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Dear Prof. Wijaya

The **Association of Food Scientists and Technologists (India)** is a premiere professional body of scientists, technologists, engineers, academicians, and industry personnel engaged in promoting the food science and technology for the best possible utilization and processing of the food resources. It helps in bringing together various experts and interested people on a common platform to discuss and learn about the latest research and developments in topical areas in the agro food processing through annual National Conventions and Symposia. As part of this continuing tradition, AFST(I) is organizing the 6th International Food Convention, "IFCON-2008" on "**Newer Challenges in Food Science and Technology – Industrial Perspective**" during **15-19 Dec 2008** at **Mysore** to chalk out a roadmap for a healthy sustainability of food sector. About 3000 delegates from India and abroad are expected to participate. An electronic version of the conference brochure is enclosed for your ready reference and perusal.

We consider your participation is very desirable in the forthcoming convention. On behalf of the organizers of the IFCON-2008, we are privileged to invite you to make a 20 min (+5 min discussion) oral presentation on a topic closer to your professional activities and related to the technical sessions planned, with a focus on the theme of the conference. Please send a technical write up of about 1000 words on your presentation.

A quick positive response (**Title of talk**) from you would help us greatly to finalize casting the Technical Sessions. We look forward to receive your technical write-up by 15th October 2008 by Email (ifcon2008.technical@yahoo.com). Your participation will be highly appreciated.

With best regards

Yours sincerely

(A. Ramesh)
Chairman-Technical Committee

Exploring and enhancing the utilization of functional flavor from Indonesian local plants

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Introduction: As an archipelago country lay across the equator with a diverse of ethnic groups, Indonesia provides a lot of tropical natural ingredients to be prepared as food as well as rich in culinary cultures with amazing flavor arrays. Interestingly many of these flavor compounds also provide other functionality. It will be pitiful if the potencies are not well documented and implemented in the daily life since it will be diminished by the changes of the generation. This presentation will highlight a series of work which have been done on the three selected flavor ingredients derived from the local traditional knowledge, i.e. Andaliman” fruit, Kaffir lime leaf and “Picung” seed. These spices have known not only having a preferable flavor but also physiological activities such as antioxidant, immunomodulator, anti-microbes, anti-obesity, etc.

Experimental details

Andaliman: The volatiles has been analyzed by several different extraction methods and identified by GC-MS and GC-O (AEDA) ¹⁾. The trigeminal active compound has been isolated and identified. The crude extract was analyzed for its anti-microbes, antioxidant in different food model systems with different pH and temperatures²⁾ and immunomodulator capability. The homogenate has been determined for its physiological functions by determining the changes in autonomic nerve activities after administration or olfactory stimulation of the homogenate or scent into urethane-anesthetized rats using electrophysiological technique (Dr. Nagai`s report).

Kaffir lime: The volatiles have been extracted by difference extraction methods including pre-ageing. The most resemble extract has been utilized in preparing the spray-dried flavor powder. Scale up of the essential oil production has also been conducted by using water distillation in a pilot plant scale. The SPME extracted volatiles composition has been analyzed by GC-MS and the changes of oil during auto-oxidation has been study both by using sensory and instrumental approaches.³⁾

Picung: Fermented seed has been studied for its antioxidant activity⁴⁾. The homogenate has been determined for its physiological functions by using the same method as in andaliman.

Results and discussion:

Andaliman: Citronellal, limonene, β -myrcene, 2- β -ocimene, linalool, β -citronellol, neral, geraniol, geranial, geranyl acetate and two unknowns have been determined as the odor-active compounds of andaliman`s citrusy and warm peppery odor¹⁾. Belonging to

Zanthoxylum sp, andaliman has also a numbing trigeminal effect contributed by 2E, 6Z, 8E, 10E-N-(2'-methylpropyl) - dodecatetraamide which stored in the pericarp (not in the seed). There are other species of *Zanthoxylum* have been utilized as spices, including *Z. simulans* (Taiwan), *Z. sansho* (Japan), *Z. schinifolium* (Korea), *Z. rhetsa* (India), however somehow their flavor characteristics are different, i.e. *Z. schinifolium* having anise aroma and almost no trigeminal effect⁵⁾. Andaliman crude extracts showed significant antimicrobes ability against *P. aeruginosa*, *B. stearothermophilus*, *S. typhimurium* and *B. cereus*⁶⁾. Andaliman extract has the highest activities on aqueous system, stable during the heating (up to 175 ° C for 2 hours) and more active in higher pH up to 7²⁾. It also reported having anti-photo oxidation activities on fish⁷⁾. Moderate concentration of andaliman extract showed immunomodulator activity. The oral intake of andaliman indicated anti-diabetic, anti hypertensive and relaxation actions as well as increased appetite and improve evacuation of bowel, however the scent stimulation reduced the appetite and keeping the nerve active indicated the anti-obesity activity.

Kaffir lime: The flavor of kaffir lime has been noted as one of popular layered flavor in the emerging top food trend in US and Abroad. The SDE (Likens-Nickerson) extraction gave the most resemble fresh flavor comparing to other methods although except percolation there are no significant differences in sensory among the extracts. Water distillation produced highest yield. The volatiles is mainly terpenes with citronellal, linalool and citronellol were among the dominant compounds³⁾. A spray dried flavor product has been successfully produced. In its application, there were no significant differences between the aroma and taste acceptability of the spray-dried flavor to the fresh one. Optimum scale up can be obtained by slicing the leaf and distilled it in 1.22 height for 146 min. The odor character is affected marginally during oxidation and typical oxidation products of monoterpenes represented as main oxidation products. Addition of antioxidant not only inhibited oxidation but also influence the composition of oxidation products. Based on the sensory panels, kaffir lime flavor were possibly applied in wide ranges from candy to perfumes depending on the actual odor profile³⁾. Kaffir lime reported for having anti-inflammatory and anti-microbes⁸⁾

Picung: This seed is said to posse's anthelmintic and narcotic properties. It might also poison because containing alkaloid resembling to menispermine and cyanide. Therefore, based on the local wisdom this seed will be eaten after some treatments including fermentation, buried and heated in hot ash. Fermented seed called "kluwak" is a specialty in Indonesia and traditionally has been used as spice in Singapore and Malaysia as well. The antioxidant ability reported increasing along with the increasing of the total phenolic and free proline⁴⁾. A potent antioxidant compound has been isolated but has not yet clearly identified. Kluwak intake reported inducing the body metabolism activities and awakening but decreasing the appetite

Conclusion: Spices not only enhance the flavor and taste the food, but also add functional value to the dishes because of their biologically active phytochemicals. Rapid development in utilization and industrialization which will accelerate the in depth researches is urgently needed to avoid extremely losing of the treasure information regarding local spices legacy.

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The programme expects the support from Ministry of Food Processing Industries, Ministry of Agriculture, Ministry of Health & Family Welfare, Ministry of Environment, State Governments, Council of Scientific and Industrial Research, Defence Research and Development Organization, Indian Council of Agricultural Research, Agricultural Products Export Development Authority, National Dairy Development Board and Indian Council of Medical Research.



Food Expo-2008: B2B

Techno-commercial Exhibition

On food processing and packaging to showcase various technological and commercial developments in the areas of food processing, process engineering, equipments, ingredients and packaging will be held at the venue of the conference.

Industry Participation

With over 600 oral presentations spread over 80 Sessions by invited speakers of eminence on various topics related to the Focal Theme, presentations of poster papers based on original R&D work and showcasing of products and services by about 150 Expo participants, IFCON-2008 is expected to see participation of all those who matter in food sector – academia, industry professionals, consultants, policy makers, researchers and students who are going to be the future professionals. Realising the potential of IFCON-2008, the organizers are planning to provide ample opportunities for industries to utilize the events to make an impact on these most coveted target groups and enhance their corporate image and brand equity. The opportunities will be in the form of Sponsorship of IFCON-2008.

The programme can also be used as a platform for New Product Launches and Special Presentations. Also, the Souvenir and Status Reports slated to be released during the events will help reach the delegates through advertisements. Details on these avenues available to potential industry sponsors can be obtained from the IFCON-2008 Secretariat.



REGISTRATION FEE

	Till Sept 30, 2008	After Sept 30, 2008
AFST(I) Member	Rs 4,000	Rs 6,000
Non-Member	Rs 5,000	Rs 7,000
Student-Member	Rs 2,000	Rs 3,000
Student-Non Member	Rs 2,500	Rs 3,500
Foreigners : SAARC countries		
AFST(I) Member	US \$ 250	US \$ 300
Non-Member	US \$ 300	US \$ 350
Other countries :		
AFST(I) Member	US \$ 450	US \$ 500
Non-Member	US \$ 500	US \$ 550



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COMMUNICATION CHANNELS

IFCON-2008 SECRETARIAT
AFST(I) Headquarters, CFTRI CAMPUS
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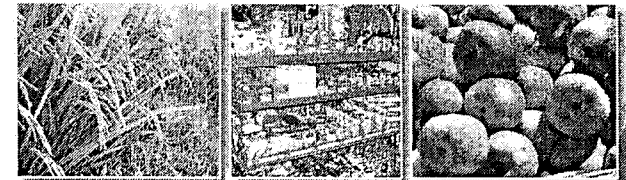
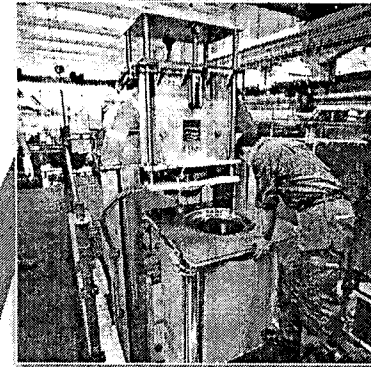
First Announcement



6th International Food convention

Newer challenges in Food Science and Technology : Industrial Perspective

15-19 December 2008 Mysore



Organised By:



Association of Food Scientists & Technologists (India), Mysore.

In association with :

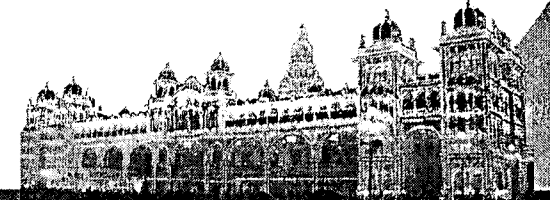


Central Food Technological Research Institute, Mysore.

and



Defence Food Research Laboratory, Mysore.





6th International Food convention

Newer challenges in Food Science and Technology Industrial Perspective

Background

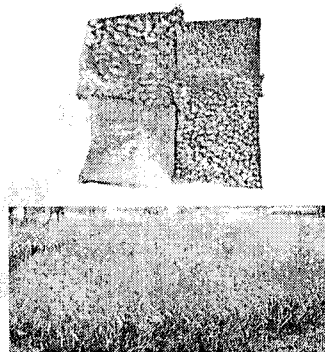
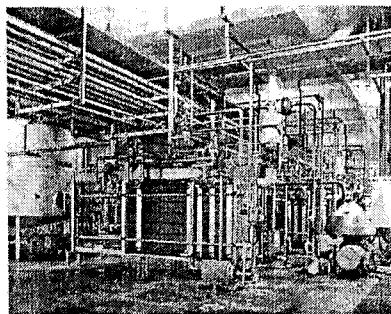
World population has now risen to about 7000 million and is expected to reach 9000 million by AD 2050. Natural resources are continuously falling short of demands. Traditional methods of delivering food and water and maintaining of environments no longer meet the needs. Hence food products and methods of processing and packaging them require rethinking. Improving overall quality of "Produce of India" to the highest levels so as to meet the hygiene, sanitary and safety standards required for good health is indeed a challenge.

If addressed properly, the challenges faced by food processing sector could be turned into great opportunities. Technological innovation is the key to meet these challenges. This alone may not yield expected results as it has to be supported by an enabling policy environment. It is perhaps the speed at which we meet the technological, policy and regulatory challenges that will determine whether our food processing sector manages to keep pace with the fast changing global market practices.

In keeping with the tradition of IFCONs, AFST(I) has decided to hold this conference during December 15-19, 2008 at Mysore, India, to chalk out a roadmap for a healthy sustainability. Natural and social scientists of eminence will be expected to help explore all possible views and share experiences at the conference for providing a meaningful direction. It is hoped that it would help shape a new vision.



AFST(I) firmly believes that food processing sector has a major role to play to improve socio-economic conditions of the deprived millions in a country. The recent initiatives of Ministry of Food Processing Industries, like formulation of Vision and Policy Documents and piloting of the Integrated Food Law have been highly encouraging for the sector as they manifest the serious resolve of the government to promote food processing sector.



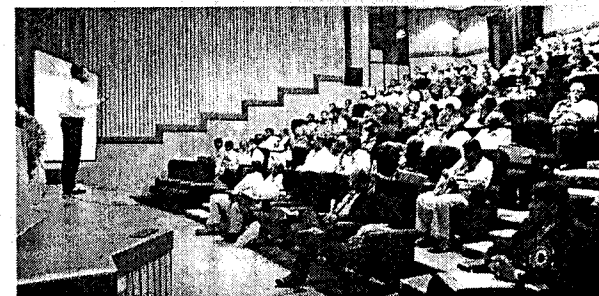
AFST(I) also believes that the current economic and industrial scenario calls for an integrated approach wherein all the stake holders of food processing sector viz. producer, processor, retailer, consumer, government, food scientists and technologists come together to meet the challenges. Therefore, AFST(I) has taken up the subject of **Newer Challenges in Food Science & Technology: Industrial Perspective** as focal theme of its mega event IFCON-2008.

Objectives / Goals

- Create global awareness on the status of Indian food industry and on opportunities and challenges in the fast changing global interest and trade in food sector.
- Share information and experiences of countries which have a sustained success.
- Strengthen institutional framework for global and regional developments.
- Share experiences with leading professionals (India and international) involved in food business and are conversant with changes in strategies in processes and systems in food supply chains, business management and quality and regulatory requirements.
- Conduct deliberations on:
 - Market dynamics and technological trends
 - Global requirements of quality surveillance.
 - Food safety with focus on hygiene and containment of residues and hazards.
 - Action plan for India especially human resource needs in quality and quantity.

Knowledge Platform

The knowledge platform will focus on problems concerning food "from farm to plate" - the Food Chain. Covering various commodities and product categories - food grains, horticultural produce, flesh foods, marine products, dairy products, spices, condiments, flavours and flavour based products, designed and fabricated products, carbonated beverages, GM foods, protein rich products, extruded products and convenience foods.



Oral Presentation Sessions

Presentation of contributed and invited papers by experts on various topics consistent with the objectives of the conference.

Poster Sessions

Presentations by young scientists and technologists of their original research and technological findings on different aspects of food science and technology and related areas.

Business Knowledge Sessions

Discussion Sessions to deliberate on sector specific industrial issues on one to one discussion basis. Different food related associations will be invited to work out the programme of common interest.

Topic-specific expert lectures

Expert lectures will be organized on current issues pertaining to food processing sector. Panel discussions on topical issues. Food industry, professionals, academia and policy makers will be invited as panel members to deliberate on topical issues.

