



# Walnuts

## About Walnuts

Common walnut is called the English or Persian walnut (*Juglans regia*). Trees are large, deciduous, 20 to 30 m tall, spreading, and not dense. Walnuts produce both male and female flowers, but at different times. Flowers form on previous year's growth. Walnuts are wind pollinated. Bud burst is in the spring and pollen is released 10 to 12 days afterwards. Full bloom of female flowers is 15 to 18 days later. Nut maturity is in the Fall. Common varieties include Franquette, Hartley, Sunland, and Chandler.



## Climate and soil

Temperature	Frost tolerance	Water needs	Tolerance to water logging	Drought tolerance
Cool to warm temperate climates	Late spring frosts, below -1°C, can damage flowers, new shoots and young trees	At least 760 mm of rain. Irrigation is beneficial	Damaged by high water table, need a least 3 m of drainage	Moderate

  

Humidity tolerance	Wind tolerance	Soil needs	Nutrient requirements
Dislikes cool, wet weather in spring	Grows slowly in persistent wind, susceptible to limb breakage	Likes deep fertile soils	Moderate amounts of N and K, small amounts of P. maintain pH above 5.8

## Cultural practices

Propagation	Normally grafted
Rootstocks	Seedling of American black walnut and a hybrid called Paradox
Spacing	Traditionally 12 to 18 m – now 9 m
Training and Pruning	Central leader systems
Thinning	Not required
Tillage and orchard care	Clean cultivated and level ground
Time to 1 <sup>st</sup> harvest	4 to 5 years
Time to full production	10 to 20 years
Normal productive life	50 to 100 years
Expected yields	Good soils and cultivars, initially planted in double spacing: 4 years: 1 ton/hectare 8 years: 4 ton/hectare 12 years: 5 ton/hectare
Harvest	Hand or machine (Shake and then sweep)
Storage	Remove nuts from husks and keep in dry, airy, vermin-proof bins
Pests and diseases	Bacterial blight. Less severe: codling moth, navel orange worm, aphids, scale, huskfly

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**Primary reference:** Jackson, D.I. and Looney, N.E. 1999. Temperate and Subtropical Fruit Production. 2nd Ed. CABI Publishing. Wallingford (United Kingdom)

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