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SPOT NEWS



Dr S.S. Baghel

Dr S.S. Baghel takes over as President IAUA

NEW EXECUTIVE COMMITTEE : IAUA 2004

- | | | |
|------------------------------------------------|---|---------------------|
| Dr S.S. Baghel, Vice-Chancellor, CAU, Imphal | : | President |
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NEW VCs

Dr C. R. Hazra : VC, IGAU, Raipur

Dr Hazra took over as VC, IGAU, Raipur on 28-10-2003. Born on 15 January 1946, Dr Hazra graduated in agricultural sciences with first class in 1966 and received his masters and doctoral degrees in Soil Science and Agricultural Chemistry from Indian Agricultural Research Institute, New Delhi, in 1968 and 1971, respectively. He did his Post-Doctoral Research from the Federal Research Centre on Agriculture, Federal Republic of Germany in 1979.

Dr Hazra has more than 800 research and other publications to his credit and has guided a number of Ph.D. students. He received 16 international and 11 national awards as well as 4 Honours or Fellowships in recognition of his contributions. He has been on the Board of Directors and as Chairman and Member of 175 international and national committees for agricultural development. Before taking over as VC, IGAU, Raipur (28 October 2003), he was working as Agriculture Commissioner, Ministry of Agriculture, Government of India, New Delhi.



Dr C.R. Hazra

Dr S. A. Patil : VC, UAS, Dharwad (second term)



Dr S.A. Patil

In view of his outstanding contributions, Dr S. A. Patil was granted the second term as VC, UAS, Dharwad on 28-11-2003. Born on 5 August 1946 and a merit scholar during early education period, after obtaining his B.Sc. (Agric. Hons), he joined the Agricultural Research Station, Dharwad in 1967 as Research Associate (Cotton) and served the UAS, Dharwad in various capacities such as Director of Instructions and Director of Research. While serving he continued his quest for learning and completed his Ph.D. in 1990 in Genetics and Plant Breeding from this university.

Dr Patil developed Varalaxmi cotton hybrid and other high-yielding varieties such as Sharda (cotton), Bharti (groundnut), Dwarf Morden (sunflower) and RCR 18 (niger). He is recipient of many international, national, state and university awards like Degree of Merit (I.B.C., Cambridge) and Sardar Patel Outstanding ICAR Institution Award. He guided 5 Ph.D. students and published 277 research papers. He served as Member or Chairman of 50 agricultural organizations. He visited Israel, Italy, the Netherlands, Egypt, Canada and the USA.

Dr Bhagirathi Senapati : VC, OUAT, Bhubaneswar

Dr Bhagirathi Senapati was born on 5 February 1942 at Cuttack (Orissa). He completed his B.Sc. (Agric.), M.Sc. (Agric.) and Ph.D. in Entomology in 1963, 1966 and 1981 respectively from OUAT, Bhubaneswar. He has vast experience of teaching, research, extension and academic administration. He took over as VC, OUAT, Bhubaneswar on 12 December 2003.

Dr Senapati guided a number of M.Sc. and Ph.D. students. He has been Member or office bearer of 16 agricultural committees like Academic Council of Higher Secondary Education, Orissa; Board of Studies, Santiniketan; Management Committee, CRRI, Cuttack; and Syllabus Review Committee, ASRB, New Delhi. He has published more than 120 research papers.



Dr Bhagirathi Senapati

UNIVERSITIES

A Profile

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

On 1 December 1985, Dr D.R. Thakur, the then Dean, College of Agriculture, Solan, and later Pro-Vice Chancellor of Himachal Pradesh Krishi Vishwavidyalaya, Palampur, initiated the move for establishing a separate university of Horticulture in the state and made strenuous efforts towards this goal during the late seventies and early eighties. His selfless efforts have borne fruits on 1 December 1985.



Inauguration of University Library by His Excellency the President of India

Objective for University Establishment

Horticulture and forestry are the key sectors of the state economy. Foreseeing the potential of these sectors, it was felt necessary to give special thrust to their development. The University of Horticulture and Forestry was therefore to give added impetus to this vital sectors through a focused approach in teaching, research and extension education.

Main Objectives

The main objectives of the university are:

- 1 Development of human resource specialized in horticulture and forestry through organization of study programmes leading to graduate and post-graduate degrees.
- 2 Creation of sound scientific base for advancement of basic and applied research in horticulture, forestry and allied disciplines for sustainable development of horticulture and forestry.
- 3 Dissemination of scientific technologies to end-users through linkages with line departments, Panchayats, Mahila Mandals, Youth Clubs, NGO etc.



Administrative Block

Main Achievements

(A) During 1985-1989

- 1 General production technologies for different fruits, vegetables and flowers being grown in the state were standardized and recommendations were offered as package of practices.
- 2 Based on the performance evaluation, promising varieties of fruits, vegetables and flowers were recommended for commercial cultivation. Besides, some new varieties of vegetables, such as Yashwant and Solan Gola of tomato, Laxmi of frenchbean and Himgiri of ginger were developed and released for cultivation.
- 3 Protocols were developed for micro-propagation (tissue-culture) of apple and kiwi-fruit and of forestry species like alnus, bamboo and robinia.

- 4 Apple plantations of the state were threatened with extinction due to outbreak of apple scab disease. Concerted efforts made by the university resulted in formulation of a spray schedule, which controlled this menace very effectively, and scab is no more a problem now.



Starking Delicious apple from Cold Arid Zone of Himachal Pradesh

- 5 For the management of virus and virus-like diseases in apple, mother orchards of important commercial cultivars have been established in the university for supply of budwood to raise virus-tested and healthy nursery plants to the growers.
- 6 Effective control measures have been devised against diseases like root rot and canker in apple, peach leafs curl and bacterial gummosis in stored fruits, and storage disorders of various fruits.
- 7 Effective management practices have been developed against rhizome-rot of ginger, back-eye rot of tomato, curd rot of cauliflower, bacterial blight of peas, angular leaf-spot of beans and anthracnose of chillies.
- 8 Integrated spray schedules have been developed against major pests of apple, stone-fruits, mango, litchi and citrus, and also against major pests of vegetable crops.
- 9 To reduce post-harvest losses of fruit crops, formulation of maturity standards, evaluation of alternative packaging material and standardization of pre-and post-harvest treatments with chemicals and nutrients to increase the shelf-life were given special attention.
- 10 Three mushroom species, viz. *Agaricus bisporus*, *A. bitorquis* and *Pleurotus sajor caju*, were identified for commercial cultivation.
- 11 Agro-techniques for cultivation of a large number of medicinal and aromatic plants have been standardized and herbal gardens have been established under different agro-climatic zones.
- 12 Plus trees were selected in *Pinus roxburghii*, *P. wallichiana*, *P. gerardiana*, *Shorea robusta*, *Grewia optiva*, *Toona ciliata*, *Populus ciliata* and *Cedrus deodara*.
- 13 Rill method of resin tapping has been developed, which gives 10% higher resin yield than the conventional cup-and-lip method.

(B) During 1990 to 1999

- 1 Several new varieties of fruits recommended for commercial cultivation are: spur-type varieties of apple such as Red Chief, Oregon Spur and Golden Spur, and colour mutants like Vance Delicious, Top Red and Hardeman; Red Bartlett and Max Red Bartlett pear; Red Haven, Sun Haven, Kanto 5 and Shimuzu Hakuto peach; and Red Beaut and Frontier plum. In vegetable crops, hybrids like Solan Shagun and Solan Vajr tomato, Solan Hybrid 1 and Solan Hybrid 2 bell pepper, KH 1 and KH 2 cucumber, Solan Band Sarson variety of chinese cabbage; and Solan Red onion were developed and released for cultivation in the state.
- 2 Clonal rootstocks EMLA 9, EMLA 26, EMLA 7, EMLA 106 and EMLA 111 of apple and F 12/1 and Colt of cherry have been introduced and are being multiplied.

- 3 Budwood banks of walnut, pecan-nut, hazel-nut and pistachio-nut have been established at four places located in different zones of the state by introducing plant material of important promising varieties from the USA and France.
- 4 At Regional horticultural Research Station, Mashobra, high-density plantings of apple cv Vance Delicious on MM 106 clonal rootstock recorded productivity of 75 tonnes/ha as against 5-6 tonnes/ha under conventional low density planting. In peaches, yields up to 36.36 tonnes/ha were achieved in high-density plantings with 2000 plants/ha compared with 9-10 tonnes/ha in low-density plantings with 400 plants/ha.
- 5 Biocontrol agents *Trichoderma viride*, *T. harzianum* and *Basillus* sp. were found to give 100% control of white root rot of apple in nurseries, whereas an indigenous fungal parasite, *Paecilomyces li incognita* has been identified as a potential bio-control agent for root-knot nematode in tomato.
- 6 Technology for commercial cultivation of *Agaricus* and *Pleurotus* has been perfected. Three other edible fungi, *Flammulina velutipes*, *Agrocybe agerita* and *Macrolapota procera* were identified and their cultivation technology was standardized.
- 7 Packaging systems and storage conditions were standardized for apple, plum and kinnow fruits. CFB cartons lined with ethylene absorbents were found to be the best packaging material.
- 8 A new method of *katha* and cutch extraction was developed, which gave better-quality *katha* with minimum energy use.
- 9 Developed several interspecific hybrids of various poplars, including Himalayan poplars, with better physical and chemical wood characteristics.
- 10 Grasses *Setaria anceps* vars Kanjangula, Nandi and Narok; *Panicum maximum* and *Clorris guyana* have been observed suitable for subtropical grasslands, and *Dactylis glomerata*, *Festuca arundinacea* and *Phleum pratense* for temperate grasslands.

(C) During 2000 onwards

During the first decade of new millennium, emphasis is being given to high-technology production systems in horticulture.

- 1 Crop improvement through biotechnological tools, drip and sprinkler irrigation systems, bio-fertilizers, fertigation, integrated plant-nutrient systems, and biological control of pests and diseases.
- 2 Integrated pest and disease management, protected cultivation, rainfed horticulture and value addition in horticultural crops.
- 3 Production technologies for various fruits, vegetables and floriculture plants have been standardized for their cultivation on scientific lines and are offered in the form of package of practices to the stake-holders. Agro-techniques have also been standardized for cultivation of a large number of medicinal and aromatic plants for their commercialization.
- 4 Propagation and nursery-production technology has been



Toxicology Laboratory



His Excellency, the Governor of H.P., visiting the University Museum

perfected for multiplication of scion cultivars and rootstock material in different temperate and subtropical fruits through conventional methods as well as through tissue culture. In vegetable crops and floriculture plants, and nursery-production technologies including seed technologies have been worked out.

- 5 High-density planting for several fruit crops has been developed for improving the productivity and quality. With this technique apple cv. Vance Delicious on semi-dwarfing rootstock MM 106 grown @ 4,000 plants/ha recorded 75 tonnes/ha compared with 5-6 tonnes/ha under conventional low-density planting. Similarly, high-density planting under different planting and training systems has been developed in peach, fetching 36.4 tonnes/ha through 2,000 plants/ha compared with 9-10 tonnes/ha through 400 plants/ha under low-density planting.
- 6 Protocols have been worked out for micro-propagation of fruits, ornamental plants and forestry species. Technology has been developed for quick and mass multiplication of scion cultivars of fruit crops like apple, kiwi-fruit and strawberry; of clonal rootstocks of apple and cherry; of ornamental plants like lillium, carnation, gladiolus, orchids, chrysanthemum and gloriosa; and of forestry species like alnus, robinia and bamboo.

Crop Regulation

- 1 For control of pre-harvest fruit-drop in apple, spray of NAA (1 litre planofix in 4.5 litres water) a week before the expected drop has been found most effective, whereas the application of 10 ppm NAA or Carbaryl (Sevin) @ 0.075%, 7 to 10 days after petal fall or when fruit length is about 15 mm, were found most effective for fruit thinning. Application of ethrel 1,200 ppm or 4-5 ml / litre water has been recommended for improving the development of red colour in apple in the mid-hill regions and for enhancing their maturity in high-hill regions.
- 2 In grapes 20 ppm gibberellic acid (GA) at full-bloom, followed by dipping of bunches in 75 ppm GA₃ solution at fruit-set stage have been found very effective in increasing the bunch and berry size of seedless varieties, and has been recommended as a routine practice.
- 3 High-frequency drip irrigation has been found 2.5-3 times more effective than basin irrigation in apple, apricot, plum and kiwi-fruit, and 5-6 times more effective in vegetable crops like peas. In fruit crops like apple and kiwi-fruit, irrigation at 80 to 100% ET significantly improved the fruit-set, yield and quality over conventional flood irrigation.
- 4 Technologies have been developed and standardized for spawn production and mushroom cultivation including composting and casing, for commercial production of white-button mushroom (*Agaricus bisporus*) and *dhingri* (*Pleurotus sajor-caju*). Besides, other edible species have also been identified and their production technologies have also been worked out.
- 5 The university has developed technology for the preparation of wines from fruits like wild apricot, plum, peach, apple and kinnow, and has established commercial viability of fruit wines. Technology for the production of champagne-type wine from plum has also been developed.
- 6 Telescopic tray-pack CFB cartons have been found better than conventional wooden boxes as packaging material for apple and stone fruits.
- 7 Technologies for cheap and efficient storage of fruits have also



Kiwi-fruit cv. Hayward, suitable for mid-hill regions

been developed. A cheap air-cooled storage has been developed for long-term storage of apples at farmers' fields. In this, apple can be stored in good condition for 4-5 months.

- 8 The university has also developed a Zero-Energy Cool Chamber for storage of fruits and vegetables. It involves no energy but reduces storage temperature by 12-14°C. Apple, plum, kiwi-fruit, kinnow and tomato can be stored in this chamber in good condition for longer durations.
- 9 Technologies have been developed for preparation of dried products like rings, cubes and chops from apple; appetizers and nectars from plum, apricot and mango; instant chutney powder from wild apricot; leather from apricot and toffees from different fruits.
- 10 Good-quality raisins of Thompson Seedless grapes can be produced by treating berries for 30 sec. in boiling solution of 0.2% sodium hydroxide, washing in cool water and then dipping in water containing a thin layer (2-3 mm) of wild apricot or olive oil. After draining, berries are exposed to sulphur fumes (burning 2 g sulphur/kg grapes in a wooden box) for 2-4 hr, and are dried in a cross-flow dehydrator at 50 to 55°C. The treated berries can also be dried in a solar dehydrator or sun-dried. The average recovery of raisins is 250 g/kg fresh berries.
- 11 Rill method of resin tapping has been developed, which gives 10% higher resin yield than French cup-and-lip method.
- 12 *Grewia optiva* and *Morus* sp. var. M 3 are recommended by the university to be planted in *gradonies* at a spacing of 0.5 X 1 m. The interspace between the two *gradonies* (about 10 m) should be planted with *Setaria*. For increasing foliage yield of *Grewia* or *Morus* trees, one row should be pollarded at a height of 0.5 m and the other at 1.5 m.
- 13 For the apple scab disease, the university has developed not only a successful prediction method of the disease through Mill's Chart and automated electronic devices like Apple Scab Predictor and Metos, but has also developed an effective spray schedule comprising 7 sprays of different fungicides from silver-tip or green-tip stage to pre-harvest stage for its control.
- 14 Premature leaf fall in apple has been found to be caused by *Marssonina coronaria*, and a spray schedule comprising 5 sprays of dodine, mancozeb, carbendazim, ziram and bitertanol from pea-size fruit stage to pre-harvest stage has been formulated, which is highly effective for its control.
- 15 For X disease of peach, single spray of carbendazim (0.1%) during dormancy or bud-burst stage was found to provide complete control of the disease.
- 16 For white root-rot, drenching with carbendazim 0.1% through 15-20 cm deep holes made in the basins of trees at 30 cm distance from each other has proved very effective.

17 The rhizome rot of ginger can be effectively controlled by selecting disease-free rhizomes and treating them with a mixture of Dithane M-45 0.25% + Bavistin (0.1%) + Durmet (0.1%) for 60 min. before sowing. Effective control of buck-eye rot of tomato



Farmers visiting the pea crop in high-hills zone

can be achieved by following integrated approach comprising staking of plants, pruning lower leaves, maintaining proper drainage, destroying diseased leaves and fruits regularly and applying 3 sprays of Ridomil Mz (0.25%). The angular leaf spot of beans is effectively controlled by giving 3 sprays of 0.05% carbendazim. For the control of bacterial blight of peas, seed

treatment with 100 ppm streptocycline is recommended to reduce primary infection, whereas hot-water seed treatment at 52°C for 30 min., followed by streptocycline 100 ppm dip for 30 min. is quite effective in controlling black rot of cauliflower.

- 18 The phytophagous apple mites, which were the pests of minor concern earlier, have now become serious in almost all the apple-growing areas of the state. The technology for control of red spider mite has been developed, which consists of 5 spray schedules comprising sprays of dormant oil, horticultural mineral oils and insecticides like Clofentezine (0.01), Amitraz (0.02%), Lindane (0.05%) and Spark 36 (0.036%) from tight-cluster stage to active fruit-development stage.

NEW INITIATIVES

MBA (Agri-business) Programme: The university has started the MBA (Agri-business) degree programme from 1997-98 academic session.

Vocational Course for Horticulture Supervisors: The Ministry of Agriculture, Government of India, has identified this university as one of the nodal agencies for organizing 1 year vocational training course for Horticultural Supervisors.

Agri-clinics and Agri-business Entrepreneurship: It is also one of the nodal agencies for organizing 3 months training course for Entrepreneurs in Horticulture for rural youth sponsored by the Ministry of Agriculture, Government of India and for organizing 2 months training course on Agri-clinics and Agri-business for unemployed agricultural graduates sponsored by MANAGE, Hyderabad.

Courier Service: The university has adopted an innovative approach to solve the problems of farmers through correspondence, called "Courier Service". Under this programme, farmers write letters about problems confronted by them and seeking their solutions from the All-India Radio, Shimla. The letters are collected by the university through a special courier deputed specially for this purpose and the solutions to the problems suggested by the university experts are broadcast through AIR, Shimla.

It also started another innovative step for providing quick solutions to the farmers' problems, the "Farmers' Telephone Helpline" service. This service is available on Telephone no. 01792-252426 on 1 and 3 Monday of every month from 12.00 noon to 1.00 p.m.

Radio School: The launching of Radio Schools is another new initiative taken by the university in the transfer of technology in respect of specific crops or commodities.

Biotechnology Park: The Government of Himachal Pradesh has taken a decision to set up a Biotechnology Park in the university and steps have already been initiated for its establishment.

Future Perspective (Till 2020)

- 1 Generation of innovative technology to enhance productivity of fruits and commercial forestry tree species.
- 2 Reduction in the cost of production through cost-effective technologies.
- 3 Minimize post-harvest losses of fruits and forestry crops, value addition and recycling of by-products.
- 4 Development of Integrated Management of diseases and pests of horticultural crops.
- 5 Use of biotechnological tools for improvement of quality and productivity.
- 6 Integrated nutrient and water management of horticultural crops.
- 7 Development of protected-cultivation technologies for fruits, vegetables and flowering plants.

BIRSA AGRICULTURAL UNIVERSITY, RANCHI

Birsamati Varieties and Technologies

Variety Birsamati has surpassed all scented rice varieties of India in yield potential. It has 13 quality characters out of 16 listed by the Directorate of Rice Research, Hyderabad, for evaluation of Basmati rice varieties. Under the All-India Co-ordinated Rice Improvement Project trials conducted at the IARI (Delhi), Pantnagar (Uttaranchal), Kapurthala (Punjab), Ranchi (Bihar) and Koul (Haryana) during *kharif* 2002, Birsamati gave an average yield of 4.7 tonnes/ha compared with the national checks Pusa Basmati 1 (4.23 tonnes/ha) and Tarori Basmati (2.88 tonnes/ha). In Haryana, it yielded 5.9 tonnes/ha, which is the highest yield given by a Basmati type in the country. The new variety has been developed by crossing of BR 9 and IR 36 varieties, and it matures in 130 days. Its plant height (95-100 cm.) is suitable for transplanting in medium lowlands of Jharkhand. Birsamati is responsive to fertilizer application, moderately resistant to major diseases like blast and *Helminthosporium* in fields, and resistant to stem-borer and dead-heart pests. It does not resemble any of the released varieties and yields 3.5-4.0 tonnes/ha under normal conditions.



Birsamati

Birsa Vikas Makka 2

This variety has extra early maturity of 70-80 days and yields 4.5-5.0 tonnes/ha. It is also qualified as a Quality Protein Maize type because it is nutritionally superior, being rich in protein content (lysine and tryptophan). Farmers prefer it for its cooking quality and sweeter taste, drought tolerance, stay-green character and high fodder yield.



Birsa Vikas Makka 2

Mustard BAUR 9502 (Shivani)

This variety has dark-green stem, erect branching habit and bold seeds. It matures in 106-112 days and yields 783 kg/ha, which is higher than that of the checks PT 303, T 9 and BR 23. It has 41.1% oil content and does well in rainfed areas. BAUR 9502 is tolerant to white rust and *Alternaria* blight and is resistant to sawfly and moderately resistant to aphid.



Mustard BAUR 9502 (Shivani)

(Rice) Birsa Dhan 108

It is suitable for direct seeding in uplands. This extra-early variety matures in 70-75 days from seed to seed. Kernel colour is white with long slender grains. Plant height is 95-100 cm, which provides more straw for cattle feeding and domestic use. The variety with grain yield capacity of 2.5-3.0 tonnes/ha is resistant to stem-borer and gall-midge in fields. It is resistant to bacterial leaf blight and moderately resistant to *Helminthosporium*.

Rice Birsa Vikas Dhan 109

This is the first superfine-grain variety of rice for upland ecology that matures in 85 days. Its plant height is 90-95 cm, and yield capacity is 2.5-2.9 tonnes/ha. The variety developed by BAU in collaboration with GVT and DFID through participatory plant breeding is non-lodging

and non-shattering type and is responsive to fertilizer application. It is resistant to stem-borer and *Gundhi* bug and moderately resistant to blast, bacterial blight and *Helminthosporium* diseases.

Rice Birsa Vikas Dhan 110

This superfine-grain quality variety matures in 95 days and yields 2.5-2.8 tonnes/ha. Its plants are non-lodging and non-shattering, with a maturity height of 90-95 cm. It is responsive to fertilizer application and is resistant to stem-borer and *Gundhi* bug. In fields this variety is moderately resistant to blast, bacterial leaf-blight and *Helminthosporium*.

Birsa Niger 2

This niger variety matures in 96 days and yields 0.8 tonnes/ha. It is free from major pests and diseases, is responsive to fertilizers, and has 39.4% oil content, which is higher than of all the leading niger varieties of the country.

Technology for Micronutrient Application

Technology of lime and boron application to chickpea (gram) in acid soils of Jharkhand has been developed by the Zonal Research Station, Darisai (East Singhbhum). Three years of experimentation have established that the application of 500 g boron/ha with furrow application of lime @ 250 kg/ha is optimum for maximum production of chickpea, fetching additional income of Rs 3,850/ha.

Technology for Desired-Time Farrowing in Swine

Pig rearing is very popular among villagers, especially tribals, but they are not getting adequate returns from this activity due to high mortality of new-born piglets born during night hours. The scientists of Ranchi Veterinary College have developed a technology for induction of desired-time farrowing in swine. By administering an injection of Prostaglandin F2 alpha 5 mg at 8 a.m. on 110th day of pregnancy in combination with Oxytocin 10 IU (international units) on 111th day of pregnancy the next day at 8 a.m., farrowing during day hours could be ensured, when assistance is available and thus a majority of the piglets can be saved. With this technique the farmers can get additional benefit of Rs 7,000 per sow.

DR BALASAHEB SAWANT KONKAN KRISHI VIDYAPEETH, DAPOLI

Water-Conservation Movement in Konkan Region

The university with the help and co-operation from the Department of Agriculture and active participation of the local people constructed more than 200 Vanrai Bandhara (dams) during October-November 2003. All these dams are full of water, which will result in increasing the water-table of nearby areas. The employees as well as NSS students of the university actively participated in the construction of these dams.



MLA Shri Suryakanta ji Dalvi and Director of Extension Education Dr K.D. Kokate observing the newly constructed Vanrai Dam

DR PANJABRAO DESHMUKH KRISHI VIDYAPEETH, AKOLA

Paddy PKV Makrand released

This variety is dwarf statured and non-lodging. It is mid-late in maturity and has recorded 12 and 7% higher grain yield respectively than Chinnor and SKL 7. It is resistant to blast and bacterial leaf blight in fields.

PKV Granesh

It is a medium, dwarf-statured, non-lodging variety with narrow, erect leaves. It gives higher-yield than PKV HMT selection. It is resistant to blast, bacterial leaf blight,



PKV Makrand rice

GM biotype-1 and bacterial plant-hopper and is tolerant to GM biotype-4.

Soybean TAMS 38

This variety is high-yielding and early maturing. It is resistant to pod shattering and major diseases and pests.

Orange Nagpur Seedless

Its fruits are practically seedless, and hence it is suitable for processing industry.

Nagpur Mandarin

It gives best performance among other mandarin varieties in Vidarbha and bears superior-quality fruits.

MARATHWADA AGRICULTURAL UNIVERSITY, PARBHANI

Irrigation and Fertilizer through Pressure-Irrigation System

A Winter School on 'Irrigation and Fertilizer Management through Pressure-Irrigation System on Vertisols' was organized during 4 to 24 November 2003 at the Department of Agronomy, Marathwada Agricultural University, Parbhani, attended by 26 participants from various states. The function was inaugurated by Shri Shivajirao Mane, M.P., Hingoli, who released a book on the occasion.

The inaugural function was held on 4 November 2003. Dr V.M. Pawar (Parbhani) was the Chief Guest and Dr M. V. Dhoble, Director of Instruction and Dean, Faculty of Agriculture, MAU, Parbhani was the President of the function.

The university scientists highlighted soil-water concept management of irrigation and fertilizers through drip for different crops and cropping systems, plant protection in pressure-irrigation system and its socio-economics.

Reaching Children with Special Needs

A short course (10-day duration) sponsored by the ICAR, New Delhi on 'Management of child nutrition and development of clinics' was organized by the Department of Child Development and Family Relationship, College of Home Science, Marathwada Agricultural University, Parbhani during 7-17 October 2003. Scientists specialized in Child Development, Food and Nutrition, Extension Education of SAUs, KVKs and Basic Science Colleges of different parts of the country actively participated.

The course covered effective parenting, guidance and counseling to families, nutritional and developmental needs of children, nutritional deficiencies and disorders in children, raising self-esteem in the children, setting up CND clinics etc. Hon'ble Radhika Rastogi, IAS, District Collector, Parbhani, and Dr V. M. Pawar, VC, MAU, Parbhani were the chief guests. The Valedictory function was attended by Hon'ble Fauzia Khan, MLC.



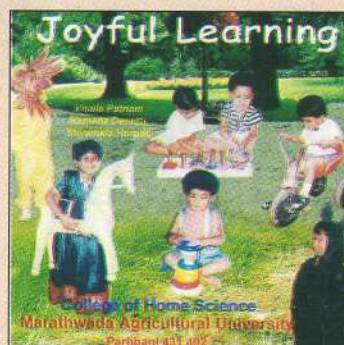
PKV Granesh rice



Nagpur Seedless mandarin



Shri Shivajirao ji Mane, chief guest, releasing a book at inaugural function

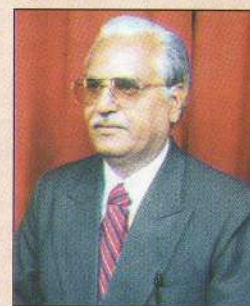


Management of Child Nutrition and Development of clinics

MAHATMA PHULE KRISHI VIDYAPEETH, RAHURI

Dr S.N. Puri Elected the President of Entomological Society of India

At general body meeting of Entomological Society of India held on 7 November 2003 at the Indian Agricultural Research Institute, New Delhi, Dr S.N. Puri, Vice-Chancellor, Mahatma Phule Krishi Vidyapeeth, Rahuri was elected the President for the next 3 years (2004-07).



Dr S.N. Puri

Policy on Water Management

The national seminar on 'Extension strategy for efficient irrigation water management and water conservation' was held at Central Campus, Mahatma Phule Krishi Vidyapeeth, Rahuri on 13 December 2003. The chief guest Hon'ble ex-Minister Balasaheb Vikhe Patil in his inaugural speech highlighted acute shortage of water at present, and necessity of major change in policy for efficient water management. Dr S.N. Puri, Vice-Chancellor, drew attention to the challenge before the farmers due to globalization in this competitive world and need to guide them. The President of Maharashtra Extension Education Institute, Dr Arwind Sawant, emphasized the importance of information technology and participation of the farmers in water management.



National Seminar on Extension strategy for efficient management of irrigation water and water conservation

MAHARANA PRATAP UNIVERSITY OF AGRICULTURE AND TECHNOLOGY, UDAIPUR

National Symposium on 'University Autonomy and Quality Improvement of Higher Education'

Inaugural Session

The inaugural session of the National Symposium was held in the auditorium of Rajasthan College of Agriculture on 13 November 2003 at 11.00 a.m. Dr Mangal Rai, Secretary, Department of Agricultural Research and Education, and Director-General, ICAR, was the chief guest. The programme was presided by Hon'ble Shreeji Arvind Singhji Mewar.

Recommendations

University Autonomy

- 1 The concept of autonomy should be crystallized and its implication should be specified with respect to academic, financial, administrative and legal perspectives.
- 2 The SAUs should set up tribunals to redress the grievances of the staff and students in view of large number of court cases.
- 3 The revenue generated by the university should be kept apart for the development activities and should not form a part of university budget.
- 4 The state government should be requested to provide at least 1% of the agricultural mandi tax earned from selling the agricultural produce in KUMs to SAUs for taking up problem-oriented researches and effective transfer of technology programmes.



Shreeji Arvind Singhji Mewar, presiding over the function, Dr Mangala Rai, (Chief Guest), Dr S.S. Baghel, Dr A.S. Faroda, and Prof. R.P. Singh are on the dais.

5 There is great need for complete autonomy at all levels, including the freedom to start new courses, create new posts and re-deploy the staff.

6 The ICAR should take up the matter with concerned state governments to ensure autonomy of the universities, including financial autonomy, for their effective participation in agricultural development activities in the respective states.



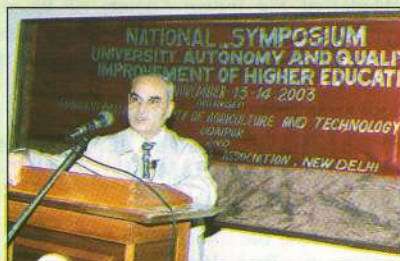
Dr Mangal Rai inaugurating the National Symposium

Quality Improvement of Higher Education

1 The intake for higher education must be strictly on the basis of merit and the remaining out-turned students should be encouraged to join vocational education or training.

2 Job-oriented certificate and diploma programmes, in addition to the regular degree programmes, for upgrading skill and developing confidence of agricultural graduates are to be launched to overcome the problem of increasing unemployment of agricultural graduates.

3 The 4-year B.Sc. (Agric.) degree programme needs to be re-oriented with 2 - year study of basic courses, 1 - year professional learning and the last year for long interactive practical sessions including Rural Awareness Work Experience (RAWE).



Dr J.C. Katyal, D.D.G. (Edn) ICAR, speaking on Employment-oriented, Agriculture

4 To fully exploit the status and strength of the institutional network of NARS, imparting agricultural education, research and extension, the Government of India should consider the visits by the teams of experts comprising Vice-Chancellors, Deans, and Directors to the client countries for marketing our expertise and capability and also exploring the possibility of giving assistance to such countries in developing their human resources, institutional set up and educational system including opening of campuses there.



Audience at the National Symposium

5 The degree programmes should include super-specialization in some of the emerging areas such as Natural Resource Management, High-Technology Horticulture, Precision Farming, Crop Diversification, Rural Home Management, Agro-Processing, Agri-Business Management, Agricultural Export etc. to develop competence and confidence in students for entrepreneurship and self-employment.

N.D. UNIVERSITY OF AGRICULTURE AND TECHNOLOGY, FAIZABAD

MoU with World Forestry Centre, Nairobi

Prof. B.B. Singh, Vice-Chancellor, attending the international workshop on "World Agro Forestry and Future" held during 1-5 November 2003 on the occasion of 25th anniversary of International Forestry Research Institute, Nairobi signed a memorandum of understanding between NDUAT and IFRI on joint agenda that includes advance understanding of eco-agriculture principles to promote and strengthen knowledge sharing and collaborative partnership among farmers, conservationists, researchers, leaders in rural development and policy-makers the world-wide. The MoU provides that the partners will

develop an eco-agricultural strategy and action plan to promote greater widespread adoption of eco-agriculture through targeted scientific research, supportive policies and partners' innovation. Prof. Singh informed the participants at the workshop that the collaborative venture in agro-forestry would go a long way in enriching the forest cover in Uttar Pradesh, besides creating and expanding wild diversity reserves in rural landscapes. More than 200 delegates from all over the world actively participated. Prof. Singh accepted organization of 'Afro-Asian Congress in Agro-Forestry' at Lucknow in 2004.

RAJASTHAN AGRICULTURAL UNIVERSITY, BIKANER

Launching of Website of College of Veterinary and Animal Science, Bikaner

The college of Veterinary and Animal Science, Bikaner has launched a website www.bikanervetcol.org, which provides an overview of facilities, activities, faculties and degrees offered etc. at the college.

SHER-E-KASHMIR UNIVERSITY OF AGRICULTURAL SCIENCES AND TECHNOLOGY, SRINAGAR

National Symposium on Strategies for Sustainable Livestock Development

The university organized a national symposium on "Strategies for sustainable livestock development" during 17-19 October 2003 at the Faculty of Veterinary Sciences and Animal Husbandry, Shuhama. It was inaugurated by Lt. Gen. (Retd.) S. K. Sinha, PVSM, His Excellency the Governor of J&K and the Chancellor of the university. The keynote address was delivered by Prof. M.S. Swaminathan, Chairman MSSRF, Chennai. On 19 October 2003, the Valedictory address was delivered by Jenab Mufti Mohammad Syed, Hon'ble Chief Minister Jammu and Kashmir and Pro-Chancellor of SKUAST-K. The symposium was attended by the delegates from various SAUs, including the dignitaries such as Prof. A.Ahmed, the founding Vice-Chancellor, SKUAST-K; Dr M.Y.Kamal, ex-Vice-Chancellor, SKUAST-K; Dr T. Ramaswami, Director, Central Leather Institute, Chennai; At the symposium, 21 long-term and 3 short-term recommendations were proposed for Livestock production and Bio-diversity and its conservation; 7 for Animal nutrition and Pastoral husbandry practices; 8 for Animal health perspective; 11 for Livestock products, value addition and Fisheries; besides 4 long-term general recommendations.



Lt. Gen. (Retd.) S.K. Sinha, Prof. A. Alam and Shri Yashpal Kundal, at the function



Padma Vibhushan Dr M.S. Swaminathan, delivering the keynote address



Seated on the dais from left to right Prof. A. Alam, Shri Nawang Rigzin, Shri A.A. Zargar, Shri Mufti Mohammed Sayeed, Dr M.S. Swaminathan and Shri H.U. Khan

The recommendations envisaged the development of dynamic databases on livestock and feed or fodder resources of the state; establishment of exotic livestock germ-plasm centre; backyard poultry and commercial broiler unit; monitoring, surveillance or forecasting system of animal diseases; quality-control measures for livestock products; organized slaughter houses in both urban and rural areas;

supplementation of crop residue-based livestock rations with deficient nutrients; scientific management or conservation of pastures; development of feed blocks, study on llama and alpaca for adoption in the valley and Ladakh; silvi-agri-pastoral systems for livestock feeding; eco-friendly leather sector; intensive studies on limnology of water bodies; culture technology and feeding of schizothorax fish; planning of human resource development, employment-generation schemes, strong interface among development departments, universities scientists, industrialists and farmers; and establishment of High-Altitude Fisheries. Development Agency and Livestock Development Board in the state for planning a roadmap for fisheries and livestock development. Members of the Faculty, staff and students left no stone unturned to make it a grand success. The ICAR and Agricultural Production Department, Government of J&K, provided the funds for the symposium.

AWARDS AND RECOGNITION

ALLAHABAD AGRICULTURAL UNIVERSITY, ALLAHABAD

Awards

1. Dr (Mrs) Annamma R. Kumar, Dean, College of Home Science and Women's Development of the university, was recently honoured with an award from the Government of Uttar Pradesh through, U.P. Council of Agricultural Research. She received the award in the category of the Best Female Agricultural Scientist and was felicitated on 10 July 2003 at Kisan Mandi Bhawan, Gomti Nagar, Lucknow.
2. The 'Distinguished Scientist Award' was conferred on Prof. (Dr) S.S. Singh by the Commissioner, Allahabad Division and District Magistrate, Allahabad on 23 December 2003.

CCS HARYANA AGRICULTURAL UNIVERSITY, HISAR

Awards

Dr A.S. Nandwal, Senior Plant Physiologist, gets the prestigious Gold Medal of Academy for the Advancement in Agricultural Sciences (AAAS Senior) for 2003, instituted by the Indian Society for Plant Physiology during the National Seminar held at Tirupati (Andhra Pradesh) from 12 to 14 December 2003, in recognition of his research work. He was also declared elected as Zonal Secretary (Northern) of the ISPP for 2004-06.

Dr O.P. Chaudhary, Entomologist working at the Regional Research Station, Karnal was conferred with Senior Scientist Award at the recently held "International workshop on conservation and management of bees for sustainable development" and APIEXPO, 2003 at Bangalore held during 13 to 18 October 2003. Dr Chaudhary was given this award for best research presentation on the performance and prospects of *Apis mellifera* in Haryana.

DR BALASAHAB SAWANT KONKAN KRISHI VIDYAPEETH, DAPOLI

Dr S.S. Magar appointed a Member of ICAR Society

Dr S.S. Magar, Hon'ble Vice-Chancellor of DBSKKV, Dapoli was appointed Member of ICAR Society, New Delhi, by the Hon'ble Minister for Agriculture, Government of India, for 3 years with effect from 23 September 2003. The Government has taken into account the excellent development programmes implemented by him in Konkan region, viz. Lakhi Baug concept, Biodiversity, Soil and water conservation and Conservation of natural resources.

INDIAN VETERINARY RESEARCH INSTITUTE, IZATNAGAR

Dr R.P. Richard Masillamony Oration of ISVIB 2003 to Dr M.P. Yadav

Dr M.P. Yadav, Director, IVRI, Izatnagar, was honoured with the prestigious Dr P. Richard Masillamony Oration Award of the Indian Society of Veterinary

Immunology and Biotechnology, for 2003. He received the Award on 18 December 2003 during the Tenth Annual Conference of ISVIB and International Symposium on Biotechnology-Production, Productivity, Health and Value Addition organized jointly by the ISVIB and Madras Veterinary College, Tamil Nadu Veterinary and Animal Sciences University, Chennai.

N.D. UNIVERSITY OF AGRICULTURE AND TECHNOLOGY, FAIZABAD

Awards

Dr Gajendra Singh, Associate Professor, Crop Research Centre, Ghagrahat, Bahraich, received the Special Agricultural Scientist Award 2003 for his research work, of U.P. Council of Agricultural Research. He was given Rs 51,000 along with the certificate of appreciation. Dr Anuradha Singh, Research Associate, Department of Crop Physiology, received Young Scientist (Women) Award 2003 of UPCAR. She was given Rs 25,000 along with the certificate of appreciation.

Dr Vishwa Nath, a Ph.D. scholar of Department of Horticulture, received the Best Thesis Award (Men) of UPCAR for 2003. He was given Rs 15,000 along with the certificate of appreciation.

Dr C.M. Singh, Director of Extension, was awarded the prestigious ISWS Medal of the Indian Society of Weed Science for 2002-03. He was presented a gold medal, citation and certificate of appreciation during the Biennial Conference of the Society held at the GBPUAT, Pantnagar.

SHER-E-KASHMIR UNIVERSITY OF AGRICULTURAL SCIENCES AND TECHNOLOGY, JAMMU

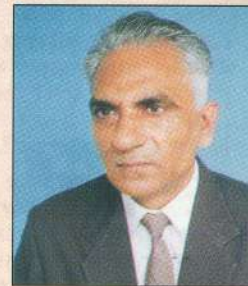
VC honoured

The Hon'ble Vice-Chancellor of this university, Prof. H.U. Khan, was awarded Rashtriya Shiksha Ratan Award for excellence in chosen field of activity on the occasion of national seminar on "Individual achievements and national development" on 12 of December 2003 at New Delhi by the All-India Business Development Association.

UNIVERSITY OF AGRICULTURAL SCIENCES, DHARWAD

Dr M.K. Naik receives Bhide Memorial Award

The Indian Society of Mycology and Plant Pathology, Udaipur, (Rajasthan), conferred on Dr M.K. Naik, Professor and Head, Plant Pathology, College of Agriculture, UAS, Raichur, the prestigious Prof. V.P. Bhide Memorial Award on the occasion of Asian Congress of Mycology and Plant Pathology held at Mysore University during 4-8 October 2002.



Dr M.P. Yadav



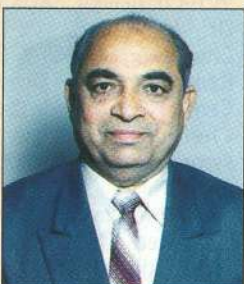
Dr A.S. Nandwal



Dr H. U. Khan



Dr M.K. Naik



Dr S.S. Magar

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