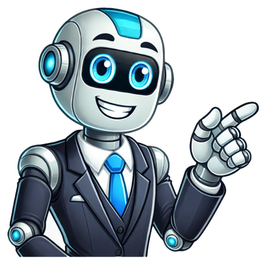
Click Here



Introduction:Millets are the excellent source of essential nutrients; they are also called as nutritious cereals. The Indian Millets are nutritionally superior to wheat and rice as they are rich in protein, vitamins, and minerals. They are also gluten-free and have a low glycemic index, making them ideal for people with celiac disease or diabetes. India is the world's largest producer of millets with a share of 38.4% of worlds production (FAO, 2023).Production:FY24 Indian millets production includes sorghum (jowar), pearl millet (bajra), finger millet (ragi), barnyard millet, prosomillet, Kodomillet, Buckwheat, Amaranthus and Foxtail millet. Among different states Rajasthan is the largest producer followed by Uttar Pradesh, Karnataka, and Maharashtra.Area:Among all the states, Rajasthan has covered largest area under millets cultivation followed by, Karnataka, Maharashtra, Uttar Pradesh, Haryana, Gujarat, Madhya Pradesh, Tamil Nadu, Andhra Pradesh and Uttarakhand. The total area under millets in India during FY 24 as follows:Production in FY24 (Mil MT)Area under Cultivation in FY24 (Mil ha)Millets 15.38 12.19Exports:Millets are exported to UAE, Saudi Arabia, Nepal, USA, Senegal, Germany, Japan etc. The Indian millets export realization was as follows:volume of export FY24 (lakh MT)Exported in FY24 (USD Mil)Millets 1.46 70.89 The Website is developed under the project Development of National Database and establishing benchmarks for production, consumption, and utilization of millets headed by Dr B Dayakar Rao, PI of the Project and Principal Scientist, ICAR-IIMR, Hyderabad. Ministry of Agriculture and Farmers Welfare through National Food Security Mission has provided the financial support to the project. English: Sorghum Bengali : Jowar Gujarati : Jowari, Juar Hindi : Jowari, Juar Kannada : Jola English :Pearl Millet Bengali : Bajra Gujarati : Bajri Hindi : Bajra Kannada : Sajje English : Finger Millet Bengali : Marwa Gujarati : Nagli, Bavto Hindi : Ragi, Mandika, Marwah Kannada : Ragi Millets Production in India * All India Production in thousand tonnes year 2018-19 Data Source: Directorate of Economics and Statistics, Ministry of Agriculture and Farmers Welfare, Government of India Department of Agriculture & Farmers Welfare APEDA has prepared a strategy to promote millet exports. It comes in the backdrop of 2023 being declared the International Year of Millets by the UN General Assembly.Under the APEDA strategy, Indian missions abroad will brand and publicise Indian millets. e-Catalogues on various Indian Millets, a list of active exporters, start-ups, FPOs, etc., will be circulated. Start-ups will be mobilised for export promotion of the Ready to Eat (RTE) and Ready to Serve (RTS) categories.Millets (coarse grains) are a group of small-seeded grasses grown as cereal and fodder crops. They are raised mainly as rain-fed Kharif crops (sowed with the onset of the monsoons) in India.There are 16 significant millet varieties, including Sorghum (Jowar), Pearl Millet (Bajra), Finger Millet (Ragi), Minor Millets (Kangani), Proso Millet (Cheena), Kodo Millet (Kodo), Barnyard Millet (Sawa/Sanwa/Jhangora), Little Millet (Kutki), Two Pseudo Millets (Buck Wheat/Kuttu), Amaranthus (Chaulai), Brown Top Millet, etc.Millets were among the first crops to be domesticated. Evidence shows that the Indus valley people (3,000 BC) consumed millets. They are now grown in more than 130 countries.Globally, sorghum (jowar) is the biggest millet crop. Its significant producers are the US, China, Australia, and India. Bajra is another major millet crop. It is the main food crop grown in semi-arid areas of central and southern India. It hardly needs irrigation. South of Vindhyas, it is a rainfed crop, and its yield is low in this region.Jowar is sown in both Kharif and Rabi seasons in southern states. In the northern states, it is mainly grown as a fodder crop in the Kharif season.Clayey deep regur and alluvium are the best-suited soils for jowar. It can be raised on gentle slopes up to 1,200 meters in elevation. It does not grow well where the rainfall exceeds 100 cm.Bajra is the second most important millet. Just like jowar, it is also used as food and fodder in drier parts of the country.It is a rainfed Kharif crop of dry and warm north-western and western parts of the country. It is a hardy crop which resists frequent dry spells and drought in this region.Bajra can be grown on poor light sandy soils, black and red soils. It requires 40-50 cm of annual rainfall. The upper limit is 100 cm. It is sown either as a pure or mixed crop with cotton, jowar and ragi.Ragi is mainly grown in drier parts of south India (drier parts of Karnataka) as a rainfed Kharif crop. It requires a warm climate and 50-100 cm rainfall.It is raised on various soils (red, light black, sandy, well-drained alluvial loams). Karnataka is the largest producer. Uttarakhand and Tamil Nadu are the other major producers.Millets are climate-smart crops. They are hardier & drought-resistant (can grow in semi-arid areas and poor soil conditions) because of theirshort growing season (70-100 days, as against 120-150 days for paddy/wheat) &lower water requirement (350-500 mm versus 600-1,200 mm).In general, the yields of alternative grains are lower than rice, but in rainfed conditions, they are more resilient and can withstand the vagaries of climate change.They need less water, pesticide and insecticide, and hence, they are environmentally friendly.Millets are a powerhouse of nutrition because of their high nutritional value compared to rice & wheat. Being alkaline in nature, they are easily digestible for infants.They are rich in protein (muscle growth), essential fatty acids, dietary fibre (prevents constipation), B-Vitamins, antioxidants, and minerals such as calcium, iron, zinc, potassium, magnesium, etc.They are gluten-free and have a low glycaemic index and are high in anti-oxidents thus reducing harmful cholesterol levels while maintaining levels of good cholesterol.Gluten is a family of proteins (mainly glutenin & gliadin) naturally found in certain cereal grains, such as wheat, barley, etc. It provides no essential nutrients.Gluten is responsible for the soft, chewy texture characteristic of many gluten-containing foods. When heated, gluten proteins can stretch & trap gas, allowing for optimal rising in bread, pasta, etc.There is no association between long-term dietary gluten consumption and heart disease risk. However, it can cause serious side effects in individuals suffering from celiac disease (a long-term autoimmune disorder that primarily affects the small intestine).Theglycemic index (GI) is a rating system that shows how quickly each food affects a persons blood sugar (glucose) level when eaten on its own.High GI foods are broken down quickly and cause a rapid increase in blood glucose. Such foods include sugar and sugary foods, sugary soft drinks, white bread, potatoes, white rice, etc.Low/medium GI foods are broken down more slowly and cause a gradual rise in blood sugar levels.Medium GI Foods: whole grain foods like brown bread, brown rice, millets, oats, etc.Low GI foods: fibre-rich foods such as fruit and vegetables, pulses, etc.High-GI foods cause fluctuations in insulin levels and promote cravings and overeating.Insulin is a hormone created by cells of the pancreas. It controls the amount of glucose in the blood.In Type I diabetes (an auto-immune disease caused by the autoimmune response against pancreatic (beta) cells), the pancreas no longer produces insulin.In Type II diabetes (lifestyle disease), the cells become resistant to insulin and can no longer effectively absorb glucose, causing a spike in the blood glucose levels.Over the last six decades, the area under millet production has been shrinking due to preferential consumption in favor of wheat and rice.According to the National Sample Survey Office (NSSO), less than 10% of rural and urban households reported consumption of millets. This has been due to the perception of it being poor persons food.Millets are consumed mainly in Gujarat (jowar and bajra), Karnataka (jowar and ragi), Maharashtra (jowar and bajra), Rajasthan (bajra), and Uttarakhand (ragi).Wheat has gluten proteins that swell & form networks on adding water to the flour, making the dough more cohesive & elastic kneading (working moistened flour into dough) & rolling rotis is easier. The resultant chapattis come out soft, which isnt possible with gluten-free millets.Fine grains are tastier (because of a high proportion of carbohydrates) and much easier to digest and absorb (for children and older people). Hence, they are preferred over fibre-rich millets.Millets are mostly rain-dependent crops grown mainly during the Kharif season. Replacing rice (a Kharif crop) with millets will not be easy as agriculture is intimately linked with socio-economic factors and market forces (subsidies, MSP, free power), which affect crop choice.Moreover, food habits have changed in favour of rice and replacing rice with millet is unrealistic. Also, the governments focus is primarily on food security, which has always triumphed over nutritional security.Under the National Food Security Act, 2013 (NFSA 2013), eligible households can get rice, wheat, and coarse grain at Rs 3, Rs 2, and Re 1 per kg, respectively.Though the Act does not mention millets, coarse grains are included in the definition of foodgrains under Section 2(5) of the NFSA. However, their procurement and distribution under the NFSA have been minimal.The government declares MSP only for jowar, bajra, and ragi.Low remunerative prices, lack of input subsidies, poor shelf life due to its intrinsic enzyme activity, etc.India is the largest producer of millets in the world (41% of global production).Indias top millet-producing states are Rajasthan, UP, Maharashtra, Karnataka, Gujarat, and MP.Jowar is mainly grown in Maharashtra, Karnataka, Rajasthan, TN, Andhra Pradesh, UP, MP, etc.Bajra is mainly grown in Rajasthan, UP, Haryana, Gujarat, Madhya Pradesh, Maharashtra, and Karnataka.StatesMillet CropRajasthanBajra, JowarKarnatakaJowar, RagiMaharashtraRagi, JowarMadhya PradeshBajra, JowarUttar PradeshBajraShare of export of millets is nearly 1% of the total millet production.Exports of millets from India include mainly whole grain.Export of value-added products of millets from India is negligible.Indias major millet exporting countries are U.A.E, Nepal, Saudi Arabia, Libya, etc.According to the latest available NSSO household consumption expenditure survey, less than 10% of rural and urban households reported consumption of millets.The consumption of millets was reported mainly from Gujarat (jowar and bajra), Karnataka (jowar and ragi), Maharashtra (jowar and bajra), Rajasthan (bajra), and Uttarakhand (ragi).In 2018, the Union Agriculture Ministry declared millets as Nutri-Cereals and the powerhouses of nutrition, considering their high nutritive value & also anti-diabetic properties.2018 was observed as the National Year of Millets. The UN General Assembly adopted an India-sponsored resolution to mark 2023 as the International Year of Millets.Scientists from the ICAR-Indian Agricultural Research Institute (IARI) have developed a technology for extracting gluten from wheat dough & its regeneration in bajra & maize flour.The Agricultural and Processed Food Products Export Authority (APEDA) has prepared a strategy to promote millet exports.Millet International Initiative for Research and Awareness (MIIRA) aimed at coordinating millet research programmes at the international level.Shree Anna Scheme: Launched in 2023 to popularise millets. Indian Millets Research Center, Hyderabad would be promoted as a Center of excellence under it.Better recipes need to be invented to get millets mainstream & make them part of everyday diet.Multigrain breakfast mixes should be promoted as alternatives to early morning energy drinks like boost.Millets should also be included in the PDS along with wheat & rice.All millets should be brought under MSP (at present only jowar, bajra, and ragi receive MSP support).Millets should be introduced under the PM POSHANScheme (Mid-Day Meal Scheme). Download the Testbook APP & Get Pass Pro Max FREE for 7 Days10,000+ Study NotesRealtime Doubt Support71000+ Mock TestsRankers Test Series+ more benefitsDownload App Now A unique web portal that offers comprehensive details about stores providing millets in the Telugu states, along with the nutritional value that millets offer. Company Quick links Millets are short-duration, small-grained cereals that thrive in warm weather and are known for their resilience in less fertile and drought-prone areas. Essential to dry-land agriculture, millets require minimal external inputs and are highly valued for their nutritional benefits. This article aims to study in detail various types of millets, including Jowar (Sorghum), Bajra (Bull Rush Millet), Ragi (Finger Millet), and Barley, along with their growth conditions, production, and distribution across India. About Millets Millets are short-duration (3-4 months), small-grained, warm-weather cereals belonging to the grass family. Millets are grown in less fertile areas and are highly tolerant to drought and other extreme weather conditions. Millets require low or no purchased inputs and are considered the backbone of dry-land agriculture. Millets are highly nutritious, non-glss fertile areas and are highly tolerant to drought utinous, and non-acid-forming foods. Millets offer nutraceutical and health-promoting properties, especially due to their high fibre content. They provide food for poor people. Types of Millets in India The types of Millets grown in India are: Pearl Millet (Bajra) Pearl Millet is known for its drought resistance and high nutritional value. Finger Millet (Ragi) Finger Millet is rich in calcium and adaptable to various soil types. Sorghum (Jowar) A versatile crop used for food and fodder, it thrives in arid conditions. Foxtail Millet (Kangni or Rala) Foxtail Millet is characterised by its small, golden grains and high fibre content. Little Millet (Kutki) Small grains with a high nutritional profile are used in traditional dishes. Barnyard Millet (Sanwa) Barnyard Millet is often used in fasting and has high fibre and mineral content. Kodo Millet (Kodo) Kodo Millet is known for its resilience to harsh climates and is rich in minerals. Proso Millet (Cheena) Proso Millet is often used in bird feed and as a food source in various cultures. A few of these millets has been discussed in detail in the following section. Jowar (Sorghum) Jowar has a high nutritional value. It is rich in protein, fibre, thiamine, riboflavin, folic acid, and carotene. Sorghum proteins are significantly less digestible than other cereal proteins upon cooking, which might be beneficial for certain dietary groups. Conditions for Growth for Jowar Jowar is a rainfed crop grown in dry farming areas. It is grown both as a Kharif and a Rabi crop. It does not grow where the rainfall exceeds 100 cm. Clayey deep regur and alluvial soils are ideal for growing jowar. It can also be cultivated on gentle slopes up to an altitude of 1,200 meters. Production and Distribution of Jowar Maharashtra (38%) and Karnataka (20%) are the largest producers of Jowar. Tamilnadu, Rajasthan, Andhra Pradesh and Uttar Pradesh are other important producers of Jowar. Bajra (Bull Rush Millet) Bajra is the second most important millet and has been cultivated in Africa and the Indian subcontinent since prehistoric times. It is well-suited to regions with drought, low soil fertility, and high temperatures. Bajra thrives in soils with high salinity or low pH. Similar to jowar, it is used as both food and fodder in the drier areas of the country. Conditions for Growth for Bajra Bajra is a rainfed kharif crop in dry and warm climates. It is grown in areas with 40-50 cm of annual rainfall. The upper limit is 100 cm. Bajra can be grown on poor, light sandy and black and red soils. It is sown as a pure or mixed crop with cotton, jowar, and ragi. Production and Distribution of Bajra Rajasthan (1st), Uttar Pradesh (2nd), Haryana (3rd) and Gujarat (4th) are the important producers. Rajasthan accounts for 45.22% of the total production. Ragi (Finger Millet) Ragi is grown in the drier parts of Southern India (mainly drier parts of Karnataka). Finger millet is an richest source of calcium, providing 300-350 mg per 100 grams. It thrives in warm climates with 50-100 cm of rainfall and can be cultivated in a variety of soils, including red, light black, sandy, and well-drained alluvial loams. It is a rainfed Kharif crop sown between May and August and harvested between September and January. Conditions for Growth for Ragi Climate and Rainfall Ragi thrives in warm climates and requires 50-100 cm of rainfall. It is suited for drier regions and performs well in conditions that are neither wet nor dry. Soil Requirements Ragi can be grown on various soil types, including red, light black, sandy, and well-drained alluvial loams. It prefers well-drained soils to prevent waterlogging. Production and Distribution of Ragi The major ragi-growing states are Karnataka, Maharashtra, Uttarakhand, Tamilnadu, Andhra Pradesh, Jharkhand, Odisha, Chattisgarh, and Gujarat. Barley Barley is a major cereal grain widely cultivated in temperate regions around the world. Among the earliest domesticated grains, barley has been cultivated for nearly 10,000 years, particularly across Eurasia. It serves multiple purposes, including use as animal feed, a source of fermentable material for beer and certain distilled beverages, and as an ingredient in various health foods. Additionally, barley is a key component in the production of beer and whisky. Conditions for Growth for Barley It does not tolerate high heat or humidity. It grows in areas with rainfall between 75 cm and 100 cm. It is grown as a rabi crop in the Great Plains and valleys of the western Himalayas. It can thrive at altitudes of up to 1,300 meters, as seen in Uttarakhand. Production and Distribution of Barley Barley production has declined over time (like most millets). It is mainly grown in Uttar Pradesh, Rajasthan, Punjab, Madhya Pradesh, Haryana, Bihar, Himachal Pradesh, West Bengal, and Jammu and Kashmir. Production of Millets in India Millets are produced widely across various regions, with significant cultivation in countries like India, China, and parts of Africa. In India, millet is grown primarily in states such as Karnataka, Rajasthan, Maharashtra, and Tamil Nadu. The production of millets is crucial for food security, particularly in drought-prone areas, due to their resilience to harsh growing conditions and low water requirements. Benefits of Millets The benefits of millet are as follows: Nutrient-Rich Millets are high in essential nutrients such as vitamins, minerals, and fibre, making them a healthy choice for balanced nutrition. Drought-Resistant Millets are well-suited to arid and semi-arid conditions, requiring less water compared to other crops, which helps in sustainable agriculture. Low Glycemic Index Millets have a low glycemic index, which helps in managing blood sugar levels and is beneficial for people with diabetes. Versatile Use Millets can be used in a variety of dishes, from traditional recipes to modern health foods, adding diversity to the diet. Conclusion Millets play a crucial role in Indian agriculture, particularly in regions with challenging environmental conditions. Their ability to withstand drought and poor soil quality, combined with their high nutritional value, makes them a vital food source for many communities. Despite changes in production patterns and the decline in millet cultivation over time, these crops remain integral to the agricultural landscape and the diets of millions. Understanding the conditions required for their growth and distribution helps appreciate their significance and potential in ensuring food security and sustainability. International Year of Millets The International Year of Millets was declared by the United Nations for 2023 to raise awareness and promote the cultivation and consumption of millets. This initiative aims to highlight the nutritional benefits of millets, their role in sustainable agriculture, and their potential to enhance food security. By focusing on millets, the year seeks to encourage their integration into global food systems and improve the livelihoods of smallholder farmers. Frequently Asked Questions (FAQs) Millets are small, nutrient-dense cereal grains that grow in a range of environmental conditions, especially in arid and semi-arid regions. Millets are important because they are highly nutritious, offering a rich source of protein, fibre, and essential minerals. GS - 1

Ticwatch pro 3 gps manual. Ticwatch pro 3 ultra gps google maps. Ticwatch pro 3 ultra gps map. Ticwatch pro 3 ultra gps manual español. Ticwatch navigation. Ticwatch pro 3 ultra gps user manual.