

IAUA



NEWS

QUARTERLY NEWSLETTER OF INDIAN AGRICULTURAL UNIVERSITIES ASSOCIATION

VOLUME 6 No. 3

JULY - SEPTEMBER 2006

CONTENTS

Spot News

New VCs

Dr R.P.S. Ahlawat, VC, NAU, Navsari
Dr M.L. Madan, VC, Pt DDUPCVVV, Mathura

Dr R.C. Maheshwari, VC, SDAU, Sardarkrushinagar
Dr V.K. Suri, VC, CSAUAT, Kanpur

Deemed University

NDRI, Karnal

Universities

A Profile: CCS HAU, Hisar

AAU, Anand

AAU, Jorhat

DBSKKV, Dapoli

MAFSU, Nagpur

MPKV, Rahuri

MAU, Parbhani

OUAT, Bhubaneswar

Awards and Recognition

CCS HAU, Hisar

IARI, New Delhi

JNKVV, Jabalpur

MAU, Parbhani

NDRI, Karnal

NAU, Navsari

PAU, Ludhiana

SVBPUAT, Meerut

ADVISORY BOARD

Dr M.P. Yadav

President & Vice-President

Dr S.A. Patil

Secretary-Treasurer

Dr K.S. Aulakh

Member

Dr S.A. Nimbalkar

Member

Prof. Dr Rajendra B. Lal

Member

EDITORIAL BOARD

Dr R.P. Singh

Executive Secretary, IAUA

Ms Shashi A. Verma

Editor (English), DIPA

Shri C. Thomas

Editor (English), IARI

Dr Baldeo Singh

Head, Agric. Extn, IARI

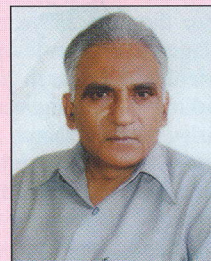
Shri R.S. Gupta

Ex-Editor (English), ICAR

SPOT NEWS

IAUA Executive Committee (Elect) for the year 2007

Dr M.P. Yadav, VC, SVBPUAT, Meerut	: President
Dr S.A. Patil, Dir., IARI, New Delhi	: Vice-President
Dr K.S. Aulakh, VC, PAU, Ludhiana	: Secretary-Treasurer
Dr S.A. Nimbalkar, VC, DPKV, Akola	: Member
Dr Rajendra B. Lal, VC, AAI, Allahabad	: Member
Dr A. T. Sherikar, VC, MAFSU, Nagpur	: Member
Dr M.K. Majumder, VC, UBKV, Coochbehar	: Special Member from East



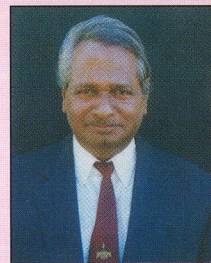
Dr M.P. Yadav
President, IAUA

Dr S.A. Patil, VC, UAS, Dharwad joins as Director IARI

Dr S. A. Patil was born on 5 August 1946 at Hirebiral in Gulbarga district, Kanataka. He did his B.Sc. (Agric-Hons) in 1967, M.Sc. (Agric.) in 1975 and Ph.D. (Genetics and Plant Breeding) in 1990. He was a holder of General Merit Scholarship of the University of Agricultural Sciences (UAS), Bangalore.

Dr Patil had held many important positions at UAS, Dhawad and rose from the position of Assistant Plant Scientist (1973) to that of Director of Research (1999-2000) and Vice-Chancellor (2000-06) before joining as Director, IARI on 1 September 2006. Dr Patil developed 16 hybrids and high-yielding varieties in important commercial crops, namely cotton, groundnut, niger, sunflower and castor.

He is a life member of 25 agricultural scientific periodicals of international, national and state levels and has 299 publications to his credit. He served as Chairman & Member in 50 organizations. He has been a senior member of IAUA Executive Committee (2005), its Secretary-Treasurer (2006) and currently is its Vice-President (2007).

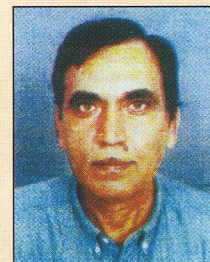


Dr S.A. Patil

NEW VCs

Extension of Dr R.P.S. Ahlawat's term as VC, NAU, Navsari

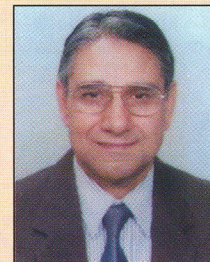
As the first VC of NAU, Dr Ahlawat had initiated several progressive measures like strengthening of infrastructure, establishment of Advance Centre for Research on Biotechnology, Information and Communication Technology Cell, Agricultural Technology Information Centre etc. His term has been extended from 21 May 2005 onward.



Dr R.P.S. Ahlawat

Dr M.L. Madan, VC, Pt DDUPCVVV, Mathura

Dr Madan took over the charge of VC, Pt DDUPCVVV, Mathura on 5 October 2006. He was born on 1 January 1939. He did his BVSC&AH (Gold Medalist, 1959), M.Sc. (Gold Medalist, 1965), Ph.D. (University of Missouri, 1971) and D.Sc. (Honoris Causa, 2001). He has national and international professional experience of over 46 years, involving research, teaching, extension, management and infrastructure development in the areas of agriculture, livestock, veterinary science etc. He held many senior management or teaching positions like PD, ETT (1987-94) VC, DPDAU, Akola (1999-2002); DDG (AS), ICAR, New Delhi (1995-99) etc. He received several awards such as International Science Pioneer Award (1985), Hari Om Award (1990), Rafi Ahmed Kidwai Award (1992), IAAVR Award (1997), Bhasin Award (2002), DIVA (2002), AGOURI Award (2004) etc. Dr Madan has also held various international and national assignments, e.g. Member, Indian delegation to Indo-Dutch Mission (1982); Indo-Russian Mission (1983); Indo-Canadian Mission (1994); World Organization on Animal Health (1996); SACO-DBT (2000); NPCBB-MOA (2002); VCI (1999 and 2003) etc; and consultant invitee to FAO, IETS, ARC, IAEA etc. He published 124 national and 97 international articles, 192 research abstracts, 192 reports and 28 chapters in books or bulletins.



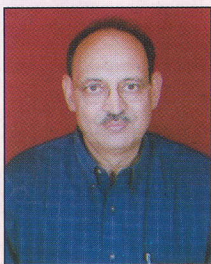
Dr M.L. Madan

Dr R.C. Maheshwari, VC, SDAU, Sardarkrushinagar

Dr Maheshwari took the charge of VC, SDAU, Sardarkrushinagar on 6 September 2006. He was born on 4 March 1947. He did B.E. from GBPUAT, Pantnagar (1967) and then M.Tech (1969) and Ph.D. (1974) from IIT, Kharagpur.

He received academic merit scholarship during 1963-66, IIT Fellowship for Ph.D. degree and Jawaharlal Nehru Award for his Post-graduate Research in 1976. He is also recipient of Commendation Medal for Energy Research during 1984-85 and he became the Fellow of Indian Society of Agricultural Engineering during 1995-96.

For the past 25 years Dr Maheshwari has been associated with village and district-level planning, implementation and monitoring of agricultural research and development programmes. He has been working at the highest policy level and management of National Agricultural Research System in the country, where he handled a variety of duties related to Centre-State Co-ordination, Plan Implementation and Monitoring, and Technical Co-ordination with Planning Commission and other sister ministries or departments as a part of Centre-State coordination in Agricultural Research. He brought out eight-volume Status Reports on Centre-State Co-



Dr R.C. Maheshwari

ordination, Agricultural Research, Education and Extension.

As an academican he taught five courses including Systems Engineering in Agriculture and guided Ph.D. and M.Tech. students at IIT, Kharagpur. He has been on the Academic Council of TNAU, Coimbatore and Executive Board of four state agricultural universities and one United Nations CGPRT Centre at Bogor, Indonesia.

Dr V.K. Suri, VC, CSAUAT, Kanpur

Prof. (Dr) V. K. Suri took over the charge of VC, CSAUAT, Kanpur on 9 October 2006. Dr Suri was born on 13 January 1955. He did his M.Sc. (1979) from PAU, Ludhiana and Ph. D. (1986) from IIT, Kharagpur (W.B.). He joined IIT, Kharagpur (November 1982) as Senior Research Assistant and served as Assistant Professor (1986), Professor (1994 onward) at CSKHPKV., Palampur (H.P.). He received several awards such as Crop Research Award (1997); Agricultural Development National Award (2000); Man of the Year Award (2003); conferred by ABI, Raleigh (the USA), United Cultural Conventions International Peace Prize (2003), Medal of Honour Award (2003) of ABI, Raleigh (the USA) etc. He is the affiliated member of SSC, ISSC, ISAS, IARRW etc. He has visited 15 countries on various assignments. He published 52 research and 40 technical papers and has guided three Ph.D. students.



Prof. (Dr) V.K. Suri

Focus on Universities Achievements and Events

DEEMED UNIVERSITY

NATIONAL DAIRY RESEARCH INSTITUTE, KARNAL

Development of platform test to detect detergent in milk

A long-standing need for developing platform test for detecting adulteration of milk with so-called 'synthetic milk' has been fulfilled by focused efforts of scientists from Dairy Chemistry Division. Detergent is believed to be one of the critical chemical substances used in preparation of synthetic milk. The platform test developed is based on colour, and can detect the presence of detergent in milk up to 12.5 mg/100 ml milk. It provides the result within 5-10 min. The developed test will act as deterrent for those involved in adulteration of milk with synthetic milk.

(Y.S. Rajput, Rajan Sharma and Sumandeep Kaur)

Sixth Convocation

Sixth Convocation of NDRI Deemed University was held on 21 April 2006. On this occasion, the degrees of B. Tech., M. Tech., M.V.Sc., M.Sc. and Ph.D. were conferred upon the students who had completed all the requirements for their programmes during the biennium 2003-04 and 2004-05. Shri Sharad Pawar, Union Minister for Agriculture, Food, Public Distribution and Consumer Affairs, graced the occasion as Chief Guest and gave away the degrees and delivered the convocation address. Shri B.S. Hooda, Chief Minister of Haryana, was Guest of Honour and he presented the Gold Medals, Merit Certificates and Awards to the students and faculty of NDRI. Other dignitaries present were Shri Arvind Sharma, M.P., Karnal; Smt. Meena Mandal, State Minister for Archaeology and Co-operation, Government of Haryana; and Dr Mangala Rai, Director-General and Dr V.K. Taneja, DDG (AS), ICAR, New Delhi.

At the convocation 39 B.Tech. (Dairy Technology), 133 M.Sc. and 67 Ph.D. students were awarded degrees. Gold Medals or Director's Medals were awarded to Shri Amit Kumar and Shri Ahmed Saifee for B.Tech. (DT); to Shri B. H. Chennigaraju, Shri N. Senthil Kumar and Ms G Letha Devi for M.Sc.; and to Shri S. S. Manohar, Shri M. C. Rejil and Shri Pralay Hazra for M.Tech. Best Teacher Award for 2003-04 was given to Dr S. K. Anand, Senior Scientist (Dairy Microbiology); and P. G. Nair Award for Outstanding Research in Dairying for 1996-2000 was awarded to Dr V. K. Kansal, Head, Animal Biochemistry Division.



Students receiving degree from Shri Sharad Pawar

UNIVERSITIES

A Profile

Ch. CHARAN SINGH HARYANA AGRICULTURAL UNIVERSITY, HISAR

Setting up of university

Haryana Agricultural University at Hisar came into existence on 2 February 1970 through an Act of Parliament, 'The Haryana and Punjab

Agricultural Universities Act, 1970'. The university was given its present nomenclature Chaudhary Charan Singh Haryana Agricultural University in 1991 through an amendment to Haryana and Punjab Universities Act, which received the assent of the President of India on 8 October 1991. Chaudhary Bansi Lal, former Chief Minister of



Administrative block, HAU

Haryana, was the initiator of the university.

Purpose of setting up

When Haryana State came into existence in 1969 after the bifurcation of Punjab State into Punjab and Haryana, it was a backward state. Most of the fertile farms and land went to Punjab. Haryana was left with no proper irrigation system and modern technology for crop production. Need was felt to educate and train the farmers in agriculture and allied fields such as veterinary and rural development. For this a full-fledged agricultural university was essential not only for devising new techniques of farming but also for educating the farmers about the latest techniques through extension activities.

Main Objectives

- Imparting education in different branches of study, particularly agriculture, veterinary and animal sciences, agricultural engineering, home science and other allied sciences.
- Furthering the advancement of learning and research, particularly in agriculture and allied sciences.
- Undertaking the extension of such sciences to the rural people within the state.
- Such other purposes as the state government may, by notification in the official gazette, direct.

Major Achievements

1970-80

- Improved agricultural technology in crop production along with the required facility created by the state government in terms of irrigation potential, power availability and other inputs greatly contributed to increased foodgrain production.
- Krishi Gyan Kendras and research stations were set up in different districts as per the requirements of particular areas.
- The technological pipelines based on new varieties and increased fertilizer use in 1970s and 1980s reached their prime.
- Eleven scientists of HAU won Rafi Ahmed Kidwai Award, Hari Om Ashram Trust Award, ICAR Award and Jawaharlal Nehru Award.

1981-90

- The extension programme was strengthened for better communication with farmers and extension agencies of the state.
- The problems encountered in cotton-wheat and rice-wheat cropping systems were studied and solutions were shared through Krishi Gyan Kendras with farmers.
- Total 105 scientists won Rafi Ahmed Kidwai award, Hari Om Ashram Trust Award, ICAR Award and Jawaharlal Nehru Award.



Dr A.P.J. Abdul Kalam, the President of India, lighting the lamp on the occasion of 23rd Convention on 19 April 03

1991-2000

- Agricultural Human Resources Development Project was launched in 1995 with the financial grant of Rs 4,300 million by World Bank for improving the quality of agricultural education and to develop and manage agricultural human services.
- The undergraduate and post-graduate course curricula in agriculture and allied subjects underwent constant review and redesigning to develop technical expertise in agriculture based on diverse career opportunities.
- Thirty scientists won Rafi Ahmed Kidwai Award, Hari Om Ashram Trust Award, ICAR Award for Team Research, Jawaharlal Nehru Award, NAAS Award and International Societies Award.

2001-05

- Collaborative research project reviews, peer reviews and joint supervision of research and extension in collaboration with state department of agriculture, ICAR and other national and funding agencies increased the university's applied and strategic research activities in developing new technologies in agriculture.
- The university won Best Institution Award of ICAR in 1996.
- Facility of Toll-free Agriculture Helpline was started in February 2002 to enable farmers to seek information on latest technologies

in the field of agriculture and allied subjects.

- The university focused attention on changing the global economy in agriculture.
- Programme rationalization in teaching, research and extension was regularly undertaken to face the challenges of WTO-based reforms and to improve the quality of agricultural products for taking advantage of GATT deals.
- Imparted trainings to scientists from Israel and Ethiopia in agriculture and allied fields through Academy of Agricultural Research and Education Management (AAREM) of Directorate of Human Resources Management.



Shri Surinder Singh, Minister of Agriculture of Haryana, inaugurating Kisan Mela

Development of revolutionary technologies

The agricultural revolution (green, white, yellow and blue) in the state could be realized because of full faith of the farmers in the technology developed by this university and strong policy support provided by the state government. The technological breakthrough has immensely helped in the development of agriculture, animal husbandry and related industries like seeds, tractors or fertilizers, pesticides, agricultural implements, processing etc., which ultimately led to generation of employment. In seed sector alone, 115 private seed industries have come up in Haryana though in 1990 only 21 companies were doing their business in the state.



Governor Shri Kidwai visiting Diagnostic Laboratory of TVCSC

The university carried out wide-spectrum research activities through 60 state-funded (Non-Plan) and 38 Plan schemes in addition to 58 ICAR projects. Besides, the university has received 95 NATP projects and 52 projects from DBT, DST, CSIR, UGC, Horticulture Board etc. In addition, 33 self-financing schemes are also in operation. The total allocation of budget for research as on today is Rs 39 crores. During 2003-04, Directorate of Research received projects worth Rs 5.2 crores from the ICAR, NATP and other agencies. For commercialization of technology, this university has signed MoA with National Research Development Corporation.



International Conference at Hisar during 13-17 December 04

The research pursuits at this university are taking different dimensions to cope with the emerging needs of the state as well as the national and global levels. The priorities in focus are:

- Natural and animal resource conservation and improvement, and their efficient use.
- Generation of technology for quality improvement in agricultural products.
- Technology to solve issues related to sanitary and phyto-sanitary measures and for ecology and environment.
- Technology development to reduce the cost of production.
- Generation of competitive technology for agricultural processing or value addition.

To achieve these goals, the university is pursuing farmers' participation in the research activities to establish a linkage between industry-university-farmers. Centre of Food Science and Technology is being strengthened to generate cost-effective and globally competitive post-harvest and value-addition technology. Concrete steps have been taken to save elite genetic material from bio-piracy. So far the university has registered over 40 elite genetic lines with National

Bureau of Plant Genetic Resources.

Research Achievements

Crop improvement

Crop-improvement programme of this university has been highly successful. As many as 52 crop varieties developed by this university are still serving the farmers of other states also. In Plant Breeding, 11 varieties were released in 2002-04 at the national level and seven at the state level. In addition, 21 new varieties in crops like chickpea, field pea, lentil, pigeonpea, greengram, rice, *raya*, groundnut, cotton, berseem, *dhaincha* and maize have been identified for testing in farmers fields.

In soybean, varieties SH 40 and SH 3 were found most promising. These varieties have been included for zonal varietal testing under All India Co-ordinated Research Improvement Programme.

Seedproduction technology

This university has been recognized as Centre of Advanced Studies for Human Resource Development in seed technology. Seed Technology Centre organized eight trainings for the scientists of ICAR institutes and SAUs, public and private sector personnel, seed growers, farmers and women link-workers. The university caters to the need of different seed-producing agencies by providing quality seed and imparting training. During 2002 more than 2,000 q breeder seeds of different varieties of cereals, pulses, oilseeds and forage crops were produced. About 6,000 q breeder seed of sugarcane varieties and 4,500 q foundation or F_1 seeds of different crops were also produced. About 6,000 seed samples submitted by various public and private agencies and research samples were tested in seed-testing laboratory for different seed-quality parameters. Storage techniques for wheat and greengram and threshing parameters for mustard crop were optimized for safe storage and minimum seed damage.

Crop Protection

The university has made significant strides in generating bio-control technology for the control of insect pests and diseases. Parasites for the control of *Pyrrilla* in more than 7,763 acres of sugarcane fields were supplied to cane growers of Haryana, U.P., Uttaranchal and M.P.

Survey of areas in Hisar, Fatehabad and Sirsa districts adjoining Rajasthan showed the common occurrence of *Heterodera* averaged at 2, 4 and 10 new sites respectively. Under rice-wheat cropping system, stunt nematode was not frequent, followed by rice-root nematode. Application of Carbofuran 25 EC @ 0.1% led to effective management of root-knot nematode in chickpea.

Vegetable and horticultural crops

Fenugreek varieties HM 103, HM 346 and HM 350, resistant to carpospore leaf-spot, downy and powdery mildew diseases respectively, and coriander DH 36 were recommended for release at national level.

A high temperature-tolerant brinjal variety HLB 25 showed 27% superiority over check in farmers' field trials. Tomato hybrid HTH 40 was found at par with commercial hybrid. Packages of practices for different vegetables have been standardized. Hybrid-development programme in selected crops was initiated.

Agricultural Engineering

Subsurface drainage system was designed to reclaim waterlogged and saline land, based on intensive survey and investigation in five villages.

The subsurface drainage system was installed in 1,000 ha, which comprises 18 blocks in the project area, costing Rs 40,000/ha and proved to be very effective in restoring normal crop production in 3-4 years.



Dr Mangala Rai, DG, ICAR, addressing IAUA VCs' Convention at HAU on 5 January



Demonstration of paddy transplanter at HAU farm

A bullock-drawn, self-propelled weeder has been designed, and a manually operated fruit-picker has been developed. A mixer for mixing wheat straw with molasses was designed, developed and tested.

Basic sciences and humanities

Effective control measures for red-spot disease in fish species rohu and catla and foe fin and tail-rot diseases in catla have been developed. Total 95,000 bio-fertilizer packets were produced and distributed to the farmers. Phospho-compost was prepared from two grades of Udaipur rock phosphate. The technique for the preparation of chickpea-barley roasted *sattu* was standardized.

Home Science

Potato-based products, viz. chips, French fries, *papads*, flakes, ladder, salty biscuits and *bhujia* were developed. Products like bread, biscuit, noodles and macaroni were prepared from blended flour. The products were rich in dietary fibre content.

Functional garments were developed for crutches or wheel chair users with fractured upper or lower limb, disabled with Parkinsonism cerebellar degenerating nuclear dystrophy techniques were standardized for dyeing wool and cotton yarn using different mordants in isolation and in combination.

Animal health

Assisted Rhynoductive Technology appeared good for induction of cyclicity in buffaloes both in breeding and non-breeding seasons, under rural condition. With the use of AR techniques it could be possible to get three lamb crops in 2 years, leading to 50% increase in production.



Operation of equine at College of Veterinary Sciences

Post-parturient haemoglobinurra (PPH) is a metabolic disease occurring commonly in buffaloes in Haryana, which could be effectively treated with useful antioxidants. Liver tonics and mineral mixtures also proved useful.

Animal production

In cattle, the age at first calving was reduced from 51.7 to 46.6 months and wet-milk average increased from 6.4 to 7.6 kg. Average lactation length was progressively increased from 266 to bio-drop.

To minimize oxidation changes and to improve the meat quality during refrigerated stock, coherool acetate 8 ppm in minced pock and sodium at 700 ppm level proved useful.

The undersize grains of barley, ricebean, cotton seed, sunflower, *guar* etc. were characterized chemically and *in-vitro*. They could be fed to lactating dairy animal, poultry and swine as a source of energy and protein.

Urea molasses mineral lick blocks (4 MMB) could be stored for a longer period without quality deterioration at relative humidity below 65%. Buffalo follicular fluid from large follicles was found perfect and comparable to the conventional media for *via-vitro* maturation. Buffalo embryos can be biopried at any stage for sexing.

A spot test was developed for detecting synthetic milk. A milk-clotting enzyme from the fungus *Rhizopus oryzae* was obtained, having a good potential as a substitute for imported enzyme being used currently in cheese industry.

International collaboration

The university established collaboration with the universities in Australia, the USA, the UK, Germany and other countries. Students from Sudan, Vietnam and Yeman are doing M.Sc. and Ph.D. programmes in various fields. APG diploma course in Gender and Development is being conducted by Academy of Agricultural Research and Education Technology of Directorate of Human Resource Management, in collaboration with Hull University of UK. A number of scientists visited foreign countries under Commonwealth Universities Exchange Programme.



Delegation from Ethiopia

New initiatives

New and emerging areas were identified through faculty consultation to act as a blueprint for all research policies, directions and strategies over the next few years.

Exchange of field-oriented problems improved between university scientists and officers of the Department of Agriculture. The problems encountered in the recent past required not only increase in the amount of budgetary allocation but also a change in the way it is spent. The problems encountered in cotton-wheat and rice-wheat cropping systems could be solved by increased attention to specific problem-oriented projects with limited lifetime. To make the system work, the university plans to improve its mechanism for evaluating individual projects. To meet the increasing demand of funds on emerging areas, the university is striving to establish links between international organizations, commercial enterprises and university scientists.

Technologies generated by the university over the past 35 years provide pointer to the future of agriculture in the state. These include:

- New forms of technological problems emerged.
- The technological pipeline based on new varieties and increased fertilizer use in 1970s and 1980s have reached their prime.
- Integration of extension activities of the university with global economy.

Future perspective planning till 2020

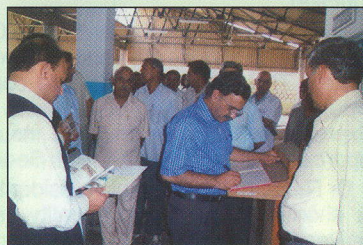
There is no doubt that agricultural progress in India has been instrumental in providing greater strength to the nature to fight various adverse situations. In future too, agriculture would continue to play a vital role in strengthening national economy, because this sector provides employment to nearly 7% of population and on an average contributes around 24.2% to GDP. So far the investment on agricultural research and development has been highly rewarding. On a conservative estimate, an investment of Re 1 on agricultural research paid off more than a 1,000 times. Now time has come to make agriculture a high-tech occupation so as to compete in WTO regime. But with the present level of investments on agricultural research, it is not possible to compete at global level. The pressure on agriculture pursuits is increasing to make it more responsive to the need of stakeholders.

Haryana Agriculture has witnessed a qualitative change by achieving a record in crop production. Trends in animal production are also very encouraging. The state is next only to Punjab in contribution to the national food reserves. This has been largely possible because of technology generation by our scientists, adoption by our farmers and full support by the government. Agriculture sector continues to play a major role in the economy of the state. It contributes 33% of total GDP and provides employment to nearly 66% of the population of the state.

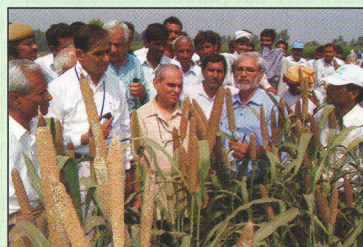
Right now we are focusing on diversification in cropping system, enhancing water-use efficiency through development of water-harvesting technology, integrated pest and nutrient



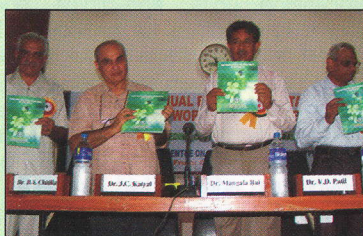
Dr A.R. Kidwai, Governor of Haryana, in meeting with Dr Millar



Minister of Agriculture Marketing, Government of Punjab, Pakistan visiting TVCSC



Dr J.C. Katyal, VC, at Farm Darshan Mela



Dr Mangala Rai (DG, ICAR) releasing a souvenir

management, and utilization of indigenous resources. Time has come when agriculture has to be run as agri-business rather than subsistence agriculture. Profits have to be earned through application of post-harvest technology by value addition. For meeting future challenges in agricultural education, rejuvenating teaching interventions have been initiated. The approaches for technology transfer are being redefined. There is also plan to provide gainful job avenues to agricultural graduates, whose employment rate at the national level is 43% at present.

The salient points of the plan till 2020 are given below:

Agriculture

Crop improvement through Genetic engineering and biotechnology; High-quality seed production, Integrated pest management and integrated weed management; Pesticide resistance and biological control; Rising water-table in Western Zone and to reduce water-table in Eastern Zone; Integrated nutrient management; Development of energy-optimizing farm machinery for zero tillage, Bed planting and transplanting; Development of dryland agriculture farming-system approach; Managing brackish water and problem soils; and Efficient use of water resources through sprinkling or drip irrigation.

Animal Husbandry

To exploit low-cost livestock productivity for export purpose; To initiate establishment of National and regional gene banks, and the process of patents and intellectual property rights; To upgrade technologies for veterinary vaccine development; To establish collection centres for vaccine strains, animal pathogen celline and hybridoma clones; and To strengthen animal-health programme.

Diversification

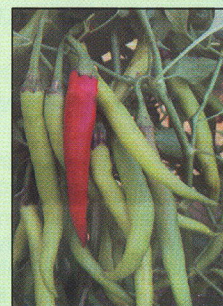
Farming system Floriculture, horticulture, silvipastoral, fisheries and mushroom; Value addition: quality rice, durum wheat, food processing; Agricultural marketing; Tissue culture; Household industry; Post-harvest technology

As a part of long-term objectives, university will continue communicating and interacting with farmers at state as well as national levels to generate recommendations that help improve and sustain agricultural productivity and improve the life-style of rural masses.

ANAND AGRICULTURAL UNIVERSITY, ANAND

Gujarat Vegetable Chilli 101

The variety Gujarat Vegetable Chilli 101 (Anand Jyot 101) was developed at Main Vegetable Research Station of the university. It is recommended for cultivation during *kharif-rabi* seasons as green fruit for vegetable purpose. It gives (145 a/ha)19.6% more than S 49. The fruits are attractive and possess high ascorbic acid with good shelf-life. It is released and notified for Gujarat State (except Saurashtra region) as well as Agro-climatic Zone VII (which includes Madhya Pradesh excluding eastern area and Maharashtra) during 2006. Cultivation practices are: Transplanting time: July-August; Spacing: 60 cm x 60 cm; FYM: 20 t/ha; Fertilizer: basal $N_{60}P_{60}K_{60}$; top; dressing: N_{25} (25 kg/ha) at 25 days, $N_{25}P_{60}K_{60}$ as 50 days after transplanting; Irrigation, weeding and interculturing as per requirement.



Gujarat Vegetable Chilli 101

High egg-laying hybrid developed

A high-producing White Leghorn egg- type hybrid was developed by

Department of Poultry Science, College of Veterinary Science and Animal Husbandry under AICRP on Poultry for Egg (ICAR). It was tested by Government of India at Random Sample Production Performance Unit, Mumbai consecutively for 3 years along with other layer hybrids developed by State agricultural universities as well as leading commercial poultry breeders. The egg-production performance, feed efficiency and return over feed cost were found competitive with commercial entries. The parent stock as well as commercial chicks are being supplied to the Animal Husbandry Department of Gujarat state. Its economic traits are: Average age at sexual maturity: 148 days; Average annual egg production: 299; Peak production: 95 %; Average egg weight at 28 weeks: 51g and at 72 weeks: 55 g; feed consumption/dozen eggs: 1.67 kg; and Laying-house mortality per month: <1%.



Anand Commercial Layer

ASSAM AGRICULTURAL UNIVERSITY, JORHAT

First report of white grub species from Assam

Recently white grub has emerged an important insect pest of potato, jute, sugarcane, pulses and vegetables in Assam. The survey conducted in different locations of the state revealed the presence of 12 species of white grubs. Out of these, 10 species, viz. *Holotrichia* sp., *Holotrichia sikkimensis*, *Maladera* sp., *Apogonia*, *Sophrops* sp., *Coprus* sp., *Adortus aerial*, *Anomala chlorosoma*, *Anomala chloropus* and *Anomala* sp. were reported for the first time from Assam.

Gitesh, new rice for delayed planting

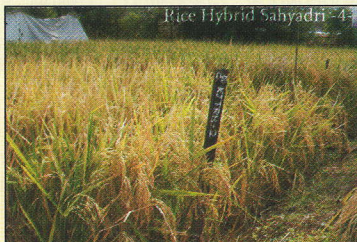
Gitesh (TTB 283-3-126) is derived from a cross Mugisali x Kushal and is found to be an excellent rice variety for delayed planting conditions in *sali* season in Assam. The variety can be planted with seedling age up to 60 days after sowing even up to August. Gitesh was tested at several locations including research stations in FTSS. It gave 28.3 q/ha yield under delayed condition (60-62 DAS) compared with 38.1 q/ha under normal condition (30-35 DAS) in farmers' fields. The farmers of risk-prone areas can delay the planting of their crops due to excess water or moisture stress in the main field.

DR BALASAHEB SAWANT KONKAN KRISHI VIDYAPEETH, DAPOLI

Released of New Crop Varieties

Rice hybrid Sahyadri 4

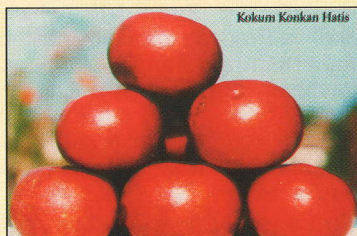
- It is an early-duration (115-120 days) rice hybrid
- Plant height 94-100 cm, having 369 panicles/m²
- Average grain yield 5.5 to 6.0 t/ha
- Long, slender grains, 6.74 mm (kernel L), 1.76mm (kernel B) and 3.82 (L: B) ratio, with 69.4% milling and high ASV (7.0)
- 1.76 mm (KB) and 3.82 (LB) ratio with 69.4% milling and high ASV (7.0)
- Desirable AC (21.38%) and soft GC (69 mm)
- Moderately resistant to leaf blast, neck blast, brown spot and rice tungro virus
- Wide adaptability under different agro-ecosystems in transplanted and direct-sowing conditions
- Central Varietal Identification Committee has identified it for release for commercial cultivation in Punjab, Haryana, Uttar Pradesh, West Bengal and Maharashtra, during 41st All India Rice Group Meeting held at Hyderabad on 26 April 2006.



Sahyadri 4 rice

Kokam variety Konkani Hatis

- It is high yielding (250 kg fruits/plant), with exceptionally bold size fruit (91.5 g)
- Had thick rind (5.58 mm)



Konkan Hatis kokam

MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, NAGPUR

Touch-screen kiosk

Dr P.S. Lonkar, Director of Extension and Dairy, developed Touch-screen kiosk, containing information on Animal Husbandry useful for farmers, breeders and field staff. It was inaugurated on 27 May 2006 at Veterinary College Campus, Goregaon, by Shri Sharad Pawar, who congratulated Dr Lonkar, for his efforts.



Shri Balasaheb Vikhe Patil addressing farmers and dignitaries on the occasion of Cotton Day

MAHATMA PHULE KRISHI VIDYAPEETH, RAHURI

Cotton Day

Cotton Day was celebrated at MPKV, Rahuri on 24 September 2006 at Rahuri. Shri Balasaheb Vikhe Patil, M.P. and Chairman, Defence Committee and former Minister of Heavy Industries, Government of India, was the Chief Guest. Dr R.B. Deshmukh, VC, presided over the function.

The function was organized at the Cotton Improvement Project of the university to apprise the cotton growers on the improved technology of cotton. The innovativeness and commercial attitude of the farmers would be economically beneficial to them, he added. Shri Vikhe Patil expressed his views on Crop insurance and Integrated insurance approach for the farmers and on Seed patenting.

Dr R.B. Deshmukh in his presidential speech said that the university is shortly releasing good-quality seed benefiting the farmers. The university has targeted 26,000 q seed to meet their demand.

MARATHWADA AGRICULTURAL UNIVERSITY, PARBHANI

Course on fresh export of fruits and vegetables

A short course sponsored by the ICAR, New Delhi on Post-harvest management and export of fresh fruits and vegetables was organized at College of Agricultural Engineering and Technology, during 12-21 September 2006. Dr Smita Khode was the Course Director. Twenty participants from Kerala, M.P., Haryana, Chhattisgarh, U.P. and Maharashtra participated in the course. A compendium of the course was released for circulation among the participants. The course covered all aspects of post-harvest management of fruits and vegetables right from harvesting to export. There was also demonstration and a field visit to Jain Food and Agri Park, Jalgaon. At valedictory function Dr S.S. Kadam, VC, expressed the need to reduce post-harvest losses of important agricultural commodities.



Dr S.S. Kadam, VC, delivering inaugural address

ORISSA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY, BHUBANESHWAR

26th Convention

The 26th Convention of Orissa University of Agriculture and Technology was held on 29 April 2006. At the Convocation 783, 502 and 22 students were conferred B.Sc., M.Sc. and Ph.D. degrees in various disciplines.

Hon'ble Rameshwar Thakur, Governor of Orissa and Chancellor, OUAT, while conferring degrees laid stress on establishment of food-processing units, agri-clinics, agro-service centres and village knowledge centres for providing vital information on weather and market-related aspects at village or block level.

Shri Surendranath Naik, Pro-Chancellor and Minister of Agriculture, Government of Orissa, in his address highlighted the development of integrated farming system for the benefit of small and marginal farmers. Dr Mangala Rai, Secretary, DARE and Director-General, ICAR, in his convocation address laid emphasis on expansion of area under fruit cultivation on commercial scale, exploitation of vast medicinal plant resources, development of livestock sector and development of both freshwater and brackish water fishery sector. He laid stress on

knowledge and technological empowerment of small and marginal farmers, landless labourers, farm women and school drop-outs.

Release of new crop varieties

Four rice varieties, viz. Sidhanta (ORS 102-4), Jogesh (OR 1519-2), Uphar (OR 1234-12-1) and Pratikshya (ORS 201-5), were released for cultivation in the state. Rice varieties Jogesh and Sidhanta are suitable for cultivation under rainfed and irrigated conditions in Orissa, Bihar, Madhya Pradesh, Andhra Pradesh and Tamil Nadu, and have yield potential of 5.6 t/ha and 7.3 t/ha respectively. The medium land variety Pratikshya has yield potential of 7.2 t/ha and multiple resistances to several pests and diseases (sheath rot, GM, LF, WBPH, BPH etc) and is likely to replace the ruling variety Swarna. The lowland variety Uphar with yield potential of 6.4 t/ha is suitable for shallow and semi-deep water situations.

Two blackgram varieties, Prasad (B 3-8-8) and Ujala (OBG 17), were released, which are tolerant to powdery mildew, yellow mosaic virus, pod-borer and shootfly and have yield potential of 1.2 t/ha. One variety each of brinjal (Utkal Anushree: BB 45C) and cowpea (Utkal Manik: BCP 3) were released, having high yield potential and good quality.



Utkal Manika (BCP 3)



Utkal Anushree (BB 45C)

PUNJAB AGRICULTURAL UNIVERSITY, LUDHIANA

Dr K.S. Aulakh attends AIU conference at Bangkok

VC, Dr K.S. Aulakh, visited Bangkok to attend EDUCON, 2006: Conference on higher education. This 3-day conference was organized by Association of Indian Universities in collaboration with Sakaal Newspapers Ltd, Pune. Dr Aulakh presented a paper on Agricultural improvement through biotechnological approaches at the conference.

Chinese delegation visits PAU

A nine member Chinese delegation led by Shri Zhou Shichang, Vice-Chairman, Standing Committee of Hunan Provincial People's Congress, visited PAU and met Dr B.S. Dhillon, Director of Research, and other officials. The delegation learnt the secrets of producing quality rice, and explored the possibility of bilateral co-operation between India and China to produce international-quality rice. Welcoming the offer of Chinese delegation for co-operation, Dr Dhillon said that China and India both have strong ties since ancient times and the new co-operation will mutually benefit both the countries.



Dr K.S. Aulakh



Chinese delegation with Dr B.S. Dhillon

Dr K.S. Aulakh attends conference in South Africa

VC, Dr K.S. Aulakh attended Second Annual Rural Development Conference at Walter Sisulu University, Mthatha in South Africa from 27 to 29 September and presented a keynote address on 'Role of PAU in the rural community development'.

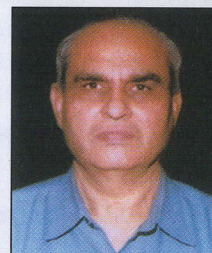
AWARDS AND RECOGNITION

CCS HARYANA AGRICULTURAL UNIVERSITY, HISAR

Dr J.C. Katyal gets Punjab and Haryana Ratna award

VC, Dr J.C. Katyal, was conferred Punjab and Haryana Ratan

Award in recognition of his talent and distinguished services rendered to the society. Basically a soil scientist, he significantly contributed in the last 35 years for the upliftment of agriculture and agricultural education in the country. The award was presented by Hon'ble Dr A.R. Kidwai, Governor of Haryana, at Silver Jubilee function of All India Conference of Intellectuals held at PGI, Chandigarh.

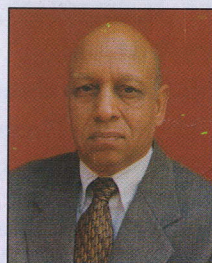


Dr J.C. Katyal

INDIAN AGRICULTURAL RESEARCH INSTITUTE, NEW DELHI

Awards to scientists for research achievements

Dr B.S. Parmar, Joint Director (Research), IARI, received Bharat Ratna Dr C. Subramaniam Award on 18 August 2006 as Outstanding Teacher (2004-05) of ICAR, for his significant contributions to teaching in Natural Resources Management (Agricultural Chemicals). Dr Parmar has been a post-graduate teacher at IARI since 1970 and has taught courses on Pesticide formulations, Basic and advanced agrochemicals, Analytical chemistry and agrochemical regulation, Quality control and management, and has guided 18 post-graduate students. He published 28 papers based on students' works in national or international journals and he holds 8 granted or filed patents based on their works.



Dr B.S. Parmar

Dr Gita Kulshrestha, former Head and presently Professor, Division of Agricultural Chemicals, IARI, was presented Panjab Rao Deshmukh Agricultural Woman Scientist Award, 2005 at the ICAR Award Ceremony held on 18 August 2006. The award was given to her for significant contributions she made for safer use of herbicides in Indian agriculture by developing herbicide -residue chemistry. She pioneered several herbicide schedules in various crops and cleared them of toxic residues angle. She analysed multi-residues of herbicides and their degradation products. She guided four Ph.D. and four M.Sc. students and has over 215 publications including one patent application and one book. The achievements made by Dr Gita have been recognized with HARDF Award 1995, P. B. Sarkar Memorial Endowment Lecture Award, 2002 and IARI Best Teacher Award, 2004. She is also a Fellow of National Academy of Agricultural Sciences, India (1996).



Dr Gita Kulshrestha

Dr Suresh Walia received Dr P.B. Sarkar Memorial Endowment Lecture Award, 2004 on 19 September 2006 for his outstanding research contributions during 1999-2004 in the field of Agricultural chemicals. He is Principal Scientist, Division of Agricultural Chemicals, IARI, New Delhi. Dr Walia guided five Ph.D. and two M.Sc. students and published more than 150 articles



Dr S. Walia

including six patents or patent applications and edited two books. Dr Walia is Fellow of National Academy of Agricultural Sciences, India (2001).

JAWAHARLAL NEHRU KRISHI VISHWAVIDYALAYA, JABALPUR

ISA Gold Medal to Dr Singh

Dr Dhyan Pal Singh, VC, JNKVV, Jabalpur, has been honoured with Gold Medal of Indian Society of Agronomy. This honour has been given to Dr Singh on 26 October 2006 on the occasion of Golden Jubilee celebration of the society held at BHU, Varanasi (U.P.).



Dr D.P. Singh

MARATHWADA AGRICULTURAL UNIVERSITY, PARBHANI

Maharashtra Gunijan Ratna Gaurav to Dr K.P. Gore

Dr K.P. Gore, Head, Department of Agricultural Engineering, was honoured with Maharashtra Gunijan Ratna Gaurav Award by Maharashtra Vikas Lokseva Academy and Info-tech Features, at Mumbai on 13 August 2006.



Dr K.P. Gore receiving Maharashtra Gunijan Ratna Gaurav Award

NATIONAL DAIRY RESEARCH INSTITUTE, KARNAL

Scientists honoured

Dr Vinod K. Kansal, Head, Division of Animal Biochemistry, was awarded Dr P. G. Nair Award for outstanding research contribution in dairying for the period 1996-2000. The award was conferred upon him by Shri Bhupender Singh Hooda, Chief Minister of Haryana, at sixth N.D.R.I. Deemed University Convocation held on 21 April 2006 at Karnal.

Dr Latha Sabikhi has received the International Professional Women Opportunity Award consisting of a certificate and a gold medal by Consorzio Ricerca Filiera Lattiero-Casearia (CoRFiLaC), Italy.

NAVSARI AGRICULTURAL UNIVERSITY, NAVSARI

Hari Om Ashram Ayojit Prof. J.P. Trivedi Award to team of scientists

Dr M.B. Patel and his co-workers Dr G.G. Radadia, Dr S.N. Sarvaiya and Dr H.R. Desai of Department of Entomology, N.M. College of Agriculture, received Hari Om Ashram Ayojit Prof. J.P. Trivedi Award, 2003 in the discipline of Plant Protection for their research work on Slug control in vegetables, at the annual meeting ceremony of Gujarat Association for Agricultural Sciences held on 19 June 2006 in the presence of Shri Bhupendrasinh Chudasama, Minister of Agriculture, at Ahmedabad. The

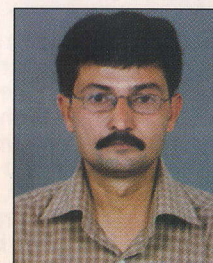


Dr M.B. Patel

research work includes eco-friendly and cost-effective integrated management of non-insect pest slug, which is a serious threat in Navsari and Surat districts during monsoon in vegetables by using botanical product tobacco dust @ 90 kg/ha.

AMAI Crop Protection Research Award, 2004

Dr H.R. Desai and co-workers Dr C.B. Patel, Dr M.B. Patel, Dr J.R. Patel, Dr A.B. Rai, Dr K.A. Bandhanja, Dr H.M. Patel and Shri A.J. Patel of NAU, Navsari received the AMAI Crop Protection Research Award, 2004.



Dr H.R. Desai

PUNJAB AGRICULTURAL UNIVERSITY, LUDHIANA

Dr Khush award to Dr Y. Singh

Dr Yadvinder Singh, Senior Soil Scientist, was awarded Dr G.S. Khush Distinguished Professor Award for his contributions to development of integrated nutrition- management technologies based on inorganic fertilizers and organic sources for rice-wheat system. He is the ninth recipient of this award. His work on nitrogen management in soil and losses caused due to wrong agronomic practices and wrong application of nitrogenous fertilizers has gone a long way to protect environment and reduce the cost of cultivation.

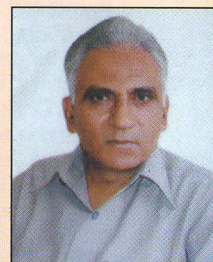
ICAR Team Award to Dr A.K. Dhawan

Dr A.K. Dhawan, Senior Entomologist, received ICAR Team Award for 2003-04 for his outstanding contributions in development and implementation of Integrated Pest Management in cotton. The award carries a cash prize of Rs 1 lakh and a citation.

SARDAR VALLABH BHAI PATEL UNIVERSITY OF AGRICULTURE AND TECHNOLOGY, MEERUT

Life-time Achievement Award

Dr M.P. Yadav, VC, SVBPUAT, Meerut (U.P.), has been conferred Life-time Achievement Award by Association of Public Health Veterinarians during the Annual Conference and National Symposium of Association held on 7 December 2006 at OUAT, Bhubaneswar.



Dr M.P. Yadav

Printed Matter
BOOK-POST

STAMP

To,

From:

Indian Agricultural Universities Association
1G-2, CGIAR Block, NASC Complex, D.P.S. Marg, Pusa Campus, New Delhi 110 012