

WALNUT: A NUTRITIVE FRUIT NUT

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INTRODUCTION

The walnut (*Juglans regia* L.) is the most widespread tree nut in the world. It belongs to the genus *Juglans* and family Juglandaceae. The fruit is not a true botanical nut but a drupe with the edible seed (nut) enclosed in a shell within a thick husk. It is commonly called as the Persian walnut, white walnut or common walnut. It believed to have originated from the region of Persia to Kashmir. The major walnut growing countries are China, Iran, USA, Turkey, Ukraine, Mexico, France, India, Romania and Chile. The world production of walnut is 3.26 million metric tonnes and China is the largest producer of walnut in the world. In India, it is commonly known as akhrot and is grown in northern parts of the country under temperate agroclimatic condition. In India, the area under walnut cultivation is 1.5 lakh hectares with an annual production of 2.84 lakh metric tonnes. Jammu and Kashmir is the principal walnut growing state. This state contributes 83600 hectares land and yield 2.25 lakh tonnes nut. It produces about 90% of the total production in India with an average productivity of 2.69 mt per ha. The other walnut growing states are Himachal Pradesh, Uttarakhand and Arunachal Pradesh. The major importing countries of walnut from India are United Kingdom, Egypt, Netherlands, Germany, USA, Australia and Taiwan.

IMPORTANCE AND USES OF WALNUT

Walnut is very rich in proteins, fats and minerals and is a concentrated source of energy. It contain good amount of vitamin B6 among all the other nuts. A high amount of Omega-6 and omega-3 PUFA, which are essential dietary fatty acids are present in walnut. Both immature fruits and green hulls of walnut are very rich sources of ascorbic acid containing about 2-2.5% and 0.4-0.8% on fresh weight basis, respectively. The fruit has excellent flavour and is mainly consumed as a dry fruit for table purposes. Kernels are widely used in confectionary and bakery industries in the preparations like cake, pastries, chocolate, candy and ice-cream. Edible oil is extracted from the kernels and used for edible purposes, artist's oil colours, varnishes and soap making. The





oil cake being rich in protein is feed to cattle. Immature fruits of walnut can be utilized for the preparation of various products like pickles, chutneys, marmalades, press juice and syrups.

The kernels are also taken as snacks between regular meals. Walnut shell flour is extensively used as an ingredient in plastic fillers, battery cases, moulding resin forms, industrial tile and as an insecticide spreader. The tree yields valuable timber, which is most suitable for carving, making furniture and butts of guns.

HEALTH BENEFITS OF WALNUT

1. Rich in antioxidants
2. Heart healthy
3. Support good body composition
4. Good for diabetes
5. Boost metabolism
6. Good for bones
7. Good for digestion
8. Beneficial for brain
9. Induce sleep
10. Improve fertility
11. Good for skin and hair
12. Helpful in pregnancy
13. Helps in male reproductive health
14. Good source of omega-3 fatty acid
15. Anti-inflammation
16. Anti-cancer properties including breast, prostate and pancreatic cancer.
17. Supports weight control
18. Widely available and easy to add to your diet

Table 1. The chemical structure of walnut

Constituents	Nutritional value / 100 grams
Energy	655 kcal
Carbohydrates	13.71
Protein	15.23
Starch	0.05
Sugars	2.60
Lactose	0.00
Dietary fibre	6.70
Total fat	65.20
Saturated fat	6.13
Polyunsaturated fat	47.17

CONCLUSION

Walnuts can truly be called as nutritive fruit nut as they are optimal healthful food for a human being. One should consume walnut daily to increase heart and brain health and to prevent diseases.

