

Macadamia

Macadamia integrifolia, *Macadamia tetraphylla*

(a) *Macadamia integrifolia*



Common names	Queensland nut, bush nut, maroochi nut, queen of nuts, bauple nut, gyndl, jindilli, boombera
Origin	Native to eastern Australia, New Caladonia and Sulawesi in Indonesia. Belongs to Proteaceae family.
Description	A subtropical tree that produces a fine, creamy-sweet, round nut.
Growth Habitat	A mild, frost-free climate with abundant rainfall throughout the year. High summer temperatures can reduce yields.
Foliage	Leaves are opposite in seedlings, later in spirals of 3 or 4s, pale green, bronze, purple or reddish when young.
Flowers	The flowers are produced in a long, slender, simple raceme 5-30 cm long, the individual flowers 10-15 mm long, white to pink or purple, with four tepals.
Fruits	<i>Macadamia tetraphylla</i> trees, having rough-shelled nuts, produce nuts with a high carbohydrate content, sweeter flavor, and a lower oil content than those from the

	smooth-shelled <i>M. integrifolia</i> nuts. The high oil content of <i>M. integrifolia</i> makes it superior to <i>M. tetraphylla</i> for roasting and salting.
Soil	Macadamias will perform on a wide range of well drained, soil types from open sands and lava rock soils to heavy clay soils. One to 2m deep, rich, organic soils with a pH of 5.5 to 6.5 are considered ideal. High salinity in soil or water is not tolerated.
Pruning	Remove lower branches to about 1m at the trunk and 1.5 at the skirting. Side trim to increase light and spray penetration. Heavy trimming results in vigorous regrowth and crop loss.
Fertilization	Small quantities of nitrogen fertilizer are needed since macadamias grow slowly. Six months after planting, a citrus mix or fish emulsion can be given containing no more than 1% nitrogen at least twice a year. About 2.2kg of citrus mix per application for a mature tree and young trees will be proportionally less.
Propagation	Usually propagated by grafting, and does not begin to produce commercial quantities of seeds until it is 7-10 years old, but once established, may continue bearing for over 100 years.
Harvest	Nuts are collected from the ground, using hand harvesters, then taken away for machine dehusking.
Nutritional Properties	Macadamias are high in fat and low in protein. They have the highest amount of monounsaturated fats of any known seed and contain approximately 22% of omega-7 palmitoleic acid. They also contain 9% protein, 9% carbohydrate, and 2% dietary fiber, as well as calcium, phosphorus, potassium, selenium, iron, thiamine, riboflavin and niacin.
Health Benefits	Macadamias are a source of : <ul style="list-style-type: none"> • Antioxidants--macadamias contain phytosterols, which offer strong antioxidant potential against

	<p>cancer.</p> <ul style="list-style-type: none"> • Complex carbohydrates • Fiber--macadamias contain soluble fibres such as lignans, hemicellulose, and amylopectins. • Phytochemicals--tocopherols and tocotrienols • Protein--macadamias contain high levels of protein • Minerals--calcium, magnesium, zinc, copper, selenium • Monounsaturated fats--macadamias contain high amounts of monounsaturated fats, which reduce blood serum cholesterol levels • Vitamins--vitamin E, thiamine, riboflavin, niacin, folate
<p>Commercial Uses</p>	<p>Macadamia nuts are considered a gourmet food. They are used in specialty chocolates, candies and baked goods. Macadamia oil, with a buttery taste, is used in salad dressings, stir fries, baking and frying. The oil is also used in cosmetics, skin care and hair care.</p>
<p>Food Suggestion</p>	<p>White Chocolate Macadamia Nut Cookies</p> <p><u>Ingredients (Abt 48 cookies):</u></p> <ul style="list-style-type: none"> • 225 g butter, softened • 165 g packed light brown sugar • 100 g white sugar • 2 eggs • 3 ml vanilla extract • 3 ml almond extract • 310 g all-purpose flour • 5 g baking soda • 3 g salt • 135 g coarsely chopped macadamia nuts • 175 g coarsely chopped white chocolate <p><u>Instructions:</u></p> <ol style="list-style-type: none"> 1. Preheat oven to 175 C 2. In a large bowl, cream together the butter, brown sugar, and white sugar until smooth. Beat in the eggs, one at a time, then stir in the vanilla and almond extracts.

	<ol style="list-style-type: none">3. Combine the flour, baking soda, and salt; gradually stir into the creamed mixture.4. Mix in the macadamia nuts and white chocolate.5. Drop dough by teaspoonfuls onto ungreased cookie sheets.6. Bake for 10 minutes in the preheated oven, or until golden brown.
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