

millet. It is generally consumed during winters and popularly used to cure kidney stone by rural communities.

**Edible uses-** Tender green leaves as vegetable in southern part of India, as pulse (both whole and dehulled) for making various types of gravies, soups and papad.

- High lysine protein complements the cereal based diet nicely.

- Fibre, calcium, iron and molybdenum content is higher than any other legume.

- Prevent urinary stones, also has healing effect on acute gastric ulceration, curing acidity, lowering cholesterol, asthma, bronchitis and constipation.

- Heat generating property also helps in reducing the body fat.

**Nutritional composition (per 100 g):** Moisture 9.28 g, Protein 21.73 g, Minerals 3.24 g, Fat 0.62 g, Total Dietary Fibre 7.88 g, Carbohydrate 57.24 g and Energy 330 Kcal

**Black soybean (*Glycine max*)/Bhat**

Nutritionally rich remedial food legume grown in mid hills in Himalayan region during rainy season for its nutritious grains and fodder. It is mainly grown as mixed crop with finger millet. It is generally consumed as remedial food to cure jaundice by rural communities.

**Edible uses-** As pulse (whole) for making various types of gravies/dal, chutnies, roasted snacks, *Tofu*, milk and nuggets.

- Bioactive phytochemicals viz., anthocyanins, phenols, isoflavones, phytosterols, saponins and tannins impart strong antioxidative activity.

- Regular consumption reduces cholesterol, diabetes and growth of cancerous cells.

- Improves reproductive function, bone marrow health, muscle strength and immune system.

- Unique combination of high sodium and potassium is beneficial for people suffering from low blood pressure.

**Nutritional composition (per 100 g):** Moisture 8.51 g, Protein 37.8 g, Minerals 4.74 g, Fat 15.8 g, Total Dietary Fibre 21.5 g, Carbohydrate 12.8 g and Energy 350 Kcal

**Kidney bean (*Phaseolus vulgaris*)/Rajmash**

High value cash crop grown during rainy season for its nutritious grains and green pods in higher hills. Several types of landraces of this legume grown by farmers possess a great diversity in shape, size and colours in hills. Rajmash produced in hills is highly valued for its unique taste.

**Edible uses-** Dried grains as pulse (whole) for making various types gravies and green pods as vegetable.



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- Phenols, resistant starch, vitamins, fructo-oligosaccharides protect from oxidative stress, cardiovascular diseases, diabetes and cancers.

- Antioxidants, carotenoid and flavonoids like lutein, zeaxanthin and  $\beta$ -carotene possess anti-inflammatory actions.

- Rich soluble fibre content regulates the absorption of blood glucose from the body thus, regular consumption helps in preventing diabetes.

**Nutritional composition (per 100 g):** Moisture 9.87 g, Protein 19.91 g, Minerals 3.28 g, Fat 1.77 g, Total Dietary Fibre 16.57 g, Carbohydrate 48.61 g and Energy 299 Kcal

**Barley (*Hordeum vulgare*)/Jau**

Nutritionally rich cereal grown in Himalayan region during *Rabi* season for its grains and fodder. It has a great cultural significance as it is used in every auspicious occasion of the region. Hull less barley (*Jau*) is also commonly grown at higher altitudes of the region.

**Edible uses-** Confectionary products, breads, soups, stews, health products and malt for alcoholic beverages, especially beer.

- Rich in beta-gluten an anti-cholesterol substance and acetylcholine which nourishes the nervous system and enhance memory.

- Excellent source of complex carbohydrates that help to lower cholesterol and the risk of type-2 diabetes.

- Regular consumption prolongs the feeling of stomach fullness, thus stabilizes blood sugar levels.

**Nutritional composition (per 100 g):** Moisture 11.4 g, Protein 12.4 g, Minerals 1.72 g, Fat 2.04 g, Total Dietary Fibre 14.9 g, Carbohydrate 57.5 g and Energy 298 Kcal

Neglected and underutilised species represent a rich heritage of food crops of nutritional and nutraceutical significance. If nurtured, these crops can play a vital role in building a robust, resilient and economically viable farming system to sustain our food and nutritional security under climate change. Ethnic significance and the concerns for healthy foods have kept the treasure of these ancient crops alive in traditional farming systems. To make the world food secure and food system sustainable under the prevailing threat of changing climate require bringing traditional food crops back in the food systems.

**References:**\* IFCT, 2017 & \*\* Aswal *et al.*, 2017 & \*\*\* Bhartiya *et al.*, 2020

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