

## 13. Nutritional Properties and Health Benefits of Black Rice

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### Abstract:

Black rice has been an important part of cuisines in several Asian countries such as China, Korea or Japan for centuries. Black rice is particular types of rice having deep purplish black colour. In today's world it got its popularity as a beneficial functional food because of high content of many bioactive molecules like anthocyanins, phenolics and terpenoids. Its gets dark colour due to presence of anthocyanin. In ancient China it was also known as 'forbidden rice'. It is mainly taken as functional food due to its enormous health benefits. Minerals, proteins and vitamins content are high in black rice in compared to white rice. Black rice is high in lysine and tryptophan as well as some vitamins like vitamin B<sub>1</sub>, vitamin B<sub>2</sub>, and B<sub>9</sub> content is also high. It is also a good source of various minerals such as Fe, Zn, Ca, P and Se. It is halving an elevated level of protein, antioxidants and dietary fibre among all rice varieties as well as it also contains phenols and anthocyanin. Antioxidants work as the first line of defence against free radical damage, ultimately helping in maintaining optimum health. Because of these antioxidant compounds the risk of developing various chronic diseases can be reduced. As a whole, black rice has several good impacts on human being, those are; enhancing human health and longevity, reducing atherosclerosis, protecting heart health, controlling hypertension, has anti-inflammatory action, improving digestive system, reducing allergy, detoxifying the body, improving lipid profile, reducing risk of diabetes, controlling obesity and reducing growth of cancer. Hence, Black rice can be an outstanding alternative source to white and brown rice, as it is having high nutrient composition, antioxidant content as well as high fibre.

**Keywords:** Black Rice, Nutritional Properties, Health Benefits

### 13.1 Introduction:

Black rice (*Oryza sativa* L indica) is a type of cultivar of rice which is a source of abundant anthocyanins in the aleurone layer and also it has been considered as health promoting food. It is also known as 'Forbidden rice' and 'Emperor's rice' in ancient China as the people of upper-class people could only afford it. Black rice has various names in different