	8	8	8	8	9	4	8	8	7	8	7	8	8	8
Disease resistance - Rust		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Disease resistance - Hull rot		0	7	7	7	7	7	7	7	7	7	7	7	7	2	7
Disease resistance - Bacterial spot		8	8	6	8	6	6	6	8	8	8	8	8	8	8	6
Disease resistance - Anthracnose		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Disease resistance - Monilia		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Physiological disorders - NIBF		6	0	6	6	6	6	6	6	6	6	6	6	6	6	6
Pest resistance - Carob moth		0	7	7	7	7	7	7	7	7	7	7	7	7	0	7
Pest resistance - Mites		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Pest resistance - Black Peach Aphids		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Harvest Time	No later than Nonpareil plus 30 days (i.e. < Monterey)	6	6	6	6	6	6	5	4	6	6	6	6	6	6	6
Fruit retention - Minimal windfalls	Minimise food safety risk, facilitate shake and catch	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Fruit retention - Minimal mummies	No stick tights	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
High yielding	2.5 - 3.0 tonnes/ hectare, yield to canopy volume ratio	7	8	5	7	7	7	7	7	7	7	7	7	7	7	6
Regular production	No alternate bearing	7	7	4	6	7	7	7	7	7	7	7	7	7	5	7
<b>PROCESSING</b>																
Hulling and shelling ease	Thin hull, easily removed with minimal damage to kernel	8	7	7	7	7	7	7	7	7	7	7	7	7	8	7
Shell type	Less than or equal to "hard"	5	6	5	8	1	1	5	5	1	5	1	5	1	5	1
Shell seal	Well sealed to avoid insect damage and mould contamination	0	9	9	9	9	9	9	9	9	9	9	9	9	0	9
Crackout ratio	Good kernel to waste (hull and shell) ratio	7	7	7	5	5	5	7	7	7	7	7	7	7	7	7
Roasting	Good product after roasting in terms of flavour, flesh colour, life	7	**	**	**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Blanching	Easily blanched	7	**	**	**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>PRODUCT QUALITY</b>																
Double kernels	Less than 5%	7	7	7	7	7	7	7	7	7	4	7	7	7	7	7
Kernel size/ weight	Minimum 1.24g, optimum range 18-24 kernel per ounce	7	7	6	7	5	5	8	7	7	7	7	7	7	7	8
Kernel shape	Oval, smooth	8	7	7	7	5	5	7	7	7	7	7	7	8	7	8
Testa colour	Golden testa, "clean" & "clear"	9	7	6	6	6	6	6	7	7	6	7	7	6	9	7
Testa pubescence	Smooth, "clean", no "dusty" appearance	9	7	7	6	6	6	7	7	6	7	7	6	9	7	8
Kernel meat	White, no brown areas	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Staining propensity	Shell and kernel	0	8	8	8	8	8	8	8	8	8	8	8	8	0	8
Oil content	High but not quantified	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Flavour	Sweet, strong almond flavour, typical, non-bitter	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Storage life	Shelf life of processed product	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6

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