



IISR

IISR NL-11 Newsletter

Volume : 6 (2)

July.- December 1995

A SLICE OF ACHIEVEMENT IN SPICES RESEARCH NATIONAL RESEARCH CENTRE FOR SPICES UPGRADED TO INDIAN INSTITUTE OF SPICES RESEARCH

First July, 1995 will ever be a red letter day in the annals of spices research in the country. It is on this day the National Research Centre for Spices (NRCS) is declared officially as "INDIAN INSTITUTE OF SPICES RESEARCH" (IISR).

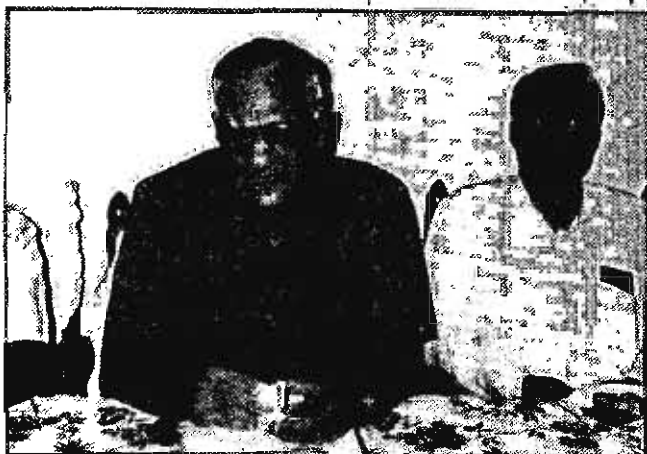
The story of transformation of the erstwhile Regional Station of the Central Plantation Crops Research Institute (CPCRI), Kasaragod to a full fledged Indian Institute of Spices Research, through NRC (Spices), is one of the dedications of scientists and staff members alike fused with the vision of the pioneers and leaders of this research centre.

Started as a Regional Station of the CPCRI, Kasaragod in 1976, this station was elevated to a NATIONAL RESEARCH CENTRE FOR SPICES (NRCS) in 1986 itself saluting the scientific contributions of the station in the field of spices research and development in a short span of 10 years. Four black pepper varieties, 5 turmeric, 1 each of cardamom and ginger as well as 2 cinnamon varieties, pest management strategies and agronomic practices of major spices are some of the contributions of this institute to the farming community. This institute also possesses the world's largest black pepper, ginger and turmeric genebank. The headquarters of the All India Co-ordinated Research Centre for Spices (AICRP Spices) with twenty co-ordinating centres all over India is also located at this Institute.

As IISR, the Institute will have more emphasis on *Phytophthora* research, Post Harvest Technology of Spices, and Biotechnological Studies.

The formation of IISR from NRCS may be a small step in the history of agricultural research in India but it is definitely a giant leap in the history of spices research in the country.

In tune with the change in status, 'NRCS Newsletter' has also transformed to 'IISR Newsletter'.



Dr. K. L. Chadha, DDG (Hort.) ICAR, announcing the formation of IISR at Kozhikode press club

RESEARCH HIGHLIGHTS

Agronomy of bush pepper:

Spacing cum nutritional trial on bush pepper has demonstrated that at a spacing of 2m x 2m, 2500-bushes could be accommodated in one hectare and with the application of NPK @ 30:15:60kg/ha/year in 3 splits, an yield of one kg (dry) berries/bush/year can be obtained.

Propagation of cassia

Successful grafting of *C. cassia* on the root stock of *C. verum* has been achieved besides vegetative propagation of cassia through soft wood cutting.

High quality cassia lines:

Based on quality analysis of bark and leaf oil of cassia collections, two lines possessing more than 5% bark oil and 95% cinnamaldehyde are identified as promising ones.

Biological control of *Phytophthora* foot rot disease of black pepper:

Application of VAM alone or VAM in combination with *Trichoderma* or *Gliocladium* was effective in the control of foot rot disease of black pepper.

Efficacy of these biocontrol agents in suppressing the foot rot diseases of black pepper under field conditions is being ascertained through onfarm trails in about 1000 ha spread over Kerala, Karnataka and Tamil Nadu.

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Phone - Director: Office - 370294 Res 370701 (PARX) 371410, 370906. Project coordinator; Office - 371 794. Res 371566, CTO (KVK): R- 37

These biocontrol organisms are also being tried in pepper & cardamom nurseries.

Scale insect predator production:

Chilochorus nigrita, a potential predator of scale insects of black pepper has been mass produced successfully in the laboratory. The predator will be released in pepper plantations at Wyanad shortly.

Stunted disease of black pepper:

Fresh evidence of stunted disease of black pepper was noticed at Kumaranellur, Thrissur (Dt.) Kerala and from Somawarpat of Karnataka. CMV, the causative agent of stunted disease, is found identical to CMV of banana.

Seed viability of cardamom:

Seed germination studies in cardamom revealed that the viability of cardamom seeds could be maintained even after 10 months of storage.

Vermiculture studies on cardamom:

African earthworms were found to be efficient biodegraders of organic waste available in cardamom estates. Vermicompost was also found to be a better nutrient source for cardamom nursery as compared to FYM.

GERMPLASM COLLECTION AND CONSERVATION

Germplasm collection carried out at Ponmudi (Kerala) N. Kanara (Karnataka) and Nilgiris (Tamil Nadu) by Dr. P. N. Ravindran, Principal Scientist (Genetics) and Mr. B. Krishnamoorthy, Scientist SG (Plant Breeding) and Dr.

(Mrs.) J. Rema, Scientist Sr. Scale, Horticulture, IISR, Kozhikode resulted in adding up 5 clove, 4 nutmeg and 4 cinnamon accessions as well as wild species like *Myristica malabarica*, *Cinnamomum macrocarpum*, *C. wightii*, *C. malabairum* etc. to the tree spices germplasm conservatory.

Six exotic accessions of ginger obtained in exchange from Queensland were added to the ginger germplasm repository.

NEW SPICES VARIETIES FROM IISR, KOZHIKODE.

A new high yielding and good quality variety of ginger christened as 'IISR Varada', two high curcumin yielding varieties of turmeric viz., 'IISR Prabha' & 'IISR Prathiba' as well as two high quality cinnamon varieties viz., 'Nithyashree' & 'Navashree' are recommended for release during the XIII AIRCPS Group Meeting (Workshop) held at Jaipur during August 1995.

NATIONAL GROUP MEETING (XIII WORKSHOP)

The National Group Meeting of All India Co-ordinated Research Project of Spices (AIRCPS) was held at the Agricultural Research Station campus, Durgapura, Jaipur during 23-25th August 1995.

Dr. Jayant Patil, Member (Agril), Planning Commission (Govt. of India,) inaugurated the workshop on the forenoon of 23rd August 1995. In his inaugural address Dr. Patil highlighted the importance of co-ordinated network in spices and urged the spices researchers to extend spices cultivation to non-conventional areas.



Dr. Jayant Patil, inaugurating the Group Meeting. Dr. M. S. Manohar, Dr. S. Edison, Dr. K. L. Chadha and Mr. C. S. Rajan IAS are also seen.

Dr. K. L. Chadha, Deputy Director General (Hort), ICAR, and Mr. M. L. Mehta, IAS, Chief Secretary, Government of Rajasthan made special remarks. Dr. M. S. Manohar, Director of Research, RAU, welcomed the delegates. Dr. S. Edison, Project Coordinator (Spices) presented the progress report. Dr. R. K. Patel, Vice Chancellor, RAU made the presidential address. Mr. C. S. Rajan, Secretary (Agriculture), Government of Rajasthan, gave the felicitation address. Dr. P. Rethinam, Assistant Director General (PC) proposed the vote of thanks.

The meeting was attended by about 130 delegates from different states of India including scientists from 20 coordinating centres and voluntary centres, Spices Board, DCASD, as well as from Agriculture & Horticulture departments of different states. There were 5 technical sessions besides a plenary session.

The workshop recommended the release of 9 new spices varieties, two each in ginger, turmeric and cinnamon, one each in cardamom, pepper, and coriander.

PARTICIPATION IN SYMPOSIA, SEMINARS AND TRAINING

Mr. M. V. Prasad

- Computer Application in Agricultural Research. NAARM, 11-12 July, 1995. Hyderabad.

Dr. S. Edison / Dr. Y. R. Sarma / Dr. A. K. Sadanandan / Mr. B. Krishnamoorthy / Dr. B. Sasikumar & Dr. A. K. Johny

- National group meeting (XIII workshop) of AICRP on Spices, 23-25 July, 1995. Jaipur, Rajasthan.

Dr. S. Edison

- Pre season rabi workshop for Pulney Hills. 5th September 1995, Thadiyankudisai.
- Workshop of AICRP on Palms. Chaired the Technical Session IV, (Plant Pathology), 22-23 December 1995, CPCRI, Kasaragod.

Dr. Y. R. Sarma

- UPASI Annual Conference, 11th

September 1995, Conoor.

- Kodagu Planter's Association Annual Conference. 22nd November 1995, Pollibetta.
- Farmers Seminar organised by Lions Club & SBT. 25th November 1995, Kalpetta.
- National group meeting (XIII workshop of AICRP on Spices). Chaired Technical session of Plant Pathology 23-25 July 1995, Durgapura, Jaipur.

Dr. M. Aravindan

- National workshop on KVK's and TTC's, 9-12. September 1995, Kozhikode.

Mr. S. Devasahayam

- Workshop on conservation of invertebrates, 19-20 October, 1995. Kozhikode.
- Indo-US workshop on current Approaches to Pheromone Technology, 29 November December, 1995, Madras.

Mr. M. Anandaraj

- National workshop on the Molecular Biology of the gene Centre for Plant Molecular Biology (CPMB), Osmania University, 11-30th November 1995, Hyderabad.

Dr. M. N. Venugopal / Dr. Y. R. Sarma.

- Grower's seminar on diseases of pepper with reference to biocontrol of foot rot and viral diseases of pepper, (Kokke

Kandu) of Cardamom. 12-16 November, 1995, Napoklu, Siddapur and Somavarpeta.

Dr. J. Rema

- International Symposium on strategies for exploiting biotechnology potentials, Centre for Plant Molecular Biology (CPMB), Osmania University, 26-30 November 1995, Hyderabad.

Mr. Shaji Philip

- National Symposium on Biotechnology for Rural Development, Gulberga University, 22-24th December-1995, Gulberga.

Dr. Rajendra Hegde

- Field day on 'Hitech Agriculture' 26th December 1995, Bangalore.

Mr. V. S. Korikanthimath, Dr. M. N. Venugopal, Dr. P. Rajeev & Dr. Ravindra Mulge.

- Mass awareness programme on scientific cardamom production with special reference to 'Kokke Kandu', 30 December, 1995, Hongdella.

Guest Lectures delivered / Invited papers Presented

Edison S. (1995)

- Cultivation of Spices, HRS, Thadiyankudisi, Tamil Nadu, 5 September, 1995.

Devasahayam S. (1995)

- Insect diversity and human welfare. Zoological Association, St.

Joseph's College, Kozhikode. 23, November 1995.

- Insect pests of spices and their management. MSc. Zoology students Government college, Madapally. 11 December 1995.

- Potential use of pheromones in the management of insect pests of spices. Indo-US workshop on Current Approaches of Pheromone Technology, Madras. 29 November-1st December 1995.

Rajendra Hegde (1995)

- Agroforestry experiences with cardamom, pepper and silver oak, State level workshop on Agroforestry, Mysore. 13-15 December, 1995.

- Problems and prospects of spices cultivation. Farmers meet, Hosamayara, Shimoga. 13-17 October 1995.

Rema, J. (1995)

- Application of tissue culture in floriculture Training programme on women entrepreneurship development programme. STED, Tanur, 11th Dec. 1995.

- Biotechnological approaches in spices crops-present status and future prospects - International Symposium on biotechnology potentials Centre for Plant Molecular Biology, Osmania University, Hyderabad, 26-30 November, 1995.

Sarma, Y. R. (1995)

- Latest aspects of biocontrol of *Phytophthora* foot rot of black pepper. Consolidated Coffee Ltd. Pollibetta, 18-20 October 1995, UPASI Annual conference, 11 Sep-

tember 1995, Conoor.

- Biocontrol - an important component of integrated disease Management of foot rot of black pepper, Kodagu Planters Association, 22 November 1995, Pollibetta.

- Integrated disease management of *Phytophthora* of black pepper, 25th November 1995, Kalpetta.

Sadanandan A. K. (1995)

- Techno-Economics of pepper cultivation. Workshop on management of perennial crop loans, College of Agricultural banking, RBI, Pune, 1st November 1995.

- Pepper production management and quality improvement. Paper presented at the seminar on Plantations Crops - Jointly hosted by SBT, & Lions Club. 25 November 1995, Kalpetta.

- Production technology in black pepper - Development & transfer. All India spices Exporters Forum, Cochin 7th October 1995.

- Water management in spices with special reference to nutrition. Training course on "Onfarm water management", CWRDM, Kozhikode. 21 December 1995.

Venugopal, M. N. (1995)

- Management of pepper with special reference to biocontrol. Growers Meet. 1st December 1995, RARS, Mudigere.

MEETINGS

- Prof. K. V. Peter

Mid term Directors meet, ICAR, New Delhi, 10-14 July, 1995. Presented

the perspective plan 2020.

Annual meeting of UPASI, Conoor. Delivered a lecture on Research & Development of Spices - An Overview. 11th September, 1995.

30th Advisory committee meeting of NHRDF, New Delhi, 12th September 1995.

R & D Committee Meeting of Spices Board, Cochin, 5th October, 1995.

Meeting of the Malabar Development Board, Kozhikode, 6th October, 1995.

First meeting of expert committee on alternate crop for cardamom Spices Board, Cochin, 6th November, 1995.

Executive committee meeting of Indian society of Plantation Crops, Kasaragod, 21st December, 1995.

Biennial workshop of AICRP on Palms CPCRI, Kasaragod, 21st December, 1995.

- Y. R. Sarma

Panel meeting of DBT on IPM - Biocontrol. New Delhi, 21-22 August 1995.

UPASI Annual meeting 11th September, 1995, Conoor.

Meeting on Strategies of nursery management and quality control of black pepper planting materials" convened by Director of Agriculture Government of Kerala, Thiruvananthapuram, 28th November, 1995.

Plant protection Panel for Horticulture, ICAR, New Delhi, 18-22

December, 1995.

- Dr. M. Aravindan

Meeting of Rural Advisory committee of Doordarshan, Thiruvananthapuram, 10th October, 1995.

Rural Programme Advisory committee of AIR, Kozhikode, 19th October, 1995.

- Mr. V. S. Korikanthimath

Highpower committee meeting on rejuvenation of cardamom industry, ICRI Myladumpura, Idukki 4th 5th December, 1995.

RESEARCH ARTICLES

Kandiannan, K, Sivaraman, K. & Thankamani, C. K. 1994. Growth regulators in black pepper production Indian Cocoa, Arecanut & Spices J. 18 (1) : 119 - 123.

Krishnamoorthy, B. and Rema, J. 1994. Characterization of seedling progenies of elite lines of clove. Indian Cocoa, Arecanut and Spices J. 18 (3) : 82-84.

Krishnamoorthy, B. and Rema, J. 1994. Three morphological variants in clove, *Syzygium aromaticum* (L.) from Tamil Nadu. J. Spices & Aromatic Crops, Vol. 3 (2) : 168.

Rajendra Hegde (1995) Cardamom and Arecanut mix cropping. Indian Cocoa Arecanut & Spices J. 38 (4) : 109.

Ravindran, P. N., Peter, K. V., Nirmal Babu, K., Rema, J., Samsudeen, K., Minoo, P., Geetha, S. P., Sajina A. Mini P. Mathai, Manjula C. and John C. Zacharia, 1995. Biotechnical approaches in spice crops-present scenario and future prospects, (In): Proc.

International Symposium on Strategies for exploiting Biotechnology potentials. Centre for Plant Molecular Biology, Osmania University, Hyderabad, 28-30 November, 1995 (Abstr)

Sadanandan, A. K. and Hamza S. 1995. Studies on nutritional requirement of bush pepper (*Piper nigrum* L.) for yield & quality.

National Seminar on Development in Soil Science. ISSS & PAU, Ludhiana, Nov. 2-5, 1995. (Abstr)

Sadanandan, A. K. & Hamza, S. 1995 Effect of organic farming on nutrient uptake, yield and curcumin recovery of turmeric (*Curcuma longa* L.) National Seminar on Developments in Soil Science ISSS & PAU, Ludhiana, Nov. 2-5 1995 (Abstr)

POPULAR ARTICLES

Krishnamoorthy, B. 1995. Cultivation and processing of turmeric. Spice India (Tamil), 8 (4) : 4-8.

Krishnamoorthy, B. 1995 Sex conversion in nutmeg. Spice India (Tamil), 8 (5) : 5-7.

Krishnamoorthy, B. 1995. New Cinnamon varieties. Spice India (Tamil), 8 (6) : 4-6.

Krishnamoorthy B. 1995. Nutmeg graft - Great graft. Spice India (Tamil), 8 (2) : 9-11.

Rajendra Hegde (1995). Integrated plantation Development - A Success story. Indian coffee, 59 : 7-8.

Rajendra Hegde (1995). Scope for organic farming in plantations Indian Coffee, 59 (12) : 11-12.

Ravindra Mulge (1995) Tissue Culture

- Advantages and disadvantages. Spice India (Kannada), 8 (9) : 7-8

Ravindra Mulge (1995) Nutrition management in Cardamom. Spice India (Kannada) 8 (11) : 2-4.

Thankamani, C. K., Sivaraman, K. & Kandiamman. K. 1995. All about vermicompost, Spice India (Mal), 8 (12) : 6-7.

Prasad, M. V. 1995. An indigenous post harvest technology. Indigenous Knowledge and Development Monitor, Netherlands, 3 (2) : 12.

Sasikumar, B. 1995 International convention on biological diversity and third world countries. Yojana (Mal), 24 (4) : 31-32.

Sasikumar, B. 1995. Yield contributing traits in turmeric. Spice India (Mal) 8(11) : 2.

BIOLOGICAL CONTROL (INSECT PESTS) LABORATORY

A biological control laboratory has been recently established in the new building of IISR, Kozhikode to intensify research on biological control of insect pests of spices. Work on culturing of predators of scale insects and microbial pathogens of 'Pollu' beetle of black pepper are in progress in the new laboratory.

TECHNICAL PUBLICATION / REPORTS

1. Descriptors for Cardamom (*Elletaria cardamomum* M.) IPGRI Rome. Contributors from, IISR, Kozhikode. - Peter K. V., Edison S., Korikanthimath V. S., Ramadasan A. & Johny A. K.

2. Annual Report 1994-1995
AICRP on Spices - Edison S.,
Krishnamoorthy B., & Johny A.
Kallapurackal, IISR Kozhikode:

3. Research Highlights 1994-1995.
AICRP on Spices. - Edison S. & Johny
A. Kallapurackal, IISR, Kozhikode.

TRANSFER TECHNOLOGY

Production and Supply of Quality Planting Material

(Period : July - December 1995)

Cinnamon seedlings	: 2000 Nos.
Nutmeg seedlings	: 2500 Nos.
Nutmeg grafts	: 1000 Nos.
Clove	: 500 Nos.
Black pepper rooted cutting	: 1750 Nos.

Training Programmes Conducted

Course : Nursery Management on
spices

Date : 2-3 August, 1995

No : of Participants : 4 (Officers from
Department of Horticulture, Tamil Nadu).

Course : Spices Production Technology

Date : 20-25, November, 1995

No: of Participants :12 (Officers from
Central/ State Departments of Orissa,
Uttar Pradesh Maharashtra, Karnataka
& Kerala.)

Off Campus Exhibition

IISR/KVK participated in the Indian
Rubber Growers Conference Exhibi-
tion 1995 at Cochin from 2-4 Nov.
1995 as well as in All India Radio,
Farm & Home Unit Anniversary at
MPM High School, Chungathara,
Malappuram during 27-30th December
1995.

Demonstration of Biocontrol Programme

Large scale field evaluation of biocontrol
agents to control foot rot disease of
black pepper has been taken up in
about 1000 ha of plot spread over the
states of Kerala, Karnataka and
Tamilnadu.

Radio Talks:

Dr. K. V. Peter : Quality maintenance
in spices: August, AIR Kozhikode.

Dr. M. N. Venugopal : Rhizome rot in
cardamom, July, AIR, Madikeri.

Dr. Ravindra Mulge : Nutrition of
cardamom, August, AIR, Madikeri,

Mr. Santhosh J. Eapen : Disease
management in black pepper - New
approaches. August, AIR, Kozhikode.

Dr. Rajendra Hegde : Scope for or-
ganic farming in Kodagu district.
September, AIR, Madikeri.

Dr. Ravindra Mulge : Post harvest
technology in cardamom, October,
AIR, Madikeri

Mrs. C. K. Thankamani : Care of
spices during summer. October, AIR,
Kozhikode.

Ms.C.S. Kavitha : Planning nutritive
diet using seasonally available foods.
November, AIR, Kozhikode.

Dr. M. N. Venugopal : Varietal mix-
ture of pepper for better productivity.
November, AIR, Madikeri.

Dr. Rajendra Hegde : Book review on
'One' Straw Revolution', December,
AIR, Madikeri.

Doordarshan Programme

Group Discussion on Control of
Phytophthora foot rot-Dr. Y. R. Sama,
M. Anandaraj & S. J. Eapen,
Thiruvananthapuram Doordarshan,
on 20th July 1995.

Photo documentation and fea- ture writing on IISR activities

The research activities of IISR,
Kozhikode was documented by Mr. D.
Krishnan, Director, Reflectiona Photo-
graphic Service, Madras on behalf of
ICAR, New Delhi. The research
achievements of the Institute are also
being featured in the Agricultural Col-
umn (Farmer's note book) of THE
HINDU.

INSTITUTE JOINT COUNCIL MEETING

The first meeting of the newly consti-
tuted IJC was held at IISR, Kozhikode
on 29th June 1995.

INSTITUTE MANAGEMENT COMMITTEE (IMC) MEETING

IMC was convened on 13th October
1995. The new Assistant Director
General (PC), Dr. R. N. Pal attended
the meeting.

IMC Honours Scientists.

The Institute Management Com-
mittee honoured the IISR scientists
Mr. B. Krishnamoorthy and Dr. B.
Sasikumar for their fete in developing
new varieties of cinnamon, ginger
and turmeric, respectively.

POLICY COMMITTEE MEETING

Policy Committee of IISR, met on 6th
December 1995 and discussed about
the various policy matters.

DISTINGUISHED VISITORS

Mr.C. T. Mein, Hon. Minister for
Horticulture, Arunachal Pradesh and
Mr. D. B. Maji, Director of Horticulture,
Government of Arunachal Pradesh
Visited IISR, Kozhikode and the research

farm at Peruvannamuzhi on 21st July 1995.

Dr. M. V. Rao, Vice Chancellor, APAU, Andhra Pradesh, 7th July 1995.

Dr. V. N. Rajasekharan Pillai, Prof. & Director, School of Chemical Science, Mahatma Gandhi University, Kottayam, 7th July 1995.

Dr. S. R. Sree Rangaswamy, Director Centre for Advanced studies Hosur, Tamil Nadu, 7th July, 1995.

Dr. M. K. Nair, Director, CPCRI, Kasaragod, 7th July 1995.

Dr. R. N. Pal, Assistant Director General (P. C) ICAR New Delhi, 7th July, 1995.

Dr. U. B. Pandey, Director & Mr. K. Ahmed Ismail, Vice President of NHRDF, Nasik, 7th October 1995.

Dr. M. R. Sethuraj, Director, Rubber Research Institute of India Kottayam, 27th October, 1995.

Dr. A. Abdul Kareem, Director, UPASI, Tea Research Institute Valparai, 27th October, 1995.

Mr. Ranga Rao, Chairman, Fresh co-operative Marketing Federation Hyderabad, 30th October, 1995.

Dr. M. R. Das, Director, Rajiv Gandhi Centre of Biotechnology, Thiruvananthapuram, 3rd November, 1995.

RESEARCH COUNCIL MEETING

The Ninth Staff Research Council of IISR, Kozhikode was held during 8-10th November, 1995. The progress of work made in 32 research projects and nine ad-hoc schemes were reviewed in the SRC. Dr. P. C. S. Nair, Director of Research (Retd) KAU, attended as an external expert.

Consequent upon the upgradation of

the NRCS to Indian Institute of Spices Research, the projects were also re-classified under the following divisions Viz. Crop Improvement & Biotechnology, Crop Production, Crop Protection, Post Harvest Technology and Social Sciences.

NEW ADG (PC)

Dr. R. N. Pal has taken over as the new Assistant Director General (Plantation Crops), ICAR, New Delhi in the event of Dr. P. Rethinam, relinquishing the charges of ADG (PC) to join as Director, NRC (Oil Palm).

DEPUTATION ABROAD

Mr. Johnson K. George, Scientist Sr. Scale, attended the International training course on 'Conservation and Utilization of Plant Genetic Resources', organised by DSE / ZEL 18th August to 12 September 1995, Leipzig, Germany.

New Adhoc Schemes Sanctioned

1. Developmental Morphology of rhizomes of ginger and turmeric.
2. Characterisation, early detection and management of 'Kokke Kanadu', disease of cardamom.
3. Production of somaclones and somatic hybrids of cardamom (*Elettaria cardamomum* Maton for high yield and resistance to diseases).
4. Integrated management of rhizome rot of ginger.
5. Developing hardening protocols for tissue cultured plants of spices.
6. Investigation of cardamom based cropping systems.

STUDY CIRCLE

The study circle met 9 times and approved eight research papers.

PHD AWARDED

Sri. P. Rajeev, Scientist (Agri. Extension) Cardamom Res. Station IISR, Appangala has been awarded Ph.D Degree in Agricultural Extension by IARI New Delhi.

COMING EVENTS

National seminar on Spices Biotechnology.

The Indian Society for Spices Kozhikode in collaboration with IISR, and ICAR, will be organising a National Seminar on Biotechnology of Spices and Aromatic Plants (BIO SAAP) during April 24-25, 1996.

IISR LIBRARY EXPANDS

IISR Library is growing in volume and size. To accommodate the increasing volumes of periodicals, books and reprints, the library is being expanded by acquiring more space. Visiting scholars and research workers of the institute will be benefited by this space expansion.

During July - December 1995, library procured 89 books, 98 bound volume of periodicals and 25 reprints in addition to Annual Reports, Technical Reports, Newsletters etc from other Institutes. Two issues of 'Agri. Sci. Tit Bits' and six issues of 'Content Page Services' were brought out by the Library and distributed to scientists, research institutes and KVK. 'Spices Bibliography' part I & Part II was compiled and published in the Journal of Spices & Aromatic Crops.

PERSONNEL

APPOINTMENTS

Name	Designation	Posted at	Date of joining
Dr. (Ms). A. B. Remashree	Research Fellow	Kozhikode	7 - 7 - 1995
Dr. (Ms). K. K. Sherlija	Research Fellow	Kozhikode	7 - 7 - 1995
Sri. E. V. Ravindran	JTA (TI)	Peruvannamuzhi	7 - 7 - 1995
Dr. S. Ravi	Trg. Asst. -cum- Tech. Asst. (T-II-3) (Animal husbandary)	Peruvannamuzhy	17 - 7 - 1995
Dr. C. Dileep	Research Associate	Appangala	24 - 7 - 1995
Ms. C. S. Kavitha	Trg. Asst. -cum- Tech. Asst. (T-II-3) (Home Science)	Peruvannamuzhy	26 - 7 - 1995
Dr. S. Shanmughavel	Tech. Officer (T6)	Peruvannamuzhy	3 - 8 - 1995
Mr. V. Prabhakar	Research Associate	Appangala	3 - 8 - 1995
Mr. M. G. Prakash	Tech. Asst.	Kozhikode	7 - 8 - 1995
Mr. A. Sakeer Hussain	Tech. Officer (T6) Agrl. Extension	Peruvannamuzhy	11 - 9 - 1995
Mr. V. C. Sunil	Jr. Clerk (Hindi Typist)	Kozhikode	1 - 11 - 1995
Mr. K. A. Saju	Research Associate	Appangala	6 - 11 - 1995
Ms. N. Prasannakumari	Hindi Translator	Kozhikode	23 - 12 - 1995

PROMOTIONS

Name	Promoted as	With effect from
Mr. M. M. Augusthy	Tech. Officer (T5)	1 - 1 - 1995
Mr. K. Kumaran	T - 1 - 3	1 - 1 - 1995
Mr. N. P. Padmanabhan	T - 1 - 3	1 - 1 - 1995
Mr. K. Ananda	T - 1 - 3	1 - 1 - 1995

TRANSFERS

Dr. T. G. Nageshwara Rao, Sr. Scientist (Pl. Pathology) transferred to Directorate of Oil Seeds Research, Hyderabad on 2 - 8 - 1995.

Mrs. K. P. M. Dhamayanthi, Scientist Senior Scale (Genet. & Cytogenet.) has joined at IISR, Kozhikode on transfer from CPRI RS, Patna on 16 - 10 - 1995

RESIGNATION

Ms. Reeny Mary Zachariah, Tech. Asst. DBT project resigned on 17 - 7 - 1995.

Ms. M. R. Bindu, Research Asst. DBT Scheme resigned on 4 - 12 - 1995.

Mr. V. Prabhakar, Research Associate resigned on 11 - 12 - 1995

Dr. C. Dileep, Research Associate resigned on 26 - 7 - 1995

DEPUTATION

Mr. K. S. Sreekumaran, Sr. Clerk, went on deputation as Superintendent to CMFRI, Cochin wef 16 - 10 - 1995

WEDDING

Mr. K. D. Pratapan, Tech. Officer, KVK with **Ms. Bindu** On 4 - 9 - 1995

Mr. S. Harendrakumar, Jr. Clerk with **Ms. Radhika** on 26 - 10 - 1995

Ms. M. R. Bindu, Research Asst. with **Mr. Sudhir** on 1 - 11 - 1995

Congratulations and Best wishes to the Married Couple !

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