



# YSP University of Horticulture and Forestry

## Farm News

Vol. 1 No. 1, November 2016

### Vice Chancellor's Message



Our major effort will be to improve the quality of education so that our students will make a mark nationally and internationally. Emphasis will be placed on providing orientation to the students to compete in competitive exams in ARS, IFS and IAS, and to explore the opportunities for postdoctoral experience overseas. We will focus on quality research, and publish the research papers in internationally renowned journals to make YSP- UHF a centre of excellence in education and science. Major emphasis will be placed on development of crop/fruit tree varieties, and management practices to reduce application of hazardous pesticides and crop diversification. Greater emphasis will also be placed on the use of organic manure for maintaining soil health. Efforts will also be made to develop climate resilient technologies to overcome the adverse effects of and global warming. Efforts will be made to link production hubs in a value chain: collection – transport – marketing – processing, with particular focus on stone and pome fruits in the mid-hill regions; medicinal plants, summer peas and potato in high hills, and mushrooms grape, mango, citrus and silk cultivation in lower Shivalik hills. A system of joint planning and monitoring will be developed in collaboration with Department of Agriculture/ Horticulture for delivering information/inputs to the farmers,

and identify research gaps for better focus and impact. Greater emphasis will be placed on preparing projects for funding by national (ICAR, DBT, DST, UGC, and private industries), and the international (NSF, Gates and Fulbright Foundations - USA, DFID - UK, GTZ - Germany, ACIAR – Australia, World Bank, and ADB) funding agencies for a greater effort in R4D for impact. For more information, interaction and collaboration, you may write to:

**Dr HC Sharma, F<sub>NAAS</sub>, F<sub>ESA</sub>, F<sub>ESI</sub>**

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### Director's message



We are pleased to present the first issue of monthly E-newsletter “YSP University of Horticulture and Forestry Farm News”. This initiative is to present the monthly happenings and events at the university. The research, extension and extracurricular activities by the students and scientists shall be showcased in this magazine. Latest happenings in farm sciences especially horticulture, forest farming and environment, besides issues related to social and human dimensions of farm sciences at both local and global level will be featured in this publication every month. The trust of the society and the hard work by the scientists assures us to be successful in this endeavour. I extend my best wishes for the success of YSP University of Horticulture and Forestry Farm News.

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## Dr Hari C Sharma Joins as the New Vice Chancellor of YSP-UHF

Dr Hari C Sharma has worked as a Principal Scientist – Entomology, at the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Patancheru, Andhra Pradesh, India. Born in Behra, Bilaspur in Himachal Pradesh, Dr Sharma completed his BSc Ag and MSc – Entomology from the College of Agriculture, YSP - UHF, Solan, and PhD in 1979 from IARI, New Delhi. He has served for nearly 37 years at the International Crops Research Institute for the Semi-Arid tropics (ICRISAT) at Hyderabad. He has also worked as Visiting Scientist at the University of Wisconsin, Madison, USA, and Department of Primary Industries, Queensland, Australia. He has been conferred with several awards including the Lal Bahadur Shastri Memorial Gold Medal (BSc Ag), Mohan Meakins Gold Medal (MSc), CGIAR Excellence in Science Award, Hari Om Trust Award of ICAR, International Plant Protection Award of Distinction, and Bharat Jyoti Award. Dr Sharma has served as President of the Council of the International Congresses of Entomology, and Member – Governing Board, International Association of Plant Protection Sciences. He is a Member of AHTEG Committee of CBD – UNEP, and a Fellow of seven academies including Entomological Society of India, National Academy of Agricultural Sciences, and Entomological Society of America. He has authored over 625 publications, including 7 books 12 information bulletins, 250 research papers, and 80 book chapters.

## 70th Independence Day Celebrated on 15 August 2016



The 70<sup>th</sup> Independence Day of the nation was

celebrated with great fervour at the university. Hon'ble Vice Chancellor, Dr HC Sharma unfurled the national flag and addressed the university staff, students and families. He congratulated the gathering for the Independence Day and exhorted everyone to work for the greater good of the University and stake holders.

## NATIONAL YOUTH PARLIAMENT COMPETITION

National Youth Parliament Competition was organised on September 8, 2016 in LS Negi Auditorium at Dr YS Parmar University of Horticulture and Forestry, Nauni, Solan in which Dr HC Sharma, hon'ble Vice Chancellor, UHF was the Chief Guest and Dr SP Singh, Registrar, Chanakya National Law University, Patna (Bihar) was the Group Coordinator. The programme was organised to expose students to the democratic process in the country. The programme was witnessed by all Statutory Officers, Head of the Departments, faculty members, other university staff members and students.



## Tomato day organised at KVK Solan at Kandaghat

Tomato day was organized at KVK Solan (Kandaghat) on 4 July 2016. On this occasion, Dr Kartar Singh Verma, Director of Extension Education, UHF, Nauni was the chief guest and Dr Anil Thakur, District Agriculture Officer, Solan was the guest of honour. The chief guest advised the farmers to adopt integrated approach to manage disease and insect problems and also advocated the use of scientific organic cultivation techniques.

An exhibition and competition was also organised for which entries were invited from

farmers. Best entries were awarded by the chief



guest. A farmer-scientist interaction was also organised and on the spot solution to farmers' queries were also provided. About 150 farmers of Solan district participated in the event.

### Introduction of Apple in the Non-Traditional Mid Hill Zone Of Himachal Pradesh

Among the various fruit crops being grown in Himachal Pradesh, apple is the most important temperate fruit crop, most of which is being produced in the higher hills. The Horticultural Research Station & Krishi Vigyan Kendra, Kandaghat introduced seven imported apple cultivars in 2009, from the State Department of Horticulture to assess their suitability for the mid hills of HP. This area is not a traditional belt of apple.

Based on the preliminary observation carried



out from 2011-2015, Scarlet Spur, Oregon Spur II, Early Red One, Gale Gala and Gibson Golden have a high potential of becoming a remunerative crop for the farmers of mid hills. Comparatively, Early Red One, Gale Gala and Scarlet Spur are better in terms of earliness; fruit yield, and fruit quality with an average fruit weight of 167g, 119.5g, 137.5g respectively, and they may be recommended for diversification in Kandaghat block of Solan District as they

develop complete ground colour by early July. However, further studies for few more years need to be undertaken for effective selection of suitable cultivars for other locations.

### Dr LS Negi Demonstration Orchards and Dr G C Negi Scientists Hostel at Kalpa, Kinnaur inaugurated

On 2 September 2016, Shri Virbhadra Singh, hon'ble Chief Minister, Himachal Pradesh inaugurated **Dr LS Negi Demonstration Orchards** planted under Himachal Pradesh Horticultural Development Project funded by World Bank at Dr YS Parmar University of Horticulture and Forestry, Regional Horticultural Research and Training Station at Kalpa, Kinnaur.



The hon'ble Chief Minister also inaugurated **Dr GC Negi Scientist Hostel** at Kalpa in the presence of Shri Jagat Singh Negi, hon'ble



Deputy Speaker, HP Vidhan Sabha and Dr Hari Chand Sharma, hon'ble Vice Chancellor, Dr YS Parmar University of Horticulture and Forestry, Nauni Solan HP. The Director Extension Education, Associate Director and Head,

Regional Horticultural Research and Training Station & KVK, Sharbo along with the staff and officers of all the line departments were also present on the occasion. The Scientist's Hostel has been completed at a cost of Rs.48.38 lakhs funded by the Indian Council of Agricultural Research (ICAR), New Delhi.

### Van Mahotsav celebrated at University campus

The birthday of Late Dr YS Parmar 1<sup>st</sup> Chief Minister of Himachal Pradesh and Van Mahotsav were celebrated with much fanfare at the University campus on 4 August 2016. All the officers, staff members and students took part in the programme enthusiastically and planted the saplings of trees in area around the University dairy.



### Skill Development Training Programme on Horticultural Technologies in Collaboration with Satluj Jal Vidyut Nigam Ltd (SJVN)

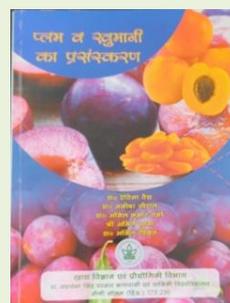
Twenty-two farmers from Kullu distt participated in six days' skill development



course on Horticultural Technologies at the

Directorate of Extension Education w.e.f. 29 August 2016 to 3 September 2016. As per the MOU signed on 15 June 2016 between the University and SJVN, 28 such programmes shall be organised for the farmers of the entire state of Himachal Pradesh. The emphasis under the programmes shall be on imparting technical skill to the farmers and rural youth for improvement in production and development of entrepreneurial skills in the field of horticulture and allied subjects.

### University Scientists Receive ICAR Award for Technical book in Hindi



The authors of the Hindi book – प्लम एवं खुमानी का प्रसंस्करण (ISBN: 978-81-930100-3-7) – Devina Vaidya, Manisha Kaushal, Anil Verma and Anil Gupta received the prestigious Dr Rajendra Prasad Puraskar for Technical books in

Hindi in Agricultural and Allied Sciences for the year 2015 from ICAR, New Delhi.

The award carries a cash prize of Rs one Lakh and citation. The award is given annually by the ICAR to provide incentive to Indian writers to write original standard works in agricultural and allied sciences in Hindi.

### University Organises Parthenium Eradication Campaign

The University organised a campus wide Parthenium eradication campaign and Swachh Bharat campaign in the month of August 2016.



The Parthenium plants were removed and destroyed from the campus on a large scale. In

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addition, a general cleanliness drive was also undertaken during the campaign

## Other Highlights



### XXVth International Congress of Entomology, 23–30 September 2016, Orlando, Florida, USA

#### Progress & Challenges in Pest Management for Food Security & Conservation of the Environment

**Hari C Sharma\***, President, Council of the International Congresses of Entomology. \*Vice Chancellor – YSP University of Horticulture & Forestry, Nauni, 173230, Solan, Himachal Pradesh, India.

The Council of International Congresses of Entomology provides continuity and direction for the International Congresses of Entomology, and to serve as the Entomology Section of the International Union of Biological Sciences (IUBS). Honorary Members are appointed from among entomologists who have made outstanding contributions to entomological knowledge, who have influenced entomology substantially both within and outside their own countries or regions, and who have made important contributions to the International Congresses of Entomology.

#### Welcome Address

The discovery of insecticidal properties of DDT by Paul Muller, Dance language of honeybees by Karl von Frisch, and Transmission of malaria by *Anopheles* - Ronald Ross are the milestone discoveries in entomology, that have won the Nobel Prize. In the 25th ICE, we have 12 plenary presentations, including the two by the Nobel Laureates, and over 300 symposia, and poster presentations that make ICE2016 – A Landmark Congress. However, issues such as: i) Climate change effects on biodiversity, pest management and food security, ii) Impact of

climate change and synthetic chemicals on honeybees, pollinators, and beneficial insects, and iii) The emerging challenges from global warming, invasive species, and biosafety of GMOs to NTOs need urgent attention. The enthusiasm displayed by the LOC certainly promises that you will relish the scientific program of “ICE2016”. I thank the LOC, the supporting organizations, and the Participants, and look forward to your cooperation in making ICE2016 a “Grand success”.

#### Presidential Address

On 11th Sept 1893 in the World Parliament of Religions, the Great Indian Saint, Swami Vivekananda said, “Help and not fight; Assimilation and not destruction; and Harmony not dissension”! And these words are equally true today. May I call upon the Fellow Entomologists to give expression to these words through “Entomology without borders” to fight hunger, malnutrition and poverty.



Tremendous progress has been made in our understanding of molecular markers for insect resistance, genome sequences, gene expression, induced resistance, and RNAi technology. Use of GMOs, biopesticides, ecological engineering and biocontrol has contributed immensely for sustainable IPM for food security, and a safer environment to live. And There are several challenges including, i) Harmful effects of insecticides on pollinators, development of insect resistance to insecticides and GMOs, and insecticide residues in food, ii) Global warming, invasive species, biosafety of GMOs and the products of RNAi technology and synthetic biology need urgent attention. I extend my good wishes to the new executive of ICE led by May Berenbaum (President, USA), Marek Frantisek, (Vice President, Czech Republic), and Myron Zalucki (Secretary General, Australia). I am sure, you all have relished the scientific program of “ICE2016”, and I take this opportunity to thank the LOC led by Walter Leal and Simmons Alvin for organizing the Landmark ICE2016!

“Your life is message to the world, make sure it is inspiring” – Swami Vivekananda. And I am sure you will make a mark in Entomology to make your contributions a source of inspiration for the future generations. Have a Nice Evening. Namaskar!

### Acknowledgements

Dr HC Sharma thanks His Excellency, The Governor of Himachal Pradesh, Sri Dev Vrat ji for approving the trip, ICRISAT management for covering the travel costs, and the ESA officials for their kind hospitality.



Dr HC Sharma addressing the plenary session of 25<sup>th</sup> International Congress of Entomology, Orlando, Florida, USA.

### Directorate of Research



Director of Research

The Directorate of Research is playing a pivotal role in planning, implementation, monitoring, evaluation and coordinating research through different departments and research stations in diverse agro-climatic zones of the State.

Externally funded research projects and research proposals evaluation of M. Sc. and Ph. D. students is carried out by the Directorate. With the consistent efforts of faculty of horticulture and forestry, the university has got 13 new research projects with a budget outlay of Rs. 679.74 lakhs funded under MIDH, RKVY, through Directorate of Horticulture, Shimla and Department of Science and Technology, GOI, New Delhi. In addition, World Bank aided Himachal Pradesh Horticulture Development Project (HPHDP), Project Implementation Unit (PIU) has been established to coordinate with participating departments of the University, Project Control Unit at HPMC, and PIU at Directorate of Horticulture, Shimla, for which annual action plan worth Rs. 370.56 lakh has been approved. The research activities are also being carried through the ongoing 16 AICRP's and AINP's (Rs. 5.85 crore). The group meetings of AICRP on Agroforestry (18-20 June, 2016), Medicinal and Aromatic Plants (28 Oct.-1<sup>st</sup> Sept., 2016) and Honeybees and Pollinators (13-14 Oct., 2016) were organised in the University. The Directorate is also maintaining Model Farm of the University and producing nursery plants of temperate fruits. Recently, ICAR Nodel Cell has also been established in the Directorate to implement, monitor, and expedite the mandated objectives of all ICAR funded projects and grants in the University.



Best Research Centre and Tribal Sub Plan (TSP) award to Solan Centre under AICRP on Honeybees and Pollinators

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## College of Horticulture



The College of Horticulture located in Nauni in Solan District of Himachal came into existence with the establishment of Dr YS Parmar University of Horticulture and Forestry on December 1, 1985. The need for such College arose from the basic consideration that the agro-climatic conditions of hills differ greatly from those of the plains and that the human resource trained in a college shall have better understanding and exposure to hill agriculture and shall prove to be more useful for its development. The college endeavors for imparting quality education to students at graduate and postgraduate levels with the aim of building a competent workforce resulting into prospective scientists, entrepreneurs, academicians. The college is associated in research and extension activities for socio-economic development of farming community. The College aims at transforming Himachal Pradesh into a fruit bowl of India and act as a model of horticultural development of other hill states. Presently there are nine departments in College of Horticulture namely Department of Fruit Science, Department of Vegetable Science, Department of Floriculture and Landscape Architecture, Department of Food Science and Technology, Department of Plant Pathology, Department of Entomology, Department of Biotechnology, Department of Business Management and Department of Seed Science and Technology. The total strength of students in College of Horticulture is 794 under Ph.D., M.Sc., MBA, and B.Sc. programmes. The strength of girl students has gradually increased over the years owing to the very conducive environment in terms of security and discipline. The Foreign students are also pursuing education under different programmes in the College of Horticulture.

## College of Forestry



The College of Forestry has a fairly long history and unique distinction of being the first in Forestry education under the University system in the country. It was established in the year 1987 by upgrading the erstwhile department of Forestry. Since its inception, the College has been rendering pioneering services for making Forestry education exciting and relevant to the society with a mission to generate manpower for sustainable development of Forestry and natural resources for the conservation of optimum utilization of Himalayan Plant Diversity along with integration of forestry with farming systems. Presently, the College has seven departments viz. Tree Improvement & Genetic Resources, Silviculture & Agroforestry, Forest Products, Soil Science & Water Management, Environmental Science, Social Sciences and Basic Sciences with the mandate of imparting teaching to undergraduate and postgraduate students and awarding B.Sc. (Hons.) Forestry, M.Sc. and Ph.D. degrees in various disciplines of Forestry and allied sciences. The College has competent faculty comprising 82 scientists/teachers besides excellent infrastructure and related facilities in the field of Forestry education comparable to the elite Forestry institutes across the world. The College is serving the State Forest Department, farming communities/stakeholders by transferring technologies in the area of improved quality planting material of different fodder, fuel wood and timber species, bamboos, grasses, fast growing agro forestry species, medicinal and aromatic plants, improved water utilization, environmental conservation and climate change besides carrying out theoretical and applied research in various fields of Basic and Social Sciences. The

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College boasts an outstanding placement record and has in the last 7 years produced 17 IFS Officers, 42 State Forest Officers, 16 Scientists and 14 Bank Officers in addition to 57 placements in reputable private sector organizations.

## College of Horticulture and Forestry, Neri-Hamirur



The College of Horticulture and Forestry, Neri-Hamirpur (HP), (10 Km from district headquarter), came into existence as constituent College of Dr YS Parmar University of Horticulture & Forestry Nauni-Solan on 27th August, 2014. This has its roots in the erstwhile Institute of Biotechnology and Environmental Science, Neri, Hamirpur established in the year 2011. The College is currently imparting education at undergraduate level i.e. B.Sc. (Honours) Horticulture/Biotechnology/Forestry to the students from all over the states besides, students from Punjab, Haryana, Chhatisgarh, Rajasthan, Bihar, New Delhi, J&K, etc. At present, 447 students are enrolled in different degree programmes. Till now 146 students have passed out from this College during 2014-15 and 2015-16, in the disciplines of Horticulture and Biotechnology. Out of these students, 32 have bagged ICAR Junior Research Fellowship. Till date, 113 students have received scholarship grants from the university and ICAR as merit scholarship and National Talent Scholarship, respectively. The students of the college have participated in various sports and extra-curricular activities like All India Agri Sports Meet, North Zone Inter-University Badminton Championship, Inter-University Declamation Contest, etc. One of our student has bagged Gold Medal in State level Kick-Boxing Championship-2016 held at Solan (HP) and has been nominated for National Championship

while another student from Biotechnology discipline has got admission in Tata Institute of Fundamental Research, Bangaluru for pursuing his post-graduation.

Besides teaching, college is also engaged in R&D work on production and protection technologies of different fruits, vegetables, ornamental crops, medicinal and forest plants to cater to the needs of farming community of sub-tropical region of Himachal Pradesh. Technologies for papaya under protected cultivation in frost prone areas and high density plantings of pomegranate, guava and peaches under undulated wastelands of subtropics of the state have been optimized. The elite genotypes of Karonda and fig suitable for wasteland of sub-tropics have been identified.

The college has developed propagation, production and protection technologies for important medicinal trees like *harad*, *baheera*, *aonla*, *chandana* (Sandalwood), *reetha* (Soapnut), neem etc. New clones have been developed in *harad* whereas elite genotypes have been identified in *baheera*, *anola*, *reetha* etc. Fruit fly pheromone trap has been developed for mass trapping of fruit fly in the region. Besides research, technical know-how related latest production and protection technologies is being imparted to the line departments of the state like Horticulture, Agriculture, Forest, etc.

## Registrar Office



The Registrar conducts the meeting of Senate, Board of Management and Academic Council and also gets them constituted from the authority concerned. The total strength of faculty members is 229 and non-teaching employees are 1062. The promotions, pay fixation and all other service matters and correspondence are also dealt/finalised. The admission and registration of all the students is

also made. The records for the award of degrees are maintained besides conducting convocations. All court matters and work of general nature/University administration is also dealt.

The 98<sup>th</sup> meeting of the Board of Management was convened on 10/06/2016. 357 students graduated in different disciplines. During the current financial year up to October, 2016, 21 employees were promoted, while the services of 04 DPLs were regularized. As per policy of the State Government, 04 persons were given appointment against class-III posts on compassionate grounds. The eleven posts of Assistant Professor/equivalent (on contract) in different disciplines were filled up by way of direct recruitment.

### Satyanand Stokes Library



Satyanand Stokes Library of Dr. Y. S. Parmar University of Horticulture and Forestry is named after Mr. Satyanand Stokes, a native of U.S. who became Indian National and heralded apple revolution in

Himachal Pradesh. The library of the University specializes in Horticulture and Forestry information. It is a well-established modern library catering to the information needs of the academic community of the University. This library initiated the modernization operation in April 1989 and since then made a significant headway in the application of modern technology in information management to cope with the ever increasing flow of information. It serves its users through computerized in-house databases and international databases available on CD-ROM. The library is well connected to Internet and E-mail facilities since January 1998. *It is the first Agricultural University Library in the country which has been converted into a Wi-Fi Library in 2003-04.* In 2005 the bar-coding of

books was completed. The technology savvy library of the university has established Multimedia Centre in May 2007 with a total cost of Rs. 60 Lacs funded by ICAR. *The library has been providing electronic access to 2000+ Journals since July 2008 through CERA: Consortium for e-Resources in Agriculture.* The whole collection of the library is computerized and its OPAC is electronically accessible. The library is having 60 E-Learning Tools. The important ones are: HORT CD 1973-2013 , FOREST SCIENCE DATABASE 1939-2013 , CAB CD 1987-95, AGRIS 1975-2001, AGRICOLA 1984-90, Forestry Compendium, Crop Protection Compendium, National Agricultural Research Database etc. The facilities of Book Bank, Inter Library Loan, Lamination, Photocopy, Computerized Information Services etc. are available for readers. The library has a collection of about 69,000 documents. The working hours of library are from 10.00 A.M. to 7.00 P.M. The library is also offering two courses, "Library and Information Services" and "Technical Writing and Communication Skills", to M.Sc. and Ph.D. students.

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