

## TARGETED GROUP

The participants includes planners, academicians, researchers, policy makers, entrepreneurs, students and officials from related departments and other stakeholders.

### Registration Form

1. Name :
2. Sex : Male /Female
3. Designation :
4. Official address :
5. Email & Tel :

### Points to remember

Last date of online application : 05 Noovember 2019  
Date of Seminar : 15 November 2019

There is no registration fee for participation. Interested faculty members and students from various recognised universities/colleges can register for this seminar. Applications should be send by e-mail to **nscropdiversity@gmail.com**. The last date of registration is 5th November 2019. For any other information, contact 0487-2438101, 2438102, 7012649391

### Address of Contact person

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# Crop Diversity for Better Health



## NATIONAL SEMINAR

**Central Auditorium, KAU**  
**15 November 2019**



**Directorate of Research**  
**Kerala Agricultural University**  
**Vellanikkara, Thrissur, Kerala, India**  
**Pin. 680 656**  
**www.kau.in**

The report on State of the World's Biodiversity for Food and Agriculture released by the UN Food and Agriculture Organisation (FAO) mentions the presence of 3,82,000 species of vascular plants across the globe, of which only around 6,000 have been cultivated for food. Of these, as of 2014, fewer than 200 species had significant production levels globally, with only nine (sugarcane, maize, rice, wheat, potatoes, soyabeans, oil-palm fruit, sugar beet and cassava) accounting for over 66 per cent of all crop production by weight.

Similarly, the world's livestock production is based on about 40 animal species, with only a handful providing the vast majority of global output of meat, milk and eggs. As of 2018, 7,745 out of 8,803 reported livestock breeds were classified as local and 593 of these breeds are presently extinct. Among the extant local breeds, 26 per cent are considered to be at risk of extinction, while the risk status of 67 per cent is unknown. The global capture fisheries harvested in 2016 was limited to 1,800 marine species.

As regards forest biodiversity, the number of tree species in the world is estimated to be around 60,000. Among other things that threaten food and agriculture biodiversity, are those faced by pollinator species. One in seven species of vertebrate pollinators – such as bees – is threatened with global extinction. Similarly, soil biodiversity is under threat in all regions of the world, leading to deterioration of soil health.

According to the report, which analysed country reports presented by 187 nations, the overall diversity present in farmers' fields has declined and threats to diversity are increasing, even though the situation varies depending on the country, location and type of production system. Over the past 100 years more than 90 % of the crop varieties and 50 % of domestic breeds of cattle disappeared.

The report of the Intergovernmental Science Policy Platform on Bio Diversity and Ecosystem Services (released in May 2019), which was prepared by 145 experts across 50 countries also highlights the rate of species extinction as alarming. The major reasons are listed as land use changes, exploitation, climate change, pollution and the threat due to invasive species.

The biodiversity of food crops is important as it is the foundation of food systems and makes production systems more resilient, sustainable and makes them withstand the effects of climate change. Global population is expected to reach 9.5 billion by 2050, with India accounting for 18 per cent of it. Ensuring food and nutritional security for this vast humanity, calls for 330 million tonnes of food grains and 525 million tonnes of fruits and vegetables. The conventional approach of extending the area under the principal food crops and thus meeting the demand has its own limitations, especially in the light of increasing incidences of weather related calamities. Still greater a challenge is to sustain the high production levels, given the high energy requirements. This is compelling policymakers and scientists across the globe to look at broad basing our dietary resources from nearly a dozen plant species and half dozen or so animal species.

Kerala, the state known as a hotspot of biodiversity, is also facing an erosion of the diversity. The narrowing diversity base, threatens the sustainability of the system, affects the food safety, security and nutritional balance. From the side of farming community, crop diversification is the best risk management tool.

Considering the challenge that this scenario poses for Kerala in the long term as well as the potential that the inherent biodiversity of the State offers, "**Crop Diversity for Better Health**" the one day seminar is proposed to be conducted at **Kerala Agricultural University on 15th November 2019**. Eminent speakers of national and international stature are to handle important sessions like Nutritional security through diversity, Customized food for better health, Public health issues in Kerala and linkage with Agricultural sector, Agro bio diversity and Human health, etc., The seminar creates a platform for assessing the status, threats and interventions required for protecting the biodiversity for sustaining the system and ensuring the health and well being of the society.

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**Director of Research**