





QUARTERLY NEWSLETTER OF INDIAN AGRICULTURAL UNIVERSITIES ASSOCIATION

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Spot News

Dr Mahesh Chandra Sharma joined as Director, IVRI, Izatnagar on 14 September 2009. Born on 7 January 1952 in Aligarh district of Uttar Pradesh, he did graduation (1953) in veterinary science and animal husbandry and post-graduation (1977) and doctorate (1985) with specialization in veterinary medicine. He was awarded UGC fellowship for P.G. and Ph. D. programmes at G.B Pant University of Agriculture and Technology, Pantnagar.

Dr Sharma started his scientific career as Scientist S-I in the Division of Veterinary Medicine at IVRI, Izatnagar following his selection in Agricultural Research Service of ICAR in 1978. He was deputed as Indian Livestock Expert and polyclinic at Buffalo Breeding Research Centre, Song be, Vietnam from 1982 to 1984. He served as ITEC expert to the Government of



Dr M.C. Sharma

Mauritius, where he contributed to the identification of several animal-health problems, and developed a project for micro- and macro-nutrient deficiency diseases in bovines. On return to India, he worked in different capacities as Scientist S-2 and Principal Scientist in Division of Veterinary Medicine. He served at GBPUAT, Pantnagar as Professor and Head, Department of Preventive Medicine and as Joint Director (Veterinary Extension) from 1996 to 2000. While working as National Fellow of ICAR, he was selected as Joint Director (Extension Education) at IVRI. He served as Director, Central Institute of Research on Goats at Makhdoom, Farah, Mathura during 2008-2009 before joining as Director, IVRI, Izatnagar.

Dr Sharma contributed to more than 30 research projects of national and international importance and received a number of national, international and team awards. Some of these awards are: Vigyan Shree Upadhi Award (1996), Hari Om Ashram Trust Award of ICAR, 1997, Eminent Agriculture Scientist Award from U.P. Council of Agricultural Research for the year 2003-2004, Rafi Ahmed Kidwai Award (2004), National Academy of Agricultural Sciences Recognition Award (2005), National Technology Innovation Award of Science and Technology (2005), Bharat Excellence Award (2005), Life-Time Achievement Award of Mobilization (2005) and Appreciation Award of Rotary Club (2005). Dr Sharma received WIPO international award from Geneva (2006) for his pioneering and valuable contributions to intellectual property management in India, and Certificates of Appreciation from Government of Mauritius (2001) and the Government of Malayisa (2004). He was nominated as Co-ordinator for SAARC countries by International Tropical Veterinary Association in recognition of his professional services.

Dr Sharma also received the fellowships of IAAVR (1997), National Academy of Veterinary Sciences (1999), Indian Society of Veterinary Medicine (2000), National Academy of Agricultural Sciences (2003) and Mobilization (2005), besides receiving Smt. P. Z. Sharma Gold Medal for Canine Medicine (1997), ICAR National Fellow (2000), Shri Ram Lal Agarwal Award (2002), Dr C.M. Singh Award (2004), Dr D.C. Blood Gold Medal and Best Clinical Award. He was elected President, Indian Society for Veterinary Medicine in 2002.

Dr Sharma wrote or edited more than 40 books/compendia/bulletins/manuals in veterinary science and allied subjects. He published more than 250 research papers in national and international journals of repute. He guided 16 M. V. Sc. and Ph.D. students of Veterinary Medicine. He registered 11 technologies for award of patents, of which two received the patent grants. The technologies piloted by him were licensed to 10 reputed commercial houses. His contributions to the development of technologies on area-specific mineral mixture for Uttar Pradesh, Uttaranchal and Delhi states are in use. Olinall, a skin ointment patented by him, received wide appreciation. Under his dynamic leadership as Director, CIRG, the Institute bagged three ICAR awards, and three awards from Ministry of Home Affairs, Government of India.

NEW VCs

Dr K.S. Khokhar takes over as VC, CCSHAU, Hisar

Dr K. S. Khokhar joined CCSHAU, Hisar as VC on 11 June 2009. Born on 15 July 1948, he did B.Sc. (Agric.) in 1969, M.Sc. (Entomology) in 1972, and Ph.D. in 1982. He worked in different positions such as District Extension Specialist, Assistant Professor (Entomology), Associate Director and Head, Department of Farming Training, Professor of Entomology, Zonal Coordinator and ADG (PIM), ICAR. He published 100 papers, articles of research or extension in journals and magazines of repute, edited a book, Tenth Five Years Plan: Objectives and Achievements, and prepared 6 training manuals or bulletins. Dr Khokhar was Member Secretary of Board of Management, and Member, Standing Finance Committees, Selection Committees of different centres, University committees and Site Committee for Implementation of the World Bank-aided NATP projects. He is Fellow or Life Fellow of



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several professional societies. He visited the USA, France, Germany, Argentina, Nepal, Belarus and Russia during his service period.

Dr G.C. Tewari takes over as VC, CSAUAT, Kanpur

Dr G.C. Tewari joined Chandra Shekhar Azad University of Agriculture and Technology, Kanpur as VC on 3 July 2009. He was born on 30 June 1947, and did his M.Sc. (Agric.) in 1966 and Ph.D. in 1975 in Entomology with specialization in Vegetable Entomology.

Having more than 38 years of experience of teaching, research and scientific management, he has to his credit 88 publications including 84 research papers in journals of international and national repute, and published four books and technical reports. He implemented new



Dr G.C. Tewari

international programmes like Indo-CABI Programme on Biosystematics, Bio-control and Information Service, and ICAR-IRPM-USDA Joint Project on Insecticide Resistance etc. He started new national programmes like Network Project on Heliothis management, National Network on Zygogramma for parthenium control and American sepentine leaf-miner. He developed farmer-friendly IPM for major vegetable crops, discovered baculo virus in eggplant fruit-borer for the first time, developed a versatile technique for staining insects inside the plant tissues and ready reckoners for pest-management decision in vegetable crops for the first time, and identified the sources of resistance in chilies against thrips and in brinjal against jassids.

Dr Tewari worked as Lecturer at Government Agricultural College, Kanpur for 6 ½ years, as Vegetable Entomologist at IIHR Bangaluru; and at the ICAR headquarters for 26 years as Assistant Director-General, HRD, Food and Fodder Crops, and Education Planning and Development. He visited the USA, Philipinges, Pakistan and Bangladesh and participated in many international symposia or conferences. As ADG

(Education Planning and Development), ICAR, he brought about improved teaching and learning environment in agricultural universities.

Dr N.C. Patel takes over as VC, JAU, Junagadh

Dr Naginbhai Chandubhai Patel was appointed acting Vice-Chancellor of Junagadh Agricultural University, Junagadh on 1 June 2009 and as its VC on 7 August 2009.

Dr Patel, born on 1 July 1956, did his B. Tech. (Agric. Engng) from CTAE, Udaipur (Rajasthan) in 1978, M.Tech. in 1980 and Ph.D. in 1993 from IIT, Kharagpur (West Bengal) in Agricultural Process Engineering. He served as Principal and Dean, College of Agricultural Engineering and Technology, JAU, Junagadh since 2001 before joining as VC. He also served at National Seeds



Dr N.C. Patel

Corporation, New Delhi; M/s Jyoti Ltd, Vadodara; and in Department of Agriculture, Government of Gujarat, Navsari as Agricultural Engineer (GAS II). Dr Patel made commendable contributions in the field of Agricultural Processing and Value Addition. He is Member of seven national and international societies. He was awarded for his remarkable contributions in teaching, research and extension activities. He guided 13 M. Tech. and Ph.D. students in Agricultural Processing. He published 27 research papers in international and national journals, and several popular articles on agricultural process engineering in Gujarati and English. He attended more than 32 seminars, workshops and symposia held at national and international levels. He convened 20 seminars of state and national levels.

For his excellent service in the field of Agricultural Engineering, he was awarded Commendation Medal at Central Institute of Agricultural Engineering, Bhopal by Indian Society of Agricultural Engineers, New Delhi. Dr Patel is probably the youngest VC of an Indian agricultural university at the age of 52 years and 11 months.

Focus on Universities: Achievements and Events

DEEMED UNIVERSITIES

INDIAN AGRICULTURAL RESEARCH INSTITUTE, NEW DELHI Teachers' day

The Teachers' Day was celebrated jointly by PG School and Genetics Club, IARI on 5 September 2009. Dr K.V. Prabhu, Head and Professor, Division of Genetics, welcomed the guests and Dr H.S. Gaur, Dean and Joint Director (Education), highlighted the significance of Teachers' Day and of the lecture series organized to mark this occasion. Dr H.S. Gupta, Director, IARI, introduced the Speaker, Dr Swapan Kumar Datta, Deputy Director-General (Crop Sciences), ICAR, and Chairman of the function Dr H.K. Jain, former Director, IARI.

Dr Swapan Kumar Datta delivered a special lecture on The Need of Genetic Engineering for Food Crop Improvement, and emphasized that biotechnology, especially transgenics (GM crops) along with crop breeding could benefit the farmer and the consumer. Sustenance of crop productivity through development of built-in disease



Teachers' day Function

and insect resistant crops as well as increased crop productivity through novel genes and value-added crops would have significant impact in increasing the food supply, thereby help reduce the food prices for poor farmers. Recent achievements in plant genetic engineering for nutrition-rich crops would have a bearing in reducing the malnutrition of the people. Farmers would receive guaranteed high price. However, several concerns on different issues like food safety and beneficiaries of the technology, and conflict between plant varietal protection (PVP) and intellectual property rights (IPR) of gene and technology discovery need to be addressed. Finally, successful product development need extensive field trials and public understanding. Based on the experience of several successful field-evaluations of GM crops, the gene technology combined with precise plant breeding and efficient crop management might provide the benefits the people needed. Once the fruits of genetic engineering in agriculture reached small farms and industrial level operations, everyone could benefit from such a development. Scientists must play a sensible role in the society in convincing the policy makers to expand further the application of biotechnology in modern agriculture and human welfare.

Dr H.K. Jain, chairman of the function, spoke about the success of Green Revolution and the need of plant biotechnology for food-crop improvement.

INDIAN VETERINARY RESEARCH INSTITUTE, IZATNAGAR

OIE recognition to HSADL of IVRI

The High-Security Animal Disease Laboratory (HSADL) of IVRI, Bhopal has been accorded the status of Office International des Epizooties (OIE) reference laboratory for avian influenza. The status was conferred at the 77th General Session of World Organization for Animal Health held from 24 to 29 May 2009 at Paris, France by International Committee headed by Prof Steven Edwards of Biological Standards, Division of OIE. Dr Dharmeshwar Das, Director, IVRI, stated that this recognition for IVRI was the ninth in the world for avian influenza and third in Asia after China and Japan.

UNIVERSITIES

DR BALASAHEB SAWANT KONKAN KRISHI VIDYAPEETH. **DAPOLI**

Sapota Research Laboratory, Palghar

A well-equipped Sapota Research Laboratory at Agricultural Research Station, Palghar, district Thane, received financial assistance of Rs 30 lakhs from Statutory Board for Development of Rest Maharashtra. It was inaugurated on 16 August 2009 by Shri Ullhasrao Pawar, Chairman of the Board in the presence of Shri Vijayrao Kolte, Vice-President, MCEAR, Pune and Dr V. B. Mehta, VC.



Ullhasrao Pawar, Chairman, Statutory Development Board for Rest of Maharashtra Inaugurating Sapota Research Laboratory at ARS, Palghar (M.S.)

Portal on development and maintenance of rice knowledge management

A portal on the NAIP project on Development and Maintenance of Rice Knowledge Management was launched by Dr V.B. Mehta, VC, on 20 August, 2009 at RARS, Karjat in the presence of Dr Shaikh N. Mira, Principal Investigator, Project Directorate of Rice Research, Hyderabad. The ICAR made available grant of Rs 26.87 lakhs for this project to the university.



Dr V.B. Mehta, VC, addressing at Inaugural function of project "Development and Maintenance of Rice Knowledge Management Portal"

Krishidindi 2009

The university and Department of Agriculture, Government of Maharashtra, jointly organized a novel programme, Krishidindi 2009 from 1 May to 31 May 2009 throughout the Konkan region for effective transfer of technology to the farmers. A procession of attractive picture chariots (Chitraraths) on new technologies proved effective for technology transfer. The university scientists guided the farmers about the improved technologies in agriculture and allied fields.

Release of new varieties

Mango: Suwarna

Developed from a cross between Alphonso and Neelum, the hybrid Suwarna has good qualities of Alphonso and is a regular bearer like Neelum. It is free from spongy tissue, has low fibre content and keeping quality of 11 days. Its salient characteristics are: average fruit weight 282.50 g, pulp 78%, T.S.S.



22.5°Brix, acidity 0.24%, total sugar 13.6% and, ascorbic acid 27.7 mg/100 g. It has 35.52% hermaphrodite flowers with cluster bearing habit. The average yield is 72.60 kg/tree from 15-year-old trees. It matures from April to May. This hybrid was recommended for the Konkan region of Maharashtra in May 2009.

Paddy: Ratnagiri - 4

Rice variety Ratnagiri-4 is mid-tall in height (100-108 cm); mid-late in duration (125-130 days); moderately resistant to blast, neck blast and bacterial leaf blight: tolerant to brown plant-hopper, whitebacked plant-hopper, green leaf-hopper and stem-borer. It has long, slender grains, is non-lodging and non-shattering



Paddy: Ratnagiri-4

with an average yield of 4.9 t/ha. This variety was recommended for Konkan region and western Maharashtra in May 2009.

DR Y.S. PARMAR UNIVERSITY OF HORTICULTURE AND FORESTRY, NAUNI

Horticulture and forestry exhibition

A horticulture and forestry exhibition was organized during the state-level Shoolini Fair at Solan during 19-21 June 2009. Dr Rajeev Bindal, Minister of Health and Avurveda, Himachal Pradesh. inaugurated the exhibition. It was very educative and informative, and was witnessed by 9,000 farmers, farm women and other visitors. Live samples of flowers, fruits, vegetables, medicinal and aromatic plants as well as live demonstration of precision farming depicting soil and water-conservation



Dr Rajeev Bindal inaugurating the exhibition

techniques were the main attractions of the exhibition.

Training programme for CHA members from Afghanistan

A training on 'Improved Production Technology of Stone Fruits and Grape' was organized for the staff of Coordination of Humanitarian Assistance (CHA) from Afghanistan by the Directorate of Extension Education from 15 to 29 June 2009. Seven members attended training under Perennial Horticulture Development Programme Training on production tecnology of stone fruits & grape



(PHDP) sponsored by European Commission. The training was practice oriented and focused mainly on production, protection and post-harvest management of stone fruits and grapes. The participants were taken on a field visit to the surrounding areas of Solan, Shimla, Kullu and Ludhiana to expose them to various aspects of

production technology of the fruits.

G.B. PANT UNIVERSITY OF AGRICULTURE AND TECHNOLOGY. **PANTNAGAR**

Release of new hybrid forage sorghum

A new high-yielding multicut forage sorghum hybrid CSH 24 MF, developed by the scientists of Pantnagar university, was released at the 53rd meeting of Central Subcommittee on Crop Standards, Notification and Release of Varieties in Agricultural Crops, held in June 2009. This variety was released for cultivation in the states of Uttar Pradesh, Uttaranchal, Gujarat, Haryana, Punjab



Sorghum: CSH 24 MF

and Delhi under irrigation and rainfed conditions.

It was developed through hybridization of male - sterile parental line (female) ICSA 467 and pollinator parent (male) Pant Chari 6. It gives average green-fodder yield of 913 q/ha (in 3 cuts) and dry-fodder yield of 231 q/ha. In the trials conducted at all-India level, this hybrid with high protein (7.5-8.0%), high digestibility (49-51% IVDMD) and low hydrocyanic acid (90-100 ppm) content along with resistance/tolerance to major leaf diseases and insects and pests, was found distinctly better than other varieties and hybrids of forage sorghum.

New pulse varieties

Three new high-yielding varieties, Pant Lentil-7, Pant Lentil-8 and Pant Pea-74 were identified for release in North West Plains Zone (NWPZ) of the country in the Rabi Pulse Group meeting held at Parbhani (Maharashtra) on 30 August 2009.

Pant Lentil-7 was developed by hybridization of high-vielding varieties of lentil. lentil L-4076 and DPL-15. It gave overall 10.97% more yield than the best check DPL-15 in all-India co-ordinated trials over 3 years. It is resistant to rust and wilt diseases and pod borer pest. It has large seeds (2.93 g/100 seed). It yields 14-16 q/ha and matures in 125-130 days. Pant Lentil-7 has already been released for cultivation in the plains of Uttarakhand by the State Varietal Release Committee in 2008 with a yield superiority of 24.85% over the best check Pant Lentil-5.

Pant Lentil-8 was developed through hybridization of DPL-59 and IPL-105. It gave overall yield advantage of 26.64% over the best check Pant Lentil-4. It is moderately resistant to rust and wilt diseases and resistant to pod-borer pest. It has smaller grains (1.77 g/100 seed) and yields 15-18 q/ha. It matures in 130-135 days. In Uttaranchal, it yielded 24.36% more than the best check Pant Lentil-5.

Pant Pea-74, a dwarf and high-yielding variety of field pea, was developed by hybridizing two different high-yielding varieties, HUDP-6 and Pant Pea-11. It gave

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Pant Pea-74, a dwarf and high-yielding variety of field pea, was developed by hybridizing two different high-vielding varieties, HUDP-6 and Pant Pea-11. It gave overall yield advantage of 23.1% over the best dwarf check KPMR-522 and 15.6% over the tall check DMR-7. It is resistant to powdery mildew and moderately resistant to rust diseases. It is also moderately resistant to pod-borer and stem-fly. It has medium-sized grains (16 g/100 seed), yields 22-24 q/ha and matures in 125-130 days.



Pant Pea-74

National Seminar on Nutritional Strategy

A national seminar on Nutritional Strategies for Improving Quality of Life was organized by the Department of Foods and Nutrition of College of Home Science during 11-12 September 2009 to develop nutritional strategies for solving the problem of malnutrition of high magnitude prevailing in our country. Dr R.T. Patil, Director, Central Institute of Post-Harvest Engineering and



National Seminar

Technology, Ludhiana, presided over the inaugural function. Food scientists, nutritionists, environmentalists, home scientists, genetic engineers, food technologists, public health specialists, sociologists and administrators discussed and formulated strategies to improve the quality of life. The function was presided over by Dr B.S. Bisht, VC. The major recommendations of the seminar are given below.

- Agricultural policies should aim at providing household food and nutritional security. Balanced food production requires promotion of proper post-harvest processing and development of appropriate technologies to extend the shelf-life of various foods.
- School-based intervention including health, nutrition, safe water and sanitation is the key for improving the quality of life.
- Food parks being established by the Government of India should be fully utilized by entrepreneurs.
- There is a need to establish more R& D institutes dealing with food, nutrition, processing and post-harvest preservation of foods.
- Standards are necessary for quality, safety and trade. There is urgent need to establish more quality-testing laboratories, which must be accredited as per Indian or international standards.
- To be globally competitive there is an urgent need to train the personnel for quality analysis of foods.
- There is a need to keep nutrition security on the official list of government priorities for successful nutrition intervention like food-delivery system, nutrient-delivery system, nutrition education, nutrition counselling and nutritional care.
- In addition to awareness generation, propagation of traditional plant foods through backyard gardens, home gardens or community gardens is necessary for increased use among the population.
- It is necessary to include topics related to nutrigenomics in the curricula of Postgraduate programmes in the Department of Foods and Nutrition. The newgeneration scientists should start researches in this direction.
- Safe use of pesticides and agro-chemicals should be on priority in IEC programmes.
- Food industries can take initiatives to use biotechnology and nanotechnology to produce various health foods, nutraceuticals and pharmaceuticals, which can meet the major challenges including food security.

JAWAHARLAL NEHRU KRISHI VISHWA VIDYALAYA, JABALPUR

Tenth Agriunisports

The 10th All-India Inter-Agricultural University Sports and Games Meet, 2009 'Agriunisports' was organized from 3 to 6 March 2009 at the university under the aegis of Indian Council of Agricultural Research, New Delhi. It was organized to promote the spirit of competition, brotherhood and friendship among



10th All-India Inter-Agricultural University Sports and Games Meet

students of SAUs. There were 1,351 participants, including 68 team managers from 35 participating universities.

Dr S.P. Tiwari, Dy Director-General (Edn), ICAR and Prof. G. Kalloo, VC, were the chairmen of various sports events such as volleyball, kabaddi, kho-kho, table tennis, badminton and atheletics. Punjab Agricultural University, Ludhiana was adjudged the champion and UAS, Bangaluru the runner-up. TNVASU, Chennai stood at the third position. The Chief Justice of M.P. High Court, Jabalpur, was the chief guest, and Shri R.N. Singh, Advocate General, M.P. High Court, Jabalpur was the guest of honour. The function was presided over by Prof. Kalloo.

JUNAGADH AGRICULTURAL UNIVERSITY, JUNAGADH

Fourth convocation

The fourth convocation of JAU was held on 9 April 2009. It was presided over by Shri Naval Kishor Sharma, Hon'ble Governor of Gujarat, who conferred the degrees on successful graduate and postgraduate students of various faculties, and distributed 3 gold medals and 25 (gold-plated) silver medals to candidates



Fourth convocation

with academic excellence. Mr Rupesh, a student of College of Agriculture, received 15 (gold-plated) silver medals for his outstanding scholastic performance in different subjects. In the faculty of Agricultural Engineering and Technology, eight gold medals in all were awarded to the students. Shri Vikas Kaul and Shri Pansuriya Narendra Nathabhai got three medals each for their excellent performance in different examinations. Miss Maheta Vaishali Bharat, a student of the faculty of Fisheries Science, got four prizes including one gold medal and two (gold-plated) silver medals and a cash prize. The quest of honour, Shri Dileep Sanghani, Minister of Agriculture and Cooperation, Government of Gujarat, addressed the gathering and congratulated the successful students and gold medalists. Dr Mangala Rai, Secretary, Department of Agricultural Research and Education, Government of India and DG, ICAR, New Delhi, was the chief guest on this occasion. He said that Gujarat was an agriculturally and industrially developed state, and a leading producer of cotton, castor, groundnut, milk and marine fish. Besides these, mango, sapota, mustard, sesame, tobacco and herbs had the potentials for processing. He also pointed out that Gir breed of cow, the pride of Gujarat, needed conservation in pure form. He emphasized the need to establish feed and fodder banks similar to food and seed banks to improve animal health, productivity and survival, particularly during the drought years. For this, the Council launched an initiative on Modernization for Agricultural Universities with an outlay of Rs 422 crores.

Shri Sharma in his presidential address advised the young graduates to read the biographies and works of great men like Gandhiji and Shardar Patel and emulate them. He stated that an educated person should show refinement in character and responsibilities to contribute to the nation. Dr B.K. Kikani, VC, highlighted the activities and reviewed its rapid progress of the University after its bifurcation from GAU. He said that the development of infrastructural facilities would lay a strong foundation for further progress of the university.

Krishi mela

The fifth Krushi Mahostav, and the first Mega Krushi Mela were held from 24 to 26 May 2009 at Junagadh. The Mela was inaugurated by Shri Narendra Modi, Chief Minster of Gujarat. Shri Dileepbhai Sanghani, Minister of Agriculture, addressed the gathering of farmers from Saurashtra region and exhorted them to adopt modern agricultural techniques to



CM Shri Narendrabhai Modi inaugurating the mega krushi mela

increase the production and reduce the cost of production. In the agricultural exhibition, 158 agribusiness firms put up their stalls displaying the best agricultural technologies. In all 1,84,098 farmers and visitors came to the exhibition, and 2,871 farmers participated in the seminars. During this period, national seminars on fruits and vegetable processing and export were held along with nine seminars on different topics. Scientists and industrialists from different parts of the country delivered lectures in the seminars. An exhibition for fruit and vegetable processed products was organized jointly by the Department of Horticulture, JAU and the Department of Horticulture, Gujarat State.

Best castor research centre

In the annual Group Meeting on Sunflower and Castor held at JAU, Junagadh from

21 to 23 May 2009, the university received the award of best castor research centre in India. The workshop was inaugurated by Shri Dileepbhai Sanghani, Minister of Agriculture, Government of Gujarat. Dr V. D. Patil, ADG (Oilseeds & Pulses), I.C.A.R., New Delhi, was chief guest. Dr B.K. Kikani, VC, presided over the function.

Dr D.M. Hegde, Project Director, Directorate of Oilseeds Research, Hyderabad, highlighted the achievements made by Gujarat in the area, production and productivity of castor. He appreciated the sincere efforts made by the scientists of JAU and the farming community for making Gujarat no.1 in castor production and productivity in the world.



Agriculture minister Dileep Sangani and Dr Hegde presenting best research Centre Award



Shri Dileephhai Sanghani, Dr B K, Kikani and dignitaries at inaugurating on function.

Donation for gold medal

Brig. Anil Adlakha, President, All -India Rice Export Association, New Delhi, donated Rs 1.25 lakh for awarding Gold Medal. This amount is deposited into the account for medal to a meritorious student having good all-round performance.

MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY. **NAGPUR**

Lower education

A Livestock Management and Dairy Production Diploma School is being operated by the university to generate awareness in rural community to create self-employment and to give sustenance to the livestock sector. A regional



Workshop at Amravati Rural Institute, Amravati

workshop was organized at state level at Amravati in joint collaboration with Amravati Rural Institute, Amravati from 29 to 30 December 2008. It was inaugurated by Dr Kamal Singh, VC, Sant Gadgebaba University, Amravati. Dr D.B. Sarode, Dean, Faculty of Lower Education, was the organizer. During the workshop two books, Smarnika and Livestock Management and Dairy Production (Part I), were released. The books contain useful information for students and dairy entrepreneurs in local languages.

Wild life health and management

A brain-storming session on Wild-Life Health and Management was organized by Maharashtra Animal and Fishery Sciences University, Nagpur. Mr B. Majumdar, Principal Chief Conservator of Forest was the chief guest and Dr A.S. Ninawe, VC, MAFSU, Nagpur, was the



Brain Storming Session

Chairman. The officials of Forest Department, Animal Husbandry Department, MAFSU scientists and various NGOs participated in the session. Dr Majumdar appreciated the efforts of veterinarians in wild-life health and management with the support of Forest Department. He agreed to provide possible administrative and financial support for the establishment of Wild-Life Research Centre at Nagpur Veterinary College, and start a post-graduate degree course on Wild -Life Science soon.

MAHATMA PHULE KRISHI VIDYAPEETH, RAHURI **New varieties**

Six new varieties were released during the Joint Agriculture Research and Development Committee Meeting-2009 of SAUs of Maharashtra held at Parbhani from 28 to 30 May 2009.

Maize: Rajarshi (KMH 22168)

The maize hybrid Rajarshi (KMH-22168) gives high yields (7,173 kg/ha and 9,558 kg/ha during kharif and rabi respectively), which are 24.34 and 12.95% more than those of the national check Bio-9,681 (5,770 and 8,497 kg/ha during kharif and rabi respectively). It



is resistant to leaf blight and has high starch content (72.25 %). It is suitable for assured rainfall and irrigated conditions and is recommended for cultivation during kharif and rabi in western Maharashtra.

Groundnut: JL-501

The groundnut variety JL-501 gives 45.35 and 19.14% more (3.548 kg/ha) seed yields than the checks SB-XI (2,441 kg/ha) and TAG-24 (2,978 kg/ha) respectively during summer season. It is recommended for cultivation during summer in western Maharashtra.

Safflower: SSF-658

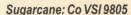
A non-spiny safflower variety SSF-658 gives 28.9 % more yield (1,437 kg/ha) than the check NARI-6 (1,114 kg/ha). Its seed-oil content is 27.0%. It matures within 128 days and is resistant to Fusarium wilt. It is recommended for cultivation during rabi in Maharashtra.





Sugarcane: Co 92005

The sugarcane variety Co 92005 recorded 10.68% more cane yield (128.69 t/ha), 7.52% higher sugar yield (18.19 t/ha), 12.26 % higher jaggery yield (15.41 t/ha) and 6.32% higher jaggery recovery (12.03%) compared with those of the check CoC 671 (116.27 t/ha, 17.01 t/ha, 13.52% and 11.27% respectively). Its jaggery quality is better than that of CoC-671, and fetches higher market price of Rs 200-500/q. It is recommended for commercial plantation in submontane zone of Maharashtra for jaggery production.



A mid-late maturing sugarcane variety Co VSI 9805 gives 21.82% higher cane yield (135.44 t/ha) and 25.18% higher sugar (CCS) yield (20.38 t/ha) compared with those of the standard sugarcane variety Co 86032 (cane yield 111.18 t/ha and sugar yield 16.28 t/ha). It has good ratooning ability with erect stool habit, is less susceptible to internode borer and resistant to smut disease. It is recommended for commercial planting during adsali and pre-seasonal periods for Maharashtra state (except in high-rainfall zone).

Dolichus bean: Phule Suruchi (GK-1-3)

A bush-type Dolichus variety, Phule Suruchi GK-1-3 recorded a higher yield of green pod during kharif (101.92 g/ha) and summer (75.44 g/ha) compared with that of the checks Arka Jay (67.43 g/hg in kharif and 53.28 g/ha in summer), Ark Vijay (69.36 q/ha in kharif 59.22 q/ha in summer) and Konkan Bhushan (74.48q/ha in kharif and 63.56 g/ha in summer).



Co VSI 9805



MARATHWADA AGRICULTURAL UNIVERSITY, PARBHANI

37th Joint agresco meet

The 37th joint agricultural research and development committee meet - 2009 was organized at Parbhani during 28-30 May 2009. Shri Vijayaroji Kolte, VC, MCAER, Pune, inaugurated the meet. It was attended by the VCs, deans, directors, heads of departments and scientists of four agricultural universities of



37th Joint agresco meet

Maharashtra as well as the farmers. During this meet in-depth discussions were held on various varieties and technologies to be released for farming community. In all, 18 recommendations of the university were accepted.

Success in JRF

Twelve students of MAU, Parbhani were successful in the competitive

examination of Junior Research Fellowship conducted by ICAR, New Delhi. They were from various disciplines, viz. agricultural botany, agronomy, animal science and entomology. Dr S.S. Kadam, VC, complimented the students.

Pest management in cotton and soybean

Dr B.B. Bhosle, Head, Department of Entomology, is in charge of a collaborative project on 'Awareness-cum-surveillance project for pest management in cotton-soybean based cropping system in Maharashtra' (since *kharif* 2009) under the auspices of Agriculture Commissioner of the state. Under this project, training would be imparted to senior staff of State Department of Agriculture and Pest Monitoring Units (pest scouts, pest monitors and data - entry operators) and Advice Trainees on cotton and soybean pest management. One such training programme was organized on 11 and 12 June 2009. Dr S.S. Kadam, VC, organized the training. The programme was attended by Dr P.R. Shivpuje, Director of Instructions and Dean, Dr S.D. More, Director of Extension Education, and Shri S.L. Jadhav, Joint Director (Agriculture), Latur. About 100 officers from the state Department of Agriculture and district-level coordinators from MAU participated in the programme.

University foundation day

Thirty-seventh university foundation day was celebrated on 18 May 2009. To mark the event, a rally was organized by Dr C.D. Mayee, Chairman, ASRB, New Delhi. It was participated by 5,000 kharif farmers and extension personnel from Marathwada. Dr S.S. Kadam, VC presided. The university scientists guided the farmers on production technologies of kharif crops.



Dr C.D. Mayee delivering address

A question-answer session was organized on this occasion besides an agricultural exhibition. The university, State Department of Agriculture, NGOs and private companies participated and exhibited their technologies. MAU publications, farm implements and seeds were kept for sale.

NAVSARI AGRICULTURAL UNIVERSITY, NAVSARI

Mega krushi fair

A mega krushi mela was held at NAU, Navsari from 1 to 3 June 2009. Shri Narendra Bhai Modi, Chief Minister of Gujarat, inaugurated the function. Shri Dileep Sanghani, Minister of Agriculture, was also present. More than 200 stalls were booked, including 23 companies from other states and 50 from the university to



Krushi Fair

show the latest techniques and tools for better agriculture. About 2,14,000 farmers visited it and benefited from the latest technologies in agriculture. Seminars on various subjects like system of rice intensification, mealy bugs in cotton, fisheries, oilpalm, floriculture, post-harvest technology, banana, animal husbandry for women, water management etc were covered.

PT DEEN DAYAL UPADHYAYA PASHU CHIKITSA VIGYAN VISHWAVIDYALAYA, MATHURA

Plenary Session

A plenary session of VIII Annual Conference and national symposium on 'Challenges, Scientific Validation and IPR Protection of Indigenous Medicinal Plants-based ITK' and 'Regulatory Pharmacology and Toxicology' was held on 8 November 2009. Prof. A.K Srivastava, Director-cum-VC, NDRI, Karnal, was the chief guest, and Dr M.C. Sharma, Director, Central Institute for Research on Goats, was the guest of honour. Prof. M.L. Madan, VC, DUVASU, chaired the session.

The recommendations emerging from the presentation and deliberations during different sessions and symposia are given below.

- Database of the ITK practices in vogue in the country for centuries in human and animal health-care system should be prepared, scientifically validated and protected under IPR through better dissemination strategies and introduction of IPrelated courses at UG and PG levels.
- Work related to pharmaco- and toxico-vigilance on wild animals requires to be initiated and strengthened through an appropriate joint mechanism involving pharmacologists and toxicologists from veterinary institutions, forest officials concerned in the area or zoological parks.
- · PG course curriculum of Veterinary Pharmacology and Toxicology should be

revised keeping in view the recent developments and requirements of human resources in Pharma and allied sectors. More emphasis should be given on genotoxicity, reproductive toxicity, immunotoxicity, regulatory toxicology, safety evaluation and *in - vitro* pharmacokinetics. Cutting-edge technology including pharmacogenomics, pateiomics, toxicogenomics and other techniques in molecular biology should be included in the PG education, and research programmes should be undertaken to keep pace with the developments at international level, with focus on industries involved in drug discovery and development and in safety at the global level.

- Some niche areas of excellence in pharmacology and toxicology should be identified, further enriched and developed to become the hub of basic and applied research in thrust areas, and to impart hands-on training to the students and teachers.
- Veterinary pharmacologists and toxicologists should be included in drug-approval
 process in the country at the level of drug controller. Drug-regulatory mechanisms
 should be strengthened. Information on withdrawal times and other safety indices
 for various drugs and chemicals to be used for food-producing animals should be
 established to ensure better quality of food for human consumption and for
 increasing the export.
- Regional laboratories for monitoring the residues of drugs or their metabolites in milk, meat, eggs etc. should be established in different regions of the country to ensure safe food for human consumption.
- Co-ordinated research projects on systematic and scientific evaluation and validation of indigenous medicinal plants-based ITK should be initiated to develop safer, efficacious and cheaper drug formulations for treatment of various animal diseases. Greater emphasis should be laid on protection of significant findings under the IPR.
- The arena of toxicity studies should be widened to include diagnosis and development of therapeutic agents to combat poisonings in livestock, pets, wildlife and birds, and well-equipped regional laboratories should be established for diagnosis of poisoned animals and birds.
- In the drug-approval process, data relating to pharmacokinetics and other aspects should be accepted only if generated in target animal species within the country (and not those generated in other countries) or on exotic species of animals.
- To meet the growing human-resource requirement, for the persons abreast in the latest developments in the discipline, there is immediate need for establishment of National Institute for Education and Research on Veterinary Drugs and Pharmaceuticals on the lines of Central Drug Research Institute, Lucknow and National Institute of Pharmaceutical Education and Research in different parts of the country.
- Research work should be initiated on fortification of milk for human consumption, and on incorporation of bioactive peptides in the animal feed. Based on the data generated from different parts of the country, excess or deficiency of different macro and micro-materials should be identified, and accordingly research work should be taken up on evolving suitable nutraceuticals for different parts of India.
- Inter-institutional collaborative research projects associating scientists from different streams should be formulated in the fields of medicinal plants, toxicology and pharmacokinetics, and molecular toxicology.

SARDAR VALLABH BHAI PATEL UNIVERSITY OF AGRICULTURE AND TECHNOLOGY, MEERUT

Fourth world congress on conservation agriculture

The fourth World Congress on Conservation Agriculture was organized jointly by

the ICAR and NAAS from 4 to 7 February 2009 at NASC complex, New Delhi. On 7 February 2009, a field visit was organized by CIMMYT, IRRI/RWC and SVBPUAT, Meerut. The delegation had 35 scientists from different countries and organizations from Mexico, the USA, South Africa, Australia, Philippines, Uzbekistan and Bangladesh. The delegation visited Matiala and Kajampur villages of



World congress on conservation agriculture

Ghaziabad, Gadiana village of Meerut and SVBPUAT research farm. In Matiala village they visited Sardar Saranjeet Singh's and Pradeep Singh's farms of 30-40 ha under zero-tillage wheat since the last 10 years. Mr Saranjeet Singh is practising zero-tillage wheat with residue, whereas Mr

Pradeep Singh and Mr Akhtar are following it without residue. Three different resource-conservation technologies were demonstrated, viz. zero tillage without residue, zero tillage with residue sown by happyseeder and reduced tillage wheat. Dr Mahesh Kumar Gathala, IRRI scientist, mentioned that these farmers adopted laser land-



World congress on conservation agriculture

levelling for the first time in this region during 2002-03, which led to a saving of 20-25 per cent of irrigation water, thus reducing diesel consumption for pumping of irrigation water and increased the crop productivity. The crop performance under zero tillage with residue was better than of zero tillage without residue. All the scientists agreed that residue retention is the key to sustain soil health and productivity.

At village Kajampur, farmer's participatory trial on residue management (Happyseeder), zero-tillage wheat, zero-tillage potato and broad-bed wheat were demonstrated at Mr Omkar Singh's farm. Dr R.K. Naresh, Agronomist, explained the technologies, especially of zero-tillage potato, which can be a succeeding crop after rice under double no-till system. Mr Omkar Singh mentioned that broad-bed of wheat saved 25 per cent irrigation water, lost less area under bed formation and gave greater productivity.

At the university, Prof. M.P. Yadav, VC, warmly received Dr Thomas Lumpkin, Director–General, CIMMYT; Dr Harun Rashid, DG, BARC, Bangladesh; and other scientists. He briefed the participants regarding the different activities being conducted in collaboration with IRRI/RWC, CIMMYT and SVBPUAT, Meerut for the last decade on RCTs.

At SVBPUAT-IRRI/RWC in long - term experiment on different tillage and cropestablishment methods, Dr Gathala explained that wheat yields were more in zero- tillage than in conventional method on long - term basis, but rice yields were lower; but on system basis the yields were similar. There was a net saving of water, labour and energy in zero - till system



leading to higher net income. He mentioned that there is improvement in the soil-physical properties like soil aggregates, mean weight diameter, infiltration rate and less greenhouse gases in this system. Residue- management experiment sown by Happyseeder gave higher yields compared with conventional and zero - till wheat without residue. Under Happyseeder, the surface-retained residues helped in regulating the canopy development, perhaps due to better nutrient- release pattern, especially soil, during the growing period. Mr Vivak, Scientist, mentioned that residue regulated the canopy temperature and moderates the soil temperature by 2 to 3 0C, which provides heat tolerance against western terminal heats. Participants also visited the multi cut wheat with berseem co-culture. By this technique 10 to 13 t/ha green fodder can be obtained in 45 to 50 days after sowing.

UNIVERSITY OF AGRICULTURAL SCIENCES, BANGALURU

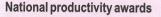
Stem-cell research institute

Stem-cell research is a frontier area with great promise and has enormous potential for use in replacement of injured or diseased tissue, and hence is known also as repetitive medicine. A MoU was signed on 5 April 2008 between UAS, Bangalore, Government of Karnataka and DBT, Gol, to establish Stem Cell



Research Institute at GKVK campus, Bangaluru. Dr M.K. Bhan, Secretary, DBT, Government of India, along with Principal Secretary (A&H), and Principal Secretary, Information and Biotechnology, Government of Karnataka; and VC, UAS, Bangaluru

participated in the programme. Agricultural scientists along with scientists from diverse fields will interact and carry out multidisciplinary research work, receiving total funding of Rs 100 crores.



To recognize the organization of training



MoU on establishment of Stem Cell Research Institute

programmes on baking technology to meet the manpower requirement of bakery industry, National Productivity Council, New Delhi awarded a Certificate of Merit under the category of Food Processing Training Centre to Bakery Training Unit, UAS, Hebbal, Bangluru.

Varieties for release

The following varieties were recommended for release during 2008-09, suitable for different agro - climatic zones of the state.

Rice

MAS 26: Paddy MAS 26 is marker-assisted selection in rice, especially suitable for aerobic cultivation, with a yield potential of 55 g/ha.

Ragi

ML 365: It is a short-duration variety, maturing in 100-105 days, with grain -yield potential (44 q/ha) under rainfed condition. It is moderately tolerant to neck blast of finger millet.

Sunflower

KBSH 53: This newly developed hybrid has low incidence of pests and it is highly tolerant to powdery mildew. Its grain-yield potential is 21 q/ha and oil content 42-44%.

Sugarcane

CoVC 2003-165: It is a mid-late variety maturing in 12-14 months, tolerant to drought and resistant to woolly aphid. Its yield potential is 160-170 t/ha with better juice quality, and is also good for jaggery making.

Tobacco

KST 28: It is a medium-duration, good-quality CV tobacco variety, maturing in 215 to 225 days, with yield potential 18 q/ha. It is tolerant to nematodes and leafeating caterpillar, and moderately tolerant to black shank disease.

Grain amaranth

KBGA 1: It is a high-yielding variety maturing in 85-90 days, with yield potential 10-1 q/ha. It is rich in lysine and contains 17-18 per cent protein.

Medicinal coleus

M 7-ISIRI: It is a mutant medicinal coleus variety, maturing in 180-200 days. It gives 41 q/ha dry tuber yield and 26.7 kg/ha forskolin. It is non-flowering with low incidence of root-knot nematode and moderately resistant to bacterial wilt.

International students' hostel

An International Students' Hostel was inaugurated by Dr Mangala Rai, Secretary, DARE and DG, ICAR. Shri S.A. Ravindranath, Minister for Agriculture, Government of Karnataka; Dr P.G. Chengappa, VC; and Members of Board of Regents of the university were present on the occasion.

Emerging trends in agri-business

The first annual conference of Indian Society of Agri-Business Management on Emerging Trends in Agri-Business Management was held during 25-27 September 2008 at GKVK Campus in collaboration with Centre for Public Policy, IIM, Bangaluru; Centre for Management in



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Dr Ashok Gulati delivering keynote address

Agriculture, IIM, Ahmedabad; and International Food Policy Research Institute (South Asia), New Delhi. More than 250 delegates from all over India and other countries such as the USA, Sri Lanka and Pakistan participated in the conference.



Rice: MAS 26



Ragi: ML 365



Sunflower hybrid: KBSH 53



Sugarcane: CoVC 2003-165



Tobacco: KST 28



Grain-amaranth: KBGM 1



Medicinal coleus: M 7-ISIF

The major themes were: (1) Emerging agribusiness formats and management, and (2) Agribusiness management and education. Dr Ashok Gulati, Director (South Asia), IFPRI, New Delhi, delivered the keynote address and Dr P.I. Suvrathan, Chairperson, Food Safety and Standards Authority of India, Mumbai, delivered the valedictory address.

UNIVERSITY OF AGRICULTURAL SCIENCES, DHARWAD

Krishi mela

The university organized Krishi Mela-2008 at main campus during 4 - 7 October 2008. Agricultural machinery exhibition and organic farming exhibition were also organized on this day.

This mela attracted more than 4 lakhs farmers, rural youths, scientists, extension personnel and officers of various development departments and NGOs, representatives of various input-dealing agencies or organizations from various parts of the country. Products, technologies and publications in over 410 exhibition stalls were demonstrated by innovative farmers, input agencies, agricultural implements or machinery manufacturers or dealers, agro-processors, research stations or schemes and centres of UAS, Dharwad, various developmental departments or NGOs and self-help groups etc. Adequate arrangements were also made for the visitors to see technologies depicting demonstration plots on UAS farms. Consultancy cell was also arranged to facilitate farmers in discussing their problems directly with the scientists of various disciplines.

Farmer-to-farmer interaction sessions were organized on all the 4 days. These covered experiences of successful farmers in sustainable agriculture through organic farming, integrated farming systems and subsidiary enterprises, agricultural activities in water -tank catchment area, hitech agriculture, export of horticultural products, marketing network, enterprises for women etc.



Krishi mela

Shri B.S.Yediyurappa, CM, inaugurated the Krishi Mela. The touch-screen agricultural technology information kiosk was inaugurated by Shri S.A. Ravindranath, Minister for Agriculture. Padma Shri Dr M. Mahadevappa, former Chairman, ASRB, New Delhi and former VC, UAS, Dharwad; Dr S.A.Patil, Director, IARI, New Delhi and former VC, UAS, Dharwad; Dr P.G. Chengappa, VC, UAS, Bangaluru as well as other important dignitaries also participated in the function.

UTTAR BANGA KRISHI VISWAVIDYALAYA, COOCHBEHAR

Foreign visit

Dr Tapan Kumar Mandal, Lecturer, Department of Plantation Crops and Processing, was awarded BOYSCAST fellowship, DST, New Delhi for his Post-Doctoral research on 'A biotic stress-related gene **Arabidopsis-thaliana**' at Institute of Integrative Genome Biology, University of California, Riverside, the USA, held during 25-27 June 2008.

Dr Sunil Ghosh, Lecturer, Department of Agricultural Entomology, visited Bonn, Germany to present a paper on 'Seasonal incidence of *Leucinodes orbonalis* on eggplant and its control under North-East sub-Himalayan region of India' at second conference on Precision Crop Production, held during 10-12 October 2007, organized by University of Bonn, Germany.

WEST BENGAL UNIVERSITY OF ANIMAL AND FISHERY SCIENCES, KOLKATA

Fifth convocation

The fifth convocation of West Bengal University of Animal and Fishery Sciences was held on 16 April 2009 at Kolkata. Shri Gopal Krishna Gandhi, HE the Governor of West Bengal, and Chancellor of the university, presided over the convocation. Dr A.L. Chaudhary, President, Veterinary



Fifth convocation

Council of India, New Delhi, was the chief guest, who delivered the convocation address. In this convocation, the degree of D.Sc. (*Honoris Causa*) was conferred on Mr H.P.C. Shetty for this contribution in the development of fishery education and

science in the country. Prof. C.S. Chakrabarti, VC, served oath to the recipients of Undergraduate and Post-graduate degrees and also handed over degree certificates to 108 UG students and 96 PG students, along with 11 Ph.D. certificates and 14 gold medals.

HE Shri Gopal Krishna Gandhi exhorted the degree recipients to contribute towards realizing the dream of shining India and prosperous West Bengal.

AWARD

INDIAN AGRICULTURAL RESEARCH INSTIITUTE, NEW DELHI

Rafi Ahmad Kidwai Award to Prof. Kailash C Bansal

Prof. Kailash C. Bansal received Rafi Ahmad Kidwai Award of the ICAR on its Foundation Day on 16 July 2009. The award was conferred on him for his significant contributions in the field of plant molecular biology and biotechnology. He was also awarded Hari Krishna Shastri Award at the 47th Convocation of Indian Agricultural Research Insitute held on 13 February 2009 at New Delhi. Prof. Bansal has developed crop genotypes with improved tolerance to abiotic



Prof. Kailsh C. Bansal

stresses. Such improved genotypes with in-built stress resistance have a great potential in mitigating the adverse impact of global climate change and in saving water. He indigenously cloned several novel genes and promoters, and developed useful gene constructs for the development of improved crop genotypes. He shared these gene constructs with various institutions in the country for improving the abiotic stress tolerance in different crops.

Prof. Bansal's research group developed transgenic wheat, mustard and tomato with improved tolerance to drought, salinity and cold stresses. In addition, he developed transgenic tomato with extended shelf-life to save huge post-harvest loss. He for the first time developed chloroplast-transformation systems in brinjal and mustard to develop improved genotypes for easy public acceptance and environmental safety.

Currently Prof. Bansal is the Co-ordinator of the ICAR Network Project on Transgenics in Crops. He did his Ph.D. from Indian Agricultural Research Institute, New Delhi, with a gold medal. He was awarded the DBT Overseas Research Associateship in 1990 to work at Harvard University, Cambridge, the USA; and Rockefeller Biotechnology Fellowship in 1996 to work at Rutgers University, the USA. He is also a recipient of Professor Hira Lal Chakarvarty Award of Indian Science Congress Association, conferred on him by PM in 1994. Prof. Bansal is a Fellow of National Academy of Agricultural Sciences.

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