

Exploring Cherry: Nutritional value, Health benefits and Utilization

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SUMMARY

Cherry a non-climacteric fruit belongs to the genus *Prunus* is a rich source of fiber, vitamins mineral and bioactive compounds (polyphenols, antioxidant). It exhibits numerous therapeutic properties like anticancer, antidiabetic, anti-inflammatory, reduce cardiovascular disorders, blood pressure, oxidative stress and other chronic diseases. It has a wide range of application in food, pharmaceutical and nutraceutical industry. Cherries being a rich source of biologically active compounds and health benefits have great potential to meet the consumer demands for healthy food, nutritional security and socio-economic development of the farmer.

INTRODUCTION

Cherries a small, round and non-climacteric fruits belong to the genus *Prunus* and family *Rosaceae* is commonly grouped into two main types: the sweet cherries (*Prunus avium* L.) and the tart cherries (*Prunus cerasus* L.), Fig 1. Cherries (*Prunus avium* L. and *Prunus cerasus* L.) are economically important fruit species mainly grown in the temperate region. Both sweet and tart cherries fruits are nutritionally rich mainly high levels of phytochemicals and have numerous therapeutic benefits. These fruits are particularly rich sources of numerous phenolic compounds, which have beneficial bioactivity useful for human health (Colletti *et al.*, 2025). Cherry cultivation has significantly increased, especially in areas with good growing conditions. Ladakh the trans Himalayan region of India dominates in horticulture crops like apricots and apples, also observed temperate sweet and sour cherry varieties (*Prunus avium* and *Prunus cerasus*) grown in minor, localized quantity in some part of the region. As more people look for healthy food choices, cherries being a rich source of biologically active compounds can meet the consumer demands for healthy food, nutritional security and socio-economic development of the farmer.



Fig 1. Cherry

Nutritional value and Health benefits

The reported nutritional value of cherry includes bioactive compounds such as polyphenols, carotenoids, important vitamins A and C, potassium, and dietary fibre which support overall nutrition. Pharmacological studies highlight that they are full of polyphenols and antioxidants, mainly anthocyanins, that help cut down on oxidative stress and inflammation, important for stopping chronic diseases like heart problems and diabetes. Cherries also contain melatonin, which can help with sleep and regulate sleep cycles, and the fibre in cherries supports digestion, maintains healthy gut (Baicu *et al.*, 2024). The fruit exhibits versatile therapeutic applications: reduce the risk of chronic diseases, including cardiovascular disorders, diabetes, neurodegenerative conditions and cancer (Gonçalves *et al.*, 2024). Furthermore, cherry extract ingestion reduces markers of inflammation, oxidative stress, exercise-induced muscle soreness, loss of strength, and blood pressure. Studies also shows the beneficial effects of cherry extract/juice supplementation on sleep, diabetes, arthritis, cognitive functions, and possibly mood (Colletti *et al.*, 2025).

Utilization

Cherry is widely utilized in food, pharmaceutical and nutraceutical industries. It is highly perishable, shortest growing season and mostly consumed as a fresh fruit. Although the crop is a treasure trove of nutrition, its utilization is meager and not gained that popularity among the farmers and consumer due to lack of awareness of its nutritional value, processing and preparation of several value-added products. The processing of cherry involves cleaning, sorting, destemming and pitting fruit for immediate fresh packaging, canning, freezing or drying, Figure 2. Various valued added products can be prepared from cherries such as jam, jelly, juices, nectar, puree, gum, fruit conserve, nutraceuticals, candy, murabbas, marmalade, ice cream, pastry and yogurts (Dey *et al.*, 2018). The controlled atmosphere storage and edible coatings, help keep the quality of cherries and availability all year round. Addition of cherries to athletes' diets might improve recovery and boost performance (Baicu *et al.*, 2024). By processing and value addition of cherry rural people can earn a good income round the year, it enhances much more employment and improves the socio-economic status of rural people.



Fig 2. Dried cherry and Cherry juice

CONCLUSION

Cherry represents a promising nutritional ingredient like fiber, vitamins, minerals and bioactive compounds. It offers numerous health benefits and wide range of applications in food, pharmaceutical, and nutraceutical industries. Cherry has considerable potential to contribute to improved nutrition and sustainable food systems. Further, awareness about the nutritional value, health benefits and value addition are very much effective for cultivation and utilization of the fruit for food and nutrition security and income generation for the farmer.

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