

Millet mission: An insight toward healthy environment

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Abstract

Millets are a group of highly valuable small seeded grasses, widely grown around the world as cereal crops or grains for human food and as fodder. In India, millets have been mentioned in some of the oldest Yajurveda texts, identifying foxtail millet (priyangava), Barnyard millet (aanava) and black finger millet (shyaamaka), thus indicating that millet consumption was very common, pre-dating to the Indian Bronze Age (4,500BC). Millets however lack few of the nutrients critically important for a person's body. Millet is one of the oldest crops known to mankind both the ancestor and the location of domestication of millets are unknown. It was believed that millet was cultivated during the Neolithic period in China, where farmers plant the proso millet during the second Chinese dynasty. Now a days millets plays an important role in the diet of India and all over the world. Millet production decreased and almost disappeared by the beginning of 20th century.

Key words : Millets, nourishment soil conservation climate and environment.

Introduction

Millet grains are future food. They have great benefits as a drought resistant crop. yield good productivity in areas where water is in scarcity, possesses remarkable edible and nutritive values and have ease of processing and food manufacturing. As honourable prime minister Shri "Narendra Modi ji said ;Sri Ann The door to prosperity for the small farmer of the country Sri anna; the corner stone of nutrition for crores of country man Shree Anna; facilitating of Adivasi community Shri anna; getting more crop for less water shri Anna; a big foundation for chemical free farming Shree anna; huge help in fighting climate change. Unfortunately it is not a staple crop due to lack of awareness about its benefit and changed dietary patterns over the years. Millets are rich source of micronutrients and play an important role in the body immune system. They have nutraceuticals properties such as Millets are full of antioxidant which prevents deterioration of health in case of blood pressure cardiovascular disease diabetes, stress etc. Keeping the view of Global benefits for mankind Government of India suggested United Nations for declaring 2023 as international year of millets. The concept was supported by 72 Nations. By March 5th, 2021, United Nations general assembly declared the year 2023 as international year of millets (IYOM). On the initiative of Government of India best strategies for developing awareness regarding this started and the millets were given the name "Shri Ann". In India various agriculture specialist were working for this field and the year 2018 was celebrated as national millet year in India. A great man and scientist who has been known as Millets Man of India doctor Khadar Wali Dudekula is working in this field for securing a place for Shri Ann among widely used cereals. Sixty-six years old Dr Wali residing in Mysore, a post graduate from ISI Bangalore Dr Wali did his PhD on steroids and was scientist in CFTRI Mysore. During his post-doctoral, which was on environment issue he found that the problem due to consumption of rice and wheat could be cured by use of Millets. The Padmashree awardee Dr Wali left the USA and purchased barren land in Mysore and started his work on millet in the year 1997. Five millets from Karnataka has been selected by him and a name Sri Dhanya was given to these cereal these

were kodo, little millets, foxtail, barnyard and brown top which are commonly known as kodo, kutki, kangni, jhingora and harikangni .

He exposed these millets or common man food to international community as power packed food, so we are now able to decorate our platter with this stuff with pride. Actually what these tiny seeds are? These are the food which we used to consume in yester years and was somehow lost in the sparkle of fancy food stuff. They are product of tiny grass seed in a small size and are produced widely all over the world. In India a religious practice of fasting is accomplished by offering 7 kinds of millets to the God these are grown without ploughing. There are variety of millets as Jowar, Bajra Ragi, Kodo, Kutki, Sava etc. Near about 1960 during green revolution somehow these crops were left behind to take place in Indian platter with the race to wheat and rice. These were considered as inferior serials and poor man's food even home scientist were biased while planning meal for pregnant lady as only for low income group, they added bajare ka laddu and jowar Ki roti in their diet plan. Though this is a low cost crop and needless water and manure. These crops required less care and expenditure. In India millet revolution is in reference to the awareness regarding health and ecological benefit of these coarse meal together with adopting traditional agriculture practices. In view to community health improvement, help to small farmers, vocal for local and a voice to word eating locally grown and available food. These millets can be grown in any type of soil climate tropical subtropical dry error zones. Traces of these crops were found in the evidence of old civilization of Sindhu. These were the first crop ever grown for eating purposes. One Hundred and thirty one countries cultivate these crops. India is a big producer of these crop which is 20% of word and 80% of Asia. Madhya Pradesh, Gujarat Maharashtra and Uttar Pradesh are the states which grow these crops more. Jowar mostly grown in Maharashtra Andhra Pradesh Rajasthan Gujarat and Uttar Pradesh. The retail price of these crops are also good in market now a days. Residues of these crops could be used as fodder for animal feeding so no crop residue burning thus helping the environment. In post Corona era these crops are getting popularly as immunity booster food. One more reason for this popularity is that recommended dietary allowances 2020 table has included 30 gram of fibre in daily diet and these millets are fibre rich and therefore their possibility of part of daily diet increases nowadays

Types of millets - Before the systematic cultivation with plough started in India the crops grown were the millets and millets were the staple part of platter in India. Mainly jowar bajara ragi were major and kangni kutki kudo sava were miner minutes .The two basic types of millets are

- 1) Coarse Cereal
- 2) Small Seeds

Doctor Wali Kader divided the cereals in 3 grades

- 1.Negative Grain
- 2.Neutral Grain
- 3.Positive Grain.

according to Dr Wali, wheat and rice are considered negative grain jowar Bajra ragi and proso were considered neutral grains and kangni Sama kodo choti kangni these were considered as positive grain . These natural and positive grain jointly called millets

Sorghum : This is known as Jawar and most of its variety are used for purpose of animal feeding. Only Sargam bicolour is used for edible variety for human being. This is rich in protein but lack in essential amino acid lysine and isoleucine, fat content is also very low. Sargam can be enriched by using Fenugreek seed which have high lysine and Isoleucine essential amino acid . Fenugreek is soaked, sprouted, dried and grind

to mix with sargam in 90 : 10 ratio . This is gluten free protein rich millet which contains around 9 to 14% of protein, a good source of vitamin B1, B6, B12, calcium ,iron and phosphorus .It is known as king of millets.

Pearl Millet- It is commonly known as Bajra . Pearl millet has low husk, this is the millet which gives two Crops in a year, 10-14% protein, also a good source of vitamin B1, B2,B3, calcium, iron, phosphorous and 5-6% of fat. This millet is known as queen of millets.

Barley :- Barley is commonly known as Jau. Jau contains 12gm protein per 100 gm of Barley. It also contains 0% of cholesterol and 17gm of fibre per 100 gm of it. It used to be a popular diet for patient of various types of fever in form of Barley Water post-independence period.

Ragi:- Ragi is called Jai and is a very rich source of calcium, good source of phosphorus, iron, vitamin B1,. It is very popular food in south India as weaning porridge for infants. This also known as Finger Millet.

Foxtail Millet: - Foxtail Millet is known as Kangani, it is small, dried crop mostly grown in Indian Continent. It is a rich source of protein, iron, calcium and fibre .

Little Millet:- Little millet is known as Kutaki. This is native crop to Asia as well as India also. This is a gluten free food stuff with high nutrient content .

Buck Wheat ;- Buck wheat , very popular food in India during the fasting time. This is we known as Kuttu. Kuttu is full of b =B complex vitamin and antioxidants . It is very helpful in general deficiency symptoms and other diseases like hail falling, stress liver ailments.

Kodo Millet : - Kodo mainly grown in Indian continent generally called super food. In the hilly areas of Uttarakhand it is known as Madua. Madua roties with dal is a famous food in hills. It is helpful in general ailments like join pain, irregular menstrual cycle etc.

There is a long list of edible millets such as Rajgeer Ramdana, Barnland millets Broom corn Millets etc.

Benefits of millet:

millets are crops which could be grown in less water, Could be grown in hilly and dry areas , they are nutritious food stuff due to its energy value fibre content and gluten free

characteristics they are very economical crops. There are lot many benefits of the millets. Few of the benefits of millets are as follows....

All the millets are very nutritious grains if cooked properly. All the millets are very palatable and digestible, Millet contains lot of fibre, vitamins, protein, minerals, so they provide a good nourishment to the body. Millets are very important to the diet as recommended dietary allowances also recommend 30 g of fibre every day in daily diet for a person.

Millets are very useful for the weight management purpose also. It helps in weight control and weight management. All the millets are low in calorie and high in fibre content. Millets absorbs slowly and give feeling of fullness, they absorb more water so you always feel filled when you eat the millets and therefore you control your weight . They also have less cholesterol or fat amount they are good source of protein hence lead to optimum muscle mass but less fat.

Millets are gluten free food which are used as alternative food in Celiac diseases.

Millets ignite peristaltic movement in the gut and this way it help to improve the digestion in system .It also help the enzymes in their functioning .Enzymes are part of digestion as it helps in digestion of food and also

help in absorption of food . Millets are also very good for the bone health. It improves the bone health because millets are good source of calcium Phosphorus magnesium which are the primary content of bone density. Due to high protein content and Linolenic acid millets are helpful for the heart health as well as maintaining the level of cholesterol. High calcium and fibre help to improve the heart muscles and heart health. Consumption of millet always help in controlling the blood sugar level because most of the millets are gluten free, they have low glycaemic index and high fibre content therefore help to maintain the blood sugar level . Malnourishment and vitamin mineral deficiency in human being could also be cured by consuming millets. Millets contain folate. iron. calcium magnesium. zinc vitaminC. All these micronutrients are very helpful in developing the immunity and general health and wellbeing of a person. These millets are help in maintaining good physical and mental health . they have antioxidant element so helpful in maintaining the good metabolism, good condition of hair, good condition of skin etc, . Antioxidant properties also help in detoxification of body and maintaining the health and wellbeing.

Bajara especially very good in diseases related to respiratory disorders.

Vitamin B3 which is found in millets is very helpful in maintaining the metabolic process in human bodies.

Use of millets is also very helpful in diseases like thyroid, diseases related to high range of uric acid, kidney disease, liver disease, pancreatic disease etc because this helps in manage metabolic syndrome.

Millets contain antioxidant like curcumin ellagic acid Ketan's , Quar satin etc These seeds are very helpful in detoxification of body.

Apart from health benefits they are very important in other areas also. Millets are very economic crops. Millets need very low expense in their cultivation. Growing these crop is so easy ,therefore these are beneficial for the small farmers as well as for the consumers .

. In keeping the purpose of soil conservation, cultivation of millets are very good for soil conservation. Millet crops need less water, low fertilizer and pesticide, it keeps the soil warm and healthy. Natural formulation of soil maintained by cultivation of millets. This shows why millets are very good food for a country like India. Millets are good in terms of health, in terms of economy , in term of environment. Millets are therefore should be considered the primary and very important food for whole world and the ecosystem.

Preparation based on millets: - By use of millets we can make so many dishes which are very delicious and nutritious. Mostly we make roti, Upma, millet pulao, millet khichdi ,millet poha, millet kheer . We can also make dal,, soup salad, pizza, macaroni ,idli laddu , chikki ,kachori , sprouts etc . There is a book containing Shri Ann recipes that is Eat Right India : Shree anna recipe , the book is developed by FSSAI , ministry of health and family welfare.

Initiative and government policies for millets:

Government of India continuously working to enhance and encourage the position and status of millet. Government is started securing place of millets in various scheme running by Govt of India such as Food Security Act 2013 , National Nutrition Strategy 2017 , various millet park were developed to motivate cultivation of millets. Millets also secured place in Pradhan Mantri Fasal Bima Yojana , National agriculture development Programme. National Food Processing Policies etc

For encouraging entrepreneurship in the field of millets Pradhan Mantri Mudra Yojana a startup schemes had come into front, National millet mission 2017 is also helping in improving its production and use.

Public distribution system also providing a platform for the use of millets

For a small farmer there are Mulya Samarth Yojana, Encouragement and development for small farmers , development of Mulya Vardhit product , encouragement to the organic crops cultivation .

Various agriculture universities are also very extensively working in this field. Extension Education Department of agriculture universities are continuously working to popularise the millet cultivation among the farmers. They are specifically providing information regarding the millet cultivation in various Kisan Mela and exhibitions.

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