

Wild Walnut and the Reawakened 25

WILD WALNUT IS A COMMON FOOD IN KYRGYZSTAN, FROM WHERE IT TRAVELLED ACROSS THE WORLD. The walnut is highly nutritious, full of omega fatty acids and phytosterols, which reduce the risk of heart disease. Though the plant originated in Central Asia, its health benefits, flavor, and beautiful wood contributed to its spread across . The people of Arslanbob, Kyrgyzstan, are some of the main drivers of reawakening walnut, and play a crucial role in managing their collection and careful cultivation. Nevertheless, the *Juglans regia* remain an underappreciated nut, and have the potential to improve worldwide health outcomes.



WILD WALNUT

Juglans Regia

Origin: Kazakhstan, Central Asia
Grown worldwide
Nut containing high levels of omega-3 fatty acids

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BOTANY

Today, the walnuts are most commonly dried, roasted, or salted and used for use in desserts, baked goods, salads, and snacks. However, walnuts can also be pickled, cold pressed into an edible oil, incorporated into liqueur, among other uses. Although the nuts are the most frequently utilized part of the plant, the leaves can be brewed into tea (Purdue).

Walnuts can also be used in sauces for meats like chicken or, as is the case with Central Asian dish Karcho, incorporated into soups and served over millet. Some parts of the world consume fresh, undried walnut flesh (McGranahan and Leslie 250). Despite their versatile use, walnuts are most frequently used in traditional and modern confections and baked goods, like Russian anthill cake and walnut cookies (RusCuisine.com).

CULINARY USE

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NUTRITION AND MEDICINAL USE

Walnuts are a highly nutritious nut. They contain high levels of omega-6 and omega-3 polyunsaturated fats, fatty acids which improve brain function, encourage healthy cell growth, and may help prevent congenital heart disease. Walnuts also contain phytosterols, which inhibit cholesterol absorption (Amaral et. al 7896-7702). Regular consumption of walnuts may also prevent oxidative stress, stress that can lead to cardiovascular disease and heart cancer. Further, walnuts contain antioxidants and anti-inflammatory compounds (Sánchez-González et. al).

AGRICULTURE

In countries across the globe, walnuts are grown both wildly and cultivated. Wild walnuts in forests in Kyrgyzstan, Tajikistan, and Uzbekistan, the forests where the plant originated, are often interspersed with fruit trees. Central Asian forests where walnuts thrive are typically found between 800 and 2,000 m of altitude (Eastwood et. al 5). However, *Juglans regia* are now grown commercially throughout the world, especially in northern regions of Europe and North America. Walnut trees prefer well-drained yet moist soils (PFAF). Propagation of wild walnuts can be accomplished through whip grafting or T-budding onto seedlings, which are planted using fresh seeds; raising a tree from cuttings, however, can be difficult due to poor rooting (RHS UK). Once mature, walnut trees can produce up to 185 kg of nuts, but the average yield is about 37 kg (PFAF).

HISTORY

Walnuts have been used for religious food, carpentry, and cultural ceremonies for centuries. At Roman weddings grooms signified their maturity by throwing walnuts. Traveling across the Silk Road, the walnut spread across Asia, and eventually reached Europe (Aramco World). During the middle ages, people used walnuts for superstitious reasons, including warding off lightning and witchcraft (Rosengarten, 1984). Today, the wild walnut reigns supreme in Arslanbob, Kyrgyzstan, the home of the world's largest wild walnut forest. Each year, the people of Arslanbob collect walnuts to feed their families and keep themselves warm in the winter. In a country that has suffered economically since the collapse of the Soviet Union, walnuts are an excellent source of income: in 2016, Kyrgyzstan exported approximately \$2 million worth of walnuts (Ford 2017).

RESEARCH

Because walnut nutrition and cultivation are already well-studied, current research surrounding *Juglans regia* focuses on restoring, preserving, and preventing wild walnut deforestation. In Central Asia, the tree's hearth and center of diversity, overexploitation, grazing, and landslides severely threaten walnut biodiversity and sustainability. Due to walnuts' growing popularity, over-harvesting is also a significant threat to walnut conservation efforts (Eastwood et. al 7). Researchers have noted that climate change also poses a minor threat to walnut forests, though at present short-term threats are more pressing. To address potential endangerment or extinction, researchers are developing ex situ and in situ conservation efforts (Gaisberger 1-3).

CUISINE

- [Russian Anthill Cake](#)
- [Tvorog Salad with Walnuts](#)
- [Kotmis Satsivi Chicken in Walnut Sauce](#)
- [Baked Acorn Squash with Blueberry-Walnut Filling](#)

SOURCING

- [Seeds](#)
- [Shelled Walnuts](#)
- [Walnut Supplement](#)

COMMUNITY RESOURCES

- [Everything You Need to Know About Growing Walnuts](#)
- [CABI](#)
- [Protecting the Walnut forests](#)

RESOURCES

[Amaral et. al](#)

[Aramco World](#)

[Eastwood et. al](#)

[Ford 2017](#)

[Gaisberger](#)

[McGranahan and Leslie](#)

[Missouri Botanical Garden](#)

[PFAF](#)

[Purdue](#)

[RHS](#)

[Rosengarten](#)

[Sánchez-González et. al.](#)

