



Dr. Vilas Kharche awarded the state level Mrudagandha award

Dr. V. K. Kharche, Acting Associate Dean and Professor of Soil Science, College of Agril. Nagpur was awarded Mrudagandha award for his contribution in research and extension in Soil Science in Maharashtra state given by Parbhani Chapter of Indian Society of Soil Science, VNMKV, Parbhani.

This award was recieved at the hands of Dr. S K Singh, Director, NBSS&LUP, Nagpur in the gracious presence of Dr. R G Dani, Vice Chancellor, Dr. PDKV, Akola and Dr. Jagdish Prasad, President, ISSS, New Delhi during the State Level Seminar on Soil and Water Quality: A Concern" organised by Akola chapter of Indian Soil Science and Department of Soil Science and Agril. Chemistry, at Dr. Panjabrao Deshmukh Krishi Vidyapeeth,

Akola organised to celbrate the International Year of Soils-2015.



Dr. Vilas Kharche receiving state level Mrudagandha award

President's Message



At the outset I would like to convey New Year Greetings to our esteemed members.

The 68th United Nations General Assembly had declared the year 2015 as the International Year of Soils and it was decided by FAO to use this opportunity for creating awareness among the civil society and decision makers about the profound importance of soils for human life. The Indian

Society of Soil Survey and Land Use Planning has also extended its might towards this goal. Various chapters of the Society and the Headquarter at Nagpur organized programmes and public lectures for the farmers and civil society. Our members also participated in the meetings and Brainstorming Sessions organized by the NRM Division of ICAR during July 12-14, 2015 at Delhi.

Society has also witnessed a significant rise of 28% in membership and it is a pleasure to share that total membership base of the Society has risen to 845. Now it is our endeavour to raise the membership strength upto 1000 by the end of year 2016. I am happy to inform you that the Journal 'Agropedology' is now fully online and its issues are being regularly published on time. A serious consideration is under way to increase scope of the journal in terms of its outreach. There is serious proposal to change the name of the journal to encompass wider field of land resources management.

Since its formation, the Society organized 13 National Seminars in addition to two International events namely International Workshop on "Distribution, Classification, Management and Use Potential of Swell-Shrink Soils (INWOSS)", October 24-28, 1988 at Nagpur and International Seminar on "Managing Red & Lateritic Soils for Sustainable Agriculture", September 24-28, 1993 at Bangalore. Last year we had organized a National Seminar on "Sustainable Management of Land Resources for Livelihood Security" during January 28-30, 2015. About 190

delegates from ICAR institutes, SAU's, State Govt. Departments, KVK's and other Universities participated in the seminar.

I am happy to share with you that after a gap of nearly 23 years, we have embarked on an ambitious mission of organizing an **International Conference on "Integrated Land Use Planning for Smart Agriculture" during November 10-13, 2016** at NBSS&LUP, Nagpur. I will call upon all the members to join hands in successfully conducting this international event. I will also urge members to maximise participation by contributing research papers and spreading the message to fellow colleagues for meaningful deliberations.

It is now widely recognized that the pressure of growing agricultural land is increasing at an unprecedented scale and our preparedness in facing the challenges of looming climate change and increasing population will be severely tested. Adaptation and mitigation measures to overcome these abiotic challenges has become a focal theme in agricultural research, in general, and soil research, in particular. There is, however, need for integrated land use planning approach as land use dynamics is both a cause as well as effect/solution to this problem. This will require a paradigm shift in the way isolated perspective in land use activities are looked at. One of the major objectives of the conference is, to exchange global experiences in agro-ecological resilient land uses, their dynamics, synergies and to explore novel landscape approach for implementing climate smart agriculture.

I am confident our esteemed members will once again rise to the occasion and make this programme a success.

"ENSURE BETTER SOIL MANAGEMENT & OPTIMUM LAND UTILIZATION FOR TODAY'S PROSPERITY & TOMORROW'S SURVIVAL".

(Dr. Arun Chaturvedi)
President, ISSLUP

Published by :

Dr. Arun Chaturvedi

President, Indian Society of Soil Survey & Land Use Planning, NBSS & LUP Compus, Amravati Road, Nagpur - 440 033

Compiled and Edited by : Dr. N. G. Patil, Chief Editor, ISS LUP.

Printed at : Beacon enterprises, Sitabuldi, Nagpur -440 012, PH.: 9822736808



ISSLUP to hold International Conference on Integrated Land Use Planning for Smart Agriculture - An Agenda for Sustainable Land Management November 10-13, 2016 at ICAR-NBSS&LUP, Nagpur, India



THEMES OF CONFERENCE

- Advances in natural resources inventory and monitoring
- Climate change and land use/ land cover dynamics
- Soil quality and challenges in resilient agriculture
- Land degradation and abiotic stress management
- Land use synergy and landscape approach for land use planning
- Water use efficiency in rainfed and irrigated agro-ecosystems
- Climate smart agriculture and rural livelihoods
- Geo-Information and communication technologies (GeoICT) in smart agriculture
- Policy interventions, socio-economic constraints and challenges in global food security

In this issue

- Healthy Soils for a Healthy Life
- Bangalore Chapter celebrates 'International Year of Soils'-2015
- ISSLUP Hqts, Nagpur celebrates International Year of Soil - 2015
- Jorhat Chapter organizes Awareness Programme on soils on the Occasion of 'World Soil Day'
- Personalia
- President's Message



2015
International
Year of Soils

healthy soils for a healthy life

Healthy Soils for a Healty Life



During the past half century, the transformation of agriculture from traditional animal based subsistence to 'intensive chemical and machinery based' production system have led to multifold increase in food production. This also contributed to multiple problems associated with sustainability of natural resources and in-turn deterioration in soil health. This led to the declining trends in total factor productivity, which is difficult to halt. In the quest for productivity push via intensification, man, however, forgot necessity of following a holistic land management menu for soil health. 'Soil health' is invariably interchanged with term 'soil

quality'. Soil quality is the term that is more often used to describe physical and chemical attributes of a soil and their place in plant growth and yield. While soil health is an integrated function of biological, chemical and physical properties of soil and here soil biota is given prominence in a soils' functioning. FAO defines soil health as "the capacity of a soil to function as a living system, with ecosystem and land use boundaries, to sustain plant and animal productivity, maintain or enhance water and air quality, and promote plant and animal health". Characteristics of healthy soils are: good tilth and soil organic matter (SOM) content, sufficient (but not excess) nutrients, sufficient rooting depth, good water storage and drainage capacity, free of chemicals that might harm plants, high populations of beneficial organisms, low populations of plant disease and parasitic organisms, low weed pressure, resistance to being degraded and eroded and resilience (quick recovery) from adverse events. To produce enough food to keep pace with growing population, maintaining good soil health is imminent as healthy soils are the basis for healthy food productivity and sustenance of healthy life and a healthy nation.

Any attempt to promote practices, which lead to improved soil health must be linked directly to improve economically viable production from a parcel of land.

What to do?

To maintain the soils healthy, following practices are to be adopted

- Soil test based nutrients prescription instead of blanket application
- Nutrient supply through organics, inorganics and biofertilizers
- Recycling of residues, FYM, green manure application
- Conservation Agriculture
- Adopting crop and cropping/farming systems
- Land use options based on scientific footing for degraded soils
- Awareness among civil society and decision makers
- Soil Health Card campaign to help farmers

As many parameters are used to evaluate soil health, systematic sampling of soils and their analysis following standard procedures to be strictly followed.

Dr. Jagdish Prasad

Principal Scientist and In-charge Head, SRS Division, ICAR-NBSS&LUP, Nagpur
Former Vice-President, Indian Society of Soil Survey and Land Use Planning, Nagpur
President, Indian Society of Soil Science, New Delhi,

ISSLUP Chapter Activities

Bangalore Chapter celebrates 'International Year of Soils-2015'

To commemorate the 'International Years of Soils' Indian Society of Soil Survey and Land Use Planning (ISSLUP) local chapter, Bangalore organized a workshop on 27th October, 2015 at ICAR-NBSS&LUP, Regional Centre, Bangalore.



Dr. A. Natarajan delivering the lecture

The Workshop was inaugurated through lighting of traditional lamp by dignitaries and Dr. Rajendra Hegde, Head, NBSS&LUP. Dr. Rajendra Hegde welcomed all the dignitaries and participants and gave a brief account of various activities undertaken by the chapter. Dr. Sreenath Dixit, Director, ICAR-ATARI, Bangalore, Chief Guest addressed the participants and briefed about the importance of International Year of Soils in context of Indian situation. He discussed the importance of soils on policy making by the planners. He briefed about his own experience of action learning tools by using Rainfall simulator on land cover/ management and demonstration of the same to farmers in various parts of Andhra Pradesh.

Dr. A. Natarajan, Ex-Principal Scientist of ICAR – NBSS&LUP (RC), Bangalore, delivered special lecture on "Integration of Land resource Inventory database for watershed planning and various other land based rural development programs. In his presentation, he elaborated the different datasets needed for watershed planning. He also explained how soil and water conservation measures can be planned by using LRI datasets in different situations. Dr. S. Thayalan, Principal Scientist, ISSLUP, Bangalore Chapter addressed the audience on different activities of the chapter. He emphasized the chapter to organize series of seminars/lectures frequently and requested all the participants to try to increase the membership base of the society. The workshop ended with vote of thanks by Mrs. Vasundhara, Scientist, ICAR-NBSS&LUP (RC), Bangalore.

ISSLUP HQrts, Nagpur celebrates International Year of Soils – 2015

Indian Society of Soil Survey and Land Use Planning (ISSLUP), HQrts, Nagpur organized a public lecture by Hon. Dr. Sharad Nimbalkar, Former Vice Chancellor, Dr. PDKV, Akola on "Issues and Challenges in Resource Management and Food Security in the 21st Century". He drew attention to various challenges facing the nation like decline of farm productivity, demand of food grains production, conservation agriculture, land degradation,

December, 2015

soil and water conservation, soil fertility management and nutritional security in the country. In view of the climate change and weather aberrations, he stressed upon the effective utilization of water resources in the country through inter-linking of rivers, adoption of proper soil and water conservation measures, changing the cropping patterns and adopting the site-specific farm practices to feed the growing population in the country. He urged the farming community in the country especially in the central region to apply the fertilizers as per the requirement thereby the expenditure on fertilizers could be reduced and health of the soil would be preserved to maximize the yields. He appreciated the efforts made by ICAR-NBSS&LUP in soil resources mapping at various scales in the country. He urged the extension specialists to effectively transfer the technologies developed at various research institutes to the farmer's fields.



Dr. Sharad Nimbalkar delivering the lecture

Dr. S.K. Singh, Director, ICAR-NBSS&LUP, Nagpur and Guest of Honour in his remarks stressed upon the need of large scale soil resource inventory to develop site-specific land use planning in the country to enhance the farm productivity and ensure food security in days to come. He informed that many states are coming forward to develop soil resource databases for agricultural land use planning, which would help to enhance crop productivity in greater extent.

Dr. M.S. Ladaniya, Director, ICAR-CCRI, Nagpur and Guest of Honour in his remarks, emphasized the importance of awareness in the farming community on soil fertility, soil and water conservation and plant diseases. He also highlighted to conserve the plant genetic resources in the country to enhance farm productivity and ensure food security.

Dr. Arun Chaturvedi, President, ISSLUP presided over the function. He underlined the necessity to create awareness on importance of soils among the youth and assured the proactive role of ISSLUP in propagating the message of protecting the soil resources. Dr. Jagdish Prasad, President, Indian Society of Soil Science (ISSS), New Delhi was felicitated on this occasion. Earlier Dr. G.P. Obi Reddy, Hony. Secretary, ISSLUP welcomed the guests and conducted the proceedings. He presented the details on various programmes organized by the Society to commemorate the International Year of Soils-2015. Researchers, academicians and other officers from various ICAR institutions, RRSC, MRSAC and college of Agriculture located in Nagpur graced the function. Dr. Nisha Sahu, Scientist proposed a formal vote of thanks.

Jorhat Chapter Organizes Awareness programme on Soils on the occasion of 'World Soil Day'

An Awareness Cum Training Programme was organized by the Jorhat Chapter of the Indian Society of Soil Survey and Land Use Planning to mark the occasion of 'World Soil Day' on 5th December, 2015. The camp was held at Danichapori village in Golaghat district of Assam. The training programme began with an interactive meeting presided by Mr. Bishwaswar Taod, President and Village Headman, Danichapori. Dr. D. K. Borah, Dean Faculty of Agriculture, AAU, Jorhat also joined the programme as the Chief Guest. The programme was attended by most of the teachers of the department of Soil Science, AAU, Jorhat including Dr. R. M. Karmakar, Professor & Head and the Post Graduate students of the department.



Participants in the awareness programme on soils

All the teachers and the PG students took active part in the demonstration to highlight the important aspects relevant to soil health management. These includes technique of collection of Composite Soil Sample, In situ Soil testing by using Soil Test Kit, Rapid Plant Tissue test for N, P and K and fertilizer recommendation and Application technique of Biofertilizers. More than hundred numbers of farmers belong to mainly scheduled Tribe community actively participated in the programme and were given hands on training in the mentioned topics.

PERSONALIA

Dr. S.K. Singh Elected as President CMSI, New Delhi



Dr. S.K. Singh, Director, ICAR-NBSS&LUP, Nagpur has been elected as President of Clay Minerals Society of India, New Delhi for the biennium 2016-17. ISSLUP congratulates him for his commendable achievement and wishes him

a fruitful and successful tenure.

Dr. Jagdish Prasad, attended International Conference of (ESAFS2015), at Nanjing, China

Dr. Jagdish Prasad, Principal Scientist & In-Charge Head, Division of Soil Resource Studies ICAR- National Bureau of Soil Survey and Land Use Planning, Amravati Road, Nagpur-440033, and Former Vice President and



December, 2015

Chief Editor, Indian Society of Soil Survey and Land Use Planning, Attended 12th International Conference of The East and Southeast Asia Federation of Soil Science Societies (ESAFS2015) on Rational Utilization of soil Resources for Sustainable Development from September 18-21, 2015 held at Nanjing China (FAO sponsored). Dr. Prasad chaired one of the session "Asia Soil Informatics" on day 1. He also attended ESAFS Business Meeting and field trip for profile study.



Dr. G. Ravindra Chary, joined as Project Coordinator (Dryland Research), AICRPDA, ICAR-CRIDA, Hyderabad

Dr. G. Ravindra Chary, Vice President, ISSLUP, was appointed as Project Coordinator (Dryland Research), All India Coordinated Research Project for Dryland Agriculture (AICRPDA), ICAR-

CRIDA, Hyderabad on 19th September, 2015. The society congratulates him on his selection and wishes him a fruitful and satisfying tenure.

International Zinc Association Award to Dr. Rajendra Katkar.

Dr. Rajendra Katkar, Associate Professor and In-Charge, All India Coordinated Research Project on Micro and Secondary Nutrients and Pollutant Elements in Soils and Plants, Department of Soil Science and Agril. Chemistry, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola received prestigious award of International Zinc Association, Brussels, Belgium through Fertilizer Association of India, New Delhi for promoting the use of zinc micronutrient in Indian agriculture during last decade. He received Gold Medal, citation and cash Prize of one lakh rupees at the hands of Hon'ble Shri. Anant Kumar, Cabinet Minister for Chemicals and Fertilizers, and Hon'ble Shri. Hansaraj Ahir, State Minister for Chemicals and Fertilizers, Shri. Bishnoi, Secretary, Ministry of Chemicals and Fertilizers, Govt. of India and Shri. Satish Chander, Director General, Fertilizer Association of India on December 2, 2015 at New Delhi. Chairman of International Plant Nutrition Institute, USA Dr. Terry Robert, Chairman of FAI, Mr. Rakesh Kapur, Dr. A. K. Sikka, Deputy Director General, (NRM), Dr. S.K. Chaudhari, Assistant Director General (Soil & Water Management), Indian Council of Agricultural Research were present.



Dr. Rajendra Katkar receiving the International Zinc Association Award