variables, collection of data and their analysis to interpret the data are discussed extensively.

Statistical tools are complemented with real-life examples, making the otherwise complicated subject like

statistics seem simpler. Solved examples using in-built calculating devices and statistical packages are the added features of the book. Emphasis is placed not only on solving the problems in various fields but also on drawing inferences from the problems. The importance of instruments and computers in research processes and statistical analyses along with their



misuse/incorrect use is also discussed to make the user aware about the correct use of specific technique. In all the chapters, theories are combined with examples, and steps are enumerated to follow the correct use of the available packages like MSEXCELL, SPSS, SPAR1, SAS etc.

## **Peeping Through the Eyehole at the World**



Professor M M Adhikary, Department of Agricultural Extension, BCKV, delivering inaugural address in the International Conference on "Climate Resilient Technology Development and Extension for Sustainable Agriculture" held at Mymensingh, Bangladesh during 7-8 March, 2013. Professor S K Acharya, Department of Agricultural Extension and Dr K Barui, SMS, KVK, Hooghly also attended the conference and presented their research papers.



Dr M M Adhikary, Professor of Agricultural Extension and Dr A M Puste, Professor of Agronomy of the BCKV have attended and presented research paper in the "XVIIth

International Plant Nutrition Colloquium 2013 (IPNC'13)" held in Istanbul exhibition and convention center (Turkey) during 19-22 August, 2013 supported by the IPNC council (UC-Davis, USA) and Sabanci University (Istanbul).

## Peeping Through the Eyehole at the World

Prof R K Ghosh, Secretary, CWSS attended the IVth Tropical Weed Science Conference (TWSC) on, "Weed Management and Utilization in the Tropics" at Chiang Mai, Thailand during 23-25 January, 2013

and presented his scientific article on "Ecosafe Integrated Weed Management of System Onion intensification (SOI) in Gangetic India".



Prof R K Ghosh, FAPS, FISWS, RAISWS, FAAPP, BCKV, India has been recognized as a potential contributor to the

International Research-level book on Parthenium weed for their "Invasive Species" Chapter 10 – Use and Misuse of Parthenium. The Book will be published by CAB International, UK at the end of 2014 and Coordinated by IPAWN Coordinator Dr Steve Adkins, Australia and President APWSS.



A group of teachers of the BCKV has attended the International Conference on "Industrial Waste Management and Process Efficiency, 2012 (IWMPE'12)" at Dhaka, Bangladesh. The conference was organized by Dhaka University of Engineering and Technology (DUET), Gazipur, Dhaka, Bangladesh during 12-14 November, 2012. Professor M M Adhikary and Professor S K Acharya of the Department of Agricultural Extension, BCKV and Professor A M Puste and Dr K Brahmachari of the Department of Agronomy, BCKV presented their research papers in that conference.

Chief Editor: Dr K Brahmachari, Dept of Agronomy, BCKV, Mohanpur, Nadia, WB

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2013

# Combat the Curse of Climate Change : Achieve Evergreen Agriculture

With the advent of time, the brunt of climate change is becoming more discernible, especially in agriculture and bio-diversity sectors. The change in night temperature, the aberrations in the rainfall patterns, the spate of sea levels and the melting pattern of snow lines, all have been consciously indicative of climate change and these from a relegated impact on agricultural productivity, crop diversity, disease pest incidents and changes of cropping pattern. The effect of climate shift has become more direct where farming is practised with less integration and lesser co-integrations of input, techniques and resources. The situation rightly demands impromptu as well as imminent interventions to make our agriculture more protective and resilient to climate change. The situation has been worsening with the degradation of invaluable natural resources in a response to indiscriminate mechanization as well as 'modernization' of agriculture. There is no choice but to check the soil erosion from its precarious level i.e. 8 – 9 tonnes per ha per year and at the same time the chemical pesticide application has to be rationalized from its present level of 450 gm per ha to an ecologically endurable limit. Consuming 5000 liter of ground water while producing just one kilogram of summer rice is sheer luxury. So, a comprehensive transformation of farming system along with its factors of production can usher a desirable shift of our agriculture integrating seed, soil, fertilizer and water into an orchestration of concept, commodity and commercialization. So, a green to ever green agriculture shall not only support the sustainable productivity, but will offer a co-integrated agriculture to sustain the life, livelihood and social ecology.

#### - Editors

"We have for over a century been dragged by the Prosperous west behind its chariot, chocked by the dust, deafened by the noise, humbled by own helpless, and over-whelmed by the speed. We agreed to acknowledge that this chariot drive was progress, and that progress was civilization. If we ever ventured to ask "Progress for what and Progress for whom" it was considered to be peculiarly and ridiculously oriental to entertain such doubts about the absoluteness of progress. Of late a voice has come to us bidding us to take account of not only the scientific perfection of the chariot but also of the depth of ditches lying across the path"

Rabindranath Tagore during his visit to Chaina (1924)

### **The CWSS VIIIth Annual Conference 2012**



The CWSS VIIIth Annual Conference 2012 (IVth biennial Conference) was held on 29<sup>th</sup> June at FTC (Lake Hall), BCKV, Kalyani in the inaugural programme Prof R K Ghosh, the Secretary, CWSS thanked the ICAR for financial help in the Publication of the CWSS Journal of Crop and Weed, and also the NAAS for evaluating the CWSS Journal. He then thanked all the delegates - the Chief Guest, Special Guests, all the Patrons, Life and Annual Members from various institutions of India, the members from the Agricultural Department, Government of WB, Corporate Sectors and the CWSS Awardees – 2012.

Prof A Bhattacharyya, President, CWSS, BCKV in his Welcome Address briefly narrated the CWSS activities and welcomed all the delegates from India and abroad.

The Director of Research Prof A Mitra in his short speech said that the CWSS has taken a great role in the uplift of BCKV in the national and international level. The Chief Guest, Dr John Leeper from USA in his address narrated the urgency of food security in India. He also mentioned that the CWSS , BCKV in the last year conducted International Conference on System of Intensification and this year also this Conference and therefore this organization is moving ahead in proper direction.



The Presidential Address was delivered by Prof S K Mitra, Vice Chancellor (Actg), BCKV where he reported on the important activities of the BCKV in modern agriculture.

International and National Scientists were felicitated. The CWSS Gold Medal 2012 and CWSS Fellow Award 2012 were also presented in this Inaugural programme. The CWSS Journal of Crop and Weed Vol. 8 No.1 and CWSS Newsletter 2012 were released by the Vice Chancellor, BCKV, the Chief Guest and Special Guests. The Vote of Thanks was delivered by Prof R K Ghosh, Secretary, CWSS, BCKV.

Dr John R Leeper delivered the Key Note Address on, "Sustainable Rice and Productivity In his speech he clearly narrated that it is the individual farmer who decides what he will grow, when he will grow it, and how he will grow it. Those decisions are largely economically driven.

The special guests, Dr A G Power, Senior Vice President, Technology and Business Development of M/S Indofil Industries Limited; Dr Bernhard Grimmig, Head Project Management and Technical Development, M/S Bayer Crop Science India Ltd and Dr V D V N H Kumar, Zone Development Manager (SW Asia, Middle East & SE Africa), Bangkok, M/S FMC Agricultural Products also delivered short speeches about the role of Industries in food security of India. All emphasized on ecosafe pesticide uses in crop cultivation.

Prof R K Ghosh welcomed all the members in the Technical Session and Prof S K T Nasar chaired this Session. In the First session two scientists presented their best scientific achievements for the CWSS Young Scientist Award Presentation. Thereafter group discussion was held with scientists and farmers. The expert members of different specialized subjects took the responsibility to answer the problems raised by the farmers of different districts of this

### **Save Yourself to Save Your Crop and Your Family**

The lifeline of the farming community is cultivation and to protect it against all odds to achieve higher yield is his religion. Apart from the vagaries and uncertainties of nature coupled with irrigation irregularities and fertilizer price hike there are problems galore due to insect, fungus and weed infestation. Moreover, plummeting price of the farmers' produce has become a regular phenomenon. When ever such conditions are beyond control, a farmer is compelled to concentrate on increasing yield only by means of use of crop protection chemicals against the pest menace. Facts and figures say that insect, fungus, weed and other pests (namely nematodes, rodents, stored grain pests etc) cause 29%, 22%, 37% and 12% crop damage respectively and to protect his crop from all these nuisances, a farmer, seldom takes the help of different crop protection chemicals. Every crop protection chemical is poisonous; it results in:

- → Anemia, no clotting of blood (pertaining to circulatory)
- ➤ Paralysis, trembling, excitation, brain damage (pertaining to brain and nervous system)
- ➤ Itchy, watery eyes, blindness (pertaining to eyes)

- → Skin diseases irritation, rashes, blister, open sores that won't him (pertaining to skin)
- ➤ Asthma, emphysema (pertaining to lungs vis-a-vis the respiratory system)
- → Jaundice, kidney failure (pertaining to liver and

So, a judicious use and/or handling of this chemicals are of utmost necessity. Keeping all these alarms in our mind five golden rules should be religiously followed while handling plant protection chemicals that is pesticides:

- → Be cautious all the time.
- ➤ Read the label provided with the bottles/packets very carefully and understand it fully. If one cannot read it, one should get it read by the other.
- ▶ Be particular regarding personal health and
- ➤ Keep the spraying equipments in perfect working condition.
- → Use necessary personal protection equipment (PPE) such as non-absorbent full sleeve shirt, full trouser/pant and hand gloves, cap, eye protecting specks, and nose-mouth mask, face shield and also non-absorbent shoe-type footwear.

So, safe and judicious use/handling of pesticide has become the need of the hour and should be made a habit by every member of the farming community. The 5 golden rules are applicable to those who useually handle plant protection chemicals both indoor and outdoor for the purpose of crop protection.



It has to be kept in mind that one's crop and family will survive only when he himself survives in good health. The burning question the facing the farming community is when they will understand the need for using plant protection equipments (PPE) for the need of personal safety vis-a-vis safety of his family while handling plant protection chemicals? Only a proactive



P-P-P model dealing in agro-chemicals has probably got the answer for the future.

The Editorial Board is thankful to Mr Debasis Bose, DRM (WB) and DM (East) J U Pesticides and Chemicals Pvt for this article.

## **Parthenium Awareness Programme** by Hooghly KVK

To make the common people acquainted with the menace of parthenium, this year the BCKV Hooghly KVK observed the Parthenium Awareness Week from 16<sup>th</sup>-22<sup>nd</sup> August, 2013 by involving the farmers, farmers' club, gram panchyat, NGOs and school students from different places like Talbona of Pandua, Chamat Palashi of Dhaniakhali etc. The KVK at their own campus also observed the same programme with the students of Ramkrishna Mission Samaj Sebak Sikhan Mandir, Belur.

In all the programmes Dr K Barui, SMS, Agronomy of that Kendra explained in detail on parthenium – its character, detrimental effects on the human beings as well as domestic animals vis-à-vis varied menace created by it. He called **parthenium** as 'Green Cancer' and requested people from all corners to take the social responsibility to confiscate



Peeping Through the Eyehole at the World

Dr A B Sharangi, Associate Professor, Department of Spices and Plantation Crops, Faculty of Horticulture (BCKV) has recently visited Louisiana State University (LSU), USA after getting the prestigious FULBRIGHT-Nehru Visiting Lecturer

Award with a teaching assignment for four months (January 15-May 14, 2013). As one of the Fulbrighters from India during 2012-13, he was selected by the J William Fulbright

Foreign Scholarship Board FSB, Washington DC, for his strong academic background, leadership potential, a passion for increasing mutual understanding among nations and cultures, and the adaptability and flexibility to pursue the proposed Fulbright project (on herbs and spices) successfully. While in the USA, he was also selected as



FULBRIGHT Occasional Lecturer to deliver a seminar speech at Room 107, Carver Complex, S Bonner Wing, the Alabama Agricultural and Mechanical University (AAMU), Huntsville, Alabama on herbs and spices after getting the OLF travel award.

The Council for International Exchange of Scholars (CIES) provides travel awards through the Occasional Lecturer Fund (OLF) to enable Fulbright Visiting Scholars who visit the US, for a grant longer than three months, to accept quest lecturing invitations at US colleges and universities through rigorous selection of right persons in a competitive mode. Apart from the OLF lecture he had also delivered an invited lecture on Herbs, Spices and Medicinal plants at Ray Johnson Assembly Hall, Alcorn State University (ASU), Mississippi on herbs, spices and medicinal plants. As a matter of great appreciation, two of his lectures were recorded at 1225 Pleasant Hall for delivering online to the distant learners registered for the course International Horticulture and Tropical Horticulture at the Louisiana State University. He had also been selected for Fulbright Enrichment Seminar Travel Grant and visited the USA extensively.

## **New Book on Research Methodology Authored** by CWSS Fellow Released From Springer

A much needed book on Research Methodology authored by Dr P K Sahu, Fellow of the Crop and Weed Science Society has been published from SPRINGER. This book is one of the most useful guide books for the Research

students/Teachers/Scientists in the Pradip Kumar Sahu field of agriculture and allied fields. The wider scope and coverage of the book will help not only the students/ researchers/professionals in the field of agriculture and allied disciplines, but A Guide for Researchers also the researchers and practitioners in Agricultural Science, in other fields. All efforts have been made to present "RESEARCH", its meaning, intention and usefulness. The book reflects current methodological techniques used in interdisciplinary



research, as illustrated with many relevant worked out examples. Designing of research programme, selection of