**Review Article**

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**Awareness and Consumption of Millets in Kumaun Himalayan of Uttarakhnd (India): A Short Review**

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**ABSTRACT**

The oldest food used for domestic purposes are Millets. It is the full source of nutrients, good quality of protein, rich in minerals, dietary fibers, and good source of vitamins.In India Uttarakhand state mostly farming occur in Himalayan region and crop production depend upon the climatic condition. By the small dynamic study of India followed the many developing countries and alone cultivates approximate 8 tons of millets while Kumaun Himalayan region the production of small millets are approximate 90 thousand tones. In Kumaun Himalayan region are different types of millets produce, each having different nutrition composition, and nutrientvalue.

**Keywords:**Awareness, Consumption of Millets, India

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**INTRODUCTION**

The Indian government had suggested to the united nation for declaring the year 2023 as the International Year of Millets (IYOM).On 5th March 2021,India got the support of 72 other countries(1).Commercially in the world’s millet crop is produced by China, India, Greece, Egypt and Africa (2). India is the largest producer of millet in the world with an annual production of around 10 million tonnes (2).In India millets are cultivated in 8 states ,and Uttarakhand ranks 3rd in the area of land under millet cultivation.InUttarakhand the production of small millets are producing 89 thousand tones (3 ,4).On the basis of grain size, millets have been explained as major millets and minor millets. Minor millets are also known as small millets, that is finger millet, barnyard millet, foxtail millet, proso millet, kodo millet and a small seeded cereal crops, while the major millets include sorghum and pearl millet(5).

Minor crops are the best source of micronutrients; the bran layer of millets also consists of B-complex vitamins and rich in micronutrients. Even millets are rich in fiber content it has the capability to digest easily. Deficiency of micronutrients leads to several health problems, it retains the growth of physical and immune system. This is a common problem faced by most of the developing countries (6). Millets abundant micronutrients like vitamins, betacaroteneetc which are being consumed like pharmaceutical pills in present day. In this present day, all the millets are extraordinarily superior and are therefore, the solution for the malnutrition and obesity that affects a vast majority of the Indian population (3).

In organic millet farms, nutrient management should efficiently supply crop's nutrient needs, prevent nutrient depletion, and maintain or increase soil productivity without disproportionate nutrient losses. The various chemical, physical, and biological factors of the soil influence availability of nutrients in the soil and their interaction with the crop growth (7).

**INDIA AND MILLETS**

In India largest production of millets, it is followed by Niger, China and Mali, in terms of millet production in the world. The major millets producing states in India are Rajasthan, Uttar Pradesh, Haryana, Gujarat, Madhya Pradesh, Maharashtra, Karnataka, Tamil Nadu, Andhra Pradesh and Telangana. According to Currently data, all these ten states produce 100 percent of millets in India, and Rajasthan, Uttar Pradesh and Haryana accounts for more than 81 per cent share in total millet products (2).

**PRODUCTION AND CONSUMPTION OF MILLETS**

India is among the top 5 exporters of millets in world. World export of millet has increased from $400 million in 2020 to $470 million in 2021 (ITC trade map) India exported millets worth $64.28 million in the year 2021-22, against $59.75 million in 2020-21(8).In the past decade, some of the crops cultivated have been become locally extinct from many villages. Like Foxtail millet which was widely cultivated about 20 years ago has almost become extinct from the state, and the production of finger millet barnyard millet compared to three years has been become doubled.In Uttarakhand approximate 30% area is under millets cultivation , and this area is mainly depended on rainfall conditions (9).In Uttarakhand state barnyard millet harvested and it is utilized for self-consumption by the farmers,even though there is a large scope for value addition.As well as in the production of ragiUttarakhand has 6th position and accounts for 85% of the total millet production in the country (10).

**IMPORTANCE OF MILLETS**

The production of millets in India and Uttarakhand is almost sufficient and it is rich source of nutrient, vitamins, fibers protein etc. Benefits of millets are:Millets are smart food which is good for the planet environment, good for the farmers and good nutritionally similar or superior to major cereal grains for the individual (11).The additional benefits of the millets like gluten-free proteins, high fiber content, low glycemic index and richness in bioactive compounds made them a suitable health food (12). Millets is rich in dietary fibers,(both soluble and insoluble).In which insoluble fibers important for adding bulk to stools, which helps keep you regular and reduces your risk of [colon cancer](https://www.webmd.com/colorectal-cancer/news/20111110/high-fiber-diet-linked-to-lower-colon-cancer-risk#1). Millets with high dietary fiber provide multiple health benefits such as improving gastrointestinal health, blood lipid profile, and blood glucose clearance (13).

Millets are nutritionally superior to major cereals (wheat and rice) for 65-75% carbohydrate and energy, and serve as a healthy balanced diet with7-12% of protein, 15-20% dietary fiber, vitamins, minerals in balanced proportion, antioxidants and micronutrients which helps to maintain our immune system which may act as a crucial shield against any disease (14,15).

Millet is dietary fibers to improve our digestion by fighting constipation, flatulence, bloating etc. It contains minerals such as magnesium,phosphorus, calcium,manganese,potassium,zinc,copper,selenium and B vitamins. They act a powerhouse of antioxidant, flavonoids, anthocyanins,saponins which improve or support the kidney,liver, heart function and our immune system(16).Including millets in the regular regimen like millet flour or having millets for breakfast can remarkably help in lowering the body mass index of obese people(17).

**Conflict of Interest Statement**

The authors declare no conflicts of interest.

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