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AN APPROACH PAPER

# INTERNATIONAL CONFERENCE

# ORGANICS & MILLETS 2018

JANUARY 19-21
BENGALURU PALACE

## ENHANCING FARMERS' INCOME THROUGH ORGANIC MARKETING

## NURTRICEREALS – GOOD FOR FARMERS, GOOD FOR THE PLANET, GOOD FOR YOU!

Prepared by **ICCOA**

# #Go Organic

- Re-cycles Resources
- Promotes Ecological Balance
- Conserves Biodiversity
- Prevents use of Pesticides and Fertilizers
- Safer and Healthier

# #Lets Millet

## GOOD FOR YOU

- Low Glycemic index
- Gluten Free
- 3 Times Calcium of Milk
- High on Antioxidants
- High on Iron
- 2 Times the Protein of Milk
- High on Fiber
- Rich in Folic Acid

## GOOD FOR THE FARMER

- Food
- Low Seed Costs
- Survive in dry / low rainfall zones
- Bio-fuel
- MULTI-USES
- LOW RISK CROP
- CLIMATE
- Fodder-feed
- Low Chemical Costs
- Grow in hardy soils

## GOOD FOR THE PLANET

- Minimal water
- Minimal chemicals
- Resilient to climate change
- Less stress on the environment

# Acknowledgement

The tremendous success of the Organics & Millets – National Trade Fair and Conference in 2017 positioned Karnataka as a lead player in the organics and millets sector. The International Conference on Organics and Millets 2018 will have both national and international experts in the sector as speakers.

We have drawn information and data from various sources for preparing this approach paper. First & foremost we would like to thank Mr. Krishna Byre Gowda, Hon'ble Minister for Agriculture, Govt. of Karnataka for his dynamic leadership and guidance. We are very grateful to Mr.G. Satish, Commissioner for Agriculture, and the whole team of the Department of Agriculture for their unstinting support throughout. Special thanks to IIMR and Dr. Dayakar Rao for providing up to date information on millets.

We are grateful to each and every one who has directly or indirectly aided in the development of this document.

**- Manoj Kumar Menon,** Executive Director, ICCOA

**Shobha M B,** Communications Consultant

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# ORGANICS & MILLETS 2018 INTERNATIONAL TRADE FAIR

The **Organics & Millets 2018 International Trade Fair** is organized by the Department of Agriculture, Govt. of Karnataka in association with KAPPEC, APEDA and Knowledge partner – ICCOA -International Competence Centre for Organic Agriculture. The International conference and exposition aims to build on the immense success of the Organic & Millets Trade Fair 2017. The fair will be a platform for domestic and international companies, farmer groups from different states and Central/ State bodies in organic and millet sectors to explore opportunities in global and domestic markets. This fair has scaled up to offer the participants a wider reach and opportunity to interact and share experiences with organic and millet stakeholders – both domestic and international.

ICCOA, as the knowledge partner, is the lead organiser of the International Conference 2018, which will have organic and millet experts and practitioners from India and other countries as speakers. The National conference on 'Organics & Millets – Improving access to Markets' during 2017 was attended by around 1200 delegates, comprising students, organic farmers, traders, practitioners, retailers, officials and representations of various governments bodies, organisations and agencies in the organic and millet sector. The Conference, spread over 3 days had over 22 eminent speakers – experts in their respective fields.

## Organic & Millets National Trade Fair 2017 – An overview

- **194 exhibitors**
- **260 stalls**
- **75000 visitors**
- **11000 farmers**
- **14 Organic farmer federations/ 4 FPOs**

### Publications

- Organic Policy 2017
- Millet Recipe book
- Organic Directory
- Exhibitors Catalogue
- Bengaluru Organic/ Millets outlets & Restaurants map

### Outcomes

- Business potential worth Rs.100 crore
- Short term business worth Rs.45 crore
- 45 buyers with a long-term business potential
- 16 MOUs signed.

# A GLOBAL ORGANIC REVOLUTION

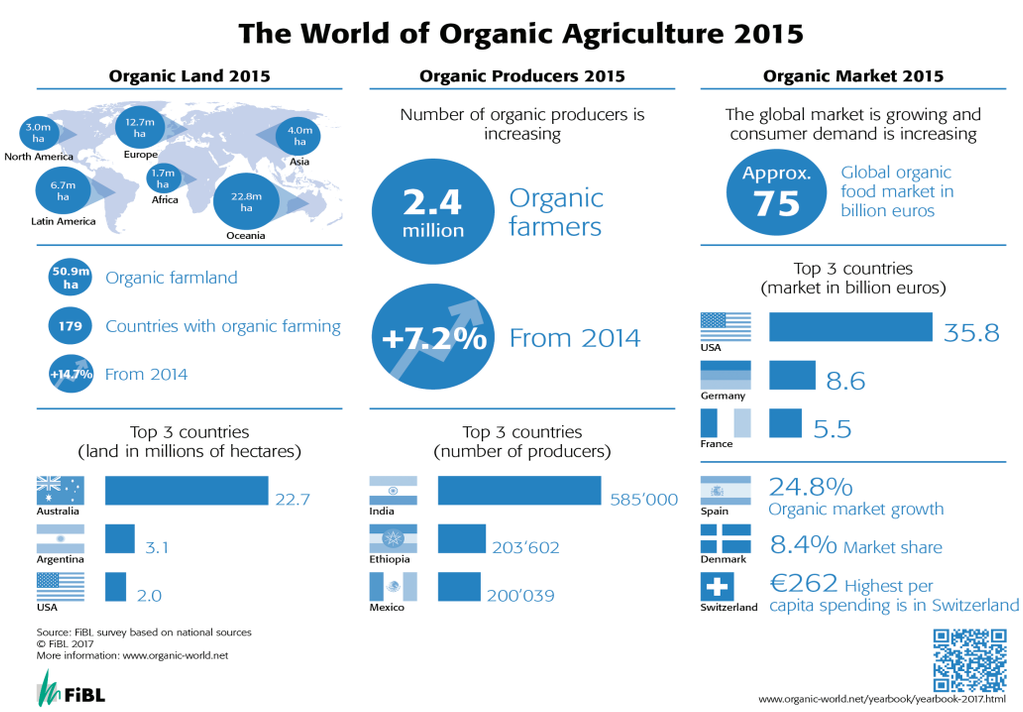
The global quest for nutritious food, security of farmers, sustainable agriculture and conservation of environment is fuelling a revolution in organics and millets. Globally, over 43.7 million hectares are organic, with over 2 million producers from 172 countries. The total area under organic cultivation and the global food market are increasing at 10 & 12% respectively. Global organic trade is estimated to reach 100 billion by 2020.

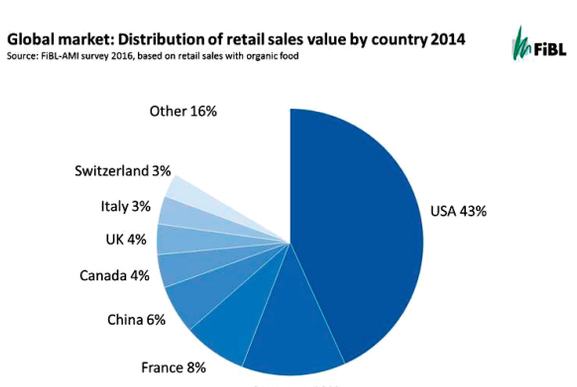
## What is Organic farming?

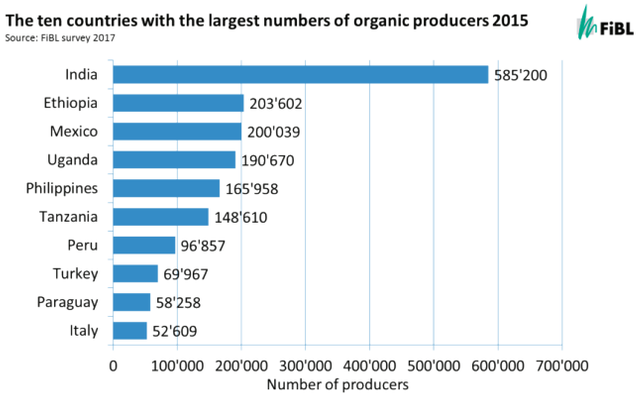
Organic farming primarily aims at cultivating the land and raising crops in such a way, as to keep the soil alive and in good health.

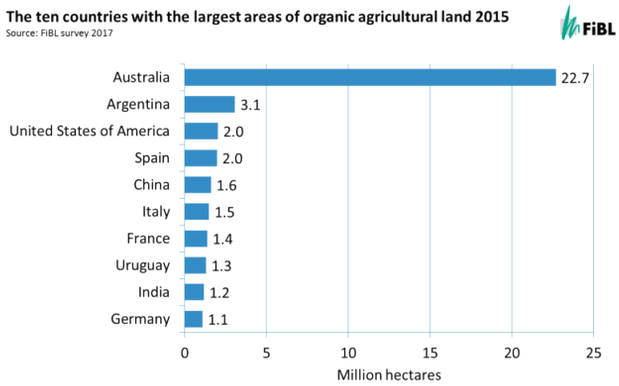
FAO defines Organic agriculture as 'a holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles, and soil biological activity'.

According to International Federation for Organic Agriculture Movement (IFOAM) ***"Organic Agriculture is a production system that sustains the health of soils, ecosystems and people"*** and is based on the principles of health, ecology, fairness and care.






## THE GLOBAL ORGANIC FOOD MARKET

The global organic food market which is estimated at USD 90 billion in 2015 has been growing at an average CAGR of around 12% for last 14 years. Europe and North America together generate about 90% of the global organic food sales. United States leads the market with a market size of over USD 39 billion followed by Germany USD 11.2 billion and France USD 6.7 billion.

The largest organic market in EU is Germany with growth rate of over 7%; and together with France they represent over 50% of the EU organic market.

Amongst the well-established organic markets, USA, Switzerland, Sweden and Norway have witnessed double digit growths in the recent years. Few others like Poland in EU and Brazil are reported to be growing at growth rates of close to 20%-largely because of lower base. (UK, Italy, Switzerland – between $ 2200 to $ 3000 million are also large markets compared to Indian market size of $ 415 million). Other than UK, all are fast growing markets. Austria, Sweden Denmark, Netherlands and Spain are markets over 2-3 times the size of the current Indian market.

Organic packaged food and beverage products category constitutes about 40-50% of the total global organic food market ($ 90 billion) with an estimated retail level market size of around USD 38-40 billion in 2015. Of this, organic packaged food category accounts for USD 32-34 billion while organic packaged beverages account for USD 4-6 billion.

Dairy and dairy products, bakery/confectionery products, ready meals and baby food are the largest categories in the organic packaged food market globally accounting for around 50% of the total organic packaged food market. Dairy sector accounts for close to 25% of the packaged food products followed by bakery confectionery products (18%), ready meals (8%), baby food (6%), chilled processed meat/seafood (5%), and processed/frozen food (4%).

In the beverage segment, the major categories are fruits and vegetables juices, coffee and tea which together account for over 70% of the total non-alcoholic beverage segment.

| Rank | Country | Market Size USD mn | |
|---|---|---|---|
| | | 2013 | 2015 |
| 1 | USA | 32,000 | 39,000 |
| 2 | Germany | 9,800 | 11,200 |
| 3 | France | 5,700 | 6,700 |
| 4 | China | 3,100 | 4,500 |
| 5 | Canada | 3,000 | 3,600 |
| 6 | UK | 2,700 | 2,900 |
| 7 | Italy | 2,600 | 2,900 |
| 8 | Switzerland | 2,100 | 2,600 |
| 9 | Austria | 1,400 | 1,600 |
| 10 | Swedan | 1,300 | 1,650 |
| 11 | Japan | 1,300 | 1,450 |
| 12 | Spain | 1,297 | 1,500 |
| 13 | Australia | 1250 | 1,600 |
| 14 | Denmark | 1192 | 1,300 |
| 15 | Netherlands | 1093 | 1,200 |
| 16 | Brazil | 910 | 1,300 |
| 17 | Finland | 280 | 300 |
| **India Overall sector $ 415 mil** Incl exports | | | |

# ORGANIC POTENTIAL - INDIA

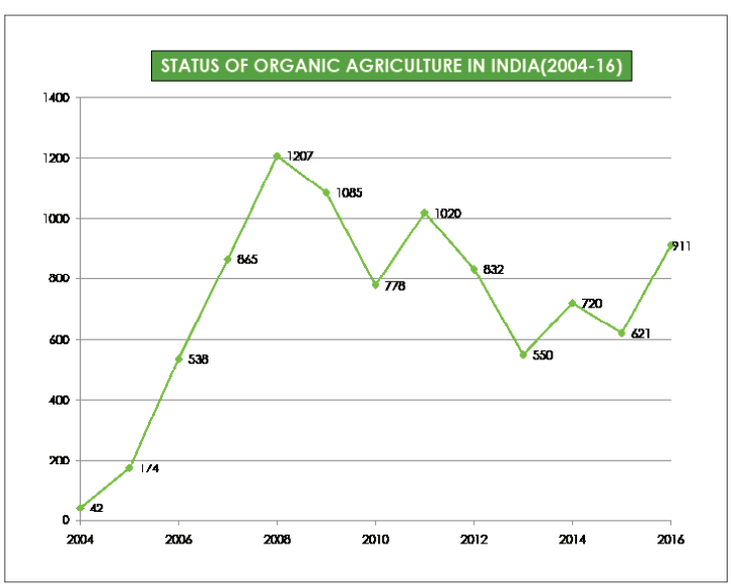
Organic agriculture has seen a significant growth in India, especially in the last 8-10 years. The area under organic farming with certification has grown from 42,000 ha during 2003-04 to 11,00,000 ha in 2016.

The markets for organic products are growing faster with the global demand increasing at 20-25 % p.a (and India's markets growing at even 40-50%). The worldwide sales crossed US $ 80 billion and are expected to reach US $ 100 billion by 2017. The trade estimate in India shows that the market for organic products has crossed Rs.4500 crores (exports at Rs. 3500 crores and domestic markets at Rs. 1000 crores). The market in India will touch Rs. 10000 crores (USD 1.50 billion) by 2020.

India produced around **1.35 million MT** (2015-16) of certified organic products which includes all varieties of food products namely Sugarcane, Oil Seeds, Cereals & Millets, Cotton, Pulses, Medicinal Plants, Tea, Fruits, Spices, Dry Fruits, Vegetables, Coffee etc. The production is not limited to the edible sector but also produces organic cotton fiber, functional food products etc.

Among all the states, **Madhya Pradesh** has covered largest area under organic certification followed by Himachal Pradesh and Rajasthan.

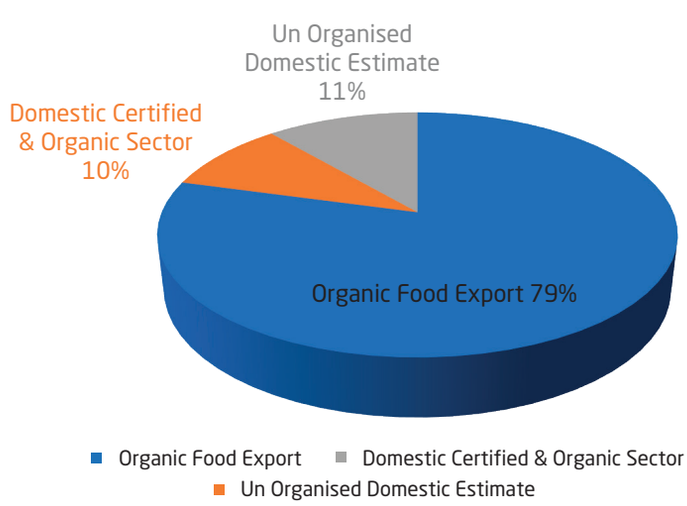
## Status of Organic Agriculture in India




Land area certified under Organic increased from only 42,000 ha in 2004 to 9,11,000 ha in 2016

## Indian Organic sector

Currently the Indian Organic food sector is primarily driven by exports comprising about Rs. 2,100 crore and domestic certified market (organized sector) estimated between Rs. 250 to Rs 300 crore. Estimates of unregulated domestic organic market size range between Rs. 500 to Rs 800 crore. Certified cotton exports of over Rs. 1,100 crore is another major component of India's organic sector. Current Indian exports are predominantly non-value added commodities.



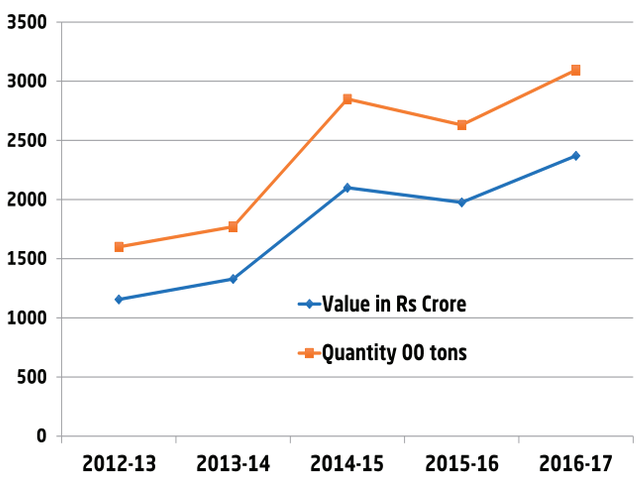
## Export Trends

The total volume of export during 2015-16 was 263687 MT. The organic food export realization was around 298 million USD. Organic products are exported to European Union, US, Canada, Switzerland, Korea, Australia, New Zealand, South East Asian countries, Middle East, South Africa etc.

Oil seeds (50%) lead among the products exported followed by Processed food products (25%), Cereals & Millets (17%), Tea (2%), Pulses (2%), Spices (1%), Dry fruits (1%), and others(2%)

USA is the top most market for the Indian organic products having a share of 42% followed by EU (European Union- 37%), Canada (14%), Switzerland (2%), and Israel (1%) These had a combined share of around 99% in volume terms (lakh MT). In terms of export value USA, European Union, Canada, Switzerland, and Japan have a combined share of 97%. Around 3000 MT of organic produce worth around INR 55 Cr was exported to different Asian markets in 2014-15. The major Asian markets volume -wise were Israel, Japan, Turkey, UAE, Singapore and Thailand. Japan with Rs. 26.5 crore tops the chart in value terms followed by Israel, Turkey and China.

### Organic Exports



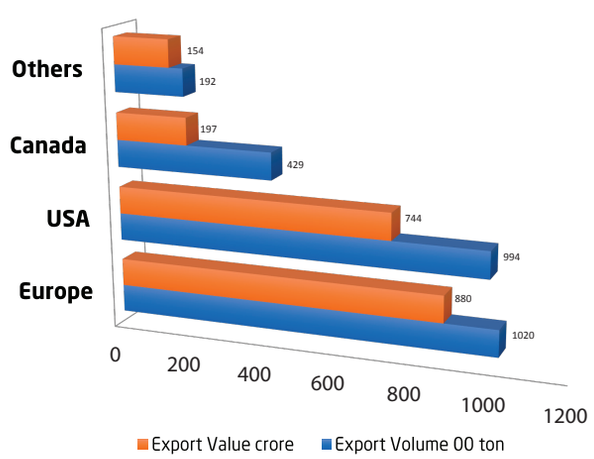

### Category wise Export (2015-16)

| Rank | Crop commodity | Quantity in lakh MT |
|---|---|---|
| 1 | Oil seeds | 1.32 |
| 2 | Cereals and millets | 0.44 |
| 3 | Processed foods | 0.67 |
| 4 | Tea | 0.054 |
| 5 | Pulses | 0.048 |
| 6 | Dry fruits | 0.024 |
| 7 | Spices and condiments | 0.030 |
| 8 | Medicinal | 0.022 |
| 9 | Coffee | 0.022 |

Total Exported quantity - **2.64 lakh tons**

Export value realization - **1900 crores (Rs)**

### Export Destinations (2015-16)




Source: **APEDA**

### Trends of export in 2016-17

| | |
|---|---|
| • **Total Exports (quantity)** | **3.039 lakh tons** |
| • **Total Export value in Rs** | **2478 crore (370 mi $)** |
| • **Important destinations** | **in Rs Cr** |
| European Union | 1114 |
| USA | 974 |
| Canada | 193 |
| Switzerland | 56 |
| Australia | 42 |
| Japan | 20 |
| S. Korea | 09 |
| New Zealand | 08 |

# KARNATAKA - #GO ORGANIC #LET'S MILLET

The Government of Karnataka, realising the importance of organic agriculture as early as in 2004 has brought out a State Policy on Organic Farming and has implemented several schemes and programmes to promote organic farming. In accordance with this, the State has witnessed a steady growth with an increase in certified area from a mere 2,500 ha during 2004-05 to 93,963 ha as on March 2016. **Presently, Karnataka ranks fifth in the country in terms of certified area and third in terms of total certified annual production.**

## Pioneer in Organic Agriculture

| | |
|---|---|
| Total cultivated area under organic | 93,963 ha |
| Total under wild harvest collection | 39683 ha |
| Total Certified Production | 282633 MT |
| No. of certified Organic Farmers (including collectors) | 1,96,612 |
| No. of Organic farming research institutes | 08 |
| Regional Federations of Organic Farmers Association | 14 |

## Savayava Bhagya Yojane (SBY)

Savayava Bhagya Yojane, an ambitious project of the Karnataka government, is implemented at Hobli level in coordination with NGOs since 2013-14. In each hobli, an area of 100 hectares is selected. Currently, this project is under implementation in 566 Hoblis and covers an area of 63,677 hectares involving 53,829 farmers. The entire area is certified under group certification through Karnataka State Seed and Organic Certification Agency (KSSOCA).

During 2017-18, "Market based specific organic crop cluster" development was initiated under SBY. The objective was to provide proper linkages between producers and consumers taking into account demand for specific products. It also aimed at strengthening the supply chain mechanism, production, collection, grading, processing, packing, brand development, whole sale and retail marketing.

## Paramparagat Krishi Vikas Yojana (PKVY)

In addition to Savayava Bhagya, the centre sponsored Paramparagat Krishi Vikas Yojana (PKVY) is being implemented in all districts and taluks of Karnataka in clusters of 50 acres since 2015-16. A total of 545 crop-specific clusters (3 clusters per taluk) have been selected in a total area of 27,250 acres in State and 25,968 farmers are benefiting from this project. Participatory Guarantee System (PGS) certification is adopted in areas under PKVY.

## Popularising Organics & Millets

The Karnataka State Government is sparing no effort in projecting the state as the organic and millet capital. The state has brought out a directory having details of all stake holders of organic farming. It has developed Package of Practices for several crops. State Agriculture Universities have established several organic model farms. Separate pavilions for organic farming are created in Krishimelas. Karnataka also participated in several International Organic Trade Fairs with separate pavilion for the farmers' groups to develop marketing linkages. Organic and Millet Melas were organised in all district head quarters.

## Karnataka Organic Farming Policy 2017

The Organic farming Policy 2017 was released during the National Trade fair in 2017. An improvement of the 2004 version, the new policy specifies objectives and strategies to create more opportunities for the farmers to meet the growing demand for organic produce. The focus is on providing proper linkages between producers and consumers, strengthening the supply chain mechanism and supporting activities related to whole sale and retail marketing.

## Regional Federations

The village level organic farmers' associations and clusters were formed into 14 district level regional federations and registered during 2015-16. These Federations took up collection, grading, value addition, processing, packing, brand development and marketing of organic produce, apart from creating consumer awareness programme and other activities. All the 14 federations participated in the National Trade Fair 2017 in the Karnataka Pavillion and had very good sales in the three days. The buyer seller meets and contacts made during the trade fair have been very valuable for the federations and some have translated into impressive business transactions.

The table below shows the steep increase in the turnover of some federations like Uttara Kannada, Davanagere, Kalburgi and Tumkur, after linkages with buyers during the National Trade Fair.

| Sl. No. | Name | Previous turnover (Rs lakh) | Current turnover (Rs Lakh) | Market linkages (Organics & Millets NTF 2017) | Major crops / products |
|---|---|---|---|---|---|
| 1 | Belagavi District Regional Cooperative Organic Farmers Association Federation Ltd., | 30.00 | 62.75 | Uyir Organic Farmers Market, retail outlets | Jowar, wheat, chilli powder, pulses |
| 2 | Davangere & Chitradurga Regional Cooperative Organic Farmers Association Federation Ltd., | 48.00 | 300.00 | Bigbasket, G-10 Organic Exporters, Threedathu | Millets, Rice, Pulses |
| 3 | Uttarkannada Regional Cooperative Organic Farmers Association Federation Ltd., | 30.00 | 311.00 | Bigbasket, Organic Tatva, | Spices, Pepper, Nutmeg, Pulses, Coconut |
| 4 | Hassan & Kodagu Regional Cooperative Organic Farmers Association Federation Ltd., | | 18.00 | No contract | Millets, Rice, Pulses |
| 5 | Dakshina Kannada, Chikkamagalur, Udupi Regional Cooperative Organic Farmers Association Federation Ltd., | Nil | 23.50 | Retail outlets, other Federations, Savayava Sante at Udupi | Rice, Red rice, Finger millets, pepper, vegetables |
| 6 | Dharwad, Haveri & Gadag Districts Regional Cooperative Organic Farmers Association Federation Ltd., | 20.00 | 25.00 | MOU with Phalada, purchase yet to materialise | Oil seeds, oil, pulses, chilli |
| 7 | Kalburgi, Yadgir & Bidar Regional Cooperative Organic Farmers Association Federation Ltd., | | 114.80 | Negotiations underway, contract to be finalised | Rice, pulses, Millets, Sugarcane |
| 8 | Raichur, Koppal & Ballary Regional Cooperative Organic Farmers Association Federation Ltd., | 10.00 | 15.00 | Shri shri Industries | Paddy, groundnut, millets, vegetables |
| 9 | Bijapur & Bagalkote Regional Cooperative Organic Farmers Association Federation Ltd., | | 107.00 | Phalada, Retail outlets | Bajra, Jowar, Jaggery, Pulses, Groundnut |
| 10 | Shivamogga Regional Cooperative Organic Farmers Association Federation Ltd., | Nil | 21.00 | No | Red rice, pulses, Jaggery, cashew |
| 11 | Mysore, Chamarajnagar & Mandya Regional Co-op Organic Farmers Assn. Federation Ltd., | | 6.35 | Phalada | Paddy, Ragi, Sugarcane, maize |
| 12 | Bengaluru(R), Bengaluru (U) & Ramanagar Regional Cooperative Organic Farmers Association Federation Ltd., | 25.00 | 28.00 | - | Ragi, millets, pulses, vegetables |
| 13 | Kolar & Chikkaballapur Regional Cooperative Organic Farmers Association Federation Ltd., | | 13.80 | Phalada Organic, Simponi Organic | Ragi, Foxtail millets, Groundnut, cashew |
| 14 | Tumkur Regional Cooperative Organic Farmers Association Federation Ltd., | 50.00 | 80.00 | phalada organics and Arogya organics | Ragi, minor millets, groundnut, vegetables |

*Uttara Kannada Regional Cooperative Federation was formed in 2015 with 24 founder members. Nearly 6,500 hectares are under organic cultivation, with 18 product categories including turmeric, ginger, arecanut, spices, cardamon, cashew, etc. They participated in the Organics & Millets - National Trade Fair 2017 and sold produce and value added products such as ginger squash, jack fruit chips, dry fruit energy bars, kokam juice, etc under their own brand name. They developed contacts with several buyers and large companies during the buyer-seller meets. According to Vikas, CEO of the Federation, the linkages during the fair have turned the fortunes of the farmers in the federation. From Rs.30 lakh during previous year, it increased to more than 10 times this year to nearly Rs 3.11 crore. Prominent among the buyers was Big Basket, which alone has given a business of nearly Rs 1.82 crore.*

# SMART FOODS - MILLETS

## Karnataka - Millet capital of India

Karnataka is promoting millets as nutri-cereals that are good to eat and grow and kind on the planet. The perception of ragi (finger millets) and jowar (sorghum), the principal millets of the state, as food of the poor is changing mainly among those with lifestyle diseases. Karnataka has developed a brand called 'Siri,' which means 'rich' in Kannada, and is calling millets 'siridhanya' or rich grains. Karnataka started implementing distribution of millets through PDS -where the grains are sourced and distributed locally. Today, Karnataka is one of the leading producers and consumers of millets in the country. **In addition to 18 million hectares of Major millets including Sorghum (Jowar), Finger Millet (Ragi) and Pearl Millet (Bajra), the State also has nearly 40,000 hectares of Minor millets like Barnyard, Proso, Kodo, Little and Foxtail Millets.** The state government is trying to make millets 'The Food of the Future' through various initiatives and ensuring farmers get their due remuneration. It is procuring Ragi & Jowar by giving a bonus of 20-25 percent above the MSP from farmers.

## Millet Cultivation

India is the largest producer of millets in the world, and accounts for more than 40 percent of the global consumption. Millet cultivation is the mainstay of rainfed farming which provide livelihood to nearly 50% of the total rural workforce and sustain 60% of cattle population in India.

Millets are most unique amongst cereals. Millets grow under dry conditions, can performs well with relatively poor soils and require low inputs. They are a staple food with superior nutritional qualities compared to other cereals. In India, for the poor, for instance among tribal people residing the highland areas of North East, and for farmers in dry areas including the Deccan, central India, western Indian states such as Gujarat and Rajasthan, and the western ghats, millets have long acted as a source of nutritional supplement. Used as dual-purpose crops (food and fodder), they make strong economic sense in mixed farming systems. In addition, millets sequestrate carbon, thereby adding to CO2 abatement opportunities, contribute to improved agro-biodiversity by their rich varietal diversity, allow for mutually beneficial intercropping with other vital crops, and have significant cultural value due to their long history.

Millet grains contain higher protein, fibre, calcium and minerals than the widely consumed fine cereals, and can ensure nutritional security to the poor people who cannot afford a variety of food items in their diet. A combination of factors like low remuneration as compared to other food crops, lack of input subsidies and price incentives, subsidised supply of fine cereals through Public Distribution System (PDS), and change in consumer preference (difficulty in processing, low shelf life of flour and low social status attached to millets), have led to shift from production of millets to other competing crops.

### Estimates (Mean of 2010-11 to 2014-15) of Area, Production and Yield of Millet Crops in India

| Crop | Season | Area (million ha) | Production (million ton) | Yield (kg/ha) |
|---|---|---|---|---|
| Jowar | Kharif | 2.53 | 2.85 | 1126 |
| | Rabi | 3.83 | 3 | 783 |
| **Total** | | **6.36** | **5.85** | **913** |
| Bajra | Kharif | 8.16 | 9.56 | 1172 |
| Ragi | Kharif | 1.2 | 1.95 | 1621 |
| Small millets | Kharif | 0.72 | 0.43 | 596 |
| **Total Millets** | **Total** | **16.45** | **17.79** | **1076** |

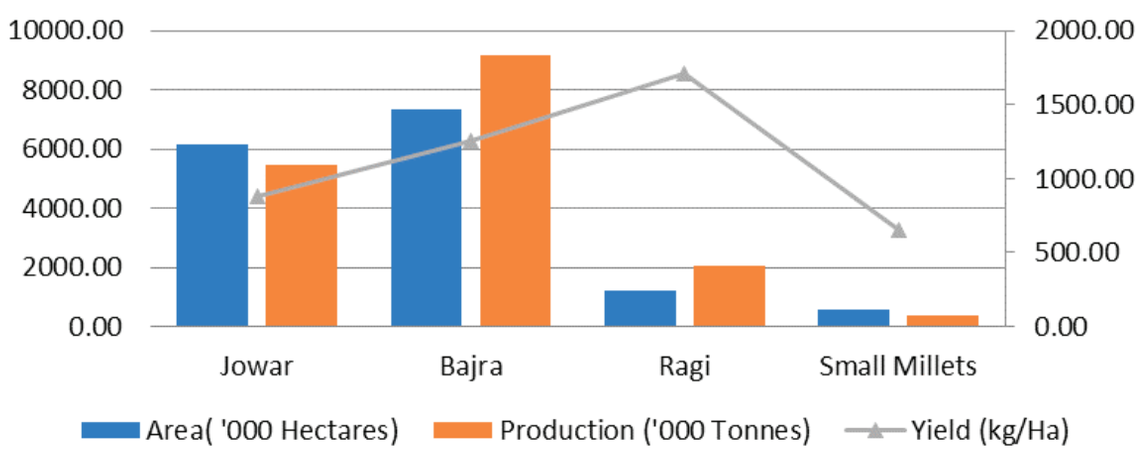
Source: **Directorate of Economics and Statistics, GOI**

## Background

A total of about 18 m tonnes of millets food grains are produced from nearly 16 m ha, which constitutes 7% of national food grain basket. Bajra is grown in about 8.2 million hectares yielding 9.6 million tons, followed by jowar (6.4 m ha, yielding 5.9 m ton) and ragi (1.2 m ha, yielding 1.9 m ton) and other millets (0.7 m ha yielding 0.4 m ton). These crops are grown for both grain and fodder purpose. Much of the grains are consumed at house hold levels and the rest goes for industrial uses including for poultry feed, food processing and breweries. Some quantities also get exported as seed, bird feed and processed food items. At global level, India is the leading producer of millets producing 41% of bajra from 28% of global area under the crop and 7% of jowar from 13% of global area under the crop. Ragi, little millet and kodo millet are mostly grown in India, whereas maximum area under foxtail millet (4-5m ha) is in China and proso millet is grown in Eurasian countries.

Millet crops are grown in low rainfall (200-600 mm) areas. These crops, being drought tolerant and highly adaptable, are highly suitable for dryland agricultural ecosystems and some of them are important in hill and tribal agriculture. Since centuries, the millets have provided food and nutritional security to the populations in the disadvantaged geographical regions. These food crops are unique as they require less water to grow, mature early and are cultivated in low input conditions. Agronomic advantages are that they are highly adapted to low rainfall conditions, able to withstand fairly long dry spells, recover fast after delayed rain, make them good contingent crops. Millets are highly resilient in adapting to different ecological conditions; ideal crops for climate change and contingency plantings. Being C4 plants these are more environment friendly with high water use efficiency and low input requirement, but equally responsive to high input management. Besides being farmer-friendly, the unique nutritional properties of millets, i.e., high fiber, quality protein & mineral composition, being called as "nutri-cereals".

### Area, production and yield of millets in India during 2014-15.




Source: **Directorate of Economics and Statistics, GOI**

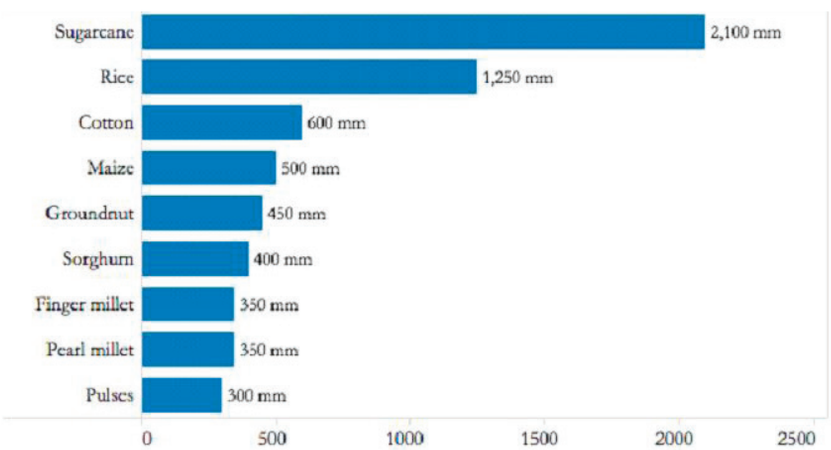
Though millets are one of the earliest grains that are being cultivated and consumed by the people, in the last few decades India and the world have witnessed significant decrease in the area under the millets crops. The total area, production productivity of jowar declined with CAGR of 4.4%, 5.8% and 1.4% respectively from 2010-11 to 2014-15. The loss in jowar area has remained more conspicuous since middle of 1980s at a rate of over 360 thousand ha per annum (Rakshit et al. 2014). The bajra area (7.3Mha) and production (9.2MT) also observed declined trend with CAGR 6% and 3.5% but productivity shown positive trend with CAGR of 3.1%. Ragi and other small millets also have shown similar declining trend in area and production with CAGR -1.1%, -1% and -7.7%, 3.2% but productivity observed slight positive growth of 0.1% and 1.2%. In India total area under the millets crops declined with CAGR of 5.4% annually from 2010-11 to 2014-15 and the production of total millets also declined at 4 % annually. Since the annual decline in the production was less than the loss of area under crops, the productivity of the millets witnessed slight increase in the last five years with CAGR value of 1.2 %.

Among the states, maximum area under millets is in Rajasthan (5 m ha; 87% under bajra) followed by Maharashtra (4 m ha, 75% under jowar) and Karnataka (2 m ha, 54% under jowar, 32% under ragi) .

Though India is the largest producer of millets in the world, between 1961 and 2012, there has been drastic reduction in the area under cultivation of millets but due to productivity gains in some varieties, total production of millets showed some increase despite shrinkage of area.

The main reasons for decline of the millets crops in India are low remuneration as compared to other competing crops, lack of input subsidies and price incentives, subsidized supply of fine cereals through PDS, and change in the consumer preferences (NAAS, 2013). These factors had led to shift from production of millets (jowar in particular) to other competing crops such as soybean, maize, cotton, sugarcane and sunflower in the country as a whole.

**Water requirement of different Crops**




Rainfall requirement in mm

## Millets are smart foods

a. **Good for the consumer:** they can help overcome some of the biggest nutritional and health problems (iron, zinc, folic acid, calcium, diabetes and more);

b. **Good for the planet:** they have a low water footprint, are able to survive in the hottest driest climates and will be important in coping with climate change, and more;

c. **Good for the farmer:** can increase yields up to 3 fold, have multiple uses (food, fodder, fuel), and are typically the last crop standing in times of drought being a good risk management strategy for farmers.

## Millets for the management of lifestyle disorders

Recent Research findings pointed that millets show anti-diabetic properties which is due to the presence of slow digestible starch (SDS) in good amounts, prolongs digestion and absorption of carbohydrates in intestine. Another study also points to the fact that blood glucose level showed considerable reduction of non-obese patients with non-insulin-dependent diabetes mellitus (NIDDM), who consumed sorghum bran papadi (Shinde, 2004).

Pearl millet is also proven to effectively help in maintaining the blood sugar level constant in diabetes patients for a long period of time. Finger millet based diets have shown lower glycemic response due to high fiber content and also alpha amylase inhibition properties which are known to reduce starch digestibility and absorption (Kumari and Sumathi, 2002). All small millets have been proven excellent anti-hyperglycemic activity (Sireesha et al., 2011; Park et al., 2008). Millet based foods also help to obtain better nutrition and as well as considered as preventive medicine for diabetes as they are also rich source of protein and other nutrients. Thus, millet consumption helps in the prevention and control of diabetes.

## Consumption pattern of nutri-cereals

Sorghum and other millets are the staple food of western and central regions of Maharashtra and the northern region of Karnataka and Andhra Pradesh. The annual per capita consumption of sorghum is declined by 75% in urban areas, and 87% in rural areas during 1972-73 to 2011-12.

In the last two to three decades sorghum grain, especially sourced from kharif season are diverted to industrial uses such as livestock and poultry feed, starch, potable alcohol and ethanol production due to poor quality and mould affected grains.

The declining trend in sorghum consumption and other nutritious cereals in general is attributed to the shift in dietary patterns of consumption towards a balanced diet that includes livestock products, fruits and vegetables (Chand, 2007) which is mainly driven by an increase in income and urbanization wherein people are too busy to spend much time in preparation of their daily diet. Secondly, the shift is due to the consumption of fine cereals which are supplied through PDS at subsidized prices.

## Bringing millets into Mainstream Agriculture and popular diet

Researchers, public policy advocates, government agencies and NGOs along with the millet farmers from across the country through their collective campaign and continuous dialogues with central government made it possible for millets and has given the focus they deserve; the coarse cereals of the dry land population of India to enter Public Distribution System(PDS) through a provision made for them in the Food Security Act, 2013. Several years of efforts made by the millet farmers and their demands to make space for their indigenous crops were thought to be fulfilled when the Act was made three years ago. However the act was unable to provide such status to millets as expected; except in the State of Karnataka.

While attention for millets is increasing, it is important to revitalize the nutri-cereals cultivation in the country. The only way is to have a focused and integrated approach to aim, strategize and implement the programme for doubling millet farmers' incomes. Various intervening points discussed in the previous sections are summarized below for policy formulation to attain the underlying goal of doubling the millets farmers' income by 2022.

**Firstly,** Given the inelastic supply nature of lands, significant income generation of millet farmers can be done by productivity enhancement of millets through reducing yield gaps, including fallow and wastelands under millets cultivation

**Secondly,** millet farmers' income in dry land conditions can be effectively increased by reducing the cost of production.

- ✓ Adoption of recommended package of practices and increased resource use efficiency, technological upgradation and adoption of water saving technologies.
- ✓ Adoption of integrated farming system models with inclusion of millets for cultivation in post-kharif rice fallows will increase cropping intensity in dry land agriculture.

**Thirdly,** generation of demand for millets through value addition and millets sub-sector development will generate remunerative prices to the farmers

- ✓ Development of product specific varieties, creation of farm level grading and standards, fabrication of primary processing machinery and conducting bioavailability and shelf-life studies
- ✓ Setting up of nutrition-cum-referral labs on nutrition
- ✓ Addition of nutri-rich fodder in the millets value chain and other millets subsector development

**Fourthly,** Formulation of steady price policies, expanding the coverage of small millets under MSP, more procurement of millets through MSP and providing insurance coverage to nutri-cereal crop enterprises.

**Fifthly,** creation of marketing infrastructure, innovative supply chain models, online marketing platforms. Federating the millets farmers to form into FPOs. The start-up entrepreneurs can be linked with FPOs for creation of innovative supply chain model, with provision of small warehousing facilities.

# ORGANIC CERTIFICATION

## Certification of Organic Products

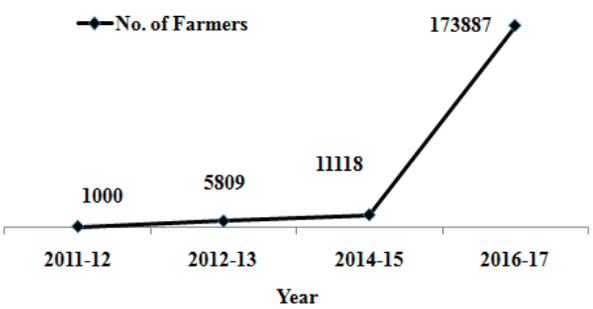
Certification is a process of auditing the organic agricultural methods followed by the organic farm by an independent agency with reference to some established standards.

In our country, the National Programme for Organic Production (NPOP) has set standards for organic production. The 'standards' are the minimum required practices to be followed for the resulting product to be called as 'organic'.

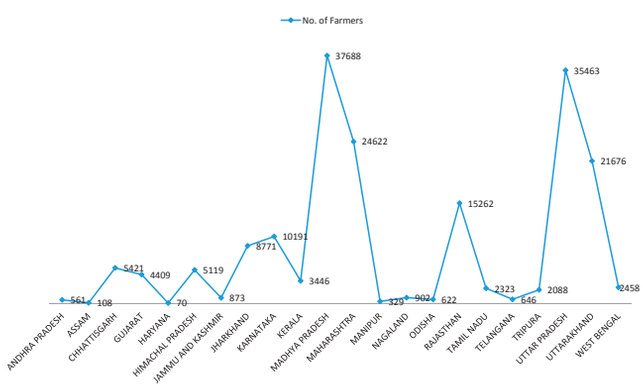
## Is it necessary to undergo certification process for all organic production?

It is a voluntary step taken by an organic farmer or project. If the interest of the farmer is only for improving fertility of the soil or saving the environment from pollution of soil and water with chemical contamination or for growing organic food for own consumption, there is no need for certification.

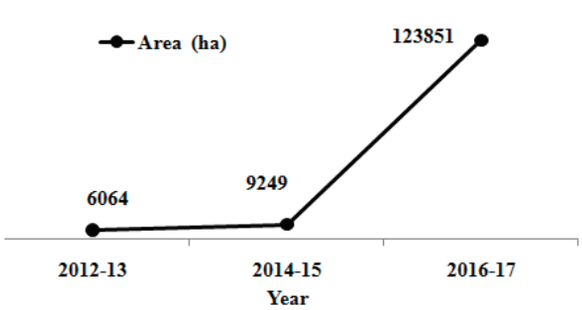
If a farmer wants to export his product to overseas markets, then the organic certificate is a must. Without such certificate, he cannot export organic products from India. Even in the domestic market, with the advent of retail chains, the opportunity to market certified organic food is quite promising. Apart from the certificate from the Accredited certificate agency, the Government of India has introduced **Participatory Guarantee System (PGS) Certificates** for small farmer groups who would like to market their organic products direct to consumers or retail chains. This is a decentralized organic certification system to help small organic farmers to market their products authentically. The details regarding this scheme are available with all agricultural extension offices in the country. Details can also be obtained from the Website: **www.pgsindia-ncof.gov.in**



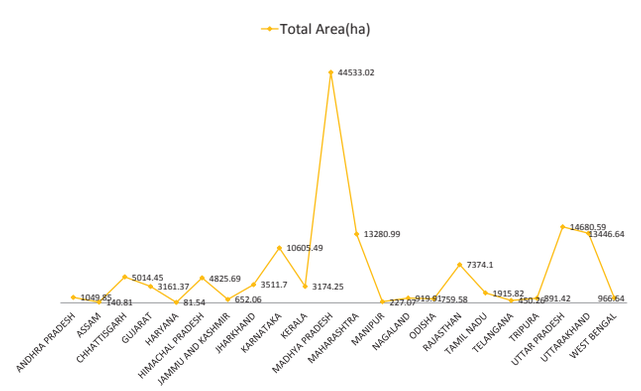

Year wise details of farmers registration under PGS-India Certification system




Total no. of Farmers registered State -wise under PGS-India (May, 2017)




Year wise details of cultivable area (ha) registered under PGS-India Certification system




State -wise Area(ha) registered under PGS-India (May, 2017)

## What are Organic Standards?

Organic Standards are some minimum required organic practices to be followed by the organic farmers so that the farm can be called as Organic. Some of the practices are given below in brief;

- The conventional farms should undergo conversion to organic farm. The conversion period is 24 months from the date of inspection for annual crops like cereals, pulses, vegetables, oilseeds etc. It is 36 months in case of perennial crops like orchards and plantation crops.
- Soil fertility and nutrient management should be only with organic inputs. Organic inputs can be sourced from on-farm resources or off-farm materials as long as they are natural products and not chemicals. Generally, all organic products are based on plant, animal or microbial sources.
- Seeds and planting materials shall be sourced from organic crops.
- Crop protection from pests and diseases are carried out with materials originating from plant, animal and microbial sources. Chemicals are prohibited.
- All branded nutrients and plant protection products should be approved by accredited Certification Bodies (CBs) for use in organic agriculture.
- Genetically Modified (GM) products are not allowed in Organic agriculture.
- Steps should be taken to avoid contamination of land, water, air and the organic products with chemicals and non-organic substances.
- The organic farm should have an organic system plan containing all the production practices followed in the organic farm.
- All farm activities should be properly documented and should be made available for inspection by the CBs.
- More details can be obtained from the National Programme for Organic Production (NPOP) guidelines available in APEDA website www.apeda.gov.in under publication section.

# THE WAY FORWARD

The vision of the state government is to transform agriculture in Karnataka into a sustainable, remunerative and respectable occupation and to enable the farmers from the state to reap the benefits of dynamic market opportunities and bring organic farming into mainstream agricultural production, which would help transform at least **10 percent of the cultivable area of the state into organic by 2022.**

## Thrust areas

- Expansion of area under organic farming and millet cultivation
- Market oriented crop cluster development
- Creation of mega infrastructure facilities at production points for value addition and processing
- Encouragement and facilitation of public- private partnership among farmers organisations/ federations and marketers for production, processing and marketing
- Encouragement for opening of retail outlets in Bangalore and other cities and towns of the State
- Promotion of the State brand of organic products and millets at national and international level.
- Encouragement for eco and agri-tourism

# ORGANICS AND MILLETS - INTERNATIONAL TRADE FAIR 2018

## EVENT SCHEDULE (19-21 JANUARY 2018)

| | | 19 January - Friday | | 20 January - Saturday | | 21 January - Sunday | |
|---|---|---|---|---|---|---|---|
| | | Time | Program | Time | Program | Time | Program |
| I | **Inaugural Program Main Hall** | 1100 - 1230 | Formal inaugural program of ITF - 2018 By CM | - | - | - | - |
| II | **Exhibition** | 1100 - 12: 30 | Inaugural function | 0930 - 1830 | Exhibition | 0930 - 1830 | Exhibition |
| | | 0930 - 1830 | Exhibition continues | | | | |
| III | **International Conference Hall 1 - Jaivik Hall** | 1100 - 1300 | Conference registration; Kits | 1000 - 1145 | Session 3 Millet Startup | 1000 - 1130 | Session 7 |
| | | 1400 - 1530 | Session 1 | 1145 - 1300 | Session 4 | 1130 - 1300 | Session 8 |
| | | 1545 - 1730 | Session 2 | 1400 - 1530 | Session 5 | 1400 - 1530 | - |
| | | - | - | 1530 - 1700 | Session 6 | - | - |
| | **International Conference Hall 2 - Siridhanya Hall** | 1100 - 1300 | Conference registration; | 1100 - 1130 | Session 3 | 1000 - 1130 | Session 7 |
| | | 1400 - 1530 | Session 1 | 1130 - 1300 | Session 4 | 1130 - 1300 | Session 8 |
| | | - | - | 1400 - 1530 | Session 5 | 1400 - 1530 | Session 9 Planery and Closing |
| | | - | - | 1530 - 1700 | Session 6 | | |
| IV | **Farmers Workshop** | 1430 - 1730 | UAS / Department of Agriculture and ICCOA | 0930 - 1830 | UAS / Department of Agriculture and ICCOA | 1030 - 1300 | Smart Life session by Dr Khader and Mr B M Hedge |
| V | **B2B and F2B B2B Lounge** | 1230 - 1300 | Formal Opening of B2B @ lounge | 1000 - 1800 | B2B and F2B sessions | 1000 - 1800 | B2B and F2B sessions |
| | | 1400 - 1800 | B2B and F2B sessions | - | - | - | - |
| VI | **Consumer-Connect (Food Court hall)** | 1300 - 1830 | 1. Milletdish display Challenge For Public<br>2. Panel Disscussion on food and Culture<br>3. Cultural programme | 1000 - 1830 | 1. Millet Dish challenge for professinal chef/ Public<br>2. Chef demo along with panel discussion on nutrition Dimension of millets / child nutrition / healthy snacks and weight Management<br>3. Emerging Trends - Form to Fork<br>4. cultural programme | 1000 - 1600 | 1. Millet dish display challenge for young chefs<br>2. Chefs Demo on -Heirloom Recipes/ Fusion food with millet<br>3. Drawing Competition for children |
| VII | **Jaivik India Awards and Cultural Function Main Hall** | | | 1630 - 1930 | Award Function | - | - |
| | | | | 1630 - 2000 | Cultural Function | - | - |
| VIII | **Networking Dinner** | | | 2000 - 2100 | Networking Dinner | - | - |
| IX | **Valedictory - Main Hall** | | | - | - | 1600 - 1700 | Valedictory with Awards for Exhibitors, Mememtos, Poster Awards, etc |

# Jaivik Hall

## Theme: Enhancing Farmers Income through Organic Marketing

| | | | | |
|---|---|---|---|---|
| Day 1: 19.01.2018 | Arrival of Participants & Registration - 10.00 AM - 2.00 PM | | | |
| | **Session I** | **Opening Session** | **Organics & Millets - 'Enhancing Farmers' Income through Organic Marketing'** | |
| | **TIME** | **TITLE OF THE PAPER/TALK** | **SPEAKERS** | |
| | 14.00 - 16.00 | Chairman DG ICRISAT | Dr. David Bergvinson, Director General, ICRISAT | |
| | | Opening Address by Honourable Minister of Agriculture, Govt. of Karnataka | Shri Krishna Byre Gowda, Minister of Agriculture, Govt of Karnataka | |
| | | International speaker | IFOAM Asia President, Board member | |
| | | National key note speaker | Secretary, MoFPI, Govt. of India (Invited) | |
| | | Organic Farming in Policy Planning | Shri Sompal Shastry, Former Member Planning Commission, GoI | |
| | **Session II** | **Innovations in organic practices and techniques** | **FiBL, Switzerland** | |
| | 16.00 - 18.10 | Organic farming – quo vadis? (Keynote speech - Current status of research in organic agriculture and way forward) | Dr Paul Mäder, Head - Department of Soil Sciences, FiBL, Switzerland | |
| | | Performance of organic production systems compared to conventional production systems - Evidence from tropics | Dr Gurbir S. Bhullar, Theme Leader Tropical Agriculture, FiBL, Switzerland | |
| | | Biofertilization and "bioirrigation" for sustainable mixed cropping of pigeon pea and finger millet | Dr. Mathimaran Natarajan, University of Basel, Switzerland | |
| | | Consumer Willingness to Pay (WTP) for enhanced bioavailability of iron in ragi | Ms. Claudia Meier, Department of Socio-Economic Sciences, FiBL, Switzerland | |
| | | Biodiversity in organic versus conventional cotton production systems | Ms. Christelle Ledroit, Doctoral Fellow, FiBL/ Coventry University UK | |
| | | "Smart" crops for climate resilience, food security and nutrition: Improving the economic performance of finger millet production in southern India. | Christian Grovermann/ Claudia Meier | |
| Day 2- 20.01.2018 | **Session III** | **Start- ups and Entrepreneurship** | **Dept of IT/BT, Govt of Karnataka** | |
| | 10.00 - 11.45 | Opening speech | Mr. Sitaram- Fireside Ventures | |
| | | Keynote Speech: The Eco-system in Karnataka for Agriculture & Agri-tech Start-ups | Mr. Priyank Kharge, Hon'ble Minister, GoK | |
| | | **Panel Discussion:** The Potential of Venture capital & Impact Investing in the 'Organics & Millets' | | |
| | | The potential for 'Organic & Millet' start-ups: Success Stories | Two speakers | |
| | | Awarding funds to start-up winners in the last round of Funding | | |
| | **Session IV** | **Global & Local Organic Market** | **OTA, USA** | |
| | 11.45 - 13.00 | Chairman-Opening Remarks | Shri Devendra Kumar Singh, IAS, Chairman, APEDA | |
| | | Moderator | Mr.ManojKumar Menon,Executive Director, ICCOA | |
| | | **PANEL DISCUSSION** | Ms. Laura Batcha, CEO, Organic Trade Association (OTA), USA; Mr.Raymond H Yang; Ms.Arpita Mukherjee, ICRIER; Mr.Rajshekhar Reddy, Sresta; Mr.Surya Shastri ,Phalada; Mr.Malik, ITC | |
| | 14:00 - 15:20 | Chairman | Shri Ashish Bahuguna, IAS, Chairperson, FSSAI | |
| | | Moderator | Mr.Manoj Kumar Menon, Executive Director, ICCOA | |
| | | **PANEL DISCUSSION** | Mr.Seshu Kumar Tirumala,Big Basket; MsArpita Mukherjee; Dr. K. Chandra, NCOF; Ms.Likhita Banu,Terra Greens; Ms.Jennifer Chang, IFOAM Asia; Varun Gupta, Pro Nature | |
| | **Session V** | **Organic Developments-Case Studies & experiences** | | |
| | 15.20 - 16.20 | Case study of Organic Biovillage - Nagaland PGS Process in Uganda-Emerging trend | Dr.Akali Sema, Professor, Dept.of Horti, Nagaland University Ms.Irene Bamugaya Kugonza, Project Leader, NOGAMU, Uganda | |
| | | Emerging trend in Public Private Partnership-Integrated Agriculture Development | Shri.Rajiv Ranjan, IFS, Commissioner, Water shed, Gok | |
| | | Future of Organics | Smt.Pankajam Sridevi, President, BCIC | |
| | 16.30 - 19.30 | **STATE PROGRAM AND JAIVIK AWARDS IN MAIN HALL** | | |
| Day 3 - 21.01.2018 | **Session VI** | **Organic 3.0: Organic Policy and its implementation** | | |
| | 10.00 - 11.30 | **PANEL DISCUSSION** | **PANELISTS** | Dr Zhou Zejiang President, IFOAM Asia, China |
| | | | | Ms Jennifer Chang, Executive Director, IFOAM Asia, South Korea |
| | | | | Dr.Vishwanath Sadamate, Agri Extension specialist & Former Adviser Agriculture, Planning Commission, GOI |
| | | | | Dr.M.Swamy, Senior Director of Research, Rai Technology University, Bangalore |
| | **Session VIII** | **Meet the Buyers-Domestic Market and Country Regulations** | | |
| | 11:30 - 13.00 | Domestic market & Country regulations | **PANELISTS** | Ms.Clara Bonner, Organic Spices, US |
| | | | | Raymond.H.Yang, South Korea |
| | | | | Mr.Zhang Tingting, China |
| | | | | Mr.Mahibalan, MRT Organic |
| | | | | Rohit Mehrothra, Organic Tattva |

## Siridhanya Hall

### Theme: Nurtricereals – Good for farmers, Good for the planet, Good for you!

| | | | |
|---|---|---|---|
| **Day 1: 19.01.2018: 1400 - 1700** | | | |
| Arrival of Participants & Registration: 1000-1400 | | | |
| **Session I 1545 - 1700** | **Smart Foods: 'Good For you', 'Good for the Planet' & 'Good for the farmers'** | | |
| | **Chairman** | **Dr T Mahapatra-DG, ICAR** | |
| | **Co-Chairman** | **Dr S Ayappan, Former DG, ICAR** | |
| | **Rapporteurs** | **Dr Bhaskarachary, DD, NIN** | |
| | | **Dr KN Ganapathy, Scientist, IIMR** | |
| 1545 - 1615 | Millets as Smart Foods- Good For you | | Dr Hemalatha , Director, NIN |
| 1615 - 1635 | Millets as Smart Foods: Good for the Planet & its Climate resilience | | Dr Peter Carberry, DDG, ICRISAT |
| 1635 - 1700 | Millets as Smart Foods: Good for the farmers | | Dr Dayakar Rao B ,PS, IIMR |
| **Day 2 : 20.01.2018: 1020 - 1600** | | | |
| **Session II 1000 - 1130** | **Current Status and future prospects of millets research and relevance to stakeholders in various millet growing countries** | | |
| | **Chairman** | **Dr RS Paroda-DG, ICAR** | |
| | **Co-Chairman** | **Dr SA Patil-Former Director, IARI** | |
| | **Rapporteurs** | **Dr Venkatesh Bhat, Principal scientist, IIMR** | |
| | | **Dr Amasiddha, Scientist, IIMR** | |
| 1020 - 1040 | Current Status and future prospects of millets research in India | | Dr V A Tonapi , Director , IIMR |
| 1040 - 1100 | Millets scenario and future potential in USA | | Dr Joseph Awika, Professor, Texas A&M, USA |
| 1100 - 1120 | Millets importance and prospects in Africa | | Dr Hakeem Ajeigbe, Principal scientist, ICRISAT, Nigeria |
| 1100 - 1130 | Q&A Session | | |
| 1130 - 1145 | Tea break | | |
| **Session III 1145 - 1330** | **Role of Governments, Multilateral Agencies and the Private Sector in Millet Promotion Speakers from India and abroad** | | |
| | **Chairman** | **Dr SK Pattanaik, IAS-Secretary, DAC &FW, MoA, GoI** | |
| | **Co-Chairman** | **Dr Rakesh Srivastava, Secretary, WCD, GoI** | |
| | **Rapporteurs** | **Dr Venkatesh Bhat, Principal scientist, IIMR** | |
| | | **Dr Avinash Singode, Scientist, IIMR** | |
| 1145 - 1155 | Emerging policies on Millet promotion in India | | Mr. B Rajender, Joint Secretary, NFSM , GOI |
| 1155 - 1205 | Millets Promotion Policy in Karnataka | | Mr. Maheswara Rao, Prin. secretary, Govt of Karnataka |
| 1205 - 1215 | Millets Promotion Policy in AP | | Mr. B.Rajashekar, Special Chief Secretary to Govt. (FAC) (Marketing) (Agriculture), Govt. of AP |
| 1215 - 1225 | Policy on millets in Odisha | | Shri Gagan Kumar Dhal, IAS, Addl Secretary & APC, Govt of Odisha |
| 1225 - 1235 | Millet village initiative - a beginning of millets promotion in Kerala | | Shri. Teeka Ram Meena IAS, Principal Secreatry(Agrl), Govt of Kerala |
| 1235 - 1245 | Millet promotion in drylands of Telangana | | C Parthasarathi, Prin. Secretary (Agrl), Govt of Telangana |
| 1245 - 1250 | Millets promotion: a perspective of Dhan foundation | | Mr. Vasi Malai, Director , Dhan Foundation |
| 1250 - 1255 | Strengthening of farmers | | Mr. K Prasad, Sahaja India |
| 1255 - 1305 | MSSRF initiatives in Kolli hills on Millet promotion | | Mrs. Jayashree, MSSRF |
| 1300 - 1400 | Lunch | | |
| **Session IV 1400 - 1500** | **Global Value chain models on farm to market linkages (backward & forward) including export promotion of Millets** | | |
| | **Chairman** | **Dr David Bergvinson-Chairman,** | |
| | **Co-Chairman** | **Shri. Siva Kumar, Div.Chief Executive, Agri Business Division-ITC** | |
| | **Rapporteurs** | **Dr KN Ganapathy, Scientist, IIMR** | |
| 1400 - 1420 | Millets value chain in USA- gaps & prospects | | Dr Joseph Awika, Professor, Soil and Crop Science, Texas A&M, USA |
| 1420 - 1440 | Value chain on millets in Africa | | Dr Hakeem Ajeigbe, Principal scientist, ICRISAT, Nigeria |
| 1440 - 1500 | Export promotion of millets | | Dr Tarun Bajaj, DD, APEDA, New Delhi |

| | | |
|---|---|---|
| **Session V 1500 -1600** | **Food processing as a vehicle for demand creation-Current technologies in place and gaps** | |
| | **Chairman** | **Dr. Vasudevappa-VC, NIFT** |
| | **Co-Chairman** | **Dr Anand Ramakrishna-Director, IIFPT** |
| | **Rapporteurs** | **Dr Asha Kawatra, COE on Pearl millet, CCS HAU** |
| | | **Dr Suresha, Scientist, CoE on Small Millets, UAS, Bengaluru** |
| 1500 - 1515 | Food processing as a vehicle for demand creation | Dr B Dayakar Rao, IIMR |
| 1515 - 1530 | Current technologies in place and gaps (Primary Processing) | Dr Balasubramanayam, CIAE |
| 1530 - 1545 | Current technologies in place and gaps (Secondary Processing) | Dr N G Malleshi, Former Head , CFTRI |
| 1545 - 1600 | Q&A | |
| **Day 3 : 21.01.2018: 1000 - 1130** | | |
| **Session VI 1000- 1130** | **R& D , supply chain, business, investment, upscaling and awareness : Millet startups and big players perspectives** | |
| | **Chairman** | **Mr Sanjay Malpani-CEO, Future consumer food parks** |
| | **Co-Chairman** | **Mr Pradeep Dhobale, Director and Operating Partner, Springforth Investment Managers Pvt Ltd** |
| | **Rapporteurs** | **Mr Steve Anderson, Green mart** |
| | | **Mr Prashant Kottaram, Soulfull** |
| 1000 - 1015 | R& D requirements (pre-production and post - production issues)- Private Big player's perspective | Mr. Sudhir Nema, Britania Industries Ltd, Bengaluru |
| 1015 - 1030 | ITC's perspective: R&D expectations for millet promotion | Mr. Ganesh Sunderraman, ITC Foods Ltd., Bengaluru |
| 1030 - 1035 | Awareness Issues required for Millets promotion | Mr. Prashant Kottarum, Soulfull Ltd, Hyd |
| 1035 - 1040 | Farmers perspective R&D requirements & Export linkages | Mr. Raj Selam, Sresta Organics, Hyd |
| 1040 - 1045 | Distribution network related issues | Terra Greens organics, Hyd |
| 1045 - 1050 | Investment potential of millets industry | Mr. Sai Krishna P , Fountain Foods, Hyd |
| 1050 - 1055 | Startup requisites | Mr. Sridhar I, GoBharathi, Hyd |
| 1055 - 1100 | Promotional camapaigning and networking | Mr. CS Jadhav, Inner Being Well ness Ltd, Hyd |
| 1100 - 1105 | Institutional markets for Millets | Mr. Philip Ratnam, Hope blessings Ltd, New Delhi |
| 1105 - 1110 | Millets markets in Maharashtra | Mr. Tatyasaheb Phadtare, Samruddhi Ltd, Pune |
| 1110 - 1115 | Upscaling challenges | Phalada Representative, Bengaluru |
| 1115 - 1120 | Tribal perspectives of millets value chain | Mrs. Bhudevi P, CAVS, Vijaynagaram |
| 1120 - 1125 | Business potential and futuristic trends | Mrs. Shouravi , SLURP, New Delhi |
| 1125 - 1130 | Restaurant industry perspective | Mrs. Hemamalini, Ahobilam Foods, Hyd |

## Culinary and Nutrition Forum

| | | | |
|---|---|---|---|
| **Day 1: 19.01.2018** | **Session 1** | 13:00 - 15:00 | "Millet Dish Display Challenge" - General Category - a. Sweets with millets b. Savouries with Millets |
| | **Session 2** | 15:30 - 17:30 | History of millets - Talk session on food and culture<br>Karunadu Swada- Showcasing traditional food across various regions in Karnataka<br>Appreciating Food in Fine Arts<br>Demystifying the Vaddaradhane - Verses in the 9th Century Kannada literature that talks about traditional food |
| | **Session 3** | 17:30 - 18-30 | The movement of organic food - The past , present and future - Panel Discussion |
| | **Session 4** | 19:00 - 20:30 | Cultural Programmes |
| **Day 2: 20.01.2018** | **Session 1** | 10:00 - 12:00 | #ProMillets – Display challenge for Professional Chefs |
| | | 10:30 - 11:30 | Panel discussion: Nutritional Dimensions of Millets -<br>Management of Non-Communicable Diseases |
| | **Session 2** | 11:30 - 13:00 | Chef's Demo: Solutions for Managing Lifestyle Disorders |
| | | 13:00 - 15:00 | "Millet Dish Display Challenge" - General Category -<br>a. Baked products with Millets b. Continental with millets |
| | **Session 3** | 14:30 - 15:30 | Panel Discussion-'Food and Child Nutrition' |
| | **Session 4** | 15:30 - 17:30 | Chef's Demo: Healthy Snacking and Weight Management |
| | **Session 5** | 17:30 - 18:30 | Chef's Demo: Emerging trends -Farm to Fork |
| | **Session 6** | 19:00 - 20:30 | Cultural Programmes |
| **Day 3: 21.01.2018** | **Session 1** | 10:00 - 12:00 | #ProMillets – For Young Chefs |
| | | 10:30 - 12:00 | Heirloom Recipes from South India that has a rich culinary history<br>Stories woven around the dishes • Chef's Demo |
| | **Session 2** | 12:00 - 13:00 | Chef's Demo: Fusion food with millets |
| | **Session 3** | 13:00 - 16:00 | Drawing competition for children |

# Farmers Workshop

| | TIME | TITLE OF THE TALK | NAME OF RESOURCE PERSON | SESSION CHAIRMAN / RAPPORTEUR |
|---|---|---|---|---|
| Day 1 : 19.01.2018 | **Session I: Current status of Organics, Millets and Production Technologies** | | | |
| | 14:00 - 14:20 | Inaugural address | Dr. Ashok Dalawai, IAS, CEO, National Rainfed Area Authority, GOI | **Chairman:** Shri. Somshekhar B, President, State Level Organic Farming, High Level Committee<br>**Rapporteur :** Dr. D.C Hanumanthappa UAS, Bengaluru |
| | 14:20 - 14:40 | Millets as climate resilient future crops | Dr. M.A.Shankar, Former Director of Research, UAS, Bangalore | |
| | 14:40 - 15:00 | Organic and millet products potentialities and market opportunities | Dr. Vilas. A. Tonapi, Director, IIMR, Hyderabad | |
| | 15:00 - 15:20 | Recent advances in production of Millets and other future crops | Dr. Prabhakar, Project Coordinator, AICRP on Small Millets(ICAR), UAS Bangalore | |
| | 15:20 - 15:40 | Role of Quality of Organic Produce in promoting Organic Farming | Dr Krishna Murthy JDH, Hulimavu,Bengaluru | |
| | 15:40 - 16:00 | Tea Break | | |
| | 16:00 - 16:20 | Organic farming Policy of Karnataka in promoting marketing of Organics & Millets | Dr. K. Ramakrishnappa Former Director of Horticulture | |
| | 16:20 - 16:40 | Recent advances & Nutrient Management in Organic Farming | Dr. N. Devakumar, Dean (Agri), College of Agriculture, Hassan, (UAS-Bangalore) | |
| | 16:40 - 17:00 | Organics and nutricereals for human health | Dr. H.B. Shivaleela, Professor of Home Science | |
| | 17:00 - 17:15 | Discussion and Chairman Remarks | | |
| Day 2 : 20.01.2018 | **Session II: Organics, Millets Certification and Value Addition** | | | |
| | 10:00 - 10:20 | Millet processing and Processing Mechinary | Dr. N.G. Malleshi, Scientist-G, (Retd.), CFTRI, Mysore | **Chairman:** Dr. N. Nagaraja, Former Director of Extension, UAS, Bengaluru<br>**Rapporteur:** Dr. M.N. Thimmegowda UAS, Bengaluru |
| | 10:20 - 10:40 | Value addition technologies developed by IIMR | Dr. Sangappa, Scientist, IIMR Hyderabad | |
| | 10:40 - 11:00 | Value addition of nutricereals | Dr. K. Geetha, Professor, UAS, Bangalore | |
| | 11:00 - 11:20 | Tea Break | | |
| | 11:20 - 11:40 | PKVY & Participatory Guarantee system (PGS) for Organic & Millet products | Harish Srivastava, Head, RCOF, Haryana | |
| | 11:40 - 12:00 | Organic Certification Experience in Karnataka | Dr. K.Shivaraj , Director, KSS & O.C.A, Dr. Narayan Upadya, ADITI | |
| | 12:00 - 12:20 | Initiatives of KSDA for facilitating market linkages for Organics & Millets | Mrs. N Ambika ,JDA / Mrs. Anuradha, DDA , Karnataka State Department of Agriculture | |
| | 12:20 - 12:40 | Empowerment of women through organics and millets | Dr. Usha Ravindra, Assoc. Professor, UAS, Bangalore | |
| | 12:40 - 13:00 | Discussion & Chairman remarks | | |
| | 13:00 - 14:00 | Lunch Break | | |
| | **Session III: Experience sharing by entrepreneurs in promotion of organics and millets** | | | |
| | **Theme: Marketing of Organics & Millets** | | | |
| | 13:45 - 14:00 | Experience sharing of Organic Outlets | Smt Sarita S.S., Jeevan Organics<br>Sri. B. Rajashekar Murthy, Grameena Angadi | **Chairman:** Dr. H. Shivanna, Vice Chancellor UAS, Bengaluru<br>**Rapporteur:** Dr. K. Muralli, UAS, Bengaluru |
| | 14:00 - 14:10 | Role of Bigbasket in promotion of Organics and millets | Dr. Vinod Kumar, Organic Marketing , Big Basket | |
| | 14:10 - 14:20 | Experiences of Farmers Producers company in promoting Organics and millets | Mr. Somesh, CEO, Organic Farmers Producer Company, Bengaluru | |
| | 14:20 - 14:30 | Processing & Marketing of organics & Millets | Mr. Krupa, Farmers Federation, Davangere | |
| | 14:30 - 14:45 | Discussion and Chairman remarks | | |
| | 14:45 - 15:00 | Tea Break | | |
| | **Theme: Role of Hotel Industry in Promoting Organics and Millets** | | | |
| | 15:00-15:10 | Catering of organics and millet foods for corporate sectors | Mr. Arun Nandavar, Kaulige Foods | |
| | 15:10-15:20 | Promotion of Millet products | Mr. Kumar Bhat, Bhoomika Organics | |
| | 15.20- 15.30 | An experience of Greenpath in serving Organic food | Dr. Jayaram, MD, Greenpath, Bengaluru | |
| | 15.30-15.40 | Vande Matharam on millet products | Sri. Nagesh, Vande Matharam, Bengaluru | |
| | 15.40-16.00 | Discussion, Presentation of reports by rapporteurs and Chairman remarks | | |

# JAIVIK INDIA AWARDS

**PRESENTATION CEREMONY: 20th January 2018**

**Powered by ICCOA**
**Supported by Govt. of Karnataka & Organic Community**

## JAIVIK INDIA AWARDS

Organic agriculture and agribusiness has grown rapidly in the past few years and the sector is witnessing many farmers/ farmer groups, organizations, companies and Govts actively promoting organics. We bring **'Jaivik India Awards 2018'** in recognition of such efforts in our first edition of the annual event.

1. Best Organic Farmer/ Farmers' Organization: 6 awards
   a. Six farmers selected from three different regions to cover the country
   b. Two farmers per region will receive cash awards and felicitation
2. State Government/ Government agencies: 3 awards
   Three State Governments to be awarded for their organic programs and support for organic farmers and farming in the state.
3. Best Companies for Outstanding Performance in Organic Exports: 2 awards
4. Best Companies in local/ retail branding and marketing: 2 awards
5. Best Company with Direct Farmer linkages: 2 awards
6. Best Certification Agency/ Body (accredited by APEDA): 2 awards
7. Best Company in marketing of Organic Millets: 2 awards

**www.iccoa.org**

**ICCOA - International Competence Centre for Organic Agriculture** is a knowledge and learning centre promoting organic agriculture and agribusiness. It provides a platform for interaction to all stakeholders in the organic sector and been a frontrunner in the organic movement in national and international fora.

In its multi-pronged approach to promote organic agriculture and businesses, ICCOA has partnered with several organisations, Central and State governments, research and academic institutes It has a pan India presence working across 16 states with around 71,000 farmers - helping them convert to organic cultivation and form Farmer Producer Companies. ICCOA has organised hugely successful international, national and regional trade fairs. India Organic Trade Fairs, Biofach India, Organics & Millets - National Trade Fair are some of our major events. Collaborations with international organisations such as IFOAM Organics, Nurnberg Messe, FiBL, ALGOA have strengthened ICCOA's standing in the international organic scene. ICCOA aids in dissemination of knowledge on the organic sector by organising conferences and workshops and has brought out several publications.

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INTERNATIONAL CROPS RESEARCH INSTITUTE FOR THE SEMI-ARID TROPICS

"The National Trade Fair 2017 has ushered in a new era in organics and millets. It has emerged as the largest congregation of nation's Organic community and crowned Karnataka as the Millet Capital of India"

**- Shri Siddaramaiah**

Hon'ble Chief Minister of Karnataka

"Karnataka is at the forefront of the Next Gen Smart Food Campaign. The Department of Agriculture, Government of Karnataka, has assiduously increased awareness and consumption of millets and organic produce during the last years. As a result, Karnataka and Bengaluru have emerged as the capital for organics, millets and healthy food choices!"

**- Shri Krishna Byregowda**

Minister for Agriculture

Government of Karnataka


**ORGANIC FARMING DIVISION**

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**www.organics-millets.in**

**#Lets Millet #GoOrganic #NextGenSmartFood #GoodForTheFarmer #GoodForThePlanet #GoodForYou**