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# ISS Newsletter

NEWSLETTER OF THE INDIAN SOCIETY FOR SPICES

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## FROM THE PRESIDENT'S DESK

I have extreme pleasure to wish you a very happy and prosperous 2005. One more spice season has begun. This year also the price of different spices show varying trend. As in the last few years pepper price still show a downward trend. Cardamom shows a price range of Rs. 240 to Rs. 320/ kg and large cardamom Rs. 82 to 90/ kg. Position of dry ginger is little bright this year i.e., Rs. 130 to Rs. 140/ kg. Price of clove, nutmeg and mace also show some what bright picture. The market of highly promised vanilla is yet to pick up. Many farmers had invested heavily on vanilla. With the market intervention by Spices Board and other agencies let us hope that the farmer's plight might improve to fetch a remunerative price.

Besides the major spices which are being cultivated on a large scale, there is an urgent need to promote some of the lesser known important tree spices like Kokum (*Garcinea indica*), which is one of the unique indigenous spice of the Country. Besides being a spice, it has got the medicinal properties as well. Kokum is commonly found in Western Ghats of India. At present its cultivation is confined to coastal hilly regions of Maharashtra, Goa and Karnataka and North Kerala. Over the years, the fruits of this unique tree spice have been put to multifarious uses, which include garnishing curries, cardiogenic, anti allergic and digestive. In addition, its seeds yield an unique fat that finds uses in ointments, suppositories, lipsticks and chocolates. Even the fruit rind yields 2-3% colour pigments, which are now approved as natural colour for pharmaceutical uses. In the recent past however, Scientific and medicinal research have taken fancy for its abundant hydroxy citric acid content, which help to lower cholesterol level and is useful to combat obesity. In this context, I am happy that the Western Ghats Kokum Foundation and Agro promotion an NGO located at Panaji, Goa has taken up the promotion of cultivation, processing and popularizing the wide range of products of Kokum both in India and abroad. Also, concerted efforts should be made on Research and Development programmes to promote Kokum both in food as well as pharmaceutical industries.

Regarding the activities of society, I am happy to inform you that I got an opportunity to serve you as President for one more term (2004-2006). I do hope to serve for the cause of the society with renewed enthusiasm. Kindly remember the society and give your suggestions for improving its activities in the years to come. I also request our spices growers, traders and exporters to share their practical experiences by contributing brief write ups/articles in the spices newsletter.

During November 1-2, 2004 the Society could successfully conduct the SYMSAC-I at Indian Institute of Spices Research, Calicut. Over 75 delegates participated. I take this opportunity to congratulate and thank Dr. V.A Parthasarthy, Director, IISR, Dr. T. J. Zachariah, Secretary and other office bearers of ISS and my colleagues at IISR for the successful conduct of the Symposium.

I wish you all great success.

Dr. V S Korikanthimath  
President

## Indigenous Technical Knowledge with Reference to Black Pepper

**P A Mathew**  
Principal Scientist, IISR, Calicut

Plant pepper around house to prevent common cold  
**Season**

1. Plant pepper during *Thiruvathira njattuvela* for 100% establishment. This period is generally in the month of Midhunam (May).
2. Crop will be poor if South West monsoon is poor.
3. Spray water to get good fruit set if rain is poor.
4. Pepper plants should be free from shade during rainy season.

### Exposure

1. Ideal exposure while planting is towards east where sun rises and attracts the shoots.
2. Southern exposure is not good, so also south west.

### Shade

1. Filtered shade from support tree is the best. Support tree and pepper do not compete for light.

### Spacing

1. Give more space for support trees for more air movement and yield.

### Intercrops

1. Grow spices such as ginger, turmeric, galangal etc. to increase berry set.
2. Banana as intercrop adversely affects yield of pepper.

### Planting materials

1. Seedlings have longer field survival than cuttings.
2. Use cuttings from the middle portion of the coiled runner vines, from 15 years old mother vines.
3. Use 2 feet long cuttings for *erythrina* and 4 feet long ones for coconut.
4. Collect runners within 60 cm of main stem from the base of mother vines.
5. Apply a paste of coconut shell, charcoal at the base of cuttings, shade dry for 3 weeks, allow to grow on coconut husk for quick rooting.
6. Plants from top shoots are short-lived.

### Planting

1. Plant robust cuttings 4 to 5 per standard and two nodes are to be buried into the soil.
2. Plant one top shoot and 2 runner shoots/support. Top shoots will give crop in 2<sup>nd</sup> year and other in 3<sup>rd</sup> year.
3. Allow runner vines to trail on ground and allow to climb support plants to survive drought and wilt. After 2 or 3 years sever the runner from parent vine.
4. Plant pepper on North East side of coconut. Yield is also better due to good exposure.

5. If more than one variety is grown, yield losses will be reduced due to difference in performances of every cultivar.

### Standard

1. Use narrow pits for planting pepper supports to avoid dodging in wind
2. Prune standards to increase spike setting and to prevent pollu beetle damage in rainy period.
3. Collect standards during descending moon period in the month of Kumbham (April-May). After collection keep in shade horizontally for 15 days and afterwards keep in a slanting position till planted.
4. Silver oak is a good standard for pepper for healthy growth and yield.
5. Supports must be growing straight and upwards to get formation of more laterals.
6. All trees having rough bark are suitable as support. *Erythrina*, mango, jack, hogplum and terminalia are very good.
7. Brick support: Channel bricks can be joined with 6mm rod. 14 bricks are needed per support. 4m support will be obtained and 0.5m can be buried into ground and is cheaper than concrete. Useful for homesteads.

### Prevention of wilt

1. Heap small stones around base of pepper plants to prevent wilt disease.
2. Do not disturb base to reduce chances of wilt.
3. Apply 500 g common salt to the base of each vine before onset of South West monsoon and after North East monsoon.
4. Dust lime on main stem from base to a height of 75 cm when wet to prevent fungal attacks.
5. Keep 1 kg of neem cake (partially remove oil) in 25 lit. water and filter. It is an excellent fungicide.
6. Garlic and mustard are ground and decoction prepared and sprayed to control wilt.
7. Apply 250 g lime twice a year to reduce wilt.
8. Mulch with leaves of maroti tree to control wilt and pests.
9. Apply 2 lit. of liquid after extraction of starch from *Maranta* sp. (koova).
10. Apply the fleshy rind of nutmeg fruits.

### Pest

Oil from pongamia is effective against mealy bugs and scales.

### Mulching

Apply mulch scattered around base of pepper. No need to mix with soil or bury it.

### Pruning

1. Prune the growing vine at a height of about 15 cm from ground within one year after planting. It induces vigorous growth.

2. Removing hanging shoots and top shoots of the vine after getting sufficient growth will be helpful for development of laterals and increased yield.
3. Cover pruned top shoots with polybags to prevent growth.

### Harvesting and Processing

1. Harvest pepper only when atleast 5 berries/spike turn red colour.
2. Thresh spikes after exposure to sun for one day. All berries can be easily removed.
3. Berries that started ripening if heaped and covered with gunny for two days, will help to ripen all berries quickly.
4. Keep hot berries in the sun packed in gunny on the third day and dry it afterwards to get jet black colour.
5. **Traditional method to prepare white pepper:**  
Pack green spikes of mature pepper in plastic gunny bags with loose weaving but without holes. Bury in soil 60 cm deep and cover it with soil. Wet soil by pouring water every 3 days. Allow retting for 15 days. Remove from soil, wash and dry in sun. Normal recovery is 28%.

### Proceedings of the SYMSAC-1 held at Indian Institute of Spices Research, Calicut during 1-2 November 2004

Indian Society for Spices has adopted the new acronym for its symposium – Symposium on Spices and Aromatic Crops (SYMSAC). The first symposium was held at the Silver Jubilee Hall of Indian Institute of Spices Research, Calicut during 1-2 November 2004. Prof (Dr.) K V Peter, Vice Chancellor, Kerala Agricultural University inaugurated the Symposium. Dr. Peter appreciated the title of SYMSAC-1 – Commercialization of Spices, Medicinal and Aromatics Crops. He pointed out the need for commercialization in all sectors of spices production, planting material production, medicinal aspects, processing and value addition.

Dr. V S Korikanthimath, President, Indian Society for Spices briefed about the symposium and also some of the forthcoming programmes of the society.

Chief guest Dr. K V Peter presented the Dr. J S Pruthi Award for best paper published in Volume 12 of Journal of Spices and Aromatic Crops to Dr. (Mrs.) K P M Dhamayanthi.

Dr. T John Zachariah, Organizing Secretary, SYMSAC-1 proposed vote of thanks.

This was followed by the technical sessions.

The Technical Session I - "Biodiversity, Conventional Breeding and Biotechnology" was chaired by Dr. G M Nair, Director, TBGRI, Trivandrum. Dr. R Ramakrishnan Nair and Dr. K N Shiva, Scientists of IISR functioned as Rapporteurs.

There were two lead talks in the session. First one "Biodiversity, Conservation and Sustainable Utilization of Medicinal Plants" was presented by Dr. G M Nair. Second lead talk in the session "Molecular Markers in Finger Printing and Diversity Analysis" was presented by Dr. J L Karihalloo, Director, NRC for DNA Finger Printing. There were three contributory papers – one oral and two posters in the session.

The Technical Session II - "Sustainable Production Systems" was chaired by Dr. V S Korikanthimath, Director, ICAR Research Complex, Goa. Rapporteurs were Dr. K S Krishnamurthy and Dr. V Srinivasan, Scientists of IISR. There were two lead talks in the session. Dr. V Rajagopal, Director, CPCRI, Kasaragod presented the talk on "Drought Management in Plantation Crops" and Dr. Kamta Prasad, Principal Scientist, PDCSR, Modipuram, Meerut talked on "Emerging Trends in Organic Farming". There were three oral and five poster presentations.

This was followed by ISS General Body Meeting.

The Technical Session III - "Diagnostics and Biotechnology in Crop Pests" which was held on 2<sup>nd</sup> November 2004, was chaired by Dr. S Edison, Director, CTCRI, Sreekariyam, Thiruvananthapuram. Rapporteurs were Dr. R Suseela Bhai and Dr. Santhosh J Eapen, Scientists of IISR. There were four oral and five posters in this session.

The Technical Session IV - "Commercialization of Technologies" was chaired by Mr. Koshy John, Ex-Director (Dev), Spices Board, Kochi. Dr. N K Leela, Scientist of IISR functioned as Rapporteur. Mr. O T S Nambiar, Joint Director (Marketing), Spices Board, Kochi presented the lead talk "International Market Scenario of Spices and Spice Products". The session had five poster presentations.

The Technical Session V - "Indigenous Knowledge Vs Improved Technology" was chaired by Dr. M Tamil Selvan, Director, Directorate of Arecanut and Spices Development, Calicut. Dr. P Rajeev and Dr. C K Thankamani, Scientists of IISR functioned as Rapporteurs. Dr. Arul Raj, Project Coordinator In-charge (Palms), CPCRI, Kasaragod presented the lead talk on "Indigenous Innovative Technologies in Plantation Crops". Mr. Sanath Kumar, Planter, Yes Key Centre, Kalpetta presented a talk on "Issues in Spice Farming", Mr. P A Mathew, Scientist In-charge, IISR Experimental Farm, Peruvannamuzhi talked on "Indigenous Technical Knowledge with reference to Black Pepper" and Dr. T K Jacob, Scientist In-charge, KVK, Peruvannamuzhi talked on "Indigenous Know How of Spices". There was only one oral presentation in the session.

Plenary session was chaired by Dr. V A Parthasarathy, Director, IISR, Calicut and General Chairman, SYMSAC-1. The Rapporteurs of the various sessions

presented the report. Best paper awards (both oral and poster) were presented to the awardees by the Chairman.

Dr. T John Zachariah, Organizing Secretary, SYMSAC-I proposed vote of thanks.

#### Awards

Dr. J S Pruthi Award for the best research article published in the Journal of Spices and Aromatic Crops Volume 12 (2003) was bagged by Dr. K P M Dhamayanthi & Dr. V R K Reddy for the paper entitled "Breeding derivatives with desirable traits using chilli (*Capsicum annum* L.) stocks and popular varieties".

H S Mehta Memorial Award for best oral presentation in SYMSAC-I was bagged by Dr. N Mini Raj and Dr. E V Nybe, College of Horticulture, KAU, Thrissur for the paper entitled "Hill Garlic Production System in Kerala - Potentials for Development".

Dr. Alapatti Prasada Rao Award for the best poster exhibited in SYMSAC-I has gone to the poster entitled "Evaluation of Plant Materials for Mass Multiplication of root mealy bug infesting black pepper in the Laboratory" authored by T Tresa, N Preethi, S Devasahayam and K M A Koya, IISR, Calicut.

#### Proceedings of Annual General Body Meeting of ISS

The annual general body meeting of Indian Society for Spices was held on 1st November 2004 between 5.30 to 7.15 pm at the Silver Jubilee Hall of Indian Institute of Spices Research, Calicut. Dr. V S Korikanthimath, President, ISS presided over the meeting. Dr. T John Zachariah, Secretary, ISS welcomed the members. In his introductory remarks President welcomed all members. He highlighted the ups and down market trends of various spices and pointed out the need for concerted effort in improving the production and productivity of spices, medicinal and aromatic crops.

Dr. M Anandaraj, Vice President mentioned about the sad demise of Dr. J S Pruthi, who was a former Vice President and the one who instituted the J S Pruthi Award. Members observed one minute silence as a mark of respect to the departed soul.

Secretary presented the proceedings of the General Body held at Goa during 27.11.03. General Body approved the Secretary's report for the previous year.

Dr. K S Krishnamurthy, Treasurer, ISS, presented the audit and accounts of the Society and the same

was approved by the house. He informed that fixed deposit amount rose to Rs. 8,26,138.00.

Dr. N K Leela, Editor, Journal of Spices and Aromatic Crops presented the editors report. While highlighting the activities of editorial board, she informed that the present editorial board published Vol. 13 (1) and Vol. 13 (2) is pending in the press. During the period editorial board received 69 manuscripts out of which 24 were accepted and 23 were rejected. About 22 manuscripts are at various stages of processing.

The present membership of the society is 483, which includes 433 life members, 21 ordinary members, 25 institutional members, 2 sustaining members and 2 honorary patrons.

Mr. M K Sachidanandan, Assistant Finance and Accounts Officer of IISR, Calicut functioned as the Returning Officer, ISS declared the election results. The following members were declared elected.

President	: Dr. V S Korikanthimath
Vice President	: Dr. Varanashi Krishnamoorthy
Secretary	: Dr. T John Zachariah
Joint Secretary	No valid nomination
Treasurer	No valid nomination
Executive Council	: 1. Dr. S J Anke Gowda
	2. Dr. V Krishnakumar
	3. Dr. M Tamil Selvan
	4. Dr. C K Thankamani
	5. Dr. R Ramakrishnan Nair

General body unanimously elected Dr. K S Krishnamurthy, as Treasurer and Dr. K N Shiva as Joint Secretary.

Immediately after the declaration of results, the new executive council assumed charge.

Under any other item Secretary informed the house about the high recurring charges required for maintaining the website. General Body has decided to continue with the outside firm for one more year as an experimental basis since we have spent already some amount for the website.

Dr. V S Korikanthimath, President thanked Dr. V A Parthasarathy, Director, Indian Institute of Spices Research, Calicut for hosting the SYMSAC-1 (Symposium on Spices and Aromatic Crops) at IISR, Calicut. He also thanked all the former office bearers of the Society for their co-operation and support.

The meeting came to an end with Dr. K N Shiva, Joint Secretary proposing the formal vote of thanks, followed by Dinner at the premises of IISR, Calicut.