

Ziziphus *jujuba* Jujubes, Chinese Red Dates



Doubtless many would have tried Jujubes or at least seen these dried fruits in Asian supermarkets, but they are not what you might expect. In spite of the common name (Chinese Red Dates) they are not even closely related to dates – the fruit of the Date Palm, *Phoenix dactylifera*. Dates grow on large palms in the *monocot* clade and are cultivated extensively throughout the Middle East and North Africa, while Chinese Red Dates are the fruit of *Ziziphus jujuba*, a small deciduous *eudicot* tree originating in the valley of the Yellow River.



The fresh fruits are totally unlike the dried version. They look rather like a small apple with smooth white to greenish skin. The white flesh is crisp and crunchy, again a bit like an apple, but the fruit darkens through the production of tannins as it matures, eventually becoming wrinkled and dry and turning reddish brown. They look like dates, and in



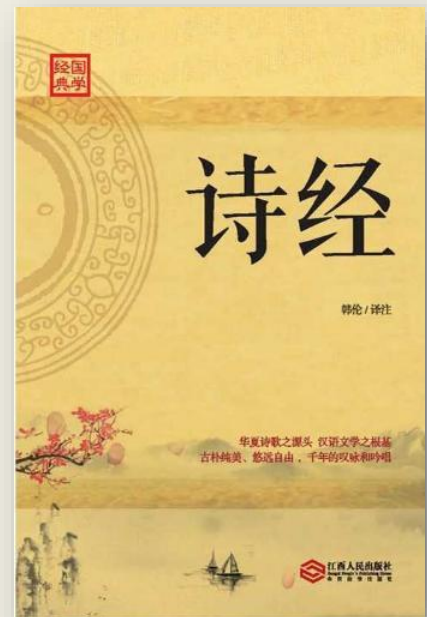
China are called 红枣, (Hong Zao), literally Red Dates! They are one of the oldest cultivated fruit trees in the world; cultivation in China can be traced back to the Neolithic age more than 7000 years ago based on charred fruit and seeds unearthed in archaeological digs at Neolithic sites in Henan Province. The trees are valued not only for their nutritional value but also for tolerance to drought as well as to infertile, saline and alkaline soils.



Ziziphus jujuba – Chinese Red Dates.
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Ziziphus is a genus of about 50 species in the plant family Rhamnaceae. These are found across Africa, Asia and Australasia. It is suggested that *Ziziphus* evolved in Asia during the Oligocene, then dispersed across Asia to Africa where species occupy a range of biomes

A Chinese classic, the *Book of Songs*, 诗经 (Shi Jing), the oldest existing collection of Chinese poetry dating from about 3000 years ago, mentions the cultivation of Red Dates. A much later agricultural book, but still ancient, written about 1500 years ago, 齐民要术(Qi Min Yao Shu), by the famous Chinese agronomist, 贾思勰 (Jia SiXie), recorded 45 varieties of Red Dates, and documented techniques for cultivation and processing, including selection of wild trees with the tastiest fruit, orchard site selection, planting, flower thinning, fruit harvesting and processing.



Approximate natural distribution of *Ziziphus jujuba* – Chinese Red Date.
Modified from Zhao et al. 2021



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including rainforest, desert and savanna. Flowers are fly and wind pollinated, and fruit are dispersed by birds and mammals including some carnivores.

What is the origin of the generic name *Ziziphus*? It is from the Persian, *Zizfum* زى زفوم, or *Zizafun* – and not to be confused with *Sisyphus* of Greek mythology.

Li Y, Zhou X, Zhao K. et al. Cultivation and morphology of jujube (*Ziziphus jujuba* Mill.) in the Qi River Basin of Northern China during the Neolithic Period. *Sci Rep*. 14: 2305 (2024).

<https://doi.org/10.1038/s41598-024-52260-8>

Missouri Botanical Garden:

<https://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?kempercode=d475>

Rickenback J, Lehmann C, Hauenschild F, Hughes M J, Fonseca Pezzini F, Pennington T. 2024. Geography and ecology structure diversification in *Ziziphus* Mill. (Rhamnaceae): Geography and ecology structure diversification. *Frontiers of Biogeography*, 17, Article e133817. <https://doi.org/10.21425/fob.17.133817>

Wikipedia: <https://en.wikipedia.org/wiki/Jujube>

Wu M, Liu Y, Jiang T, Liu Y, Chen Z, Wang X, Yue H, Li F, Zhu G, Zhang M. 2025. The Origin, Applications, and Breeding Goals of Jujube in China. *Horticulturae*, 11(1), 37.

<https://doi.org/10.3390/horticulturae11010037>

Zhao G, Cui X, Sun J, Li T, Wang Q, Ye X, Fan B. 2021. Analysis of the distribution pattern of Chinese *Ziziphus jujuba* under climate change based on optimized biomod2 and MaxEnt models. *Ecological Indicators*. 132. 108256. 10.1016/j.ecolind.2021.108256.

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