

ANNOUNCEMENT

International Seminar and Workshop
On
**Sustainable Utilization of
Tropical Plant Bio-mass**

December 15-16th, 2008
Thiruvananthapuram, Kerala State, INDIA

Organized by



University of Kerala
INDIA

and



Kerala Agricultural University
INDIA

In collaboration with



www.fermented-foods.net
SASNET-Fermented Foods
Anand Agricultural University
INDIA



Kerala State Council for Science
Technology and Environment
INDIA



Dept of Applied Nutrition
Lund University
SWEDEN

Introduction

The population of the world is increasing and it will soon become about 8 billion in 25 years. While the population in developed countries like Sweden is expected to show certain stability or even a small reduction, the population of the developing countries like those of the south Asia including India will almost be doubled by that time. We may also find that the population is being urbanised at an alarming rate and soon in a limited number of years more than 30 cities of the world will have a population above 10 million inhabitants and most of these cities will be in the so called developing countries with insufficient water supply, waste management, pollution control, social security, employment opportunities, food security, sanitation and public health.

In spite of the enormous improvements in the methods of agriculture, animal husbandry and fisheries, a major portion of the world's population living mainly in the developing countries of Asia, Africa and Latin America suffer from so called hidden hunger due to food shortage and malnutrition. Nearly 800 million people suffer from protein- and energy malnutrition, 47% of the women of the world mostly in developing countries have iron deficiency anaemia, about 900 million have iodine deficiency disorders and 40 million children are affected by vitamin-A deficiency every year leading to more or less permanent blindness.

More than ever before, it will be a matter of great concern for the governments of the world to know how to organise safe and secure food supply at a reasonable price to all the people. To achieve complete household food security with all what it means, we may have to resort to both extensive and intensive measures, bringing more area under cultivation as well as increase the efficiency of food production. However, previous experience shows that this cannot be done without causing serious environmental problems. In Europe <85% of the arable land, <90 % in Asia and <55% in North America is already used for production of food. Some surplus land suitable for cultivation is available only in South America, Africa and Australia. One must also remember that intensive agriculture by all means is like an industry not only in causing depletion of energy, water and other natural resources but also in causing pollution of environment with pesticides, acidic rain, nitrogen leaching and green house effect to mention a few.

The seminar

The theme of this international seminar and workshop is sustainable utilization of tropical plant bio-mass. The aim is to present a platform for discussing sustainable utilization of the tropical plant bio mass addressing not only to the day to day needs of the human beings regarding food, shelter, health and social well-being but also covering aspects of biodiversity, environmental hazards and climatic changes in a long term perspective. On the first day there will be one common session in the morning dealing with state of the art lectures in selected subjects by invited speakers from Sweden and India. The invited speakers will be asked to speak on the recent research and developments on the sustainable utilisation of plant bio mass for the production of food for humans, for production of animal feed, for production of fuel and energy, for production of manure and for production of bioactive compounds and other uses. In the after noon parallel sessions will be conducted on papers submitted on the above areas. There will also be a poster session to provide room for participation from students and younger scientists.

The workshop

On the second day there will be a workshop. The participants will be divided into groups and they will discuss various areas of the main theme and the results in the form of research proposals with motivation and other details will be presented group wise in the after noon. The closing session will be conducted as a panel discussion where invited speakers will be answering questions from the audience. As a last step of the meeting and a first step towards the future, an effort will be made to pass a resolution to form a network for sustainable development.

Documentation of the seminar and workshop:

- 1, a souvenir containing all the abstracts of the papers will be printed.
- 2, an effort will be taken to collect all the full manuscripts into a book on sustainable utilisation of tropical plant bio mass.
- 3, a comprehensive report with recommendations of the meeting will be submitted to the Honourable Chief Minister.
- 4, a copy of the report will be send for publication in suitable national and international journals.

Publicity and media

The press and media will be informed about the conference and a press conference will be conducted. In the press conference the invited speakers will be on the panel for a hearing on the theme of the seminar and workshop. The seminar and workshop will be documented in words and pictures on the internet. This is for the benefit of the public and to bring awareness among the people in general and among the academic community in particular.

Patrons

Dr. E S. Yesodharan, Executive Vice President, Kerala State Council of Science Technology and Environment
Dr. M K. Ramachandran Nair, Vice Chancellor, University of Kerala
Dr. K R . Viswambharan, Vice Chancellor, Kerala Agricultural University

President:

Dr. Baboo M. Nair, Professor emeritus, Dept of Applied Nutrition, Lund University, SWEDEN

Vice President:

Dr. V. Sobha, Professor and Dean of the Faculty of Natural Sciences, Kerala University, INDIA

Organizing Secretary:

Dr. K. Padmakumar, Director, Centre for Marine bio-diversity, Kerala University, INDIA

Adl.Org Secretary:

Dr. Prakash kumar, Principle Scientist, Kerala State Council of Science Technology and Environment,. INDIA.

Treasurer:

Dr. Achuthsankar S. Nair, Director, Centre of Bioinformatics, Kerala University, INDIA

Assisting treasurer:

Mr. V. Srijith, Managing Director, Soorya kiran Bioinformatics Ltd, Karyavattom, INDIA

Call for papers

A limited number of scientific papers communicating original research in the theme of the seminar will be accepted for oral presentation in one of the technical sessions or for presentation as a poster. Interested participants may submit the manuscript of the extended abstract for review written as per the guidelines provided at the website of the seminar. If accepted the authors have to submit a full length article to be included in the proceedings after necessary editing

Registration

Registration can be done in advance by contacting the office International Seminar and workshop on Sustainable utilization of Tropical plant bio-mass
Att: Organizing Secretary Dr. K. Padmakumar
Director, Centre for Marine Biodiversity,
University of Kerala, Karyavattom,
Trivandrum- 695581, Kerala State, INDIA
Phone: +91 471 2167679(Office.)
TeleFax: +91 471 2415011 or 2414343 (Residence)
eFax: 001-419-710-3712
Mobile: 09447794323

Registration fees

Before October 15th 2008 - for Indians and Citizens of SARC countries 1000 INR, Foreigners 60 USD

After October 15th 2008 - for Indians and Citizens of SARC countries 1500 INR, Foreigners 90 USD

The registered participants will receive a copy of the souvenir with abstracts, refreshments, lunch and dinner.

If you need assistance in getting suitable accommodation kindly contact the office of the organizing secretary in advance

Organizing Committee

Dr. V. S. Vijayan, Chairman, Kerala State Biodiversity Board, INDIA

Dr. K. Padmakumar, Director, Centre for Marine Biodiversity, Kerala University, INDIA

Dr. G. M. Nair, Prof. Head, Dept of Botany, Kerala University, INDIA

Dr. R. Rengaswamy, Director, Centre for Advanced Studies in Botany, University of Madras

Dr. V. Shobha, Prof. Head, Dept of Environmental Sciences, Kerala University, INDIA

Dr. V. Prakashkumar, Principle scientist, Kerala State Council for Science Technology and Environment, INDIA.

Dr. Achuth Sankar S Nair, Director, Centre for Bioinformatics, Kerala University, INDIA

Dr. George Thomas, Scientist, Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram

Dr. K. Rajmohan, Prof. Dept of Plant biotechnology, Kerala Agricultural University, INDIA

Dr. JB Prajapati, CEO, SASNET-Fermented Foods, Anand Agricultural University, Anand, INDIA

Dr. P. Siva Prasad, Prof. Agricultural Microbiology, Kerala Agricultural University, INDIA

Dr. A. K. Sherief, Prof Dept of Agricultural Extension, Kerala Agricultural University, INDIA

Dr. DC Joshi, Prof. Dean, Faculty of food Processing technology and Bio-fuel, Anand Agricultural University, INDIA .

Dr. Rekha Singhal, Prof Dept of bioprocess engineering, Institute of Chemical Technology, Mumbai, INDIA

Dr. Sagarika Ekanayake, Prof. Biochemical nutrition, Faculty of Medical Sciences, Sri Jayawardenapura University, SRILANKA

Dr. Damitha Rajapaksha, Prof. Industrial Technology Institute, SRI LANKA.

Dr. T. S. Srikumar, Dept of Biochemistry, School of Medicine, Kuwait University, KUWAIT

Scientific committee

Dr. U. Aswathanarayana, Mahadevan International Centre for Water Resources Management, Hyderabad, INDIA,

Dr. AR Pathak, Director of Research, Anand Agricultural University, INDIA

Dr. Rickard Öste, Professor, Dept of Food Engineering, Technology and Nutrition, Lund University, SWEDEN.

Dr. DC. Joshi, Dean Faculty of Food Processing and Bio-Fuel, Anand Agricultural University, INDIA

Dr. JB Prajapati, CEO, SASNET-Fermented Foods, Anand Agricultural University, Anand, INDIA

Dr. GM. Nair, Professor Head, Dept of Botany, Kerala University, INDIA

Dr. S. Ganesan, Indian Horticultural Research Institute, Hissaragatta, Bangalore INDIA.

Dr. K. V. Sankaran, Director, Kerala Forests Research Institute, INDIA

Dr. Rekha Singhal, Professor of Food Technology, Institute of Chemical Technology, Mumbai, INDIA

Dr. JP. Tamang, Director, Centre for Food microbiology, Sikkim Central University, Tadong, INDIA

Dr. Sagarika Ekanayake, Faculty of Medicine, Jayawardenapura University, SRI LANKA.

Dr. Sasikumar Punnekkat, Prof, Mälardalens Högskola, SWEDEN

Dr. Rajeev Thottapillil, Prof, Uppsala University, SWEDEN

Dr. Damitha Rajapaksha, Prof. Industrial Technology Institute, SRI LANKA.

Dr. VV. Asha, Bio-prospecting and Pharmacology , Rajiv Gandhi Biotechnology Centre, INDIA

Dr. Baboo M. Nair, Prof Emeritus, Dept of Applied Nutrition, Lund University, SWEDEN.

Local organizing committee

Chairman

Prof. V. Shobha, Dept of Environmental Sciences, University of Kerala, INDIA
Secretarial Assistance: Mrs. Shylaja & Mr .Praveen.

Organizing Secretary

Dr. K. Padmakumar, Director, Centre for Marine Bio Diversity, University of Kerala, Karyavattom. INDIA

Treasurer

Dr. Achuth Sankar S. Nair, Director, Centre for Bioinformatics, University Of Kerala; Karyavattom, INDIA

Registration and Reception

Dr. K. Rajmohan Professor & Head, Dept of Plant Biotechnology, Kerala Agricultural University, INDIA.

Dr. Jiji, T. Professor, Dept of Agricultural Entomology, Kerala Agricultural University, INDIA

Dr. K. B. Soni Associate Professor, Dept of Plant Biotechnology, Kerala Agricultural University, INDIA

Dr. Roy Stephen Assistant Professor, Dept of Plant Physiology, Kerala Agricultural University, INDIA

Technical Sessions

Dr. V. Prakshkumar, Principle Scientist, Kerala State Council For Science Technology and Environment, INDIA

Dr. Shiburaj, Kerala State Council For Science Technology and Environment, INDIA

Dr. Lekha, Kerala State Council For Science Technology and Environment, INDIA

Dr. Geetha, Kerala State Council For Science Technology and Environment, INDIA

Dr. S.Santhosh , Dept of Environmental Sciences, University of Kerala, INDIA

Dr. V. Salome Gnana Thanka Dept of Environmental Sciences, University of Kerala, INDIA

Dr.Sabu Joseph Dept of Environmental Sciences, University of Kerala, INDIA

Dr. D.S Jaya. Dept of Environmental Sciences, University of Kerala, INDIA.

Publication and Publicity

Dr. VV. Asha, Bio prospecting and pharmacology, Rajiv Gandhi Biotechnology Centre, Trivandrum, INDIA

Dr. S. Sreekumar, Biotechnology & Bioinformatics, TBGRI, Puthenthope, Trivandrum, INDIA

Dr. C. K. Biju, Biotechnology & Bioinformatics, TBGRI, Puthenthope, Trivandrum, INDIA

Hospitality (accommodation and local transport)

Mr. Ajaya Krishnan , Mr. Gopakumar ,Mr.Shaji, and Mr.Dipu , of
the Dept of Environmental Sciences, University of Kerala, INDIA

Cultural programme

Mrs. AnjuKumar, Mrs. Shyni, Mrs. Chanchu, Mrs. Chithra and Miss. Pournamy of
the Dept of Environmental Sciences, University of Kerala, INDIA

Masters of ceremonies Convener and subcommittee

KSCSTE

Kerala State Council of Science Technology and Environment

www.kscste.org

KSCSTE is an autonomous body of the government of the Kerala State dealing with policy matters related to Science and Technology of the state. The KSCSTE- Kerala State Council for Science, Technology and Environment was constituted in November 2002 as an autonomous body to encourage and promote Science and Technology related activities in the Kerala State. The Main functions of the State Council are to: plan, formulate and implement Science and Technology Promotion and other related research and development programme, to provide overall guidance to the programmes and the developments of R&D centres of the Council and to withdraw and disburse the grant-in-aid funds from the Government and sponsoring agencies to R&D Centres and other grant-in-aid institutions. The decisions of the State Council and Executive Committee are implemented by the Council Headquarters (CHQ) based in Thiruvananthapuram. The functions of CHQ are carried out under the overall guidance of Executive Vice President who is also the ex-officio Principal Secretary of Science & Technology Department (S&TD). KSCSTE also have initiatives in popularising education in science in the schools and institutions of higher learning in the state.

Kerala University

www.keralauniversity.edu

The Kerala University Act 14 – 1957 was brought into force in the year 1957 and the University of Travancore established in 1937 by the Maharaja of Travancore was renamed to form The University of Kerala. At present, the University has sixteen faculties and 41 departments of affiliated colleges. The University and research at post-graduate, M.Phil. Departments are conducted in the has also extended the Semester System At present, about 32 colleges offer post affiliated colleges offer M. Phil. courses research centers. The University has also research centers. All these institutions University and its program of teaching and research. The University of Kerala has widened its horizons by entering into academic cooperation with some foreign Universities like Valladolid of Spain and Claremont university of the USA. The UGC-University Grants commission has identified the University as one of the 26 institutions selected for promotion of India Studies by foreign students. The National Assessment and Accreditation Committee has placed the University at the B++ grade



teaching and research. There are 157 Departments offer a wide range of teaching and Ph.D. levels. The courses in the Credit and Semester System. The University to all the Post Graduate courses from 2001. graduate teaching programs. Some of the and some colleges have been recognized as recognized a number of other institutions as conform to the aims and objectives of the

Kerala Agricultural University

www.kau.edu

The Kerala Agricultural University is the primary and the principal instrumentality of the Kerala State in providing human resources, skills and technology, required for the sustainable development of its agriculture, defined broadly encompassing all production including crop production (agriculture), through conducting, interfacing and extension in these spheres of economic University (KAU) became operational existing two educational and 21 Departments of Agriculture and of Kerala, were brought under one and accelerated development of agriculture in the State. The University fulfills its obligations and commitments through a network of institutions spread over 36 campuses through the length and breadth of the state, consisting of ten constituent colleges, six Regional Agricultural Research Stations, 26 Research Stations, three Centres of Advanced Studies, the Central Training Institute, the Communication Centre, the KAU Press, seven Krishi Vigyan Kendras, the Central Library and various other research programmes.



Lund University

www.lu.se

The Lund University is located in the city of Lund, which is in the southern part of Sweden close to Denmark and northern Germany. It was founded in the year 1666 and today it is an international centre for research and education with approximately about 38000 students. Lund University is respected as one of the best universities in Sweden and one of the 100 best excellent academic reputation with a large number of visiting professors and international students. Lund University offers around 300 single subject courses 50 Masters Programs and Ph.D. studies as post graduate education given in Swedish, Lund University has altogether 137 Undergraduate and graduate degree programs, and 1600 single subject and academic excellence have created a dynamic and entrepreneurial environment in Lund. The city has striking architecture and, in a city of 100 000 people where approximately 38 000 of them are students, the atmosphere is vibrant and stimulating for research and commercial activities with many world leading companies located in its vicinity..



universities of the world with a large number of visiting professors University offers around 300 single and Ph.D. studies as post graduate education given in Swedish, Lund Undergraduate and graduate degree courses. A thousand years of history created a dynamic and

SASNET –Fermented Foods

www.fermented-foods.net

SASNET-Fermented Foods is a network of food scientists who are in some way interested in fermented foods. Fermentation is a unique process with great potential. It easily satisfies in a positive way a large number of criteria which can be applied to a feasible method of food processing. It is an environment friendly process, consume less energy, produce less waste and easy to manage under house hold conditions as well as in industrial scale. It is a typical example of bio-diversity put into efficient use, could be applied to a wide verity of raw materials to produce a variety of different finished food products. It has the advantage of being generally regarded as safe (GRAS) and at the same time offer immense opportunity for production of products which can be classified as “organic foods”, “natural foods”, “health foods”, “convenience foods”, “ethnic foods” “neutraceuticals” “functional foods” and not to forget “food for clinical nutrition”. Fermented foods are manufactured and consumed in practically every parts of the world. Cereals, pulses, root crops, vegetables, fruits, meat and fish are preserved by one or other method of fermentation in some part of the world. The knowledge of making traditional fermented foods has been recognised to be of immense value to the future generations by FAO, WHO and a number of other related agencies. It may also be mentioned that Dr. Metchnikoff who was awarded one of the earliest Nobel prizes was also famous for his observations on the effect of fermented foods on the health status and well-being of human beings. That was some time in the year 1908. Now in 2003 after all these years, the positive effects of fermented foods with prebiotic substances and, probiotic organisms in synbiotic foods is a matter of great attention among the researchers, medical practitioners, food companies, and marketing agencies, because the demand for such products is enormous and growing fast day by day”. SASNET FF was started in 2003 to develop a forum for scientists of the south Asian countries, Sweden and other countries for exchanging information in the field of food fermentation and its practical application. It also aims to promote collaborative research programmes among the scientists of Sweden and south Asian countries in the development of fermented foods as well as foster and maintain research links with scientists of similar interest all over the world, to collect and disseminate knowledge on fermentation of foods from south Asian countries and to collaborate with food industries in product development and marketing of fermented foods and to organize conferences, workshops, seminars and symposia.

KERALA

In many ways Kerala is one of the most appropriate places for conducting a seminar on sustainable utilization of plant biomass. Kerala literally is also the land of coconut, a tree (a *Kalpanriksham* which means a tree that gives every thing for a living) every part of which is utilized for one or other purpose from food, feed, fuel and manure in a sustainable way from time immemorial. The very wealth of Kerala and also the primary means of living to its people is essentially the plants which are cultivated in the agricultural fields and those plants which are cultivated or growing wild in the forests. So many people, almost 1000/km², live here in Kerala in a limited area and yet in spite of this people have successfully created so many natural reserves for preservation of the biodiversity of plants and animals.

It is also a place where not only rationality and superstition, order and chaos, faith and atheism seem co-exist but also politics of the left and the right and all the major religions of the world. It is also a place where rice and spice, Rubber and tapioca, coffee and tea, banana and pineapple, mangoes and jackfruit are grown not far away from each other. It is also a place where modern medical doctors and nurses are educated and send to foreign countries for doing bypass surgery in multistoried hospitals while people from foreign countries come in large numbers to meditate and get the treatment of their life at the traditional ayurvedic resorts coming up all over the beautiful hills and all along the seashores. It is also the place where a mountain is not very far from the sea and the paddy fields are not very far from the blue lagoons.

By many standards Kerala is a blessing from heaven to its people. The purpose of the seminar is also to discuss in a humble but rational way how this blessing from heaven the “so called gods own country” can be managed well for the benefit of the future generations.

Other attractions

Thiruvananthapuram is the capital city of the State of Kerala known as the gods own country because of its natural beauty. Kerala is an attractive place of India for tourism of various types. The well known Kovalam Beach is about 35 km from the conference venue and Kanyakumari the southern end of India is about 80 km. There are many experienced tour organizers in and around the city who organize trips of various kinds and durations for a reasonable cost.

For interested participants a study tour of the research and development centers like Tropical Botanical Garden and Research Institute, Rajiv Gandhi Center for Biotechnology, Sri Chitra Thirunal Institute of Medical Sciences and technology can also be recommended.

In cooperation with



World Institute of Sustainable Energy, Pune, India.

www.sustainable.kerala.net

A net work for sustainable development of Kerala

(being developed)