

Popularise Poison free farming : Minister

Perturbed by the predominance of pesticide residues in vegetables, Minister for Agriculture and KAU Pro-Chancellor K.P. Mohanan advocated a public campaign to revive homestead vegetable gardens and promote chemical free farming in Kerala.

Addressing a conclave of scientists at KAU HQ on 12 May 2012, he said that Public should be educated about the results of residual analysis in vegetables.

'Majority of the vegetables flooding Kerala Markets are not produced in the state and the content of hazardous chemical in them are alarmingly high. Even the most commonly used items like curry leaves are found very dangerous. Each KAU research station should adopt adjoining village and promote homestead farming' The Minister said.

K.R. Jyotilal IAS, Acting Vice-Chancellor stressed on collective efforts to make KAU's presence felt. 'Research should be result oriented and technologies should be techno-economically feasible.



Agri Minister K.P. Mohanan and Vice-Chancellor K.R. Jyotilal IAS addressing the scientists

Quality of breed should be matched by quality of management. Collaborative efforts with industrial units will be initiated to popularise farm machinery and implements.' Vice-Chancellor said.

The meet discussed ongoing research programmes, results achieved, problems confronted and possible solutions proposed. Dr. Sverup John, Dean (Agri.); Dr. M. Sivaswamy, Dean (Agrl. Engg); Dr. T.R. Gopalakrishnan, Director of Research; Dr. P.V. Balachandran, Director of Extension; Dr. P.K. Asokan, Director of Academic; Dr. Sajan Kurien, Director of Planning; Associate Deans, Associate Directors and all heads of stations in KAU participated.

New Hybrids of Cucumber & Bitter gourd Developed

Gynococious F₁ hybrids of Cucumber, Hybrids of Bitter gourd, and three bacterial resistant Tomato lines developed by KAU scientists have been recommended for large scale farm trial under polyhouses in Farmers fields at Palakkad and Trichur districts. These hybrids will be released for farmers' use after successful completion of farm trials.

The recommendations were made by 34th ZREAC meeting of the Central Zone conducted at RARS, Pattambi on 18.5.2012. The meeting chaired by Dr. T.R. Gopalakrishnan, Director of Research was inaugurated by Sri. K. K.

Chandran, Additional Director of Agriculture, Kerala. Dr. P.V. Balachandran, Director of Extension, KAU, delivered special address and Dr. I. Johnkutty, ADR (CZ) welcomed the gathering.

The Cucumber hybrids developed by Dr. Pradeepkumar, T, is suited for Polyhouse cultivation, which is set to gain momentum in the state with the construction of 3000 polyhouses envisaged in the current state budget. It is also expected that F₁ hybrid seeds can be produced at a cheaper rate affordable

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Weed Scientists' Meet: MP Calls for Bio Control measures

P.C. Chacko MP exhorted weed scientists to evolve effective measures to arrest environmental degradation and intolerable contamination of water bodies due to herbicide residual effects.

Inaugurating the biennial Conference of Indian Society of Weed Science (ISWS) at KAU the MP suggested that biocontrol



P.C. Chacko MP inaugurates ISWS Biennial Convention

measures should be evolved, practiced and popularized.

Dr. T.V. Muniyappa, ISWS President, presided. Dr. Sushil Kumar, Secretary, ISWS; Dr. T.R. Gopalakrishnan, Director of Research, KAU; Dr. P.V. Balachandran, Director of Extension, KAU; Dr. A.R. Sharma, Director, DWSR, Jabalpur and Dr. C.T. Abraham, Vice President, ISWS & Associate Dean, CoH participated.

KAU Helps Pokkali Farmers Win National Award

Plant Genome Saviour Community National award has been conferred upon Pokkali Rice farmers of Kerala, thanks to the efforts of KAU. The award, consisting of Rs.10 lakhs and a citation, instituted by PPV&FR Authority, Govt. of India was received by the representatives of pokkali farmers and KAU on 21 May 2012.

The national award is a reward for the collective efforts of Pokkali farmers and KAU Scientists in conservation and sustainable utilisation of Pokkali germplasm and the registration and protection of Pokkali rice as a Geographical Indication. Rice Research Station, Vytilla and IPR Cell of KAU pioneered the cause with technical support and nomination of this unique farming system for the award.



Director of Research, KAU, Pokkali farmers and KAU IPR Cell Convenor with Prof. M.S. Swaminathan and Dr. Charan Das Mahant, Union Minister of State at the award ceremony

Pokkali, the most gifted saline tolerant rice variety from Kerala, has been recognised by IRRI, Manila as the unique donor of *Sal Tol* gene.

The Pokkali tract represents the low lying coastal saline areas where no other type of agriculture would ordinarily be possible due to perennial problems of salinity,

high acidity and submergence. Traditional practices coupled with research inputs and technological support extended by KAU's Rice Research Station, Vytilla helped sustenance of cultivation in this tract. KAU's IPR cell obtained GI registration for the variety.

The tall statured traditional pokkali varieties with a duration of 120 days under organic farming produce medium bold grains of red rice with an average yield of 2.0 to 3.0 tons/ha. Pokkali varieties possess great medicinal properties due to the high content of Iron, Zinc, Potassium and antioxidants (oryzanol, tocopherol, tocotrienol etc). Many researchers, within and outside India, have been keen on pokkali varieties, their germplasm and characteristics.

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Legislative & Financial support Sought for Agro-processing

Two day workshop on Agro processing and value addition - strategies and action plan for 12th five year plan jointly organised by Small Farmers' Agri Business Consortium(SFAC) and KAU at College of Cooperation,



K.R. Jyotilal IAS inaugurating the exhibition of Value added agro products organized along with the Workshop

Banking and Management, Vellanikkara called for progressive legislations and financial support for value addition entrepreneurship.

K.R. Jyotilal IAS, KAU Vice-Chancellor set the tone with an inspiring key note address. K.R. Jyotilal, who is also the Secretary to Govt. (Agri.), in his address stressed the need to open new horizons in value addition in Kerala Agriculture.

'Pre harvesting technologies have landed us on a safe footing as far as production is concerned. Instead of harping on the success of Green revolution we have to launch an ever green revolution by adapting economically viable and technically feasible technologies for value addition.'

'Researchers should ensure support for indigenous industries while developing technologies for value addition. Isolation of bio active molecules from medicinal plants is an excellent opening for Kerala. We should learn to bank on the rich bio diversity of our state' He said.

K.K.Ramakrishnan, MD, SFAC; Dr.P.V.Balachandran, Director of Extension, KAU; Dr.T.R.Gopalakrishnan, Director of Research, KAU and Dr.A.Sukumaran, Associate Dean, CCMB participated in the inaugural session.

The workshop also stressed the need for quality standardization of the food products and a single window system for certification. The requirement of Standards for native value added products apart from GAP and GMP were also pointed out.

An exhibition of value added agro products was also organized in connection with the workshop. Recommendations of the workshop is expected to guide the policy decisions in the field.

Group Meet on Arid Legumes Focus on Strategic breeding

RARS, Pattambi hosted the 28th Annual Group Meet on Arid Legumes on 26th and 27th May 2012.

Dr. B. B. Singh, ADG (Oil Seeds & Pulses) inaugurated the meet in a function chaired by Dr. T. R. Gopalakrishnan, Director of Research, KAU. Dr. Singh stressed the importance of strategic breeding and research work in the field of Arid Legumes. He also released technical bulletin on 'Five Decades of Arid Legumes Research in Kerala'. Dr. P. B. Pushpalatha, Registrar, KAU stressed the need to address the post-harvest aspects and value addition of pulse crops in the state; Dr. A. Henry, Project Coordinator (Arid Legumes) presented the report. Dr. I. Johnkutty, Associate Director of Research and Dr. B. B. Singh, Emeritus Scientist, GBPUAT, Pant Nagar spoke.

The presentation of research highlights of 2011-12 was followed by discipline wise programme formulation for 2012-13. CRHG - 19, a horse gram variety from CRIDA, Hyderabad was identified for Kharif cultivation in southern states. PGCP - 6, a disease resistant cowpea variety with a seed yield of 1.3 t/ha in 72 days was identified for summer/spring cultivation.

Academic Council for reframing Agri education System

KAU Academic Council decided to reframe pattern of the agricultural education through a shift from exam centric system to learner centric system and introduction of continuous evaluation programmes.

'Agricultural Education and research is the foundation of livelihood and food security of the society. Delivering best quality education in Agriculture and allied branches is a commitment. Post Graduate research projects should be problem oriented and technology generating' said K.R. Jyotilal IAS, Acting Vice-Chancellor.

The 118th meeting of the council constituted a committee of senior officers to propose measures for refining and improving academic standards in KAU after studying



Vice-Chancellor addressing the Academic Council

the systems in vogue at IIMs, IITs, IISc and IARI.

The meeting chaired by Vice-Chancellor was attended by Dr. P. B. Pushpalatha, Registrar; Dr. P. K. Asokan, Academic Director; Dr. Sverup John, Dean (Agriculture); Dr. M. Sivaswamy, Dean (Agri. Engg); Dr. P. V. Balachandran, Director of Extension; Dr. T. R. Gopalakrishnan, Director of Research; elected members and heads of academic institutions.

Forestry Matures to faculty status



The Governor of Kerala and Chancellor of KAU has accorded assent to the proposal to establish a full-fledged Faculty of Forestry in KAU. Thus Forestry joins Agriculture and Agricultural Engineering as the third faculty in Post trifurcation KAU.

Hitherto the College of Forestry was functioning under the Faculty of Agriculture. The decision to accord faculty status to forestry taken in view of the increasing relevance of forest studies and research and the need impart for more thrust to the academic and research programmes under its fold. It is expected to boost the academic, research and extension activities in Forestry Sector.

CoF, established at Vellanikkara in 1986 is the sole institution for forestry education in the state. The ICFRE accreditation team (2009) rated it as one of the two best forestry colleges in India with A** rating. The college, over the years, has made steady progress on the academic and research fronts and won several national level recognitions.

CoF students have bagged many ICAR research fellowships and 29 alumni of CoF are in the Indian Administrative/Forest Service while many others work in the state and central governments as natural resource managers. The IFS 2011 topper is also from this college.

Virtues of Healthy Reading Highlighted

The reading week celebrations organized at CoH, Vellanikkara stressed the need to revive healthy reading habits.

Inaugurating a seminar on Modern Trends in Reading on June 21, Dr. Praveen Lal, Dean, Kerala University of Health & allied sciences said that creative learning is possible only through reading. Prof. Lalitha Lenin, former Head, Dept. of Library Science, University of Kerala pointed out that many great careers were built on the foundation of reading.

The National Seminar on Library & Web tools for e learning and Teaching held on June 25 was inaugurated by Dr. P. B. Pushpalatha, Registrar, KAU. The seminar highlighted the wide disparity in information resources among institutions, individuals and societies.

Dr. P. V. Balachandran, DE; Dr. T. R. Gopalakrishnan, DR; E. U. Rajan, DSW; Dr. C. T. Abraham, Associate Dean, CoH; K. P. Sathyan, University Librarian; Gleena Mary and J. S. Sabarinath, Students representatives; Dr. C. George Thomas, Professor; Dr. A. T. Francis, CoH Librarian and Humayoon Kabir, Secretary KLA Thrissur region participated.

Academic Excellence Awards Distributed

K.R. Jyothilal IAS, KAU Vice-Chancellor, asked the student community to use education for harnessing creative and productive abilities rather than earning a living.

Presiding over a function organized for the distribution of Sardar Patel Outstanding ICAR Institution Award Endowment Prizes for academic excellence and inauguration of new KAU placement cell website, Vice-Chancellor urged the students to emulate dark clouds. 'Silver clouds may be attractive, but only dark clouds become productive. So come from the bottom, rise to the top and provide relief to the earth and its inhabitants. The academic brilliance should lead



Vice-Chancellor's appreciation for academic excellence

towards generation of technology because future is fully dependent on technology,' he said.

M.P.Vincent MLA, gave away the prizes to fourteen students who excelled in different streams of study in 2009 and 2010. The awards should prompt students to make significant contributions for

agricultural prosperity of the state. The future is in your hands' he said.

The awardees were Remya Vasudevan, Jess Vergis (BVSc & AH); Asha eapen, Remya. R.S (BSc-Agri); Shruti Thomas, Vikrant (BTech-Dairy Engg); Rani.P.R, Indulekshmi (BTech- Agri Engg); R. Keerthi, Sabinamol (BSc-Forestry) and Remya R Nath, Aswathi Balakrishnan (BSc-C&B).

Avinash Reji Thomas, Dr. Jiju. P. Alex and K.Gireendra Babu, GC Members; KAU Registrar Dr.P.B.Pushpalatha; Deans of Faculties; Directors of Academics, Research and Student welfare; Academic Council members and Associate Deans participated.

KAU INTRODUCE SEED VENDING DEVICE

Seed Vending device introduced by KAU has attracted the attention of public, farmers and policy makers alike.

Following the installation of first machine at CoA, Vellayani, steps have been initiated to popularize it among farmers and the public with the help of Department of Agriculture and the State Horticulture Mission.

Public can obtain a Vegetable seed packet of choice from the easy to operate device by inserting a 10 rupee note. The machine is programmed to hold 960 packets of vegetable seeds (160 packets each of 6 varieties, 20 packets each of 48 varieties or similar options) under refrigerated conditions.

This innovative arrangement is the result of the research intervention by KAU under the RKVY project **Boosting vegetable production in Kerala through technology innovation and mission mode activities for food and nutritional security** with Dr.L. Rajamony, Professor as the Principal Investigator. A team of Scientists consisting of Dr. M. Abdul Vahab, Dr.V.A. Celine, Dr. I. Sreelathakumary, Dr. M.L. Jyothy, Dr. Jessy M. Kuriakose, Dr. K.B. Sheela, Dr. C. Mini, Dr.V.B. Padmanabhan and Dr. P. Rajendran was involved in the effort to develop the device in association with SEAGA, a Delhi-based company.



Dr. L. Rajamony explains the functioning of Seed Vending device

Mango Fest set to spread wings

Madhuram 2012, latest edition of Malabar mango fest, organized at CoA, Padannakkad from 19 to 24 May 2012 turned out to be sweet attraction for the public.

The overwhelming response has prompted the organisers of the exhibition to make it a national level event from next year. The annual event, jointly organized by KAU, Kasargod District administration, District Tourism Promotion Council, Horticulture Mission and Department of Agriculture aims at promoting cultivation of mango varieties, strengthening agro forestry and popularizing value added products.

Besides the exhibition, the fest also offers opportunities to gather knowledge, harness skills and earn entertainment through seminars, training programs and cultural evenings.

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Hybrids of Cucumber & bitter gourd

to farmers since gynocious technology is involved.

Four F₁ hybrids of bitter gourd developed by Dr. C. Narayanankutty of ARS, Mannuthy have also been recommended for farm trials. They are MN BH-1 (Mannuthy Bittergourd Hybrid I), MN BH-2, MN BH-3 and MN BH-4. MN BH-1, MN BH-3 and MN BH-4 are white coloured hybrids whereas MN BH-2 is green coloured. They have a productivity ranging from 27 to 33 tonnes per ha.

LE 643-1, a high yielding indeterminate tomato developed by Dr. P. Indira of Olericulture Department is found suitable for

cultivation in rain shelter as well as open field. It gives a yield of up to 3.5 kg /plant. LE 66 and LE 1-2, two tomato lines developed by Dr.C.Narayanankutty, have larger fruit size. Experiments at ARS, Mannuthy has also found two carrot varieties (Super Kuroda and Pusa Rudhira) and one raddish variety (Acc. 1002) adaptable for Kerala's climate. Chilli accession CC-85, Photo-insensitive AK-21 and AK-42 of horsegram, RC101 and GC-3 of cowpea, 292 R of ginger, hybrid of black pepper, TCRSA - 497 and 485 of Asoka were found promising and were recommended to be included in Package of Practices.

Best Thesis Award

Musthafa Kunnathadi, Asst. Professor (Agronomy), KAU was conferred the Best PhD Award 2011 by Indian Society of Weed Science (ISWS). Musthafa Kunnathadi completed his research on **integrated weed management under system of rice intensification** under Dr. C.T. Abraham, Associate Dean CoH, Vellanikkara.,



KAU Scientist gets SADHNA Award

Dr.N.Kishorekumar, Professor (Agricultural Extension), CoA, Vellayani has been conferred the Achiever's Award 2011 by Society for Advancement of Human and Nature (SADHNA), Dr.Y.S.Parmar University of Agriculture & Forestry, Himachal Pradesh. citation, plaque and life membership of the Society.

ACCER Student bags Gold Medal

Anjali C Bose, student of ACCER (Academy for Climate Change Education nad Research) under KAU, won two gold



medals in Team events and two bronze medals in individual events of the Kerala Cup Air Weapon Shooting Competition 2012 organized by the SSFI (Shooting Sports Federation of India) at Thiruvananthapuram in June 2012.

Best poster Award for KAU Student

Ms. Binisha K.V., II year MSc(Ag) student of the Department of Agricultural Entomology, College of Horticulture has bagged the Best poster presentation award in the IV National Symposium on Plant Protection in Horticultural crops; Emerging Challenges and Sustainable Pest Management held at IIHR, Bangalore during 25-28 April 2012. The award winning research paper entitled **Seasonal abundance of phytophagous and predatory mite fauna in brinjal** is authored by Binisha, K.V. Haseena Bhaskar and Sosamma Jacob.

Achievers Honoured

College of Forestry felicitated the alumni who came out with flying colours in IFS, RFO and SRF examinations 2011. P.C.Chacko M.P, gave away the prizes to Keerthy.R (First rank, IFS); Sumesh Soman (20th Rank, IFS); Sneha and Aneesh (Top ranks in ICAR SRF exam) and Rakesh, Shabeen, Sindhumathy, Mohanraj & Krishnadas (top ranks in Range Officer-Forests examination).



Dr.B. Mohankumar, Associate Dean; Dr.P.K.Asokan, Acad Director; Dr.P.V. Balachandran, Director of Extension; Dr.T.R. Gopalakrishnan, Director of Research; Student representative Kiran Thomas, PTA President Venugopal and PTA Secretary Dr. Kunhamu felicitated the winners.

FFS model of Organic Farming

A group based Farmers' Field School activity floated by Kannur KVK of KAU has induced an organic farming culture among enthusiastic farmers. The FFS encourage farmers take up organic farming through simple experiments, farm trials, regular field observations and group analysis of organic practices. The process in turn help the farmers develop expertise and evolve their own organic crop management practices.

The organic farming practices deployed under the guidance of KVK have led to considerable increase in organic matter levels and sustainable growth of micro flora in the soil. Nutrient self sufficiency of the fields has been ensured through use of bio fertilisers. A comparative study also revealed that pest and disease infestations were relatively less in organic plots.

Herbal Human Garden

A garden of medicinal plants based on human structure has been designed and laid out at the College of Agriculture, Padannakkad. The



herbs are arranged according to their relevance to important human body parts like hair, brain, eye, ear, mouth, throat, liver, pancreas, heart, lungs, stomach, urogenital organs and general health tonics & cosmetics. The garden designed by Dr.A.Rajagopalan, Professor helps visitors to easily identify each plant and comprehend its medicinal value.

AICRP Meet on Weed Control

The XXth Biennial Conference of AICRP on Weed control held at CoH called for accurate and reliable analysis of herbicide residue in food chain, soil and ground water. The meet also stressed the need to formulate and popularise bio control practices for weed management in edible crops.

Dr.T.R. Gopalakrishnan, Director of Research inaugurated the conference in a function presided over by Dr.P.V.Balachandran, Director of Extension. Dr.C.T.Abraham, Organising Secretary, Dr.J.P.Dubey and Dr.P.S.John participated. Dr.P.B.Pushpalatha, KAU Registrar chaired the plenary session.

The conference led by Dr.A.R.Sharma, Director, DWSR, Jabalpur assessed the performance of various centres and formulated action plan in Weed survey and Surveillance, Weed management in cropping systems, study of herbicide residues and toxicity including adsorption/desorption of herbicides, physiological and climate change studies and transfer of technology.

High level team visits Hi-tech Agri farms

A high level team led by K.R. Jyotilal IAS, Vice-Chancellor, KAU and Secretary to Govt (Agriculture) visited advanced poly house cultivation units in Pune.



K.R. Jyotilal IAS and other members of high level team at Agricultural college, Pune

The Vice-Chancellor said that the visit was undertaken to have first hand knowledge about hi-tech agriculture systems so as to figure out the technologies employed in such systems.

'Government of Kerala is planning to promote hi-tech agriculture. The state budget has envisaged greenhouses in all Panchayats. Though the University has also made several studies, adoption of advanced technology appropriate to the state and marketing aspects have become imperative. The visit to Pune is the first attempt in this direction. We visited several greenhouses in public as well as private sector. We'll have few more study trips before finalizing the crops and technologies to be used in the proposed units.' The Vice-Chancellor said.

The team included Dr.P.Rajasekharan, Chief (Agriculture), State Planning Board; Dr.P.K.Rajeevan, Professor, KAU; Dr.K.Prathapan, Director, SHM; Sri. R. AjithKumar, Director of Agriculture; Dr. G. Chauhan, Consultant; Sri. Shivadas Menon, Entrepreneur and Dr. P. Susheela, Associate Professor, KAU.

Commercial Production of Paddy Mat nursery Planned



Paddy mat nurseries produced at ARS, Mannuthy

As part of numerous initiatives to enhance production and productivity of paddy in the state KAU is planning commercial production of paddy mat nursery.

Agricultural Research Station (ARS), Mannuthy under KAU has acquired a Chinese made automatic rice nursery sowing machine which automate all the processes involved in the raising of mat nursery viz; spreading soil, sprinkling water, sowing seeds, covering soil in the trays at a stretch.

In order to set up paddy mat nursery commercial enterprise, the station is pursuing research on best mat nursery media, transportability and efficiency in transplanting. The containers required to transport the paddy mat trays to distant places will be developed by the station.

Attempts are also on to streamline the commercial production and distribution of paddy mat nursery to farmers on advanced booking. Such paddy mat nursery enterprises are functional in countries like Philippines, Malaysia etc. Ready to transplant mat nursery trays will be of great help to farmers.

ARS has already introduced a comprehensive farm mechanization package by adapting machines for all activities from sowing to harvesting. Ridge plastering, the lone activity continued to be performed manually has also been mechanized with the introduction of a new machine. The mechanized ridge plastering not only speed up the process but also help to cut down the cost by 90%.



The Ridge Plastering machine in operation