



IAUA



NEWS

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SPOT NEWS

CDA for AU's

INDIAN AGRICULTURAL UNIVERSITIES : OWNERSHIP, FUNDING ISSUES AND FRAMEWORK OF SOLUTION

State of Affairs

1. In 2011 Higher Agricultural Education in India constituted a wide spread network of institutions across the country. It included 47 state agricultural universities (SAUs) including 12 Veterinary and animal sciences, Horticulture and forestry sciences universities, a central agricultural university, five institutes having status of deemed-to-be universities (Dus), and four central universities with Agriculture faculties. With 265 constituent colleges or faculties having 35,000 student intake, the agricultural Universities (defined broadly to include all the above categories) impart education in 11 major disciplines at undergraduate level and in 95 subjects at post-graduate level (M.Sc. and Ph. D.). Besides, IIT, Kharagpur and 100 private colleges (affiliated to SAUs) and general universities also impart higher agricultural education.

2. This network, the NARS led regulated by the ICAR, embraces education, research and extension education its integral functions. The on-going shifts in the priorities in agricultural development of India, the world economic order and possibility of growth in the associated allied sectors and activities call for initiatives on "re-engineering of agricultural education" to suit the requirements of the times.

3. Though the investments in agricultural R&D are the most influential investments for poverty alleviation as well as for pushing agricultural growth to 4% and beyond, the share of agricultural education within the total budgetary provision is not impressive. The urgent need is to initiate reforms in agricultural education to make it more relevant, including the funding of universities to maintain their relevance.

4. The strategic aim of reforms in agricultural education should be to reorient it as well as agricultural research meet the challenges of sustainable agriculture (which promotes food and economic security of the farming households) and at macro level the food security of the India.

5. There is apparent decline in the number of whole-time active farmers. More and more people with rural background and engaged in agriculture are either reluctant to let their children pursue agriculture as a full-time profession, or these children do not get preference in agricultural education that can facilitate their continued interest in this field. Those with rural background and having genuine interest in agriculture, are left behind in the basic subjects and fail to get admission into higher education in agriculture due to lack of relevant percentage. As a result they are left with no choice expect to shift to other professions concentrated in urban areas. Making agricultural education pro-rural will be in the long-term interest of the country, which in turn requires steps to promote admission of rural youth in agricultural universities.

6. For a country of the size of India, centralized planning of agricultural education, research and extension education has not and will not help to address the local needs. It highlights the need for a new strategy to correct this shortcoming. A new-look on higher agricultural education system requires provision for including all these subjects in the course curricula, and for offering various choices to the prospective candidates, to fulfil the needs of all the stakeholders.

7. Reorientation of agricultural education is needed to remove deficiencies and to make it futuristic, It requires "A strategy for bringing structural changes in the system" to capture modern realities, challenges and opportunities. In fulfillment of that mission, it will be essential not only to redefine clearly the roles and responsibilities of instruments of the Centre.

8. The rules and responsibilities of the Centre and states are sometimes not clear. One thinking is that since agriculture is a state subject, the responsibility of the key instruments of Agricultural Education System, i.e. the state agricultural universities (SAUs), lies with the states. The other thinking is that the Centre, through the Ministry of Agriculture, has entrusted the responsibility of managing agricultural education affairs to the ICAR. As an apex body leading National Agricultural Research System(NARS), it is involved in setting guidelines or standards, and giving grants to the SAUs for managing agricultural education, research and extension education. The ICAR designs (plans) and implements, uniform institutional regulations in the agricultural education maintain uniformity and equal standards throughout India, thus both Centre and states are involved in managing agricultural education. The SAUs are today considered state responsibility in terms of funding, staffing and policies. Central support to agricultural education is minimal, in the form of Central Development Assistance (CDA). The ICAR has the discretion to decide the quantum of CDA to be given to the SAUs in a year, and therefore it receives the commensurate space for controlling the affairs of



Dr. Tej Pratap

agricultural education within the SAUs.

9. The role of Centre in the agricultural education was defined way back in 1952, by the first ever Education Commission set up in India under the chairmanship of Dr S. Radhakrishnan. The commission recommended that agricultural education should be recognized as a major national priority. To realize this aim that commission had recommended the setting up of agricultural universities in rural areas, with substantial grant-in-aid from the Centre following the Land Grant Pattern financial support to agricultural universities in USA. Acceptance of these recommendations by the Government, established the fact that agricultural education shall be a joint responsibility of both, the states as well as the Centre. To provide legal base for establishing and functioning of agricultural universities in India, The Cummings Commission(1960) made important recommendations, especially Model Act for SAUs and about university funding. Today on behalf of the Centre the ICAR is entrusted with these responsibilities.

10. This concept was followed in India as well. Here both organizational structure and funding of State agricultural universities proposed on Land Grant Pattern was modified to suit its conditions. It envisaged that out of the total budgetary requirements of an SAU, 40% may be provided by the Centre, 50% by the respective State Governments and remaining 10% by internal resource generation. It suggested that the State Agricultural Universities, which will be set up following the Land Grant Pattern of USA, will be eligible to receive funding for effective functioning, both from the Centre as well as from the state. Term budgetary requirement, does mean core funding needs of the institution.

11. In 2003 the proportional funding by the Centre, states and the university (internal resources) was 25,70 and 5% respectively. Of the Centre's contribution of 25% the ICAR contributed only 20%. By 2011, when the VI Pay Commission was implemented, the contribution from Centre to the SAUs decreased to less than 10%. Within this 20% share of the ICAR to the SAUs, about 2% (national average) is given for agricultural education (in the form of CDA). The proportion for education was decreased due to the share of other competing allocations for research and extension. In the generation of 10% share by the agricultural universities from its internal resources, the key constraints remain the controlled student admission and lack of adequate good farmland in all the universities to generate the income. This squeezed central funding for agricultural education, is not conducive to agricultural growth in the long run. With 90% of a SAUs budget consumed for payment of staff salaries and committed establishment charges, and the remaining appropriated by research, hardly much is left for effecting improvement in education. Most SAUs are today in bad shape, and are not able to maintain quality standards in academics due to the depleted faculty strength and poor infrastructure. Many SAUs are finding it hard to maintain normal functioning. As a result, today, both Centre and states, show a non-committal approach towards higher agricultural education.

12. The trend of inadequate funding is likely to slide further, causing serious damage. Many states find it hard to pay enhanced salaries to its employees as well as to other sectors. But the Centre has never given serious consideration to the financial support of the SAUs, as per its requirement and recommendation. The funding formula for sharing costs of SAUs (40:50:10) proposed under Land Grant Pattern had put 40% budgetary funding responsibility of a SAU on the Centre and 50% was to be shared by the respective state. The universities were expected to generate revenue up to 10%. In the present context the states are already sharing their burden more than 50%, and up to 90%. After implementation of the VIth Pay Commission, general scenario in the country is that most SAUs are starved of the fund and are unable to sustain or maintain functional provisions for continuing the teaching, research and extension services.

13. As the SAUs are now largely state funded and functional autonomy of the university is linked to the proportionate funding from the state, it is dangerous for a state to exercise greater administrative control over it. The Centre should come forward to take up the responsibility of ensuring implementation of funding provisions defined in Land Grant pattern. A situation is likely where by both state and Centre may like to increase their control over the SAUs (agricultural education) without granting the necessary commensurate financial support. It is impinging on the autonomous character of the SAUs, and their growth and quality standards are threatened due to declining financial support from both Centre as well as the state.

14. For higher agricultural education, state agricultural universities are at the centre of Centre-state relationship. The SAUs are established through the legislative act of the respective state and with major financial support from the respective state government, which also administer functional and policy controls. The Central government, through the ICAR, administers some professional control to maintain uniformity of academic courses, management regulation (enforcing model act) etc. It also channels some Central Development Assistance (it is discretionary, based on budget available but not on the basis of its proportion through the formula). These funds are for improving or maintaining the academic standards, upgradation of infrastructure, improving the facilities for teaching, sports etc. For students, improving the course curricula-delivery systems, improving the faculty competence, promoting excellence, niche areas of excellence and experiential learning, modernization of farms, information technology etc. However, the funds have never been commensurate with the objectives and the number of items brought under the scope of CDA.

15. Thus time has come to search for a satisfactory funding formula and channels for agricultural education, research and extension education, both from the Centre and states. Though agricultural education may remain a state subject (until constitution is amended) Agricultural Education should be considered as a subject of joint responsibility of the Centre and states. Institutionalization of sharing of the budgetary burden of agricultural universities between Centre and state in the ratio of 40% :50% will go a long way in restoring the health of the SAUs.

(Contribution from : Dr Tej Partap, Ex-President, IAUA and Vice Chancellor, SKUAST, Srinagar)

Focus on Universities: Events and Achievements

Deemed-to-be-Universities

INDIAN AGRICULTURAL RESEARCH INSTITUTE, NEW DELHI

Golden Jubilee Convocation



Dr Manmohan Singh awarding degrees

Shri Harish Rawat, Dr Charan Das Mahant, Ministers of State for Agriculture and Dr M.S. Swaminathan, Member of Parliament (Rajya Sabha) also graced the convocation. Dr H.S.Gupta, Director, in his welcome address highlighted the salient achievements of

The Golden Jubilee Convocation of Post-graduate School of the IARI was held on 20 February, 2012. Dr Manmohan Singh, Prime Minister of India, was the chief guest. Shri Sharad Pawar, Union Minister of Agriculture, presided over the function.

Shri Harish Rawat, Dr Charan Das Mahant, Ministers of State for Agriculture and Dr M.S. Swami-

the institute. Dr Manmohan Singh, in his convocation address, highlighted the importance of IARI and appreciated the significant research and academic contributions made by it in the improvement of agriculture and rural India. He mentioned that the government has adopted a multi-pronged strategy to improve returns to farming and step up investment in rural infrastructure. The flagship programme, Bharat Nirman, lays focus on increasing the investment in rural roads, rural electrification, irrigation, rural housing and rural communication. Mahatma Gandhi National Rural Employment Guarantee Programme is both a safety net for the poor and also a powerful instrument for undertaking works that will increase land productivity. He said that Rashtriya Krishi Vikas Yojana and Rained



Dr Manmohan Singh releasing Pusa varieties



Postgraduate Collage, IARI

milk, eggs, fruits, vegetables, sugarcane, oilseeds and cotton than ever before. Last year the production of vegetables increased by 9.57%, and cold-storage capacity by 2 million tonnes. We now need to revitalize this infrastructure of support at the district level.

Krishi Vigyan Kendras, which now cover virtually the entire length and breadth of the country, and Agricultural Technology Management Agencies (ATMA) have to play a major role in this revitalization and transformation of extension network. Dr Singh emphasized that our farm economy needs much greater injection of science and knowledge-based approach to increase the income and productivity. Both land and water are limited, and it is vital to make progress in agricultural technology which raises land productivity while allowing a significant reduction in water use per unit of agricultural output. We need to develop varieties that can ensure high yield while economizing on water and are also capable of withstanding water stress. This is as true of livestock as for crop production. We need to develop improved breeds that can flourish in our agro-climatic conditions and do not require high-value inputs, which our farmers can not afford. He stated that we would need nearly 50 million tonnes foodgrains more in the next 10 years to meet our domestic demand. Increased production of foodgrains would add to food security and would help us rid of malnutrition. We would have to produce more fruits and vegetables, as well as protein-rich products such as milk, eggs, fish and meat. The demand for these products is expected to grow substantially, with rising incomes and changing dietary habits and preferences. Dr Singh exhorted the agricultural scientists and students to pursue a multi-pronged strategy to improve the productivity and production through product-specific interventions. During the Golden jubilee convocation 120 M.Sc. and 82 Ph.D. students were awarded degrees, which included 18 international students. Dr Manmohan Singh, was awarded D.Sc.(Honoris Causa) for his outstanding contribution in the field of Economics, acclaimed internationally. Shri Sharad Pawar, Union Minister of Agriculture and Food Processing Industries presented him the award. The citation was read out by Dr H.S. Gaur, Dean.

Dr R.S. Paroda, Chairman, Farmers' Commission of Haryana was awarded the first Dr.A.B. Joshi Memorial Award for the biennium 2011-2012, consisting of cash prize of Rs.1 lakh, a medal and a citation, for his outstanding research contributions in the field of Agricultural Research and Education. Dr Pious Thomas, Principal Scientist, IIHR, Bengaluru, received the 12th Shri Hari Krishna Shastri Memorial Award for the year 2011, for his outstanding research contributions in molecular profiling, and marker-assisted selection, besides innovative research in endophytic microbiology. Dr Subhash Chandra, Principal Scientist, Division of Entomology, IARI, received the XVII Sukumar Basu Memorial Award for his outstanding research contributions in developing a



Dr Manmohan Singh felicitating Dr R.S. Paroda

decision-support system to facilitate simulation of growth and yield of annual crops. Dr R.N. Padaria, Principal Scientist, Division of Agricultural Extension, received Best Teacher Award for achievements in academics during 2011.

Shri Sharad Pawar, Chairman of the session, released 10 new IARI varieties of different crops on this occasion.

42nd Lal Bahadur Shastri Memorial Lecture

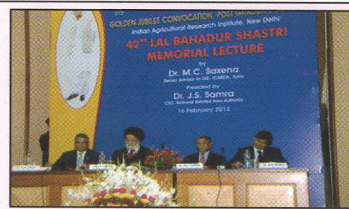
The IARI initiated a series of annual lectures in 1968 as a mark of respect to late Shri Lal Bahdur Shastri, the second Prime Minister of independent India. Dr M.C. Saxena, Senior Advisor to the Director General, ICARDA, delivered the 42nd Lal Bahadur Shastri Memorial Lecture on 18 February, 2012 on 'Harnessing the potential of dry areas for ensuring food security. In an informative lecture he emphasized that agriculture is expected to feed 8.3 billion people by 2030. More than 83% of these will be in developing countries. As 60% more food will be needed by 2030, food security will continue to be the major challenge of the international

Areas Development Programme were also launched with similar purpose. These policies have begun to pay off. The country has reached new plateau in foodgrain production. Food production at the end of the XI Plan will exceed 250 million tonnes, a record. Our pulse production at 18 million tonnes, is well above the previous barrier of 15 million tonnes.

The country is producing today more

community. Dr Saxena proposed that with required infrastructure for ARD and support for Science and technology (S&T) innovations available, urgent policy actions needed to usher-in and sustain Green Revolution in the dry areas are:

- Increased and sustained allocation of resources for R&D, specifically targeted to dry areas;
- Increased investment in developing dry areas through institutional support, to bridge at least a part of the large investment gap that currently exists compared with that in the irrigated areas; and
- Increased partnership amongst all the stakeholders-farmers, researchers, extension specialists, input providers, and policy makers - to synergize action.



Dr M.C. Saxena and Dr. J.S. Samra with Director, Dr. H.S. Gupta and Dean Dr H.S. Gaur

INDIAN VETERINARY RESEARCH INSTITUTE, IZATNAGAR

Indo-UK Collaboration on Anti-coccidial Vaccine

An Indo-UK collaborative research project involving IVRI, Izatnagar and Royal Veterinary College, London (U.K.) as the lead centre was recently approved to developing a vaccine against coccidiosis, a widely prevalent and economically important disease of poultry throughout the world, including India. Prof. Fionatoney of Royal Veterinary College, London, is heading this international project.

Prof. M.C. Sharma, Director, informed that presently the disease is controlled by chemoprophylaxis. However, due to many genetic variants of the coccidia parasite, the currently available anti-coccidial vaccines are not effective in controlling the disease. This project was taken up in collaboration. In this project the other collaborating partners from India are Tamil Nadu University of Veterinary and Animal Sciences (Chennai); Centre for Cellular and Molecular Biology (Hyderabad); and Indian Statistical Institute, Kolkata.

Dog show

A Dog show was held at Izatnagar on 10 January 2012. Dr Triveni Dutt, Joint Director (Extension Education) Co-ordinator of the event, briefed about the dog show and informed that about 100 dogs including 22 breeds participated in this event.



Prof. M.C. Sharma, presenting memento to a winner of Dog show

Short course on "Newer approaches for feed security and safety"

A 3 week short course on "Newer approaches for feed security and safety" was organized by Centre of Advanced Faculty Training in Animal Nutrition. It was attended by 19 participants including researchers, Assistant Professors and Subject Matter Specialists from all over the country.



Chief Guest releasing course compendium



Director, IVRI distributing certificate to participant of international training course

International training course on "Gene-based techniques for research in biotechnology"

A 21 day International training course on "Gene-based techniques for research in biotechnology", sponsored under TCS Colombo Plan Secretariat, Sri Lanka and India Millennium Fund, Government of India, was held from 20 February to 11 March 2012 at Izatnagar. Dr Bhaskar Sharma, Course Director and ICAR National Professor organized it. There were 10 participants from different Asian countries, viz. Iran, Malaysia, Thailand, Fiji, Indonesia and Vietnam.

On-line Examination Hall for NET and ARS Examinations

Prof. (Dr) M.J. Modayil, Member, Agricultural Scientists Recruitment Board (ASRB), ICAR, New Delhi inaugurated on-line examination hall of IVRI on 10 February 2012 at Izatnagar for conducting "National Eligibility Test or Agricultural Research Service (NET/ARS)-Prelim Examination for ASRB.



Prof. M.J. Modayil, inaugurating the On-line Examination Hall

Prof. Modayil also visited different research divisions and laboratories of IVRI, and showed keen interest in the on-going research and developmental programmes of the institute. He informed that ASRB is soon launching 23 nodal centres throughout India for conducting on-line examination in 55 agriculture and allied disciplines.

NATIONAL DAIRY RESEARCH INSTITUTE, KARNAL

10th Convocation

The tenth convocation of NDRI, Karnal was held on 21 February 2012. Padma Vibhushan Dr M. S. Swaminathan, Member Parliament (Rajya Sabha) and former Director-General, ICAR, New Delhi, delivered the convocation address and distributed the degree certificates. Dr Gurbachan Singh, Chairman, ASRB, New Delhi; and Dr Arvind Kumar, Deputy Director-General (Education), ICAR, graced the occasion as guest of honour.

On this occasion, Dr Ratnakar Nagarcenkar and Dr N. R. Bhasin received the degree of D.Sc. (Honoris Causa) in recognition of their outstanding contributions in dairy science and education. Dr Nagarcenkar retired as Deputy Director-General (Animal Sciences and Education) and had served NDRI in different capacities including the position of Director (1984 to 1990). Due to his efforts, NDRI was recognized by Ministry of Human Resource Development as a Deemed University. Dr N.R. Bhasin is presently President, Indian Dairy Association, New Delhi. He retired from Indian Administrative Service as Principal Secretary of Rajasthan. He served Government of India in different positions and made significant contribution in Rural Development, especially in Dairy Development. At the convocation B.Tech. (Dairy Technology) was awarded to 20 students. M.Sc. in 13 disciplines to 105 students, and Ph.D. in 12 disciplines to 25 students. Gold medals, merit certificates and Best Thesis awards



Dr M.S. Swaminathan awarding degrees

were also presented to the students.

In his address, Dr. Swaminathan congratulated the graduating students and lauded the progress made by NDRI in different areas of milk production and processing. He referred to the increase in milk production in India as "White Revolution", which he said is less known to many people but is as significant as Green Revolution. He further said that milk and dairy products are important in nutritional security and health. We are producing enough, but every citizen is still not having access to sufficient food. He stressed that we need to address malnutrition not only for our human population but also to assure enough feed and drinking water over a billion farm animals. Dr Swaminathan emphasized that to fulfill the legal entitlement to foodgrains enshrined in the draft National Food Security Bill, we will need technology to achieve sufficiency in our crop production, horticulture, dairy and fisheries sectors. We have to make agricultural activity profitable and sustainable for the livelihood of farmers with small holdings.

Dr A.K. Srivastava, Director, NDRI, welcomed the dignitaries, graduates, their parents and other guests. He presented the convocation report of the institute and highlighted its research and academic achievements, as well as new developments in infrastructure and other spheres. Books and new technologies developed by NDRI were also released on this occasion.

Universities

ANAND AGRICULTURAL UNIVERSITY, ANAND

8th Convocation

The Eighth Annual Convocation of AAU was held on 14 February, 2012 in B.A. College of Agriculture, Anand. H.E. Dr (Smt.) Kamla, the Chancellor and Governor of Gujarat, graced the occasion. Dr Arvind Kumar, Deputy Director General (Education), ICAR, New Delhi was the chief guest and Shri Dileep Sanghani, Minister of Agriculture and Co-operation, Government of Gujarat was the guest of honour.

Dr A. M. Shekh, VC, welcomed the guests and highlighted the achievements of the university. Congratulating the medal and degree recipients, he advised them to be ready to face the emerging challenges and grab the opportunities coming on the way. Dr Arvind Kumar in his convocation address urged the students to embark on two

missions: 'Farmer First' and 'Student Ready' as the consortia platforms for achieving greater partnership for larger benefit of the farming community. He advised the students to keep themselves abreast of the latest developments by inculcating the habit of learning throughout life and translating the acquired knowledge to become a job-provider rather than a job-seeker.

In this convocation degrees were conferred on 200 graduates and 220 post-graduates including doctorates. Fifty students of different faculties received medals and prizes.

Cow-based agriculture, health and environment



the area of cow and its related subjects. It was attended by 500 delegates from all over the country.

ACHARYA N.G. RANGA AGRICULTURAL UNIVERSITY, HYDERABAD

Grant of Rs100 crores

The Union Finance Minister, Government of India, allocated a special grant of Rs 100 crores to ANGRAU in the budget 2012-13. Shri V. Nagi Reddy, I.A.S., acting VC, proposes to use the grant to create infrastructure, improve the laboratories, buy new equipments for research and extension activities, and develop polytechnics. Focus will be on Biotechnology and IT laboratories.

DR Y.S.R. HORTICULTURAL UNIVERSITY, TADEPALLIGUDEM

Dr YSRHU "Udyana Panchagam" Shri N.Kiran Kumar Reddy, CM, released on the eve of Ugadi on 23 March 2012.

Dr C. V. S. K. Sarma, I.A.S, APC and Principal Secretary, Department of Agriculture & Co-operation (Hort.), Government of Andhra Pradesh along with Director of Research, Dr B.Srinivasulu and Estate Officer Cln. PRP Raju, Dr YSRHU, V.R.Gudem inaugurated "Cold storage-cum-ripening chamber" on 27 February 2012 at HRS, Kovvur.

Dr B.Srinivasulu, Controller of Examinations and Registrar received from Dr Reddy, CM "State Best Officer Award" (Ugadi Puraskaram) on 23.03.2012.

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

National Seminar on Protected Cultivation

A national seminar on 'Protected cultivation of vegetables and flowers: a value-chain approach' was organized by the Department of Vegetable Science on 11-12 January, 2012. The chief guest, Dr Bangali Baboo, ND, NAIP, ICAR, inaugurated the conference whereas Dr B.S. Bisht, VC presided over inaugural session. About 250 scientists of vegetable, horticulture and allied sciences from all over the country participated in the seminar. The recommendations included development of suitable varieties and package of practices for protected cultivation suitable for different regions in important vegetables like tomato, capsicum, brinjal and cucumber; remunerative marketing of produce and reduced



Dr Smt. Kamla with other dignitaries on the dais



Dr M.S. Swaminathan conferring D.Sc. (H.C.) to Dr Ratnakar Nagarcenkar



Acharya N.G. Ranga Agricultural University



Shri. K.K. Reddy releasing Udyana Panchagam



cost of production; promoting 'Protected cultivation cluster' approach or system to minimize the use of chemicals in protected cultivation and encouraging the available IPM and INM technologies; evolve indigenous varieties for export of different cut-flowers, possessing novel traits like photo-thermo-sensitive chrysanthemum, varieties resistant to bent neck, intermediate stem-length varieties as per the need of the market, overcoming calyx-splitting problem in carnation, etc; import training and awareness about the specific stage of harvesting different vegetables and flowers in a big way to increase the shelf-life without any monetary input.

Annual Group Meeting of AICRP on Vegetable Crops

An annual group meeting of scientists working in different centres of the country under All-India Coordinated Research Project on Vegetable Crops of the ICAR was organized by the Department of Vegetable Science of the university during 13-16 January 2012. In the inaugural session, Dr H.P. Singh, DDG (Horticulture), ICAR was the chief guest; whereas Dr B.S. Bisht, VC, presided. More than 200 scientists from different centres including ADG (Horticulture), VCs of different universities, Directors of many institutes and eminent scientists presented the achievements and the report of their centres. New varieties of different vegetable crops were identified for release. Strategy for future technical programme for different centres was also formulated.

International Symposium on Grain Storage

An international symposium on grain storage was organized at Pantnagar along with 46th annual convention of Indian Society of Agricultural Engineers during 27-29 February 2012. H.E. Mrs Margaret Alva, Governor of Uttarakhand, inaugurated the combined event. Scientists and agricultural engineers from various states of India as well as from the USA, Canada and Israel presented papers in different sessions. The important recommendations were made in the concluding session held on 29th February 2012.

New Sub-Soiler and Fertilizer Applicator

A new machine, Pant-ICAR sub-soiler-cum-differential rate fertilizer applicator, was designed and developed by the scientists of the College of Technology. At present there is no machine available to place fertilizers at the depth of 15-25 cm during the intervening period of subsoiling. Therefore a combined machine for deep tillage and simultaneous placement of fertilizers was designed and developed.

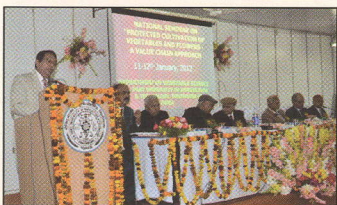
Hill Agriculture and Small Farm Technology Centre

College of Technology established a 'Hill Agriculture and Small Farm Technology Centre' at Department of Farm Machinery and Power Engineering. H.E. Mrs Margaret Alva, Governor of Uttarakhand, inaugurated the centre on 27 February 2012. The centre was established to cater to the mechanization needs of small and marginal farmers, with focus on Hill agriculture.

Farmers' Fair

The 91st Farmers' fair-cum-agro-industrial exhibition, (Kisan mela), was held at Pantnagar campus on 15 March 2012. Dr B.S. Bisht, inaugurated it, in the presence of Dr S.K. Bhadula and Shri Kundan Singh Pawar, Members Board of Management, along with a number of farmers, scientists and visitors.

About 130 big firms and 350 medium and small firms representing major brands put up their stalls, displaying the latest and best modern agricultural technology. It was attended by more than 10,000 farmers from Uttar Pradesh, Bihar, Madhya Pradesh, Maharashtra, Punjab, Haryana, Delhi and Rajasthan, besides Uttarakhand, who



Dr B.S. Bisht, VC, addressing the inaugural session



Publications being released by Dr H.P. Singh and others



H.E. Mrs Margaret Alva at inaugural session



H.E. Mrs Margaret Alva visiting the Centre



Dr B.S. Bisht inaugurating the farmers' fair

participated and bought seed, planting materials, fertilizers, plant-protection chemicals and farm machinery. Farmers also found solution of their problems from the scientists during kisan goshti held every day during the fair. The stall of M/s Same-Deutz-fahr India (P) Ltd, Noida was adjudged the Best Stall, whereas that of M/s Pfizer LTd, Mumbai was awarded the Best Performing Stall during the fair.

'A' grade to Biotech Programme

M. Sc. programme of Molecular Biology and Biotechnology of the Department of Molecular Biology and Genetic Engineering of the university received 'A' grade among 12 agricultural universities of the country, from Department of Biotechnology of Government of India.

KARNATAKA VETERINARY, ANIMAL AND FISHERIES SCIENCES UNIVERSITY, BIDAR

5th Convocation

The fifth convocation of the KVAFSU, Bidar was held on 17 January 2012 at the Bidar campus. Shri Revu Naik Belamagi, Pro-Chancellor and Minister for Animal Husbandry, presented doctorate degrees to 13 students, post-graduate degree to 63 students and B.Sc. to 180 students, besides gold medal to 48 students. Lt. Gen. Narayan Mohanty (retd), President, Veterinary Council of India, the chief guest, in his convocation address, said that there are countless opportunities for qualified veterinarians in India and abroad, as there is a mismatch between the demand and supply of qualified professionals. Prof. Suresh Honnappagol, VC, delivered the welcome address and presented a brief report of the university.



Shri. Revu Naik Belamagi awarding degrees

MAHATMA PHULE KRISHI VIDYAPEETH, RAHURI

MoU with Van Hall Larenstein University, Netherlands

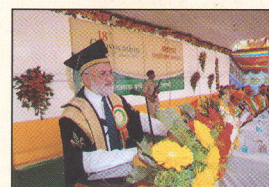
The Agricultural Development Trust, College of Agriculture, Baramati is the unaided affiliated college in the jurisdiction of MPKV, Rahuri. Recently a MoU for higher education was signed between MPKV, Rahuri: College of Agriculture, Baramati, and Van Hall Larenstein University, Netherlands, respectively by Dr T.A. More, VC, Prof. Nilesh Nalmode, V/c Principal and Mrs Ingrid de Varies.

As per the MOU, 30 students admitted for B.Sc. (Agric.) during this academic year will complete 6 semesters at Baramati and will proceed to VHL, Netherlands during the VII and VIII for RAWE and Experiential learning.

MARATHWADA KRISHI VIDYAPEETH, PARBHANI

18th Convocation

The 18th Convocation of MKV, Parbhani was organized on 31 January 2012, where in 3,133 students were awarded graduate, post graduate and doctorate degrees in various faculties. Dr S.Ayyappan, Secretary, Department of Agricultural Research and Education, Government of India and Director-General, ICAR was the chief guest. He urged the students in agricultural and allied fields to



Dr. S. Ayyappan, delivering convocation address

serve the farming community with dedication, because its progress helps speedy progress in all the fields. He mentioned 3 Ps, i.e. Prestige, Profit and Partnership are the corner stone of agriculture. Dr K.P.Gore, VC, presented the report and achievements of MKV. The Randhakishan Shanti Malohatra Award for commendable research work in agriculture was presented to the research scientists. The vidyapeeth launched a new programme of Best Teacher Award, with cash prize of Rs 10000 for the academic staff for rendering commendable services in education.



Dr K.P.Gore, addressing the Convocation



Dr K.P.Gore, presenting memento to Dr S. Ayyappan

Women's Rally

Farm women's rally was organized jointly by the College of Home Science and Directorate of Extension Education on 3 January 2012 to mark the birth anniversary



Dr K.P.Gore, addressing Mahila Shetkari Melava

agricultural exhibition organized by the IARI at New Delhi during 1-3 March, 2012. Shri Charandas Mahant and Shri Harish Rawat, State Ministers for Agriculture, Government of India inaugurated the Mela. Dr K.P.Gore lighted the lamp. The university showcased various technologies and varieties evolved by it. MKV stall bagged "Prashansa Puraskar".

Dr. Gore is ISAE Fellow

Dr K.P.Gore, VC was made ISAE Fellow, 2011 of Indian Society of Agricultural Engineers, New Delhi, for his outstanding contribution in Soil and Water Conservation Engineering. Prof. Gajendra Singh, President, ISAE, presented him the award on 27 February 2012 during the 46th ISAE Annual Convention held at GBPUAT, Pantnagar.

Dr Ayyappan visits MKV

Dr S.Ayyappan, Secretary, DARE, and Director-General, ICAR, New Delhi, visited the MKV campus and research during 30-31 January 2012. He inaugurated Vaidhanik Bhavan at Fruit Research Station, Aurangabad; Boys' hostel at College of Agriculture, Badnapur and the seed and pulses and oilseed processing unit at MKV campus. He paid a visit also to Sorghum Research Station, Agricultural Technology Information Centre, tissue-culture project, energy park, Home Science College, Food Technology College, ELP units and International Students hostel.

Crash course on Soft Skills

To improve the personality and professional soft skills of undergraduate and post graduate Home Science students, a crash course on soft skills was organized for 30 days period at Parbhani. In his valedictory address, Dr Gore, laid focus on the need of effective professional communication and managerial skills of the students in their careers. ADP (Home Science), Prof. D.Murali, and Course Director Prof. Vishala Patanm, designed this need-based course. Total 72 students participated in it.

State level Seminar

A state level seminar on "Soil resource management for resilient agriculture under changing climate" was organized during 16-17 March 2012 by the Department of Soil Science and Agricultural Chemistry, College of Agriculture, Parbhani through Parbhani chapter of Indian Society of Soil Science. Dr K.P.Gore, inaugurated the function. Dr V.B.Mehta, eminent scientist and former VC, DBSKKV, Dapoli and Dr S.B.Warade, former Deputy Director, Walmi, Aurangabad, graced the occasion. While inaugurating the seminar, Dr Gore highlighted the importance of soil-research management in the changing climate scenario. There were 150 participants from different parts of Maharashtra. The seminar was organized by Dr V.D.Paril, Head, Department of Soil Science and Agricultural Chemistry and President, PCISSS.

SWAMI KESHWANAND RAJASTHAN AGRICULTURAL UNIVERSITY, BIKANER

Farmers - scientists interaction

A farmers - scientists interaction programme was organized under the direction of Dr A.K. Dahama, VC at Krishi Vigyan Kendra, Jaisalmer (Rajasthan) on 17 January, 2012. Dr K.D. Kokate, Deputy Director-General (Extension) ICAR, was present on this occasion along with all Zonal Project Directors of the ICAR. About 500 farmers and farm women participated in it, who also visited the exhibition put up by SKRAU, Bikaner; KVK, Barmer; and Department of Agriculture. Dr Kokate also inaugurated the Mobile exhibition cum-diagnostic van.

Farmers' Fair at KVK, Bharatpur

A Farmers' Fair was organised at KVK, Bharatpur (Rajasthan) on 9 February 2012. About 1,500 farmers, farm women and rural youth participated in the Fair. Shri Murari Lal Meena, Minister of State for Technical Education (Agric.), Government of Rajasthan, the chief guest inaugurated it. Dr A.K. Dahama, VC, SKRAU, Bikaner,

of Savitribai Phule. Dr K.P.Gore, presided over the function and Smt. Meeratai Renge, MLA, was the chief guest at the inaugural programme. About 300 women participated and visited agricultural exhibition, as well as attended lectures and role-play demonstrations.

Pusa Krishi Vigyan Mela

The vidyapeeth participated in national level



Dr K.P.Gore, lighting the lamp at krishi Vigyan Melava



Dr K.P.Gore, receiving ISAE fellow award by Dr Gajendra Singh



Shri Murari Lal releasing the publication

Annual workshop of AICPMIP

The 47th annual workshop of All-India Coordinated Pearl Millet Improvement Project was organized jointly by SKRAU, Bikaner and the ICAR, New Delhi at ARS, Durgapura (Jaipur) during 17-19 March, 2012. Shri Harji Ram Burdak, Minister of Agriculture and Animal Husbandry, Government of Rajasthan inaugurated it. Dr Swapan K. Datta, DDG (Crop Science), ICAR, was the guest of honour; and Dr R. P. Dua, ADG (F&FC), ICAR, New Delhi, was the special guest. Dr A.K. Dahama, VC, chaired the inaugural function. More than 200 scientists from different parts of the country and International Crop Research Institute for Semi-Arid Tropics participated in the workshop. Four books on pearl millet were released on this occasion viz., Pearl Millet Research in Rajasthan, Bajre ki fasal ke pramukh rog avam keet tatha unka prabandhan, 25 years of Pearl Millet in India, 1st pearl millet review.

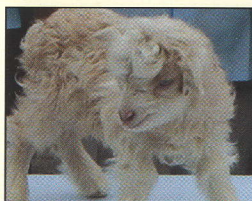
presided over the function. Twenty exhibition stalls were put up at the fair by KVKs of adjoining districts, Department of Agriculture, NGOs and private organizations. Dr P.N. Kalla, Director (Extension), SKRAU, Bikaner, and Dr J.S. Chouhan, Director, NRC on Mustard, Bharatpur, were among the other dignitaries present on this occasion.



Shri Harji Ram Burdak releasing the publication

SHER-E-KASHMIR UNIVERSITY OF AGRICULTURAL SCIENCES AND TECHNOLOGY (Kashmir) SRINAGAR

Cloned pashmina (Changthangi) Goat



Noori, Goat

The first successfully cloned Pashmina goat "Noori" was produced on 9 March, 2012 at Veterinary College of this university. It was the joint effort of Project Implementation Unit, National Agricultural Innovation Project, National Dairy Research Institute, Karnal, (Haryana); SKUAST(K), Srinagar J&K, and the team of scientists working at Animal Biotechnology Centre, NDRI (lead consortium), Centre of Animal Biotechnology, Faculty of

Veterinary Sciences, Shuhama, Srinagar (consortium partner).

The university in collaboration with NDRI, Karnal, submitted a joint research proposal in competitive mode for funding under NAIP (ICAR) to conduct research in cloning of buffaloes and Pashmina goats. Under this project, the consortium partner at Centre of Animal Biotechnology, SKUAST-K planned to develop facilities and technology for production of cloned embryos of Pashmina goats in Animal cloning laboratory of the Centre and subsequently produced cloned offsprings having quality traits.

Cloning is a process of producing genetically similar populations of organisms of the desired sex. The research project aimed to multiply the animals of high production potential (cashmere fibre) and assess the fibre-producing ability of these clones. The Pashmina goats were able to survive and produce the fibre in significant quantities when reared under low altitude condition at the university farm but the sustainability of the trait was to be evaluated over a prolonged period.

Team of scientist and researchers

The cloning strategy involved the fusion of somatic cell (a skin fibroblast from the elite animal to be cloned, which contributed the genetic component), with an egg or ovum (whose nucleus was removed by manual chopping) derived from the ovaries collected from an abattoir. The resulted zygote was activated and cultured in vitro in a specialized culture medium under specific environmental conditions (simulating the womb of a goat), and incubated for 7-8 days in the laboratory. It was then transferred into the uterus of anoestrus-synchronized recipient goat through laparoscopic technique. Pregnancies were regularly monitored ultrasonographically



Team of scientist and researchers

to assess the growth and survival of the foetus. The cloned Pashmina kid delivered after a normal gestation period weighed 1.3 kg at birth. The kid is showing active behaviour with no apparent disease or deformity, and is suckling normally to its foster mother.

With these achievements in Buffaloes and Pashmina Goats India has indigenously achieved the expertise and facility to produce live cloned animals and can be counted among the few (10-15) countries who have achieved this feat in the world. The university plans to produce a herd of cloned male pashmina goats of high genetic and production value for use in breeding and upgradation programmes in the cold arid mountainous region of Ladakh.

UNIVERSITY OF AGRICULTURAL SCIENCES, BANGALORE



Dr S. Ayyappan inaugurating KVK, Hiriya building

Council of the university; Dr R. S. Kulkarni, Director of Extension; and Dr H. Shivanna, Director of Research visited KVK, Hiriya (Chitradurga district) and also ARS and KVK, Konehalli (Tumkur district).

Dr Ayyappan inaugurated the administrative building of KVK, Hiriya. He also visited the exhibition organized by KVK, ZARS NAIP and Akshaya Food Park, and interacted with the farmers and farm women, especially the beneficiaries of NAIP project on livelihood security for rural poor in the disadvantaged Chitradurga district of Karnataka through IFS approach. He assured that ZARS will be given more financial assistance to construct Shathamanothsava Smaraka Bhavana at ZARS, Hiriya to commemorate the century of establishment of Babbur farm.



Dr S. Ayyappan inaugurating KVK, Konehalli building

fetch higher income and improve the livelihood security of the farmers. He suggested that a seminar on Dryland management might be organized by involving five southern districts.

UNIVERSITY OF AGRICULTURAL SCIENCES, RAICHUR

Farming community to modern technology

A Krishi mela was organized at UAS, Raichur campus during 15-17 October 2011 by the university in collaboration with development departments of the district. Shri Rajugouda, Minister for Small Scale Industries, Government of Karnataka in his inaugural address called upon the farming community to adopt modern scientific technologies for reaping higher yields. During the occasion, six farmers and six farm women of six districts of the region were honoured and 21 information booklets were released for the benefit of farmers. More than 50,000 farmers visited this Mela.

Kharif and Rabi Seed Melas

The Seed Unit of the university and Ministry of Agriculture, Government of India organized jointly rainy season (Kharif) seed mela on 25 May and (rabi) seed mela on 25 September 2011. During kharif mela, the seeds of improved varieties of pigeon-pea (10 q), groundnut (3 q), maize (1 q), bajra or pearl millet (1 q), sunflower (1 q) and castor (1 q) were sold and during rabi mela, the seeds of improved varieties of

Dr Ayyappan visits KVKs and ARS

Dr S. Ayyappan, Secretary (DARE) and Director General (ICAR), New Delhi visited the university and its centres during 21-22 February, 2012. He was accompanied by Dr K. Narayana Gowda, VC; Dr S. Prabhukumar, Zonal Project Director, ICAR, Zone VIII; Dr V. Veerabhadraiah, former Director of Extension and Member, Academic



Dr S. Ayyappan interacting with farmers at food park

He also inaugurated the Administrative building of KVK, Konehalli and seed godown of ARS, Konehalli. He also visited the sheep, goat, Azolla and bio-digester demonstration units at the campus, and interacted with progressive farmers and officials of line departments of the district. He laid emphasis on increasing the productivity under rainfed situations and need for value addition in minor millets to



Shri Rajugouda at Krishi Mela

sorghum (2 q), bengalgram (50 q), sunflower (1 q), safflower (1 q) and groundnut (2 q) were sold to the farmers. The melas were inaugurated by Dr B.V. Patil who urged the farmers to use the best-quality seeds of good varieties to obtain higher yield, and advised them to become self-reliant in production of quality seeds at the village level. Around 500 farmers took part in these melas.

Conservation Agriculture in Rainfed Farming

A short course on Conservation agriculture in rainfed farming, designed specifically for scientists, extension workers, progressive farmers, service providers and private partners, was held during 18-22 August 2011 at College of Agriculture, Raichur was attended by 20 participants. Dr S.G. Patil,



Visit on C.A. Site

Director of Education and Co-ordinator of the programme informed about the course and the extension efforts of conservation agricultural in Karnataka as well as research on this topic in the university and efforts of promoting the programme in the state. Dr Pat Wall, gave an overview of global work on this programme. Dr B.V. Patil, VC emphasized the need to utilize its principles for sustainable

Pigeonpea-based integrated farming system

A training programme on "Pigeonpea-based Integrated farming system" was conducted at Merched village of Raichur taluk on 20 August 2011. Transplanting, dibbling and sowing operations of pigeonpea were demonstrated in 25, 510 and 300 acres respectively in Merched, Turkundoni, D. Rampur, Kudloor and Vadloor villages of Raichur taluk by involving 75 farmers. Dr S. A. Patil, President, Karnataka Krishi Mission, Government of Karnataka, Bengaluru inaugurated the programme. During the training programme each farmer was given seedlings of sapota, mango, fig, curry leaf, drumstick, pongamia, neem and tamarind.

Quality Seed Production, Processing and Marketing

The Department of Seed Science and Technology, College of Agriculture, Raichur in collaboration with the ICAR, New Delhi organized a winter school on Quality seed production, processing and marketing during 2 to 22 November 2011. 28 participants in the cadre of Assistant Professor and above from Karnataka, Kerala, Chhattisgarh, Gujarat, Madhya Pradesh, Maharashtra, Tamil Nadu and Manipur attended the programme. Dr S.N. Vasudevan, Professor and Head was the Course Director of the winter school.

ICT Applications in Agriculture

The College of Agriculture, Raichur organized Model training course on "Information communication technology applications in agriculture" in collaboration with Department of Agriculture and Co-operation, Ministry of Agriculture, Government of India from 21 to 28 November 2011. Experts from IIT Kanpur, IIITM Hyderabad, University of Agricultural Sciences, Bangalore and IWST, Bangalore were invited, and hand on training was imparted. 20 participants from the development departments, NGO KVKs and officials from NGOs participated in the training. Dr B.V. Patil, VC distributed certificates to the participants. Dr A. Prabhuraj, Associate Professor (Agricultural Entomology) was the Course Director.

Agricultural Technology Week at KVK, Raichur

The KVK, Raichur celebrated agricultural technology week from 28 September to 4 October, 2011. It was organized in Raichur district to provide scientific information on on-going agricultural operations of the farming community about their farming situations. The relevant activities viz. soil-health camp, paddy cultivation, Azolla production, fodder-bank management, organic farming, cultivation of turmeric,



Participants at Seed Mela



Participants at Conservation Agriculture course



Participants at winter school on seed production



Participants of Agricultural Technology week

health problems. Shri. Venkanagouda Malkapur, Member, Board of Management and other key officers of the university were present.

Awards

ANAND AGRICULTURAL UNIVERSITY, ANAND

IDA Fellowship to Dr J.B. Prajapati



Dr J.B. Prajapati receiving award

Dr Jashbhai B. Prajapati, Professor and Head, Department of Dairy Microbiology of SMC College of Dairy Science, Anand Agricultural University, Anand was chosen for the IDA Fellowship 2012, in recognition of his valuable services in furthering the cause of Indian Dairy Association, especially of Indian dairy industry. His major field of research involved exploring the therapeutic potential of probiotic lactobacilli.

Prof. Abhijeet Sen, Member, Planning Commission, Government of India presented this award to him on 2 February 2012 at the Inaugural ceremony of 40th Dairy Industry Conference at New Delhi.

GOVIND BALLABH PANT UNIVERSITY OF AGRICULTURE & TECHNOLOGY, PANTNAGAR

Honours to university

The ICAR awarded the university for excellent performance of its students in Junior Research Fellowship examination (conducted by the ICAR) and in the competition held for scientists' selection by ASRB on all-India basis.



Dr B.S. Bisht, receiving ICAR award from Dr Charan Das Mahant.

Agriculture presented 'Mahindra Smridhi India Agri-Award 2012 to the university on 21 February 2012 at a programme organized at Ashok Hotel, New Delhi. The award, given for excellent performance of Krishi Vigyan Kendra, Dhakrani, Deharadun, of the university in technology dissemination, was received by Dr B.S. Bisht, VC.

Star Group of Industries presented Innovative Business Award, 2012 to the university for contribution in management education Daily News and Analysis. The function was organized at Hotel Taj, Mumbai. Dr B.S. Bisht, VC received the award.

MAHATAMA PHULE KRISHI VIDYAPEETH, RAHURI

Honours to Dr T.A. More



Dr T.A. More being facilitated by Shri. Kadsidhehar Maharaj

Dr T.A. More, VC, was presented Bhima Jeevan Gaurav award at Kolhapur for his contribution to development of horticulture on the occasion of Bhima Krishi 2012 exhibition, Shri Kadsidheshwar Maharaj presented him the award.

He also felicitated Dalitmitra Dhanajirao Ghodajkar Samaj Bhushan award from Heeramati Adivasi Seva Samiti, Nanded for his significant contribution to agricultural

education, research and extension education. Shri D.P. Sawant, State Minister of Higher and Technical Education, Government of Maharashtra, and Shri Yamaji Malkar, were present on this occasion. Dr More is a horticultural scientist of international repute, who contributed to development of 37 varieties or F-1 hybrids in 19 horticultural crops (vegetables, fruits, flowers), 17 of which are recognized at national level. He also developed 46 technologies.

PUNJAB AGRICULTURAL UNIVERSITY, LUDHIANA

Fulbright-Nehru award to Ph.D student

Ms Yadhu Suneja, a student of Ph.D. in Biochemistry at PAU, Ludhiana received Fulbright Nehru-Doctoral and Professional Research Fellowship (2012-13) for pursuing her research work in the USA. Fulbright Fellowship is a bilateral educational exchange programme, funded jointly by Government of India and the U.S. Ms Suneja is working on "Water deficit tolerance and status of antioxidant enzymes in Triticum dicoccoides and Aegilops tauschii" under the guidance of Dr Anil Kumar Gupta, Head, Department of Biochemistry, in close collaboration with Dr Navtej Singh Bains, Senior Wheat Breeder, Department of Plant Breeding and Genetics at PAU. Under the Fulbright Fellowship she will be working on "Allele mining of drought stress-responsive genes in D-genome progenitor of wheat" under the guidance of Dr Kulvinder Singh Gill, Vogel Endowed Chair in Wheat Breeding and Genetics, Washington State University, Pullman, the USA, for a period of 9 months. This study will provide information on maximizing the use of natural allelic variation in wheat-stress tolerance.

Ms Yadhu Suneja earlier received INSPIRE Fellowship (2010) from Department of Science and Technology, Government of India for pursuing her Ph.D. and had also qualified National Eligibility Test of Council of Scientific and Industrial Research (CSIR-NET) in 2008, Agricultural Scientist Recruitment Board (ASRB-NET) in 2010 and Graduate Aptitude Test in Engineering (GATE) in 2010.



Ms Yadhu Suneja

Future Programme

PUNJAB AGRICULTURAL UNIVERSITY, LUDHIANA

International Conference on "Sustainable Agriculture for Food and Livelihood Security"

The PAU is celebrating Golden Jubilee of its establishment this year (2012). On this occasion, many events such as seminars, exhibitions, conventions, alumni meet etc. are being organized throughout the year. As a part of these celebrations, an international conference on "Sustainable agriculture for food and Livelihood Security" will be held during 27-29 November 2012. It aims at sharing latest advances, knowledge and technologies regarding agricultural production and discuss options to deal with the challenges to stimulate collaborative research among institutions. The conference will focus on the following theme areas: Breeding crops for food security and climate resilience, Natural resource conservation: a key to sustainable agriculture, Crop protection, Food processing and nutritional security, Advances in veterinary and animal sciences for sustainable livestock development, and Joining hands for economic development.

Prof. M.S. Swaminathan, Member of Parliament (Rajya Sabha) and Chairman, M S Swaminathan Research Foundation, Chennai, will inaugurate the conference. Besides, a galaxy of internationally reputed scientists will deliver key talks in various sessions of the conference. Information about the conference can be obtained from website <http://pau.edu/icsa/>.

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