WASWC HOT NEWS 2008 (09-extra) SEPTEMBER 18, 2008

Compiled and sent out monthly by Samran Sombatpanit, Editor
Pls send your contributions/ information for next issue/s of HOT NEWS and WASWC Newsletter to sombatpanit@yahoo.com and samran_sombatpanit@yahoo.com
This document is NOT properly edited, to enable a quick release, to meet many deadlines.
Previous information is available on the website http://waswc.soil.gd.cn, subpage WASWC HOT NEWS

REDUCE ▫ **REUSE** ▫ **RECYCLE**
These are what every one of us can do to help mitigate global climate change - our imminent threat.

PLEASE CONSIDER THE ENVIRONMENT BEFORE YOU PRINT THIS HOT NEWS

Table of Contents

WORLD WATER MONITORING DAY (WWMD)

SEPTEMBER 18

To reach 1,000,000 People in *100* Countries by 2012

World Water Monitoring Day™ (WWMD) is an international education and outreach program that builds public awareness and involvement in protecting water resources around the world by engaging citizens to conduct basic monitoring of their local water bodies.

An easy-to-use test kit enables everyone from children to adults to sample local water bodies for a core set of water quality parameters including temperature, acidity (pH), clarity (turbidity) and dissolved oxygen (DO). Results are shared with participating communities around the globe through the WWMD Web site.

World Water Monitoring Day is celebrated on September 18. It was initially chosen to be a month later (October 18) to recognize the anniversary of the U.S. Clean Water Act, which was enacted by the U.S. Congress in 1972 to restore and protect the country's water resources. In 2007, the date was changed to facilitate participation in parts of the world where temperatures reach freezing at that time.

The coordinators of WWMD, the Water Environment Federation (WEF) and the International Water Association (IWA), plan to expand participation to one million people in 100 countries by 2012.

See http://www.fxbrowne.com/html/newsletters/September_2008/news_sept08.htm

OUR FRIENDS IN HAITI NEED YOUR HELP

Dear WASWC members,

Now we are facing a terrible situation in Haiti as you may know. The last hurricanes have devastated all the plantations, killed animals and people, and broke down houses. Half of the population is affected by the damages.

Now we are focusing on finding funds for a rehabilitation project to support the victims so they can recover. The last flooding has severe consequences on agriculture in Haiti. Now our immediate task is to feed many victims but we are short of funds.

Thanks very much in advance for your help.

Nobert Francois (nobeht@yahoo.com) in Haiti

Greetings from our members

Best wishes.
Prof. Wagdy A. Sawahel
General coordinator, Science Development Network
www.sciencedev.net

Happy Chinese Moon Festival 2008
From Winnie Looijmans-Huang
Export Executive China/Far East, **Eijkelkamp Agrisearch Equipment BV**
P.O. Box 4, 6987 ZG GIESBEEK (NL) / Nijverheidsstraat 30, 6987 EM GIESBEEK (NL)
T: 0031 (0)313 880 282; F: 0031 (0)313 880 298; E: W.Looijmans-Huang@eijkelkamp.com; I: www.eijkelkamp.com

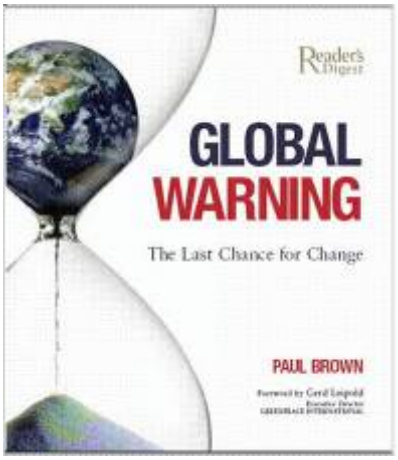
HOT BOOK – **Global Warning: The Last Chance for Change** – Paul Brown

The Reader's Digest Association, Inc. 2007

"conceived and created by www.dakini books.com"

Hardcover, round backed 230mm x 265mm, 320 pages, 4/c throughout, 316 images in total.

ISBN 0-7621-0876-2; **Price: US$21.86 plus postage from www.amazon.com**



Paul Brown's "Global Warning" (*no, I didn't get the title wrong*) is a fine example of what you would expect from the Reader's Digest group. Basically an updated adaptation for the American audience of the original 2006 volume written for the UK market, it's easy to read, lavishly illustrated, yet – even though its tone is intended to be alarmist – appears, strangely, not very controversial. *At least not to those who have been following the debate for the last five or so years.* But the key point here is that the majority of people in this world haven't been tracking the environmental issues and/ or are not yet convinced. And the USA urgently needs persuading and mobilising. Here is that wake-up call.

Brown tells us that we, the "…*denizens of Earth may have less than 10 years left to prevent global warming from getting out of control.*" Yes: "warming" with an "m" and indeed climate change is at the heart of the warning. Our carbon-greedy consumption-obsessed western life style is to blame. And we have to act quickly to change our habits.

Each page of this coffee-table sized book is cleverly designed: there is a mix of text, gripping photographic images, and explanatory captions. Often a page is topped-off by a pertinent quotation. And these sound-bites are not from ordinary, run-of-the-mill faceless scientists, but *denizens* of the earth with whom we are well acquainted: Mahatma Ghandi, Sir David Attenborough, John F. Kennedy, Bill Clinton (though no Hillary) and (with a prophetic touch?) Barack Obama. In case we are *not* familiar with these names, then Brad Pit and Leonardo DiCaprio are quoted, with their warning words aimed at a younger generation.

There are echoes in this book of Mr Brown's namesake, Lester R Brown of the Earth Policy Institute, whose fears for the world's future have kept us on our toes for the last quarter of a century. Indeed Lester R Brown receives quite some attention in these pages, and is afforded considerable respect by our author. But where Lester R Brown comes out bare-knuckle fighting in his books (notably his "Plan B" of 2003, and its 2006 update), Paul Brown is altogether softer: not so political in tone. He is less terse in style, exploring all angles at considerable length: a fine achievement in itself for a project begun in mid 2005, and completed within a year. And then updated a year later for this edition: books on the environment have a notoriously short "shelf-life", as events unravel so quickly.

"Global Warning" is not a scientific text book: it doesn't pretend to be. The "science" is in the background, but there could be more explanation for exactly what the data mean, where they come from or how they are derived. There is scant attention given to land management – and the potential of better farming practices in the changes Brown wishes to achieve. Sometimes the data are poorly presented: one graph purports to show "Sources of Greenhouse Gases". It doesn't. It is, in fact, a pie chart of the concentrations of the main greenhouses gases by carbon dioxide equivalents (and not even IPCC 4th Assessment data). Other data are questionable – but which global environmental data aren't?

One slightly disappointing aspect is the road map for change, summarised in a two page spread at the very end of the book. This is supported by a meagre 20 pages of text in the last chapter: *"What can we do"?* Whereas Lester R Brown confronts water issues, land productivity, education, taxes and subsidies amongst his radical remedies; Paul Brown points to the already (to some!) familiar solutions of solar energy, wind power, hydrogen fuel, reforestation, biofuels and economies at home. He ends rather tamely by telling us that: "*There are dozens of other examples of where enlightened governments can change habits and markets. In doing so they can literally change the world ….*"

It is hard to fault the core of this book or its intentions: it largely says the "right" things about the environment and human behaviour. And its presentation is first rate. Many of those who read this volume will already be converted to the cause, and will find little new in these pages. To them it will simply be a bleak reminder of the problem. But we must not ignore those who are not yet convinced or informed. This book will certainly cause them to re-think.

Reviewer: William Critchley, wrs.critchley@dienst.vu.nl, Amsterdam, August 2008. See more book reviews on our website http://waswc.soil.gd.cn.

INTERESTING TO KNOW!

In the **ISTRO Newsletter** for September 2008 (write to Becky J. Roland at Becky.Roland@ars.usda.gov to subscribe) there are interesting things on pp. 6 & 7.

P. 6: The US Senate has passed a resolution to help usher in legislation that recognizes soils as an "essential" natural resource. This resolution now places **soil** on par with **water** and **air**.

P 7: Smithsonian Institute: There are more living creatures in a shovel full of rich soil than the number of human beings on the planet. *Yet more is known about the dark side of the moon than about soil.*

From Rolf Derpsch, WASWC Councilor from Paraguay (rderpsch@telesurf.com.py)

HOT MEETING

October 28-November 1, 2008

REGIONAL WORKSHOP ON CONSERVATION AGRICULTURE

Investing In Sustainable Agriculture:

The Case of Conservation Agriculture and Direct Seeding Mulch-Based Cropping Systems

Phonsavanh, Xieng Khouang, Lao PDR

Organized by

In collaboration with

With financial support from

1. Workshop Objectives and Outputs

Three main objectives have been defined for this workshop:

1. *Discuss on research and extension approaches* and transfer of knowledge for different stakeholders and to analyze the main constraints in up-scaling CA alternatives.
2. *Develop a knowledge base in the field of Conservation Agriculture* based on the experiences of the different countries of the GMS region in creating and validating CA and DMC systems.
3. *Strengthen and facilitate exchanges* between countries of the GMS region and to promote regional exchanges and synergies in the field of Conservation Agriculture.

2. Workshop Themes

Four plenary sessions are scheduled as follow:

- **Session 1: Agronomy and socio-economy of Conservation Agriculture and DMC systems.**
  - Agronomic and economic performances of DMC systems
  - Integration between CA/DMC systems and livestock components
- **Session 2: Environmental (services) economy and ecosystemic properties.**
  - Impact of conventional practices on natural capital

- Environmental services (ES) provided by CA and DMC: carbon sequestration, biodiversity, water efficiency…
- Definition of Payment for environmental services to support the conversion of conventional agriculture into DMC

- **Session 3: Determining factors in up-scaling technologies and innovative systems.**
  - Conditions for the adoption of CA and others alternatives
  - Extension Approaches
  - Training materials
- **Session 4: Strategy and tools to interact in between stakeholders.**
  - What kind of structural and institutional tools to promote technologies and innovative systems
  - Tools and materials for communication

Four working groups are scheduled as follow:

- **WG 1**: Training and communication materials to be exchanged between countries of the GMS region on CA and DMC topics
- **WG 2**: Research topics and methodologies to be shared between teams working on CA and DMC systems in the countries of the GMS.
- **WG 3**: Environmental services evaluation and Payment for environmental services perspectives in the countries of the GMS
- **WG 4:** Alternatives and approaches to be integrated to promote sustainable agriculture at landscape level in Lao PDR

An Information Market will be also set outside the meeting hall to offer participants an additional mean to exchange information, network and share experiences. Those interested in sharing their information will be provided with an area and a board to display their information. Displays can be posters or general information from your work or organization.

3. Targeted public, Registration and Workshop fee

CA-SCV 2008 workshop is open to anyone involved and/or interested in the implementation and development of Conservation Agriculture.

However, the workshop will focus on the case of Direct seeded Mulch-based Cropping (DMC) systems and some of the presentations might be rather technical.

Participants must fill in a *registration form* (see below or workshop website).

A registration fee of 50 US$ for national participants and 100 US$ for international participants will be asked in order to cover all symposium materials, a book of abstracts, the symposium field days, all lunches during the workshop and the reception dinner, as well as proceedings.
Hotel fees and travel costs to Phonsavanh, Xieng Khouang are not included in this fee.

4. Important Dates to Remember

1.	September 2008	▪ 1st announcement ▪ Registration form and first tentative program posted on the web

2.	1st October 2008	2nd announcement - workshop detailed program posted on web
3.	**17th October**	Deadline for registration
4.	28 October - 1 November	Workshop
5.	June 2009	Publication of workshop proceedings

5. Provisional Workshop program

The meeting will be organized in Phonsavanh, the capital of Xieng Khouang province in Lao PDR.

For international and regional attendance please inform the regional workshop Secretary about your arrival date in order to organize your transfer from Vientiane to Phonsavanh. Carry your invitation letter at the arrival in Wattay international airport to receive courteousness visa. If you do not have invitation letter, entrance fee is thirty $US for a validity of 30 days.

Monday October 27, 2008

- Arrival of all participants in Phonsavanh, Xieng Khouang Province

Tuesday October 28, 2008

- Registration
- Opening ceremony and keynote speeches
- Session 1: Agronomy and socio-economy of Conservation Agriculture and DMC systems
- Reception dinner

Wednesday, October 29, 2006

- Session 2: Environmental (services) economy and ecosystemic properties
- Session 3: Determining factors in up-scaling CA/DMC systems

Thursday, October 30, 2008

- Session 4: Strategy and tools to interact in between stakeholders
- Field visits 1

Friday October 31, 2008

- Session 5: Working groups
- Field visits 2

Saturday November 1, 2008

- General discussion – Recommendations and presentation of working groups discussions
- Closing ceremony
- Departure of participants for Vientiane

6. Contacts for further information:

Workshop Secretariat:

CA-SCV Regional Workshop Secretary
National Agriculture and Forestry Research Institute
PO Box 7170, Vientiane, Lao PDR
Tel: 856-21-770-084, 856-21-770-027, Fax: 856-21-770-047, 856-21-770-027
Email: ca-scv2008@nafri.org.la
Website: www.nafri.org.la

Registration Form

REGIONAL WORKSHOP ON CONSERVATION AGRICULTURE

Investing In Sustainable Agriculture: The Case of Conservation Agriculture And Direct Seeding Mulch-Based Cropping Systems

28 October - 1 November 2008
Phonsavanh, Xieng Khouang, Lao PDR

Please fill in and return to Workshop secretariat: at: ca-scv2008@nafri.org.la ; **Fax: 856-21-770-047, 856-21-770-027.** Deadline for registration is: **17 October 2008**

A. Contact Information

1. Title: (Dr./Mr./Ms., etc.)	
2. Last Name:	
3. First Name:	
4. Position:	
5. Office/Division:	
6. Organization:	
7. Address:	
8. Province	
9. Country	
10. Tel: (area code)	
11. Fax: (area code)	
12. E-mail:	

13. What do you expect from this Workshop?

B. Poster Session/Information Market

The Information Market will offer participants an additional mean to exchange information, network and share experiences. Those interested in sharing their information will be provided with an area and a board to display their information. Displays can be posters or general information from your work or organization.

14. Would you like to reserve an area to display/share your information?

☐ Yes ☐ No

15. Please describe what you would present and indicate how much space you would need.

JOBS at RAMSAR

From: Pamela Puntenney
Sent: Wednesday, September 10, 2008 5:27 PM
Subject: Intern Opportunity, Ramsar Deadline October 3, 2008

Subject: [Ramsar Forum] Vacancy announcement. Ramsar opening for Intern for the Americas

Greetings. The Ramsar Secretariat welcomes applications for the position of Intern/Assistant Advisor for the Americas Region, a 12-month posting (possibly extendable to 18 months) in the Ramsar Secretariat in
Switzerland to begin in the second week of January 2009. With an age limit for applicants of 30 years old, the post offers an opportunity for young graduates to become acquainted with the workings of an intergovernmental treaty dealing with the conservation and sustainable use of natural resources.

Candidates for this internship should be nationals of countries in the Americas and have lived most of their lives in the region. Full ability to work in Spanish and English is required for this post.

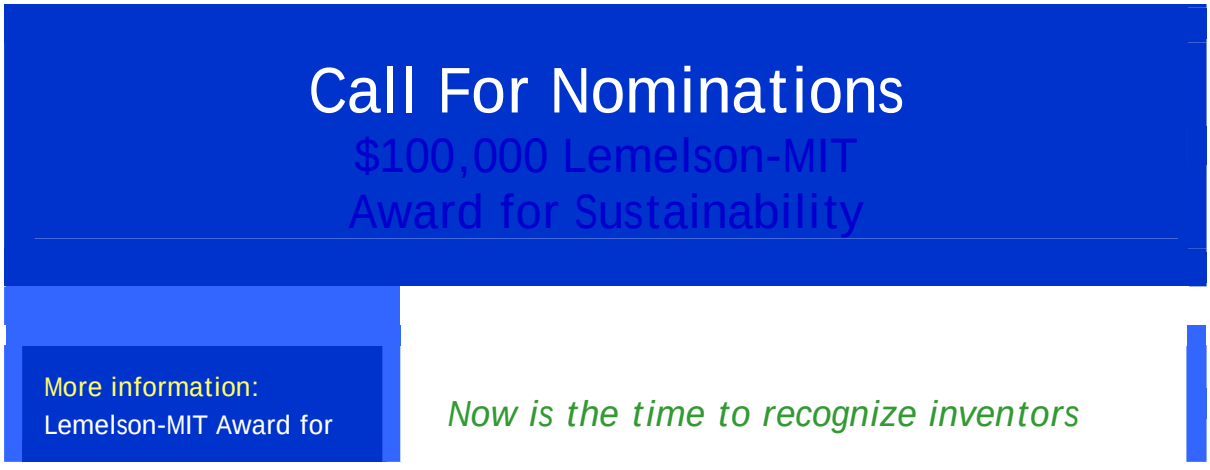
Prospective candidates: please view the General Terms of Reference for Ramsar internships (also available from the Secretariat), which includes conditions of service and salary structure, and send the application form attached to the General Terms of Reference, a covering letter, both in English and Spanish, explaining your interest in an internship with the Ramsar Secretariat and your future career goals, your CV, as well as two letters of reference from your previous supervisors or dean of the faculty where you carried out your studies, to jobapplications@iucn.org".

The deadline for applications is 3 October 2008.

General Terms of Reference:
http://www.ramsar.org/about/about_internships.htm
Application form:
Word http://www.ramsar.org/about/about_internships_form2008.doc,
PDF http://www.ramsar.org/about/about_internships_form2008.pdf.

AWARDS/ PRIZES/ FUNDS

[equator-net] Nominate a Candidate for the $100,000 Lemelson-MIT Award for Sustainability



Sustainability

Lemelson-MIT Prize

Lemelson-MIT Awards:
lemelson_awards@mit.edu
(617) 253-3490

Dr. Martin Fisher, 2008 recipient of the $100,000 Lemelson-MIT Award for Sustainability, demonstrates KickStart's best-selling pump, the Super MoneyMaker, which enables farmers to increase their incomes by moving from subsistence farming to commercial irrigated farming. *Photo courtesy of the Lemelson-MIT Program.*

leading us toward a sustainable future.

The $100,000 Lemelson-MIT Award for Sustainability celebrates **individuals whose inventions and innovations enhance economic opportunity and community well-being in developing and/or developed countries, while protecting and restoring the natural environment.** The award seeks to further foster inventive work focused on sustainable challenges, and promotes inventive role models who can inspire young people to pursue creative lives and careers through invention.

Nominate a candidate.

Deadline is Friday, October 3, 2008.

LEMELSON-MIT PROGRAM
celebrating invention and innovation

The Lemelson-MIT Program recognizes outstanding inventors, encourages sustainable new solutions to real-world problems, and enables and inspires young people to pursue creative lives and careers through invention.

▲ **Call for Evidence: Biological Approaches to Enhance Food Crop Production**

The Royal Society is launching a new study to undertake a balanced assessment of the challenges to world food crop production and detail the range of different biological approaches that could be used to enhance yields in addition to their likely consequences and impacts. Evidence is being sought particularly views of agriculturists, bioscientists, academics, policy makers, industrialists and other interested parties. The deadline for submission is 6 October 2008**.**
Evidence can be submitted electronically (preferred format) to sarah.mee@royalsociety.org or by post to Sarah Mee, Science Policy Section, The Royal Society, 6-9 Carlton House Terrace, London SW1Y 5AG, UK or by fax at +44(0)20 7451 2692. For more information, visit http://royalsociety.org/page.asp?tip=1&id=7927

▲ **Projects Focused on Conservation Supported**

Whitley Fund for Nature: Whitley Awards

The Whitley Awards recognize conservation leaders from around the world who are applying sustained effort to conserve the natural environment. The awards have previously honored efforts to protect endangered ecosystems and species, promote sustainability, and influence environmental policies. The awards are designed to provide the winner with international recognition, financial support, and an

international network through which to solicit advice and support. Each year up to nine awards of GBP 30,000 are given, plus the Whitley Gold Award, worth GBP 60,000 over two years. Applications are due October 31, 2008. http://www.whitley-award.org/the_awards.php

Grants and Awards **(From September issue of F. X. Browne Newsletter)**
Click on a grant for more information) **Only currently available grants are listed on the grant page**
PennVEST Infrastructure Loans/Grants
CWP Technical Capacity Mini-Grants
PA Boating Facilities Grant Program
PA Recycling Performance Grants
Eastern Brook Trout Habitat Funding
NOAA Watershed Education Funding
PPL Educational Grants Program
Tulpehocken and Quittapahilla Watersheds Restoration Grants
PA Coastal Zone Management Grants
Chesapeake Bay Stewardship Fund
PPL Green Building Certification Grants
Sinnemahoning and Portage Creek Watershed Grants

COURSES

▲ Conservation Agriculture training at CIMMYT in Mexico

From May 26th to July 27th, the Center for Maize and Wheat Improvement (CIMMYT) successfully hosted a five-week course in conservation agriculture (CA) for visiting scientists titled "Laying the ground for sustainable and productive cropping systems."

Participants from China, Ethiopia and Romania learned about resource conserving technologies in irrigated and rainfed wheat and maize production systems, including reduced tillage and crop residue management strategies.

Tesfay Araya, who is expected to be the first conservation agriculture specialist in northern Ethiopia, commented on the interdisciplinary theme of the program:"It was a very holistic approach, with diverse content from a number of disciplines-from breeders, soil specialists, agronomists, crop protection people and so on."

With the chance to work directly with the Cropping Systems Management team at CIMMYT's research stations and in nearby farmers' fields, the visitors developed skills in trial planning, management and monitoring. There was also first-hand opportunity to initiate individual research, as each participant had to define a clear research objective and draft a paper for future publication. "We learned skills in publishing, writing, reviewing data…we didn't miss anything," said Mr. Araya. Participants took away with them lessons learned for application in their home countries. "I saw people here working together with good communication," said Mr. Araya. "That's the most important thing, and it's very unique." For Zhang Bin, from China, implementation of CA was a consideration. "When I go back I will do research on conservation agriculture, and if I have good results I will demonstrate it to farmers and try to transfer the technology to them."

Since 1996 CIMMYT has hosted over 86 course participants and 30 visiting scientists from 26 countries in its Conservation Agriculture research area. Long-term courses and research are conducted at CIMMYT's headquarters in El Batán and at its research station in Ciudad Obregon, Mexico.
The next course is scheduled for May 25th to June 26th in 2009. For more information, please contact Petr Kosina (pkosina@cgiar.org) or visit
http://www.cimmyt.org/english/wps/events/courses/pdf/announcement_CA_course_2009.pdf

FELLOWSHIPS

Scholarships from Government of Malaysia to international students

Malaysia: Post Doctoral Research Fellowship in Various Fields, Universiti Sains Malaysia

Established as the second University in the country, Universiti Sains Malaysia is located at Minden approximately 9.7 kilometers from the city of Georgetown, Penang. The University which is based on the School System offers courses ranging from the Liberal Arts, Basic Sciences, Applied Sciences, Engineering, Medical Sciences to Management. The University now invites applications from suitably qualified candidates for the post of Postdoctoral Research Fellows in any of the following fields:

1. Manufacturing Technology
2. Advanced Materials
3. Biotechnology
4. Microelectronics
5. Information Technology
6. Nanotechnology
7. Agriculture
8. Alternative Energy
9. Sea to Space (Oceanography & Aerospace)

*Candidates any other related fields may also be considered

QUALIFICATION/ EXPERIENCE
Candidates for the post of Postdoctoral Research Fellow should have a Ph.D. degree with some research experience in the field, especially at University level. Candidates should have some publication in refereed journals at both national and international level.

Salary Range: Salary is disbursed in the form of honorarium ranging from MYR43,236 to MYR82,392 per annum

Other benefits: Return passage for appointee and spouse, paid annual leave of 30 days, free medical benefits for fellow and spouse in accordance with University Medical Scheme.

Tenure: Selected candidates will be appointed on contract for one year initially and renewable for further periods subject to satisfactory service and mutual consent.

Application: Application form is available at www.ips.usm. my. Send full curriculum vitae, three references, copy of degree certificates and copy of some key publications to the Dean, Institute of Graduate Studies, Universiti Sains Malaysia, 11800 USM Penang. Applications are open throughout the year. If you have any

EXHIBITIONS

PCLG stand at the World Conservation Congress in Barcelona, Spain - Last reminder

This is a last reminder that the Poverty and Conservation Learning Group (PCLG) will have a stand at the forthcoming World Conservation Congress, which will take place in Barcelona, Spain, from 5 to 14 October 2008. As a member of the PCLG, you are invited to use this space to display material (including short films) from your organisation or initiative. Please, ensure the material is relevant to the theme of poverty-conservation linkages.

If you would to take advantage of this opportunity, please contact us at pclg@iied.org.

PCLG Secretariat www.iied.org

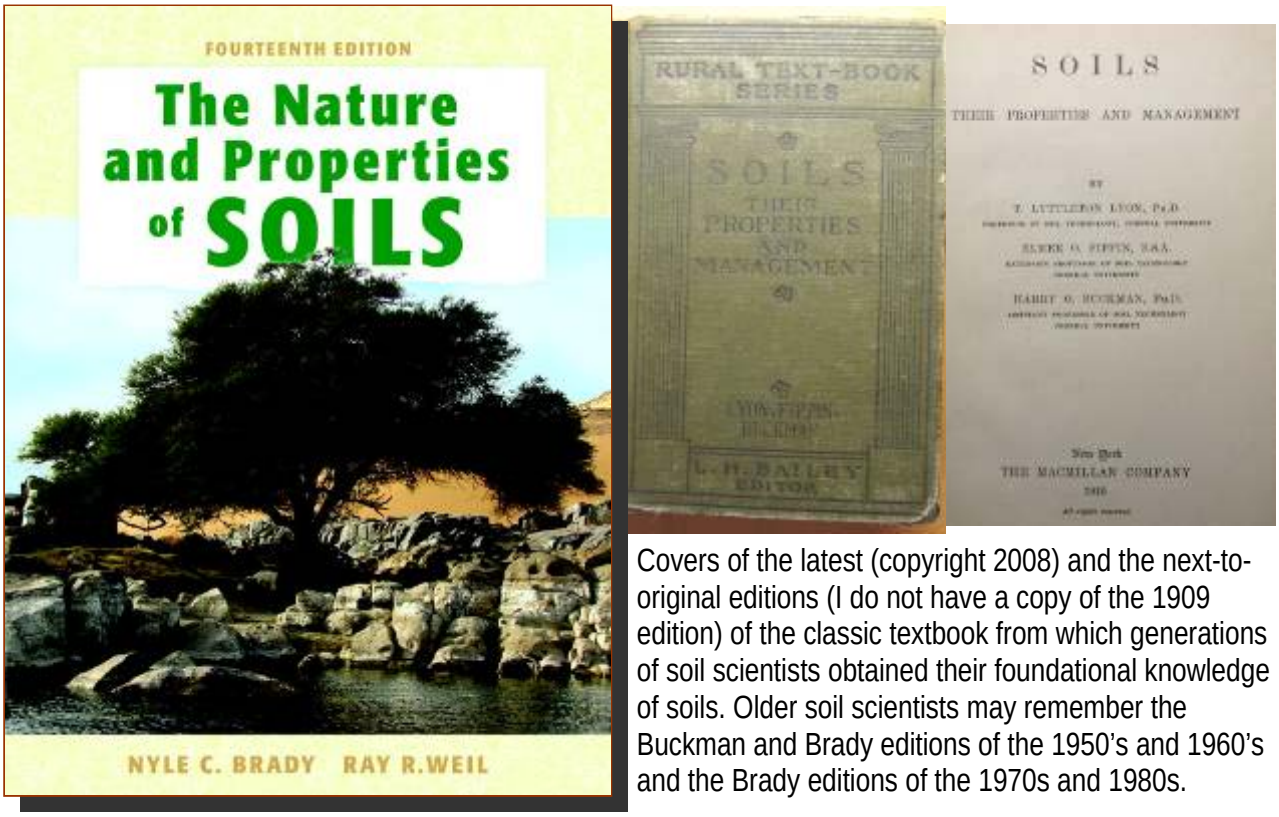
NEW INFORMATION SOURCES (Every item is new every time)

BOOKS

New edition now available of nearly century old soils classic:

Nyle C. Brady and Ray R. Weil. 2008. The Nature and Properties of Soils. 14 ed. Pearson-Prentice Hall, Upper Saddle River, NJ. 990 pp. ISBN: 13-978-0-13-227938-3.

The 14th edition is thoroughly updated and expanded to include all the important advance in soil science. The book is accompanied by a companion website available at no extra charge at: http://wps.prenhall.com/chet_brady_natureandp_14/. This website includes practice quizzes with feedback for every chapter, color version of the photographs in the book and annotated hot links to hundreds of relevant soils websites.



Covers of the latest (copyright 2008) and the next-to-original editions (I do not have a copy of the 1909 edition) of the classic textbook from which generations of soil scientists obtained their foundational knowledge of soils. Older soil scientists may remember the Buckman and Brady editions of the 1950's and 1960's and the Brady editions of the 1970s and 1980s.

New features in the 14th edition:
In addition to more than 350 two color illustrations, the number of color plates has been increase to 111 high quality full color images that illustrate pedological phenomena, nutrient deficiencies, soil landscapes and soil management practices.

New sections or special boxed discussions have been added on such topics as:

- The **Pedosphere** Concept
- Soil Formation Processes & **Subaqueous Soils**
- **Ethno-pedology**: Indigenous Soil Knowledge
- Soil **Taxonomy Helps in Understanding Landscapes**
- Mycorrhizal influence on **soil aggregates**
- Role of fungi and **glomalin in soil aggregation**
- **Pore size discontinuity** in golf greens and nuclear waste storage
- Long term pay-offs of **conservation tillage**
- Human health threats by **leaching of contaminates**

- **X-ray diffraction** to identify clay mineral structures
- Characteristics of **non-silicate colloids**
- **Inner and outer sphere** sorption **complexes**
- Principles Governing **Cation Exchange**
- Cation Exchange and **Food Contamination from Nuclear Accidents**
- Approaches to **measuring CEC** (pH buffered v unbuffered) and Effective CEC
- **Binding of biomolecules** to soil colloids
- Causes of soil acidification, **proton balances**
- **Roles of aluminum** in soil acidity
- **Pools of soil acidity**
- **Acid and non-acid cation saturation** of the CEC
- Why "**base saturation**" is a misleading term.
- Effect of salts on **pH measurement**
- Roles of **Ca and Mg in plants and soils**
- Characteristics and problems of **alkaline soils**
- Reclaiming & **managing saline and sodic soils**
- Practical **Mycorrhizal Technologies** (Box 11.1)
- **Selenium remediation** (Box 15.1)
- **Phosphorus and environmental quality**
- **Nutrients & Environmental Quality**
- **Site Index** Approach to Managing Phosphorus
- **RUSLE and WEPP** in soil conservation
- **Lead Contamination** and Poisoning
- Use of **web soil survey**
- Use of soils layer **GIS for land planning**
- Development and quantification of **soil quality indicators and indices**
- **Organic farming** advantages/disadvantages
- Impacts of **biofuels production** on soil quality
- Valuing **ecosystem services** from soils

For a detailed tour through the 14th edition, please see:
http://www.pearsonhighered.com/showtell/brady_013227938X/

Available at all on-line booksellers such as Amazon.com:
http://www.amazon.com/Nature-Properties-Soils-14th-Brady/dp/013227938X/ref=sr_1_1?ie=UTF8&s=books&qid=1213624276&sr=8-1
A special, low cost paperback edition is available *(only for customers living in South Asia).*

CALL FOR PAPERS

Dr. Xixi Wang, P.E. (Tarleton State University, Box T-0390, Stephenville, TX 76401, USA), invites you to send your papers to publish in the upcoming book on **Modeling Hydrologic Effects of Microtopographic Features at Watershed Scale,** to be published by **Nova Science Publishers**.

Detail of the subject of the book and its academic level:
Researchers have widely recognized the importance of the microtopographic features, such as wetlands and depressions, on watershed hydrology and management. However, because most of the existing hydrologic models were designed to capture effects of the major watershed characteristics (e.g. slope and slope length), there is a serious gap in literature on how to capture the effects of the microtopographic features. Thus, this proposed edited collection (book) will be an interdisciplinary forum to discuss how to develop and use hydrologic models to quantify effects of wetlands and depressions at watershed scale. For this purpose, this book will comprise topics on: 1) data requirement, availability, and preprocessing; 2) improvement of existing algorithms; 3) development of new algorithms; 4) development of modeling tools that can seamlessly integrate the major watershed characteristics with the microtopographic features; and 5) applications of the modeling tools in practice.

This book will be an important reference for academic researchers, applied researchers, and professional consultants. The topics on the modeling tools and their applications will provide the information useful for watershed practitioners, conservationists, water resources managers, and policy makers.

Pls contact Prof Xixi Wang at xwang@tarleton.edu.

BULLETIN-NEWSLETTERS

▲ **Subscribe to the F. X. Browne newsletter**

An email version of F. X. Browne, Inc.'s Sustainable Environments is now available. To be added to our mailing list, please visit http://www.fxbrowne.com/subscribe

▲ **You may request to have ISTRO Newsletter sent to you regularly by writing to Becky J. Roland at** Becky.Roland@ars.usda.gov, Soil and Water Quality Unit, National Soil Tilth Laboratory, 515-294-5014
For the September issue, you may download from ISTRO Info September 08.pdf (188KB). For other information please click www.istro.org, the Secretariat of which is located at Wageningen, The Netherlands.

▲ Request for your free copy to Nancy of **African Energy News Review** at info@energynews.co.za

▲ For the **Irish Farmers Journal Weekly Update,** please find how to subscribe in www.farmersjournal.ie.

▲ For **Guie sur Radio France Internationale** contact www.rfi.fr/radiofr/editions/094/edition_357_20080906.asp or www.azn-guie-burkina.org

▲ For **Ethical Dimension of Sustainable Development** see in http://pelicanweb.org/solisustv04n09.html

▲

PACA Newsletter Issue 3, Contact info@conserveagri.org, www.conserveagri.org for subscribing.

Please find attached the third issue of the PACA Newsletter that we hope you will enjoy reading. We are pleased to announce the conductance of the "National Consultation on Conservation Agriculture" to be convened at New Delhi in November, 2008.

As always, we look forward to hear from you on this subject of great importance and would particularly welcome your feedback. Should you not be interested to receive further copies, kindly reply to this mail with UNSUBSCRIBE mentioned in the subject header.

I.P. Abrol, Centre for Advancement of Sustainable Agriculture (CASA)
Sanjeev Vasudev, Society for Strategy Technology & Delivery for Development (Society STADD)

PACA Newsletter Issue 3 is shown in full at the end of this HOT NEWS.

WEBSITES (mixed subjects – some may be of your interest)

▲ **Many 'green' TV channels can be viewed from www.supremastertv.com**

A CALL FOR YOUR ATTENTION (sometime for help)

▲ **Deadline next IUSS Bulletin – end September**

The next IUSS Bulletin will appear in October – please send your contributions before the end of September. We welcome short articles (up to 1,000 words) on new research, announcements for meetings and awards, polemics, book reviews, reports of meetings, and send all brilliant and unusual ideas to the editor. The IUSS Bulletin has been professionally restyled and we work on an increased distribution. The complete minutes of the intercongress meeting in Brisbane (30 June, 3 and 4 July 2008) are now online, click here for the PDF.

▲ **If you would like to help translate this very interesting VIDEO subtitle to your language (Vidéo sur la maquette partecipative - sous-titrage dans différentes langues), read here:**

Subtitling in different languages of a 21 min Video on Participatory 3D Modelling

Today we have completed the transcription of the voice-over of the video (English 2,370 words) and started inviting interested parties to engage in the translation of the transcript in languages of their choice.

Here is the link to the site where the video is stored and is currently being translated: http://dotsub.com/view/feebd43a-2322-41f4-8d4c-7396b21a7c4b

So far ERMIS Africa and Shalin Ry have started working on the Swahili version. Please note that completed versions will be available online at no cost.

Those interested in collaborating in the initiative (i.e. translating the transcript in a specific language) are kindly invited to get in touch with me at my office address rambaldi[at]cta.int

Translation can be done both online and offline. Online translation is made easier by the fact that images are associated to words. Nonetheless online translation needs a fast and steady internet connection. Those working on online translations will be granted adequate rights to do so.

We look forward to hearing from many passionate volunteers.

Giacomo Rambaldi rambaldi!@cta.int

After one week I am pleased to inform you that the response of the [ppgis/pgis] community to my call for translating the subtitles of the documentary "Giving Voice to the Unspoken" has been great.

The following translation are in the making:

· Amharic - Million

· Arabic - Michael

· Bahasa (Indonesia) - Tri Agus

· Fijian - Silika

· French - Georges Thierry and Christelle

· Fulfuldé - Hindou

· German - Christelle

· Italian - Andrea & Andrea

· Portuguese (Brazil) - Carolina Paolo and Débora

· Spanish - Sylvanie

· Swahili - Peter, Julius Muchemi, Megan and Catherine

· Tagalog and Ilocano - Alicia

· Traditional Chinese - Dau-Jye Lu

If you are interested in collaborating with existing teams or would like to volunteer for translating the transcript in another language please get back to me off list at rambaldi[at]cta.int.

Giacomo Rambaldi rambaldi@cta.int

Conference organizers may ask for a 'Conference Package' from WASWC, where among several benefits all the participants may obtain free Guest membership in WASWC for one year. This is our service to society.

IMPORTANT

We can publicize your stuff sent to us in Word. If you send to us in pdf, we will be able to put only a few words in our WASWC Newsletter or HOT NEWS.

[NOTE: Another place to promote your event is by sending your stuff to publish in the EARTHSCAN E-alert. Please contact dan.harding@earthscan.co.uk]

MEETINGS 2008

Note: For the following events, please kindly refer to the WASWC HOT NEWS for January 2008 at http://waswc.soil.gd.cn/hotnews.html.

- 3rd Global workshop, September 30-October 3, 2008
- Rainforests and Agroforestry, October 5-9, 2008

December 10-12, 2008

International conference on environmental management and technologies. Location: KL, Malaysia

Meeting Events (from September issue of F. X. Browne Newsletter):

(Click on an event for more information) **Only current events are listed on the events page**

EPA Watershed Webcasts
PA Dirt and Gravel Road ESM Workshops
Pennsylvania River Sojourns
PADEP Hearings on Water Resources Plan
EPA Water Quality Modeling Workshop
TMDL Development and Implementation Seminar
Susquehanna River Symposium
National Nonpoint Source (NPS) Monitoring Workshop
Wetlands 2008 National Conference
PA Noxious, Invasive Weed Management Course
PA Recycled Products Program
Ohio River Watershed Celebration
PA Westmoreland Conservation District Events
York County Watershed Weekend
ANJEC Environmental Congress
PA Annual Dirt and Gravel Road Workshop
Chesapeake Watershed Forum
WEFTEC.08 Conference
NJ Stream Restoration Course
MD Watersheds & Wetlands Workshop
PA Creating Sustainable Community Parks Conference
APA Regional Conference
NALMS 2008

MEETINGS 2009++

January 5-8, 2009

SWAT-SEA Conference, Chiang Mai, Thailand

During January 5-8, 2009, make plans to attend the **Soil and Water Assessment Tool-Southeast Asia** (SWAT-SEA) Workshop and Conference in Chiang Mai, Thailand

The first SWAT conference in the Southeast Asia (SEA) region, with Northern Thailand hospitality. Experiencing the friendly and special events, featured speakers, and exciting displays regarding SWAT principles and applications. SWAT is a leading water quality watershed model being used worldwide; see http://ww.brc.tamus.edu/swat for more details.

SWAT-SEA is expected to bring together 300+ people from SEA region and around the world representing academia, government, non-governmental organizations, and private industry, including a large contingent of undergraduate and graduate students. Additional information about the conference is available at http://www2.mcc.cmu.ac.th/swat/. The deadline for submitting abstracts is July 15.

See http://www2.mcc.cmu.ac.th/swat/ for more information regarding the submission of abstracts and/or contact Prof. Dr. Hiroaki Somura at swat2009@life.shimane-u.ac.jp for more information.

Please also contact any of the following SWAT-SEA Committee members for additional information:
- Dr. Attachai Jintrawet, Conference Co-Chair, Chiang Mai University, Chiang Mai, Thailand (email: attachaij@gmail.com)
- Dr. Manuel Reyes, Conference Co-Chair, North Carolina A&T State University, USA (email: mannyreyes@nc.rr.com)
- Dr. Manoj Jha, CARD, Iowa State Univ., USA (and graduate of AIT, Bangkok) (email: manoj@iastate.edu)
- Dr. Philip W. Gassman, Conference Paper Chairman, CARD, Iowa State Univ., USA (email: pwgassma@iastate.edu)

Background
The Soil and Water Assessment Tool (SWAT) is a public domain model jointly developed by USDA Agricultural Research Service (USDA-ARS) and Texas Agricultural Experiment Station at the Temple, Texas, USA. SWAT is a river basin scale model to simulate the quality and quantity of surface and ground water and predict the environmental impact of land management practices on different soil patterns and land use patterns. It is developed for assessing the impact of management and climate on water supplies, sediment, and agricultural chemical yields in watersheds and larger ricer basins.

SWAT is widely used in soil erosion prevention and control, non point pollution control and regional environmental management in watersheds. The major components of SWAT include hydrology, weather, erosion, plant growth, nutrients, pesticides, land management, and stream routing.

SWAT is applied in various fields worldwide. In order to promote the development and application of SWAT in China and international communications, Beijing Normal University (BNU) successfully held the First International SWAT Workshop in China on November 5-7, 2006. Authorized by USDA-ARS, the 5th SWAT International Conference will be organized by Sch. of Env., Beijing Normal University on October 15-19, 2008.

January 29, 2009: Water Efficiency in Urban Areas Würzburg Germany

February 4-7, 2009

IV World Congress on Conservation Agriculture
I hope you are aware that the 4th World Congress on Conservation Agriculture will be held in New Delhi, India from 4 to 7 February 2009. The Congress is being organized by the Indian Council of Agricultural Research and the National Academy of Agricultural Sciences. The sponsors of the Congress are FAO, IFAD, ICARDA, RWC, Indian Society of Soil Science and Indian Society of Agricultural Economics. On behalf of the Organizing Committee, it is my pleasure to invite you for your active participation in the Congress. The details of the congress are available in the website: www.icar.org.in/wccagri/index.html or www.wccagri.ernet.in

I shall be grateful if you please help us in making wide publicity of the Congress to those who are engaged in conservation agriculture.
PK Joshi, Organizing Secretary, 4th Congress on Conservation Agriculture, National Academy of Agricultural Sciences, Pusa, New Delhi 110 012 India. Tel: +91-11-2584 3036; Fax: +91-11-2584 2684; pkjoshi@ncap.res.in

January 27-February 1, 2009

WORLD SOCIAL FORUM
The WSF 2009 will happen in Brazil, in the city of Belem, state of Para, from January 27 until February 1, 2009. Please visit the WSF 2009 website. The point of contact is Escritório Belém-Pará-Brasil.

February 25-March 1, 2009

ENVIRONMENTAL HISTORY
The 2009 ASEH conference theme is: "Paradise Lost, Found, and Constructed: Conceptualizing and Transforming Landscapes through History." The conference takes place in Tallahassee, Florida, February 25 - March 1, 2009. For more information: Michael Lewis, Chair, Salisbury University.

March 27-28, 2009
ENVIRONMENTAL LAW & ECONOMICS
The inaugural meeting of the Society for Environmental Law and Economics will be held on March 27 and 28, 2009, at the University of British Columbia Faculty of Law in Vancouver, Canada. Points of contact: Shi-Ling Hsu and Brian Czech.

April 15-17, 2009
SOCIAL CHANGE
Managing the Social Impacts of Change from a Risk Perspective, Beijing Normal University, Beijing, 15-17 April 2009. See the SCARR web site. For details contact Jens Zinn or Peter Taylor-Gooby.

April 23-25, 2009
SUSTAINABILITY CONFERENCE
Villanova University is hosting an international interdisciplinary conference on Sustainability, April 23-25, 2009. The conference aims to bring together scholars, activists, and government and corporate professionals from across the United States and around the world to learn from each other in exploring the multiple dimensions of Sustainability. Points of contact are Chaone Mallory and Paul Rosier.

July 11-16, 2009
CONSERVATION BIOLOGY
The 23rd annual meeting of the Society for Conservation Biology, "Conservation: Harmony for Nature and Society," will be held from 11-16 July 2009 in Beijing, China. Complete instructions for submitting proposals are available at the meeting website or by contacting SCB 2009.

July 27-31, 2009
MARINE CONSERVATION
International Marine Conservation Congress (IMCC). May 20-24, 2009, Washington DC, USA. ISSR Conference, Santiago de Compostela, Spain, 27-31 July 2009. Theme: Making Marine Science Matter. For more information see the conference website or contact Ellen Hines, Chair, IMCC 2009.

August 23-28, 2009
2009 World Congress of Agroforestry: the Future of Global land Use, 23-28 August 2009, Nairobi, Kenya
The 2nd World Congress of Agroforestry will be held 23-28 August 2009 in Nairobi, Kenya with the theme “Agroforestry—the Future of Global land Use”. It will focus on opportunities to leverage scientific agroforestry in promoting sustainable land use worldwide. This forum will provide an information sharing service for practitioners and professionals seeking to incorperate agroforestry practices in ecoagriculture landscapes around the globe.
For more information please see http://worldagroforestry.org/wca2009

September 16-??, 2009
WORLD RESOURCES FORUM
The first World Resources Forum will be held in Davos, Switzerland, 16 September 2009. Theme: From the Natural Sciences to Economics. See the WRF Planning Poster. Contact: Dr. Lorenz M. Hilty.

September 21-23, 2009
The next SUITMA meeting will take place in New York, thanks to Richard Shaw, who is working hard on the organization. The meeting will be held Sept 21, 22, 23 (Mon-Tue-Wed) at the CUNY Graduate Student Center, 365 Fifth Avenue http://www.gc.cuny.edu/about_gc/directions.htm. Field trips are being organized. The board of the Journal of Soils and Sediments (JSS) has accepted to be the "associated journal" of SUITMA. This has been official since August 2008. SUITMA is on the front cover of the JSS August issue, and an introduction of SUITMA was published in this issue (see http://www.scientificjournals.com/sj/jss/startseite). JSS is a new journal which got an impact factor of 4.373 in June 2008 (Journal Citation Reports). Jean Louis Morel **(**Jean-Louis.Morel@ensaia.inpl-nancy.fr)

September 27-October 2,, 2009

WORLD POPULATION

The International Union for the Scientific Study of Population (IUSSP) announces the XXVI International Population Conference, 27 September - 2 October 2009, Marrakech, Morocco. For the CFP and paper submissions visit the marrakech2009.

October 13-16, 2009

Biodiversity and Society: understanding connections, adapting to change, 13-16 October 2009, Cape Town, South Africa

The conference is entirely dedicated to biodiversity science and its connections to human sciences. The conference will include plenary lectures, symposia, oral and poster presentations, panel discussions and scientific field trips. Featured speakers will be George Brown, Brazil, Gretchen C Daily, USA, Andy Dobson, USA, Georgina Mace, UK, Guy Midgley, S-Africa, Harold A Mooney, USA, David Obura, Kenya (tbc), Stephen Polasky, USA and Achim Steiner from UNEP. In keeping with the Conference title, scientists worldwide are invited to submit proposals for symposia on the following topics:

- Strengthening biodiversity science: Evolution of biodiversity – Inventorying biodiversity – Monitoring biodiversity changes –Drivers of biodiversity changes – Prediction of biodiversity changes – Biodiversity and ecosystem functioning – Linking ecosystem functioning to ecosystem services
- Supporting the science policy interface: Conservation and sustainable use of biodiversity – Valuation of biodiversity and ecosystem services – Economic incentives – Biodiversity and development
- Integrated approaches to topical issues: Agrobiodiversity – Biodiversity and health – Freshwater biodiversity – Invasive species – Marine biodiversity – Mountain biodiversity – Etc.
- Focus on African issues is welcome

The submission deadline is **15 September 2008**. For more information see www.diversitas-osc.org

October 19-22, 2008

Women in Politics and Governance Congress focusing on gender and climate change', 19-22 October 2008, Metro Manila, Phillippines

Center for Asia Pacific Women in Politics (CAPWIP) and the United Nations International Strategy for Disaster Risk Reduction (UN-ISDR) are hosting the 3rd Global Congress of Women in Politics and Governance on 19-22 October 2008 in Metro Manila, Philippines. The theme of the congress is "Gender and Climate Change". Women and environment experts have raised concern over the absence of women in the discourse and debate on climate change. The current imperative is for women to understand the phenomenon of climate change and its impacts and implications at the individual, household, community and national levels. Invited to this congress are women parliamentarians, women in decision -making and governance, environment organizations, youth leaders and media practitioners. The congress will provide a forum for women legislators, and women in decision-making and environment organizations at all levels, in formulating gender-responsive legislation and policies. For more information see http://www.capwip.org/.

October 26-29, 2009

AFRICA GIS

International Conference AfricaGIS2009, 26– 29 October 2009, Kampala, Uganda. Conference theme: "Geo-Spatial Information and Sustainable Development in Africa: Facing Challenges of Global Change." For further information please visit the AFRICAGIS2009 conference website. For general inquiries please contact AfricaGIS 2009.

November 9-12, 2009

2009 International Conference on Horticulture

The 2009 International Conference on Horticulture, organized by Prem Nath Agricultural Science Foundation (PNASF) and Vegetable Science International Network (VEGINET), in collaboration with the Food and Agriculture Organization of the United Nations (FAO), will be conducted on 9-12 November in Bangalore, Karnataka, India. With the theme, Horticulture for Livelihood Security and Economic Growth, the conference is designed to provide a common forum for all stakeholders to share their experience and expertise so as to suggest much needed technology-institution-policy package for sustainable production and marketing of horticultural products. For more information, visit http://www.pnasf.org/ich2009.htm

Issue 3 : Sept. 2008

Conservation Agriculture newsletter

Getting Agriculture to Work for People & the Environment

Conservation Agriculture in South Asia - Some Lessons Learnt

Dr. Raj Gupta
Coordinator, Sustainable Land Management Research Project, ICARDA-CAC, Tashkent, Uzbekistan

Dr. Ken Sayre
Regional Agronomist, CIMMYT, Mexico

Conventional tillage with moldboard plows, field cultivators and disc harrows is still the most widely used practice by farmers to prepare seed beds prior to seeding for irrigated agriculture production systems. Tillage is increasingly becoming costlier for farmers and may account for 20% or more of the total crop production costs depending on crop and soil type. In order to keep farming a remunerative enterprise, farmers have to reduce production costs and improve productivity. Resource Conserving Technologies (RCTs) based on the principles of conservation agriculture can provide the needed economic incentives for the farmers to adopt new, appropriate RCTs..

In numerous farmers' participatory field trials conducted in the northern Indo-Gangetic Plains, it has been observed that minimal and zero tillage can reduce fuel, labor and wear-tear costs of the farm machinery - a sufficient incentive to farmers for adoption of RCTs. In the eastern Gangetic plains that has a short winter season, RCTs advance planting time and farmers can easily benefit from its 'cost-reducing' and 'yield-enhancing' effects associated with more timely seeding of crops like wheat, maize, lentil and chickpea etc. Due to improved access to suitable prototype planting machinery at subsidized rates, and because of research backstopping (fine-tuning of the agronomic and crop management practices) RCTs are spreading at an accelerated pace, especially in the eastern parts of India and Bangladesh.

Conservation agriculture is a sustainable land management technology adapted by farmers to a wide range of conditions (e.g. rainfed, irrigated, range and pasture lands, sloping lands and agri-horti-systems) in Central Asia. Similar to relay seeding of wheat in standing rice (surface seeded) in low lands of eastern Gangetic plains, nearly half the wheat is relay-planted into the standing cotton crop in Central Asia to reduce fallow, saving time and enhancing food production in South Asia. In cotton-wheat based cropping systems, seeding on permanent beds could make a significant contribution towards water use efficiency. One of the biggest constraints for large-scale adoption of minimum and zero tillage practices is the absence of suitable equipment. Thus, research work by mechanical engineers on adjustment of imported machinery for local conditions linked to local manufacturing would be very useful.

The emergence of new RCTs are conscious national responses to mounting constraints for sustainability of agriculture such as plateauing yields, water shortages, resource fatigue, changing climate and environmental pollution etc. These challenges have become more pervasive in recent years, and have changed the paradigm for 'Green Revolution' agriculture which has remained the corner stone of national strategy for food security, rural development, conservation of natural resources and poverty alleviation. Although market forces and national policies drive the pace and form of crop diversification, RCTs provide a new "platform" to resource poor farmers for ameliorating the adverse effects of seasonality in family incomes, peak labor demands, and risks due to monsoonal abrasions.

How was CA rooted in South Asia?

Conservation agriculture was introduced to South Asian farmers due to serious efforts of many national agricultural scientists and the small marginal entrepreneurs who invested resources in commercializing the first planter prototypes and then continued to make numerous modifications to further improve their design. It is because of such efforts, multifunctional-multicrop-ferti-seed zero till/raised-bed planters are now in the hands of the farmers to use and there are now more than 150 enterprises in the region who are producing these prototypes. Support from the donor community and with considerable initial research backstopping from the Rice-Wheat Consortium (RWC) gave the much needed impetus to spread RCTs. Dr. Peter Hobbs, Regional Agronomist from CIMMYT, initially focused zero-till efforts in wheat as a potential strategy to control excessive population of *Phalaris minor* in wheat, which had become resistant to the Isoprotoron herbicide that was widely in use. The use of zero till wheat seeding, which reduced the weed menace was also associated with dramatic reductions in tillage costs and timelier planting.

Until 2001, double no-till (zero till seeding of both wheat and rice in the rice-wheat system) was still in its infancy as the technology for dry seeded rice was not available to rice-wheat farmers. Many young champion farmers joined the national scientists in their efforts to develop a package of practices for direct, dry seeding of rice (DSR) after wheat. In order to cover soil surface

Contd. on page 3 col. 2

IN THIS ISSUE

21st July 2008, FAO, Rome

Highlights of Platform Meeting for Resource-Conserving Agriculture:

Creating a comprehensive movement for change towards sustainable crop intensification for the Global Forum on Agricultural Research catalysed by CIMMYT

More than 20 participants including representatives of regional agricultural research institutions, FAO, CIMMYT, TAA, CIRAD, ACT, CIIFAD, IFAP and other ARD stakeholders who are members of GFAR met in FAO Rome on July 21, 2008 to develop plans for creating a comprehensive movement for change toward sustainable crop intensification through resource conserving agriculture practices. GFAR is a neutral platform for ARD stakeholders to foster innovative multi stakeholder partnership to address key agendas in agricultural research for development.

The meeting recognised that Conservation Agriculture (CA) was one of the options available to bring about a sustainable increase in agricultural productivity and that its adoption and adaptation required innovative systems and practices to be taken up by stakeholders from public, private and farmer groups that in turn needed current knowledge of conservation agriculture research results and performance in different agro ecosystems around the world. It is in this regard that GFAR'S Global Partnership Platform for Resource Conserving Agriculture (GPP-CA) aimed at empowering those involved in national agricultural research and innovation systems with better knowledge and skills related to CA adoption, adaptation and impact.

The meeting identified a broad set of strategies and actions for a 'movement of change' to bring benefits from research for development into national agricultural innovation systems.

These strategies related to the following needs:

- Overall movement for integrated land-water-nutrient-farm management as a key way forward to foster adoption/adaptation of CA
- International agricultural research institutions (CGIAR, NARS, RO) to strengthen CA science in their core agendas
- Capacity building in areas such as university education, research documentation etc
- New learning mechanisms that included capturing farmer's knowledge and innovation in coping with location specific issues
- Change in mindset of funding agencies
- Knowledge sharing, communication/information management need of all interest groups
- Advocacy and policies for mainstreaming CA, emphasizing the need to recognize the role that CA principles and technologies had in relation to challenges of climate change, desertification, biodiversity etc.

Have you received earlier issues of PACA Newsletter? If not you can download them from www.conserveagri.org/links.htm. We welcome your feedback to help us improve our future issues.

Technical Workshop

Efforts of the GFAR meeting were followed up at a Technical Workshop on "Investing in Sustainable Intensification: The case for improving soil health" from 22-24 July, 2008 at FAO , Rome. This technical workshop was attended by nearly a hundred stakeholders, representing governments and inter-governmental institutions, the private sector, farmers and NGOs. It brought out a framework document for action –"Investing in Sustainable Agricultural Intensification: The Role of Conservation Agriculture- A Framework for Action".

The workshop deliberations recognized the increasing global concerns relating to:

- World's ability to maintain a safe balance between food production and human needs, thus ensuring global food security;
- Evidence on a vast scale at which arable land is degrading;
- Long-term sustainability of technologies on which agricultural intensification is now based;
- Rising cost of energy and its impact on the cost of food production;
- Growing scarcity of water available for agriculture;
- Need to reduce green-house gas emissions, especially from food production systems in order to mitigate climate change processes, and to enable agriculture to adapt to impacts of climate change.

The consensus of the meeting was that tillage-based farming, as now widely practiced, has unsustainable elements, whose continued promotion and application endangers global capacities to respond to above concerns. The workshop focused on ways to shift to Conservation Agriculture practices based on minimal soil disturbance, organic residue retention and crop rotations, sequencing and combinations. Using such practices, farmers could help improve soil

health to better address the cause of the environment, while achieving high levels of productivity and profitability.

Workshop participants agreed that ample evidence now existed of the success of Conservation Agriculture to justify major investment of human and financial resources in catalyzing a shift, whenever and wherever conditions would permit it, from tillage-based management systems to those based on minimal soil disturbance, organic residue retention and crop rotations and associations. This shift would lead to reduced machinery and energy use, a rise in soil organic matter content and biotic activity, reduced carbon emission, reduced erosion, increased crop water availability, improved recharging of aquifers and reduce the impact of apparent increased volatility in weather associated with climate change. It would also help reduce production costs and reduce risk especially for the small landholder by contributing to more reliable harvests.

The workshop deliberations resulted in a shared thinking on actions that would contribute to empowering farmers to engage in management methods centered on a fundamental shift in tillage methods that will enable land to be farmed both more intensively, sustainably and profitably.

The key elements guiding the action agenda needed to include:

- Strategies for up scaling Conservation Agriculture that would need to be tailored to specific country/region/local (farming) situations.
- Building partnership amongst diverse stakeholders (farmers, researchers, extension services, NGO etc) to develop functional innovation systems and scaling up at local and national levels). Farmers and farmer's organizations will need to assume a lead role.
- NARS have a critical role to play in the process of achieving self sustaining CA development and this will call for significant investments on a long term basis aimed at capacity building, developing knowledge networks and management systems for mutual learning etc.
- Success of CA adoption process will call for skillfully organized and guided efforts considering the need for new institutional arrangement for planning, undertaking and promoting efforts
- Successful adoption, promotion and uptake of CA as a dynamic-process will call for creating supportive policies, putting in place required incentives and mobilizing resources at different levels.

A detailed report on the deliberations at the event can be downloaded from http://www.scribd.com/doc/336439/lon-plan-sustainability-appendix-9.

Conservation Agriculture in South Asia - Some Lessons Learnt (Contd. from cover page)

they introduced the 'Brown Manuring' practice of seeding the Sesbania green manure crop with rice which was knocked down after 35-45 days with 2,4-D herbicide to provide surface cover. The new innovations for DSR including brown manuring as well as identification of pre-and post-emergence herbicide molecules has really opened the window for practicing conservation agriculture in irrigated rice-wheat systems of the Indo-Gangetic plains.

Role of Service Providers

Although the national policy focuses on agriculture and the manufacturing sectors, little attention is paid to farmers' need for good agricultural implements. It is an irony that the largest private sector of South Asian nations-farming enterprises, is mainly serviced by small and marginal private entrepreneurs. In promotion of conservation agriculture the custom service providers (e.g. laser land leveling, zero till, seeding, input dealers and contract farming units) are playing a very significant role. Unfortunately, in spite of the acknowledged role of these services in the national economy, the sector doesn't feature adequately in research since it is perceived as involving mainly the jobless,who are considered weak to generate opportunities at lower skill levels. In reality, services such as laser land leveling, and zero till/ raised bed planting are providing employment opportunities to jobless rural youths and trade-induced employment in manufacturing and transport related sectors.

The Big Difference Between GR and TR

Green Revolution (GR) did not provide adequate benefits to the resource poor eastern Gangetic plains farmers as compared to northern Indo-Gangetic Plain (IGP) farmers who could alter the soil environments to suit the new GR cultivars by the use of external inputs (fertilizer, water). On the other hand eastern IGP farmers could not alter the environments (land form, relief, short winter, susceptibility to floods etc.) and hence could not benefit as much from the GR. In contrast, 'No-till or Reduced-till Revolution' (TR) can and is beginning to benefit all farmers and civil societies. It is a silent multi-stakeholder movement funded primarily through private investment and driven by an urge to produce more food at less cost, conserve land and water resources and improve environmental quality. The Green Revolution on the other hand was largely funded by governments to provide for national food security. Thus conservation agriculture/ RCTs can easily be an important component of the strategy for food security, poverty alleviation, rural development, enhancing productivity, improve environmental quality and help preserve natural resources at the same time.

If you find PACA Newsletter interesting and informative, why don't you forward it to your colleagues with an interest in sustainable agriculture? Better still you could send us their email ID or have them write to us on info@conserveagri.org requesting inclusion of their name in our mailing list.

Meeting at Project Directorate Cropping Systems Research (PDCSR) at Meerut on June 10, 2008

Operationalizing Eco-regional Approach Through Conservation Agriculture

MEETING REPORT

There is need for a paradigm change to overcome recent challenges posed in the agricultural sector. These relate to declining productivity, resource degradation, increasing energy costs, and climate change that call for a change in the direction of agronomic research. An eco-regional approach can be very useful for defining and directing agronomic research towards a purposeful development agenda but calls for a better understanding of the environment in which farmers operate, to include both, their natural resource assets and socio-economic conditions. These conditions get reflected in the cropping pattern adopted and define the standard of cultivation adopted by them. Eco-regional approaches permit integration of concerns related to resource degradation and productivity enhancement to address goals of sustainable agriculture.

Conservation Agriculture (CA) has emerged globally as an alternative to conventional agronomic practice and encourages an eco-regional approach. To sensitize and deliberate on such a future strategy, about 45 professionals, included the invited PACA team, met up at Project Directorate Cropping Systems Research (PDCSR) at Meerut on June 10, 2008 to discuss and promote CA as a way forward to operationalise eco-regional approach and strategize on agronomic research specific to various regions of the country. The meeting focused on key natural resources and limitations faced in enhancing system productivity in some of the major cropping systems/regions, and later discussed opportunities for developing and promoting CA practices.

The meeting was initiated by Dr. A.K. Singh, Deputy Director General (NRM), Indian Council of Agricultural Research (ICAR), indicating the need for a collective thought to identify and develop crop production practices that reduce production costs and provide enhanced returns to farmers. This was in contrast to past efforts that had an emphasis on enhancing individual crop yields. He emphasized the need for a systems perspective to develop and promote production strategies in different agro-climatic regions. A systems perspective he said would require an integration of both, cropping system as well as a farming system perspectives. This implied the need to understand existing interactions and interdependencies among diverse system components in arriving at alternate production approaches and practices. This approach would also integrate concerns of resource degradation with those of enhanced productivity to develop and promote management options, particularly on demanding enhanced efficiency from inputs such as fertilizers, pest control agents, water and energy use. He concluded by spelling out the urgency needed to develop new strategies to introduce greater resilience in production systems to cope with growing climate related aberrations.

Dr. I.P. Abrol, Director, Centre for Advancement of Sustainable Agriculture (CASA) and Founder Member, Professional Alliance for Conservation Agriculture (PACA), provided the context of the discussion on 'Operationalising Eco-regional Approach to Research for Development' as a way to address emerging challenges facing the sector. Implementing the concept through a CA route he said would call for developing and promoting agricultural practices based on well understood and scientifically sound principles. Among these practices was an approach to cause minimum soil disturbance as manifested through current widely adopted cultivation, ploughing and tillage practices. These current practices were energy intensive and contributed to loss of soil organic matter and decline in overall soil quality. CA based agricultural practices would call for developing and promoting new seeding practices by adapting among other practices, eg. zero-till seeding/planting, keeping the soil surface covered by leaving and maintaining crop residues on the soil surface, adopting crop sequences/rotations in time (different seasons) and space (with relation to landscape).When adopted in conjunction over a period of time, practices based on these principles have shown, in several parts of the world including India, to result in enhanced productivity on sustained basis, while improving resource base quality. Developing and promoting CA practices was the new challenge before the community of scientists and particularly those working directly with farmers.

Dr. M.S. Gill, Director, PDCSR, summarized the existing ECF (Experiments on Cultivators Fields) program and approaches being adopted by scientists to improve upon existing practices. Three key components being pursued to achieve project objectives included: Frontline Experiments on Nutrient Management, Testing Alternate Cropping Systems, and Developing Integrated Farming Systems. He explained that guidelines had been formulated for these components at each of the locations that provided flexibility in modifying experimental treatments with respect to nutrients and crop choices. He also briefly highlighted the achievements of PDCSR and outlined the new challenges being faced including widespread and increasingly negative nutrient balance in most cropping situations with emergence of micro-nutrient deficiencies as serious constraints to enhance crop yields. Declining soil health and water availability had become a rule rather than exception in achieving high yields and virtually all available data and information indicated extremely low efficiency of applied nutrient elements.

Increasing weather aberrations was yet another challenging factor in achieving optimum crop yields under most farming situations. Other problems in the form of declining groundwater tables and water quality problems also posed a major problem in achieving sustained high productivity. Since these problems were specific to a location and a farming situation, it called for a holistic eco-regional approaches to addressing needs of productivity. There was thus a need to approach the situation through

adoption of cropping system and farming system based approaches in developing technologies for improving crop productivity in eastern UP, Bihar and W. Bengal, while maintaining and sustaining high productivity was the major challenge in the western region. In this context dominant cropping systems of various regions of the country were discussed in conjunction with CA for operationalising eco-regional approaches.

Some key regions along with associated cropping systems discussed included the following:

Rice based cropping systems: Rice followed by wheat was the major cropping system in the Indo-Gangetic Plains (IGP) comprising states of Punjab, Haryana, Uttar Pradesh, Bihar and West Bengal covering an area of nearly 10 million ha. While system productivity was high (9 to 11 MT/Ha) in the western region (Punjab, Haryana, western U.P.), eastern regions were challenged by extremely low productivity levels. The natural resource endowments across the plains varied in respect of soil characteristics, rainfall, climate and ground water use in concurrence with socio-economic condition of the farmers. Efforts to enhance cropping systems productivity over the past decade had yielded significant breakthrough by way of developing and spreading resource conserving technologies such as:

1. Laser land leveler to level fields: While the basic equipment was being imported, some parts such as the bucket and assembly were being fabricated locally. This equipment was being widely adopted in view of significant benefits to farmers by way of improved water application and use efficiency, resulting in cost savings.
2. Development, adaptation and adoption of zero-till drill for seeding wheat crop had been one of the most significant achievements. The drill was now being manufactured, by a number of small and medium manufacturers. Wheat planting using zero-till drill now extended to several hundred thousand hectares in Punjab, Haryana, Uttar Pradesh and Bihar and West Bengal. The major benefits cited by farmers included cost savings on account of fuel and tractor hire, improved wheat yields related to timely sowing, savings in water due to reduced time required to spread water across the field and reduced incidence of weeds. In recent years scientists have developed and tested a second generation of zero-till planters. These included ‘Happy Seeder’ and ‘Turbo Seeder’. These machines had been developed in response to difficulties faced by farmers in using zero-till drill in the presence of crop residues and were reportedly performing well in the presence of crop residues on soil surface.
3. Bed planting of wheat is yet another innovation finding favour with increasing number of farmers to realize improved use efficiency of water.
4. In addition, other equipment were also finding favour with farmers such as ‘Rotatory Disc Drill’ that involved intensive soil working but was able to reduce number of tillage operations that farmers were undertaking before planting rice.

CHALLENGES

Not withstanding benefits accruing from the use of equipment such as zero-till drill, farmers were experiencing several difficulties that were proving a constraint in wider adoption of these practices over a period of time. These include availability of good quality zero-till drills, need for institutional innovations to provide access of equipment to farmers unable to own/purchase such equipment for cost considerations, need for modification/adaptation of drills for varying soil and moisture conditions, ability to seed effectively in the presence of crop residues, use of seed drills for crops other than wheat, repair and maintenance issues, crop seeding in untilled soils with crop residues on soil surface called for readjusting agronomic practices such as, seed rate, fertilizer application, water management and pest control. Emergence of new weed related problems, incidence of pests such as rats in some situations emerged as the constraint required to be overcome for achieving benefits from new technologies on a sustained basis.

Even though practices such as zero till seeding, bed planting of wheat, furrow irrigated raised bed planting (FIRB) had proved benefits in term of cost savings and/or resource use efficiency, their wider adoption on a sustained basis in the region had several implications by way of location specificity. It also implied modifications in planting and residue retention operation and the need to constantly upgrade technology and adaptive processes.

Rice was the principal 'kharif' crop in several other ecoregions in eastern and southern India grown in rotation with a large variety of crops in the non-rainy season. Adoption of SRI method of rice cultivation had resulted in enhanced crop yields and cost savings particularly on account of reduced seed needs.The concept of 'aerobic rice' and mechanical transplanting of mat-grown rice seedlings in unpuddled soils was being experimented and had a potential for being widely adopted in view of labor intensive nature of rice planting.

Maize based cropping system constituted a major cropping system of hill regions in the states of HP, J&K, and Uttarakhand that received medium to high rainfall (1100-1300 mm). Maize yields in the region suffered on account of high run off accompanied by soil erosion that resulted in frequent midseason moisture stress periods. Similarly yields of post-rainy wheat crop suffered due to moisture stress in the later crop growth stages. Small farm size, lack of implements for soil working/seeding were the other constraints in achieving enhanced labour and crop productivity. Availability of new hybrid varieties together with appropriate resource conservation techniques offered opportunities to enhance productivity and income of farmers. Elements of CA such as zero-tillage and adopting mulch based systems offered a way to integrate concerns of resource conservation and enhanced productivity. This needed to be taken up on a wider scale and would call for development and promotion of appropriate equipment and management practices adapted to prevailing farming conditions.

Cotton based cropping system was the dominant cropping system in the semi-arid trans-gangetic alluvial plains of Punjab, Haryana, and Rajasthan where both cotton and wheat were grown under irrigated conditions. Rising water table conditions due to wasteful water practices, water logging, salinity problems and heavy use of chemicals/pesticides were leading to major environmental problems limiting the

sustainability of the production system. Cotton followed by pigeon pea had also been adopted over large areas in the hot semiarid black soil region in the states of Maharashtra, Madhya Pradesh and Gujarat where rain water conservation and its efficient use was the key to enhanced productivity.

Sugarcane based cropping system: Sugarcane a major cash crop in several eco-regions is input intensive and thus improving efficiency of inputs offered opportunities to enhance productivity of the system. Examples were cited how planting methods such as pair row planting, pit method of planting, managing trash for mulching were finding acceptance by farmers. In addition plantation crops also offered a major area for adoption.

Besides the dominant cropping systems described above there are eco-regions that face severe resource constraints and have yet to establish and improve their cropping system. Adopting an eco-regional approach for these regions through CA practices could offer a way forward. Some such regions discussed were:

Bundelkhand: Of nearly two million hectares cultivated area, only one-third was sown during kharif while the remaining was left fallow that was taken up during rabi with low wheat yields due to delayed sowing. Laser leveling and CA practices held promise to permit double cropping and enhance productivity.

Malwa Plateau: Area under soybean had rapidly increased in past two decades although crop yields had remained low. Prevailing soil and rainfall conditions could make double cropping possible in many of these areas and improved rain water management held the key to enhance yields and crop intensification. CA practices offered an opportunity to enhance in-situ conservation of rainwater, improve drainage condition during kharif, and permit raising a second crop on stored water.

Based on deliberations around above issues following major recommendations were made at the meet with major implications for CA as a means forward to improve on cropping systems though with a specific reference to various eco-regions in the country.

RECOMMENDATIONS

- Resource conservation and reversing processes of resource degradation assumed a critical role in future to enhance and sustain agricultural productivity. CA practices that promoted minimum soil disturbance (by adopting zero tillage), keeping the soil covered by maintaining crop residues on soil surface along with adoption of appropriate crop rotations offered a practical approach to achieving greater sustainability of production systems.
- Over the past decade, land leveling using laser equipment, wheat sowing using zero- tillage seed cum fertilizer drill, and bed planting of crop have been promoted and adopted over large areas benefiting farmers by reducing production cost and saving on resources. The development and spread of these equipments have largely been a response to sustainability concerns of intensive high productivity rice-wheat cropping system in the north-west IGP. However, experience and learning from other parts of the world have shown that for maximum and lasting benefit from zero-tillage such practices need to be pursued over the years and that crop residues must be maintained on the soil. Adapting CA practices comprehensively, going beyond zero till, is therefore a major challenge before the scientific community.
- Adoption of CA practices even in other parts of IGP called for adaptive research efforts specific to farming situations. As an example, a single type of zero-till drill may not be effective in soils of different textures or surface conditions due to presence or absence of residues. This would require adaptation work related to zero tillage for crops, cropping and farming system situations (nature of soil and terrain, current availability of energy (eg. tractor/bullock drawn implements); weeds and pests control, nutrient and other crop management practices. Adaptive researches would be best carried out through farmer-scientist participation on farmers' fields with continuous improvement/ upgradation being applied based on specific situations.
- Adaptive research would call for specialists from different disciplines (farm machinery, weed and pest control, crop management, soil & nutrient management, social science) to work collaboratively with farmers towards adaptation and refinement of whole range of CA practices. This has implications for the way in which ECF and other projects would be structured.
- CA emphasizes the need for leaving some crop residue on the soil surface for effectiveness of zero tillage as a way to improve soil health and quality. Discussions brought out limited availability of crop residues that were otherwise being used to feed livestock or being used/disposed in ways that was remunerative to farmers. Diversion of crop residues as soil cover had therefore implications which needed to be resolved. Better understanding of current farming situations and available options, including policy, needed to be explored to resolve conflicting demands.
- Farmers adopting a wide range of tillage (including no tillage) and crop residue management practices to suit local production environments and needs have evolved over a period of time. 'Piara' cropping which involved seeding in a standing rice crop, use of sugarcane trash or groundnut husk as natural mulching material in different cropping systems were excellent examples of CA practices. Farmers knowledge and traditional practices to control/reduce incidence of pests that needed to be understood. There was a strong need to build the foundation of CA practices recognising such indigenous knowledge that had evolved over time.
- CA has thus emerged as an important alternative to conventional farming approach given the substantial scientific work done in comparison to other approaches such as 'Organic Farming', 'LEISA' and 'Biodynamic farming'. At the same time the CA approach has little gestation as far as productivity and yield are concerned. It is thus gaining respect as a way forward to integrate concerns of stagnating/ declining growth productivity and declining resource based quality while also addressing needs of crop and livestock pursuit in an integrated fashion. It could thus become a sound basis to pursue to operationalise the much needed eco-regional approach by the agricultural research fraternity to achieve development goals as relevant to today's world.

Recommendations made at the June 17th Meeting Conducted by PACA on "Is Conservation Agriculture the Way Forward for India?"

The June 17th meeting (covered in PACA Newsletter Issue 2) was well attended by professionals involved with the agriculture sector and ended on an affirmative note with most participants agreeing that CA did represent a way forward for India to combat resource degradation for sustainable agriculture. The recommendations below represent views that emerged from the meeting.

- Professional Alliance for Conservation Agriculture (PACA) was a timely initiative to take forward the cause of CA considering current challenges faced by agriculture by way of widespread problems of resource degradation, declining foodgrains productivity, rising fuel prices, and impacts related to climate change.
- Food security was an important issue and CA had the potential to address twin problems of stagnating productivity and resource degradation. The concept of CA also provided a framework to address the broader goals of livelihood security and rural development. Successful promotion and adoption of CA approaches called for reorientation of our scientific agenda supported by policy efforts.
- CA technologies and practices would need to be site and region specific. It was therefore important that these be developed and promoted in the context of well defined natural resource/socioeconomic domains, farming systems, in different eco-regions. While a good beginning had been made by promoting zero-tillage for seeding wheat in irrigated rice-wheat based cropping systems, there were enormous opportunities to develop, adapt and promote CA based practices in a holistic manner in a wide variety of ecologies including rainfed regions, where problems of resource degradation had assumed critical proportions.
- Successful transition from conventional to CA based systems would call for a change in the mindset of both the scientific and farming communities. Development, adaptation and promotion of CA technologies and practices would call for innovative approaches in defining and pursuing research for development agenda. Most importantly, scientists would need to work along with farmers in a partnership mode to test and adapt new technologies in response to new problems as they emerged. Many of the problems faced by farmers would require that scientists from different disciplines interacted and worked together to find solutions. These would call for new institutional arrangements in planning and executing research for development agenda.
- Building and working in partnership mode with a range of stakeholders would be the key for rapid generation and uptake of new generation technologies. In particular there was a need to look for alternate mechanisms to link with the extension department and private sector stakeholders, eg. farm machinery manufactures and input suppliers. Improved linkages would be necessary for ownership of the CA agenda at all levels.
- Being region and resource specific a major lead to develop and promote CA systems would need to come from State Agricultural Universities and their regional research stations (including KVKs) with a strong support from ICAR institutes. Introduction and spread of CA technologies (zero-tillage, residue retention on soil surface, crop rotation) had implications for a whole range of management issues including choice of crops/varieties, land preparation and seeding and harvesting equipment, water and nutrient management, weed and pest control. This would call for considerable strengthening of interdisciplinary and disciplinary research to support new farming strategies. In particular, socio-economic studies on adoption and impact will be critical to understand opportunities and constrains in wider adoption of new technologies.
- CA practices would benefit the farmers in the short term through reduced cultivation costs but also in the longer term by improving the quality of resource base. There was therefore a need to initiate long term studies on the impact of CA practices on productivity and resource base quality (such as, carbon sequestration, changes in soil physical, chemical and biological properties) as an input to long term implications of new management systems. These studies should be initiated at a number of places representative of major farming situations.
- Successful transition to CA system will call for much greater depth and breadth of knowledge base and skills increasingly requiring adoption of systems based approaches in planning and executing research for development agenda. This will call for considerable capacity building at all levels through improved training, collaboration and working in partnerships with relevant institutions nationally and globally.
- While CA technologies and practices needed to be developed and promoted in the context of specific regions, learning and sharing from experiences under different situations can be a powerful mechanism to accelerate the process of generation and adoption of new technologies. It is in this regard that modern information technologies with networking amongst scientific group offered opportunities for a rapid transition from conventional systems. Building partnership at regional and global levels will be an important way to share and learn towards building knowledge intensive agriculture.
- Adoption of CA systems over large areas is a way to improve the ecological foundation that forms a basis for sustainable agriculture. Institutional mechanisms will be required to ensure that CA approaches are adopted effectively. To meet these goals; key stakeholders, scientists, development agencies, policy makers, farmers and technologists needed to change their thinking in a manner that integrated them well to meet the broader agricultural development goals.
- Initiatives such as PACA could play a significant role in catalyzing the much needed change by bringing relevant stakeholders on board for a cause that required to be addressed urgently. This should be pursued aggressively without losing time.

Should you be interested to read the entire proceedings, a copy of the same may be downloaded from the Links page on our website www.conserveagri.org

SNIPPETS

NEWS

ICAR & PACA TO CONDUCT A NATIONAL CONSULTATION ON CONSERVATION AGRICULTURE

Looking to address contemporary needs of Indian agriculture, the Indian Council of Agricultural Research (ICAR) and PACA are conducting a national consultation in November 2008 that will help develop an Indian perspective to the World Congress being hosted by India in February 2009. We request you to be in touch with developments in this regard through our web site.

CONSERVATION AGRICULTURE TRAINING AT CIMMYT

From May 26th to July 27th, the Center for Maize and Wheat Improvement (CIMMYT) successfully hosted a five-week course in conservation agriculture (CA) for visiting scientists titled "Laying the ground for sustainable and productive cropping systems."

Participants from China, Ethiopia and Romania learned about resource conserving technologies in irrigated and rainfed wheat and maize production systems, including reduced tillage and crop residue management strategies.

Tesfay Araya, who is expected to be the first CA specialist in northern Ethiopia, commented on the interdisciplinary theme of the program:"It was a very holistic approach, with diverse content from a number of disciplines from breeders, soil specialists, agronomists, crop protection people and so on."

With the chance to work directly with the Cropping Systems Management team at CIMMYT's research stations and in nearby farmers' fields, the visitors developed skills in trial planning, management and monitoring. There was also first-hand opportunity to initiate individual research, as each participant had to define a clear research objective and draft a paper for future publication. "We learned skills in publishing, writing, reviewing data…we didn't miss anything," said Mr. Araya.

Participants took away with them lessons learned for application in their home countries. "I saw people here working together with good communication," said Mr. Araya. "That's the most important thing, and it's very unique." For Zhang Bin, from China, implementation of CA was a consideration. "When I go back I will do research on conservation agriculture, and if I have good results I will demonstrate it to farmers and try to transfer the technology to them."

Since 1996 CIMMYT has hosted over 86 course participants and 30 visiting scientists from 26 countries in its Conservation Agriculture research area. Long-term courses and research are conducted at CIMMYT's headquarters in El Batan and at its research station in Ciudad Obregon, Mexico.

The next course is scheduled for May 25th to June 26th in 2009. For more information, please contact Petr Kosina (pkosina@cgiar.org) or visit http://www.cimmyt.org/english/wps/events/courses/pdf/announcement_CA_course_2009.pdf.

THE BENTLEY CROPPING SYSTEMS FELLOWSHIP

This Fellowship provides assistance to Canadian and developing-country graduate students with a university degree in agriculture, forestry or biology, who wish to undertake postgraduate, applied, on-farm research with cooperating farmers in a developing country. Projects should evaluate and/or promote the use of fertility enhancing plants, such as leguminous forages, shrubs, cover crops, and grain legumes in small farms. The intent is to seek ways to increase the yield of food crops, improve farmers' livelihoods, and improve soil fertility.

Value

The value of the award is up to CA $30,000. If there is strong evidence of significant potential benefits, the award may be extended upon re-application.

Deadline

October 1, 2008 (awards will be announced by mid-December 2008). For further details please browse: http://www.idrc.ca/en/ev-23379-201-1-DO_TOPIC.html

INTERNATIONAL SYMPOSIUM TO DISCUSS CLIMATE CHANGE AND FOOD SECURITY IN SOUTH ASIA

A six-day international symposium on climate change and food security in South Asia was held at Dhaka between 25-30th August, 2008. Scientists and policy makers from 18 countries and international agencies gathered in Dhaka to discuss ways to mitigate the adverse effects of climate change on food security in South Asia.

For further details, please view the following link of the World Meteorological Organization website: http://www.wmo.ch/pages/prog/wcp/agm/meetings/rsama08/index_en.html

PUBLICATIONS

Goddard, T., Zoebisch,M.A., Gan,Y.T., Ellis,W., Watson,A. and Sombatpanit,S (eds) 2008. No Till Farming Systems. Special Publication No. 3, World Association of Soil and Water Conservation, Bangkok, ISBN:978-974-8391-60-1, 544pp. For details contact Dr. Anurag Raizada at anurag@cswcrtiddn.org or Dr. S. Sombatpanit at sombatpanit@yahoo.com. The book may be bought from Dr. Raizada in Dehradun.

VISIONSPEAK

Rattan Lal
Director, Carbon Management and Sequestration Center, Ohio State University

"If every farmer who grows crops in the United States would use no-till and adopt management practices such as crop rotation and planting cover crops, we could sequester about 300 million tons of soil carbon each year."