



A Quarterly Newsletter of Nepal Agricultural Research Council (NARC)

Vol. 10 No. 2

April - June 2003

National Technical Working Group (NTWG) Workshop

With the theme of "Recent technology generation and their spread in Nepal", the 3rd National Technical Working Group (NTWG) workshop was held in Kathmandu on 19 June 2003.

The objective of the workshop were:

- to review past RTWG (Regional Technical Working Group)/NTWG

- workshops with the sole purpose to understand level of technology generation and their spread in Nepal,
- to formulate policies and strategies for enhancing linkage and coordination with various stakeholders and partners,
- to develop information-sharing mechanisms between multiple actors.

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World Environment Day Observed

The World Environment Day, June 5, 2003 was observed with different programs in Nepal. On the occasion, a three-day environmental Exhibition was organized in Kathmandu from 4-6 June 2003. The Exhibition was inaugurated by His Royal Highness Crown Prince Paras Bir Bikram Shah. Different institutions including governmental, non-governmental and international organizations participated in the Exhibition. NARC also took part in the Exhibition.

12th NARC Annual Day Observed

Twelfth Annual Day of the establishment of Nepal Agricultural Research Council (NARC) as an autonomous organization was observed with a special function held at NARC Building, Singh Durbar Plaza, Kathmandu on May 8, 2003.

The function was inaugurated by the then Rt. Honourable Prime Minister Lokendra Bahadur Chand as the Chief Guest. The then Deputy Prime Minister and Minister for Agriculture and

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First Hybrid Maize Variety Released

Variety Approval, Release and Registration Sub-committee under National Seed Board that met on 7 May 2003 formally released a new hybrid maize variety along with a complete package of practices for farmers to commercially cultivate in terai, inner-terai and foot-hills of Nepal.

The variety: "Gaurav Hybrid Maize" is released after many years' constant research and experiment by National Maize Research Program, Disciplinary Divisions, Regional Agriculture Research Stations, and Research Stations of NARC, and other related institutions. International Maize and Wheat Improvement Center (CIMMYT) provided assistance in

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His Royal Highness Crown Prince Paras Bir Bikram Shah observing the NARC Stall

ISSUE HIGHLIGHTS

- NTWG Workshop
- First hybrid maize released
- 12th NARC Day
- World Environment Day
- Third REWIN-PRISM Workshop
- Emryo transfer in cow in Nepal
- GECAFS workshop
- IFAD/IPGRI/ MSSRF Project Workshop
- Workshop on Commercial crops
- South-Asia Regional Workshop on wheat
- Rice varieties ready for release

Study Visit on Sericulture Research, Extension and Education

With an objective to observe research and development activities of Indian sericulture, a eight-member team consisting from NARC, Department of Agriculture (DOA) and Institute of Agriculture and Animal Sciences (IAAS) visited Central Silk Board (CSB), Bangalore, Central Silk Technological Research (CSTRI), Bangalore; Central Sericulture Research and Training Institute (CSR TI), Mysore and Government Cocoon Market, Ramanagaram.

During the 15-day visit from 18 April to 2 May 2003 the team had field observation and interactions with the Indian scientists and officials in sericulture research and development. Based on the knowledge gained from the situation and successful implementation of sericulture program in India, the team made out suggestions and recommendations on research, extension, marketing and other aspects for sericulture promotion in Nepal. The Nepalese team consist of Senior Scientists: Mr. Dhruva Narayan Manandhar, Mr. Bhola Man Singh Basnet, Mr. Yagya Prasad Giri, Mr. Bharat Mishra; Technical Officers: Mr. Ram Bhagat Chaudhary and Mr. Bishwo Prasad Mainali from NARC; Mr. Som Nath Ghimire from DOA; and Dr. Resham Bahadur Thapa from IAAS.

India has a rich indigenous knowledge and resources of silkworm and mulberry races/varieties, rearing method, reeling and weaving technologies. Central Sericulture Board (CSB) is responsible for over all sericulture research, development and marketing in India.

Nepal Agricultural Research Council (NARC) has been conducting researches on different aspects of sericulture in Nepal. Various sericulture development programs are being implemented under Department of Agriculture.

Third REWIN Workshop on PRISM

The Third REWIN (Regional Working group on Information Management) workshop on PRISM (Project and Research Information System Module) coordinated by the Rice-Wheat Consortium (RWC) for the Indo-Gangetic Plains (IGP) of the CIMMYT took place in Dhaka, Bangladesh on 25 - 28 May 2003.

The four-day REWIN Workshop was organised by CIMMYT-Bangladesh and the RWC-Facilitation Unit in cooperation with Wis International, Netherlands that brought together information experts of various stakeholders from the region including national and international research organisations, universities, NGOs and national ministries for enhancing capacity of web-based information management system and making out practical outputs. The workshop was also aimed at supporting national and organisational networks for training and awareness raising in the respective countries and organisation in the region. Interaction with the donors to discuss ways of further collaboration and use was also held.

The purpose of the workshop was to enhance the use of regional information system - PRISM as a tool for enhancing agricultural production and sustainable use of natural resources in the IGP through increased input and use by stakeholders. It focused on bringing available data on project, expert and organization in the region through the Project and Research Information Systems Module (PRISM).

The workshop reviewed the REWIN activities in the four IGP countries - Bangladesh, India, Nepal, and Pakistan and discussed about efficient and sustainable implementation of the shared information system. The workshop, with the use of metaplan technique and several additional tools such as force-field analysis, visioning and priority

setting, identified the issues to be focused on. The participants also had hands-on practical session on database management and quality control measures and the roles of the focal points at the organizational and national levels.

The workshop also discussed about promoting the PRISM at the national levels through national workshops, representations at national agricultural events and exhibitions, and through mass media.

The PRISM is a shared regional platform for information on projects, organizations, experts and outputs of research (e.g. publications, models etc). The system has specific RWC-IGP functionality and classifications on top of the general functionality and common clearing mechanism in WISARD, the Web-Based Information System on Agricultural Research for Development. It is system based on decentralized management intended to support stakeholders in the region. It is managed by organizational and national focal points who check the data for quality at the organization and national levels before being cleared for display.

The Regional Working Group on Information Management and Networking of active users in the IGP region, shares experiences to support the development and practical use of PRISM.

The First and Second REWIN-PRISM Meetings/Workshops took place in India in 2001 and 2002 that focused on establishing the system and improving data-management skills, ensuring quality control and information use .

Mr. Bhola Man Singh Basnet, National Focal Point (NFP) and Mr. Krishna Raj Bhatta Organizational Focal Point (OFP) to the PRISM participated in the workshop from Nepal.

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Cooperatives Mr. Badri Prasad Mandal Chaired the Function. The function was attended by representatives from different government and non-government institutions, donors, financial institutions, foreign agencies, print and electronic media, NARC officials, employees and others.

The Rt. Honourable Prime Minister in his inaugural speech said that country is in the high need for modernizing the agriculture sector in order to meet the national needs and to improve the livelihood of the people. He added, the NARC has great responsibility to assist with newer innovative technologies in different aspects of agriculture. He urged the agricultural researchers to consider the environmental issues while developing agricultural technologies for sustainable production growth. He also expressed commitment of His Majesty's Government to assist in every attempt for agricultural research and development. Deputy Prime Minister and Minister for Agriculture and Cooperatives, from the Chair said, the achievements in agriculture have been remarkable but the challenge is even greater. The research and development has to cope up with the increasing demand of food in one hand and the need for boosting economic growth of the country. The farming needs to be popularized among people as prestigious occupation. The technologies should be sufficiently and equitably transferred to farmers level, he added. Mr. Ram Chandra Prasad Agrahari, the then officiating Secretary of Agriculture and

Cooperatives, said the Government has made national development plan with central focus on agriculture and the agricultural research a major part of this. What we need is to make the agricultural research more practical, farmers and market oriented, he stressed. He also outlined the need to involve the farmers, consumers and agro-entrepreneurs in technology development..

Executive Director of NARC, Mr. Raghunath Prasad Sapkota welcoming all the guests and participants in the function talked about the achievements of the NARC and expressed commitment for further endeavor in making out research outputs to help farming people client and the nation.

At the occasion, Mr. Siddhi Nath Regmi, a veteran Scientist and Ex-Executive Director of NARC was honored by Prime Minister for his long outstanding contribution in the field of agricultural research. Twenty-nine NARC employees having completed 25 years of their service were honored with plaques and certificates by Hon'ble Deputy Prime Minister. Other ten NARC employees (five senior scientists and five other support staff) were also honored by Prime Minister for their remarkable contribution and support in agriculture research.

International Maize and Wheat Improvement Centre (CIMMYT)/ South Asia Regional Office, Kathmandu, Nepal and National Maize Research Program of NARC were awarded for outstanding effort and contribution in technology development.

Press conference

Earlier on the eve of the 12th NARC Annual Day, a Press Conference was organized at NARC Building, Ramshahpath on 7 May 2002.

In the program Executive Director Mr. Raghunath Prasad Sapkota briefed about works and achievements of NARC in the last one year and the impacts of the research in the field. He talked about the recommended high yielding and location- specific varieties of different crops, breeds of livestock and fish species with total package of practices to farmers that have significantly covered the farmers' fields.

During the interaction, Scientists from different Disciplines and Directors answered the questions raised by journalists. About twenty journalists were present in the program.

Regional workshop on Wheat Cropping System

The First South-Asia Regional Review and Planning workshop on the DFID-funded project "Participatory Research to Increase the Productivity and Sustainability of Wheat Cropping Systems in the Eastern Subcontinent of South Asia" was held at Godavari, Kathmandu on 10-14 June 2003.

The five-day workshop reviewed the project activities and research results in Bangladesh, India and Nepal. Discussions on the participatory approaches, concepts, trial evaluation, data collection/analysis etc. were held. The meeting also worked on the development of work plans for 2003/04. Individual country work-plans were also developed.

The workshop was participated by representatives from National Agricultural Research Systems (NARSSs) of India, Bangladesh and Nepal, International Maize and Wheat Improvement Centre (CIMMYT), wheat scientists and development workers from different institutions of the three countries.

The wheat is one of the most important crops in this region. Demand of wheat in the seven SAARC countries in 2020 is estimated to be 147 million metric tonnes and production, with the present trend growth, 127 metric tonnes. This challenge has to be met through new innovative technologies.



The then Rt. Hon'ble Prime Minister and the then Hon'ble Minister for Agriculture at the 12th NARC Day Function

Rice Varieties Ready for Release

Two alternative varieties of rice have been identified for mid hills of Nepal. The varieties NR10414-25-2-1 and NR10353-8-2-1 crossed by Rice Breeders at Agriculture Botany Division Khumaltar have been found promising under valley and river basin area of mid hill conditions of Nepal.

NR10414-25-2-1, developed from cross between Gyemija and YR3825 in 1993 is one of the highest yielding varieties ever tested at the Division. In the extensive trials conducted, it has given the yield of 9860 kg/ha. maturing in 146 days. It has small fine grains similar to that of Khumal-4. It has height of 137.4 cm with the average no. of 11.7 ear-bearing tillers. The average length of panicle is 24.5 cm. The spiklets are straw coloured and awnless. The kernel has a white colour. The weight of 1000 grains is 20.2 gram.

The line, NR10353-8-2-1, was developed by hybridization; Crossed between Jumli Marshi and IR-36 in 1992. This variety has given consistently better performance over Manjushre-2 and others. Maturing in 160 days, it has the potential yield of 10695 kg/ha. It has medium sized long fine grains, a good substitute of Himali. This variety is suitable for highly fertile condition. It has a height of 115cm with an average number of 15-18 ear bearing tillers. The average panicle length is 27 cm. The spiklets are straw coloured and tipped. The kernel has white colour. The weight of 1000 grains is 23.54 gram.

On account of its adaptability and good performance, the seeds of both varieties are being multiplied at Agronomy Division for distribution to farmers.

Report by: Sudarshan Bista, Agri-Botany Division, Khumaltar

Embryo Transfer in Cow Begins in Nepal

Embryo transfer technology in cattle has just begun in Nepal in a joint venture of Nepal Agricultural Research Council (NARC) and Department of Livestock Services (DLS). Experts from NARC and DLS with assistance by Prof. Dr. Mell L. Fahning from Minnesota University, USA started embryo transfer in Kathmandu valley on 17 April 2003. At the first stage, embryos flushed from Jersey, imported breed from Newzealand, have been transplanted to the local cows at NARC and at private farms. This technique will be further extended to other parts of the country.

Embryo transfer is a technique used in animal breeding in which an embryo of 7-8 days from a super ovulated female animal is transferred to the uterus of a recipient female animal that basically helps to multiply the offspring of the farmers' best animals. Farmers can use their best bulls over their best cow or heifer and get a good calf whereas now the farmer can run an embryo program and possibly get a life times' production with one flush.

Although the first successful embryo transfer took place in England in the 1890's by a fellow named Walter Heap in rabbits, embryo transfer was not applied commercially until the arrival of the hormone FSH, which stands for Follicle Stimulating Hormone, which occurred in the 1950's. At first, the only technique was surgical to both flush and implant the embryos that were very expensive, required a large setup, and a lot of experience. Later, non-surgical technique was used that is very simple and cost effective. It is a technique just similar to artificial insemination that is very common since long ago.

IFAD/IPGRI/ MSSRF Project Workshop

Nepal Agricultural Research Council (NARC) and Local Initiative for Biodiversity Research and Development (LI-BIRD) jointly organized the National Review and Planning Workshop on IFAD/IPGRI/ MSSRF-NUS Project on 24, 2003 at Pokhara.

The workshop had the objectives to:

- Review the project progress,
- Formulate the work-plan for 2003/04
- Share the project experiences with other stakeholders like Ministry of Agriculture and Cooperatives, Department of Agriculture, Private entrepreneurs and others
- Identify and strengthen important stakeholders in the project for the future uptake and impacts of project findings

In the workshop progress report from the two partners of the Nepal components, NARC and LIBIRD were presented. Discussions on the past activities and future strategies were held. Representatives from IPGRI, IFAD/IPGRI/MSSRF-NUS Project, NARC, LIBIRD, Agricultural Development Offices, Agro-entrepreneurs, and farmers participated the workshop.

NARC and LIBIRD have been the implementing parts the Nepal component of the global project "Enhancing the contribution of Nutrition but Neglected Crops to Food Security and to Incomes of the Rural Poor",

The global project is supported by International Fund for Agricultural Development (IFAD) through International Plant Genetic Resources Institute (IPGRI) South Asian office in which the Asian component of the project is coordinated by MS Swaminathan Research Foundation (MSSRF).

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The workshop was attended by over 80 delegates from different sectors (crops, horticulture, livestock, fisheries, pasture and agro-forestry) and from different institutions (public, private, I/NGOs) around the country and media personnel as well. Altogether six papers focusing on evidence of technology generation, evidence of technology spread, vigilance of farmer innovated technologies, and issues and constraints related to RTWGs were presented in the plenary session chaired by Mr. R. P. Sapkota, the Executive Director of NARC.

The workshop, after interactive discussions in three different groups, namely, Crop Science; Animal Science and Fisheries; and; Social Science, Extension and Communication, made out suggestions and recommendations on different issues of research and extension and also on improving the quality of future RTWGs and NTWGs. The recommendations include:

Research

- Existing on-farm trials be renamed as participatory technology development (PTD) e.g. participatory varietal selection (PVS), participatory farmers' trials (PFT), participatory plant breeding (PPB), integrated crop management (ICM), Farmers' acceptance trial (FAT) etc. Should be conducted under farmer-managed conditions.
- Leading roles should be taken by NARC in technology generations.
- Research prioritization for post-harvest/ Dairy technology/Meat technology as guided by 10th Five-Year Plan.
- Indexing of technology improvement to be studied by Outreach Research Division (ORD), NARC.

Human Resource

- On overall basis, there is no dearth of horticulture scientists in NARC, but does not represent all disciplines and horticultural crops.
- Proper manpower placement in horticulture research
- Mobilization of manpower available at the national, regional and district level from anywhere in the country. For this, a roster of experts needs to be prepared.
- Speed-up higher education program vision of National Agricultural research Institute (NARI) & National

Animal Science Research Institute (NASRI).

Linkage and Partnership

- Involvement of stakeholders beginning from program planning.
- TOR for each participatory stakeholder should be developed from the field level
- Annual program planning and its linkage at grass-root level.
- Participation by concerned RDs in any regional and national forums (irrespective of the organizer either NARC or DOA or DLS) must be realized as compulsory and obligatory.

Dissemination and Scaling

- Yield gap analysis (technological indexing) be conducted from ORD and RARSs.
- Identified technologies should be scaled-up.
- Development of material suitable for extension workers and orientation seminar at regional level and training centers.
- Series of materials for dissemination (e.g. mass media items as booklets, posters & brochures and audio-visuals for TV channels) be developed from CPDD of NARC and AICC of MOAC

General Issues

- Collaborative ventures be pursued with R & D partnership in agriculture
- Identification of activities for each stakeholder in annual planning and budgeting and their review at different levels of ATWGs (DTWGs or RTWGs or NTWGs).
- "Technology Recommendation Committee" both at regional and national levels be established
- OR sites be developed as a "Resource Center"
- Program and budget planning, monitoring and evaluation of field activities be done jointly by R & D partners.
- Orientation training for PTD partners

Action Plans

- Agricultural Technical Working Group (ATWG) Guidelines be approved by Ministry of Agriculture and cooperatives (MOAC), published by NARC and make it widely circulated to concerned stakeholders for implementation likewise.

- Directives to their district offices by Department of Agriculture (DOA) and Department of Livestock Services (DLS) for follow-up of their roles and responsibilities given in the "Implementation Guidelines for Agriculture Technical Working Groups" be circulated and to make programs as mandatory.
- Suitable reporting formats be developed and circulated
- Formation of Agriculture Technical Coordinating Committee (ATCC) with reference to NTWG/RTWG/DTWG (District Agricultural Technical Working Group) at different levels within 3 months is suggested as follows:
 - A National Agriculture Technical Coordinating Committee (NATCC) body of 7 persons with ED of NARC as a Chairperson, 6 members being DGs of DOA and DLS, Joint Secretary (Planning), MOAC and Chief, ORD, NARC and Planning Director of NARC as Member secretary with budget
 - A Regional Technical Coordinating Committee (RATCC) body of 5 persons with RD of DOA or DLS as Chairperson by rotation for even and odd years, respectively, RD of RARS as Member-Secretary with budget, one member each from RD office of DOA and DLS as members.
 - A District Technical Coordinating Committee (DATCC) body of 3-5 members - Two separate committees for DLSO and DADO in the district under the chairpersonship of the district chief and each with the budget for this and members to be nominated by him/her.

NTWG workshop is a national forum for sharing information on the progress made by research and development (R & D) partners, for discussing coordination and linkage among all stakeholders and formulating related policies and strategies that are necessary. Besides, policies are formulated regarding smooth running of district level and regional level technical working groups in order to reorient research as well as the extension efforts in favor of the common farmers. The concept of Regional Technical Working Group (RTWG) meeting began in 1998 during implementation of the World Bank funded AREP project in Nepal.

GECAFS Indo-Gangetic Plain Food System” Proposal Planning Workshop Held in Kathmandu

With the goal to determine strategies to cope with the impacts of global environment change on food provision system and to analyze the environmental and socio-economic consequences of adaptation, Global Environment Change and Food System (GECAFS) Indo-Gangetic Plain Food System” Proposal Planning workshop was held on 2-4 April in Kathmandu.

Three-day workshop was inaugurated in a special function by the then Hon'ble Minister for Water Resources Deepak Gyawali. During the opening session Chaired by Mr. R. P. Sapkota, Executive Director, Dr. Peter Gregory Chairman of the GECAFS gave the background of the GECAFS. Dr. P.K. Agrawal from Indian Agricultural Research Institute (IARI) and Dr. P.K. Joshi from National Centre for Agro-Eco-Policy Research (NCAP),

Delhi spoke on the overview of Regional Project Planning. Dr. S.P. Pandey, Director of Planning and Coordination/ NARC had welcomed the participants and Dr. Kishore Sherchand, Chief of Environment Unit of NARC extended the vote of thanks at the opening session, Kathmandu-based policy makers and potential donors, and partner project representatives were briefed about the GECAFS development.

The workshop in different consecutive sessions, worked out to identify methods and research approaches to address GECAFS research questions; to identify potential regional and international collaborators; and to outline key components of a proposal for research findings.

GECAFS is an international research program involving a wide range of social, physical and biological scientists, investigating the vulnerability of human food system to, and interaction with, Global Environment Change. The project's goal is "To determine strategies to cope with the impacts of Global Environment Change on food provision systems and to analyze the environmental and socioeconomic consequences of adaptation."

The initial GECAFS workshop was held in New Delhi, India on 15-16 March 2002 that identified key national and regional policy issues related to GEC; identified regional and national policy and science groupings that could be consulted on the nature of a GEC research agenda; and broadened the environmental change debate to include other aspects of global change in addition to climate change.

NARC Scientists: Recent Ph.D. Holders



Mr. Surya Prasad Pandey, Senior Scientist in NARC has obtained Ph.D. in soil science from The University of Nottingham, UK.

In his Ph.D course, Dr. Pandey studied the bio-physical and socio-economic constraints through soil organic matter (SOM) and nutrient management.

Inadequate supply of N,P and K subsoil hardpans and delayed planting were the major biophysical constraints followed by socio-economic factors such as unfavorable market prices, low farm income, lack of capital resources, and poor access to credit and information.

Further, the result verified that the intra-aggregate light fraction of SOM provides an indicator to predict short-term changes in total SOM. The effect of CaCO_3 -C in the total soil-C could be removed by simultaneous measurement of $\delta^{13}\text{C}$ by mass spectrometry and a simple mathematical model.

Dr. Pandey, born in 1950, had his M.Sc. in Soil Science from Himanchal Pradesh Krishi Vishwa Vidyalyaya, India and B.Sc.Ag. from Panjav University, India. He has been working in the agriculture research field for the last 30 years.



Ms. Jwala Bajracharya, Senior Scientist has obtained Ph.D. in Genetics from the University of Wales, UK.

In her Ph.D course, Dr. Bajracharya did "Genetic Diversity Study in Landraces of Rice (*Oryza sativa* L.) by Agro-morphological Characters and Microsatellite DNA Markers." A total of 632 rice landraces from three ecological sites Jumla, Kaski and Bara representing three ecozones of Nepal were taken for genetic diversity study. Rice diversity was assessed by agro-morphological traits and microsatellite (SSR) markers. This research was a part of the Nepal Country Component of the Global Project on "Strengthening the scientific basis of in-situ conservation of biodiversity on farm" of the International Plant Genetic Resources Institute (IPGRI).

Dr. Bajracharya, born in 1956, obtained her M.Sc. in Seed Technology from Edinburgh University, UK, and M.Sc. Botany from Tribhuvan University, Nepal. She has been working in the agriculture research field for the last 24 years.



Mr. Madhusudan Prasad Ghale, Senior Scientist in NARC has obtained Ph.D. in Horticulture from Mahatma Phule Krishi Vidyapeeth, Maharashtra, India.

In his Ph.D course, Dr. Ghale made study on "Standardization of Agro-Techniques for Tropical Gynoecious Cucumber (*Cucumis sativus* L.) Hybrids". An investigation was undertaken to exploit the potentiality of tropical gynoecious hybrids namely Phule Prachi and Phule Champa with six levels of fertilizer in two forms (straight fertilizer and fertigation) and three levels of spacings in kharif season of 2000 and summer season of 2001. Studies on staking, pruning and spacing along with seed production and phenomenon of parthenocarp were carried out in the summer season of 2001.

Dr. Ghale, born in 1951, obtained his M.Sc. in Horticulture from Central Luzon State University, Neuva Eciga, Philippines, B.Sc Ag. from Rajasthan College of Agriculture, India. He has been working in the agriculture research field for the last 29 years.

TRAINING WORKSHOP/SEMINARS, STUDY & TOURS (April - June 2003)

S.N.	Name	Position/Faculty	Subject	Duration	Country
<u>SEMINAR/WORKSHOP/MEETING</u>					
1.	Dr. Surya Prasad Pandey	Director/Planning	Second CURE Steering Committee Meeting	2-3 April	Vietnam
2.	Mr. Raghunath Prasad Sapkota	Executive Director	Agriculture Science and Technnology Consultation Meeting	12-13 May	Philippines
3.	Mr. Ram Prasad Upreti	S-4/Pathology	Neglected Millets Crops Workshop	16-17 May	India
4.	Mr. Chandra Bahadur Shrestha	S-3/Agronomy	Neglected Millets Crops Workshop	16-17 May	India
5.	Mr. Bhola Man Singh Basnet	S-4/Chief,CPDD	PRISM Workshop	25-28 May	Bangladesh
6.	Mr. Ram Prasad Upreti	S-4/Pathology	Steering Committee Meeting	3-4 June	Egypt
<u>OBSERVATION</u>					
7.	Mr. Dhruva Narayan Manandhar	S-4/Entomology	Study Visit on Enhancement of Sericulture Productivity	18 Apr--2 May	India
8.	Mr. Yagya Prasad Giri	S-3/Entomology	Study Visit on Enhancement of Sericulture Productivity	18 Apr--2 May	India
9.	Mr. Bhola Man Singh Basnet	S-4/Chief,CPDD	Study Visit on Enhancement of Sericulture Productivity	18 Apr--2 May	India
10.	Mr. Bharat Mishra	S-3/Pathology	Study Visit on Enhancement of Sericulture Productivity	18 Apr--2 May	India
11.	Mr. Bishwo Prasad Mainali	T-6/Entomology	Study Visit on Enhancement of Sericulture Productivity	18 Apr--2 May	India
12.	Mr. Ram Bhagat Chaudhary	T-6/Agronomy	Study Visit on Enhancement of Sericulture Productivity	18 Apr--2 May	India
13.	Mr. Bhola Shankar Shrestha	S-3/Livestocks	Observation Tour	26 April-6 May	Philippines
14.	Mr. Parshuram Lal Karna	S-4/Pathology	Observation Tour	8-18 May	India
15.	Dr. Deep Narayan Sah	S-3/Pathology	Observation Tour on Soil and Water Management	1-8 June	India
16.	Mr. Suchit Prasad Shrestha	T-6/Soil Science	Observation Tour on Soil and Water Management	1-8 June	India
17.	Mr. Buddhi Bahadir Pant	T-5	Observation Tour on Soil and Water Management	1-8 June	India
18.	Mr. Govinda Poudel	T-5	Observation Tour on Soil and Water Management	1-8 June	India
19.	Mr. Resham Bahadur Basnet	T-5	Observation Tour on Soil and Water Management	1-8 June	India
<u>TRAINING</u>					
20.	Mr. Kamalesh Kumar Srivastav	T-6/Fisheries	Training on Integrated Fish Farming	18 Apr--2 May	India
21.	Dr. Madhusudan Pd.Upadhyaya	S-3/Plant-Breeding	Training on Genetic Resources and Intellectual Property	5-23 May	Sweden
22.	Mr. Jung Bahadur Prasad	T-6/Pathology	International Training Course on Research and Development	19 May-19 June	Israel
23.	Mr. Ram Babu Paneru	S-2/Entomology	Training on Gas Chromotograph	18-23 June	India
24.	Mr. Sunil Aryal	T-6/Entomology	Training on Gas Chromotograph	18-23 June	India
<u>STUDY</u>					
25.	Mr. Nanda Kishore Raya	T-6/Fisheries	M.Sc. , Zoology/Fisheries	15 Jan'03.-14 Jan'05	TU/Nepal
26.	Mr. Sudeep Gautam	T-6/Socio-economics	M.A. in Economics	3 Jun '03.-2 Jun '05	U5A
27.	Mr. Yuba Raj Thapa	T-6/Agronomy	M.Sc. , Soil Science	18 July '03.-17 July'05	Germany
28.	Mr. Maheswor Prasad Sah	T-6/Soil Science	M.Sc. , Soil Science	18 July '03.-17 July'05	Geramany

Agriculture Secretary Observes NARC Activities

Newly appointed Secretary of Ministry of Agriculture and Cooperatives, Mr. Purna Prasad Manandhar observed the NARC activities on 26 June 2003 at NARC Building, Singh Durbar Plaza, Kathmandu. Executive Director, Mr. Raghunath Prasad Sapkota briefed him about overall agricultural research of Nepal, objectives of NARC, Agriculture Perspective Plan (APP), Agricultural research strategy, research activities and achievements and NARC's manpower. During the visit, the Secretary outlined the need to make the research and extension more effective. He suggested to prepare a standard operating procedures for implementing program. At the occasion Directors of NARC, Scientists and other officials of NARC were also present.

Directors for NARI and NASRI Appointed

Mr. Bimal Kumar Baniya and Dr. Adarsha Pradhan (Sr. Scientists S-4) have been recently appointed as Directors for National Agricultural Research Institute (NARI) and National Animal Science Research Institute (NASRI) under NARC respectively.

These appointments have been made for the first time with the view to activate the NARI and NASRI as per the provision in the NARC structure. NARI and NASRI, though provisioned by the By-laws in the NARC structure, were not functional since the establishment.

Workshop Seminar on Commercial Crops Research

With the view to prioritize the major commercial crops/commodities, a one-day workshop was organized on 1 May 2003 at Khumaltar.

The workshop jointly organized by NARC and Hill Agricultural Research Project (HARP) was participated by thirty experts from NARC, Department of Agriculture, Department of Livestock Services, Dairy Development Board, NGOs and HARP.

The workshop reviewed the status of commercially important crops in the country and identified thirty different crops and commodities to be prioritized for research. The identified crops and commodities include dairy product, meat, maize, soybean, niger, buckwheat, hybrid vegetable seeds, off-season vegetables, fruits, tea, coffee, sugarcane, jute etc.

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developing this hybrid. This variety is found to be resistant to major foliar diseases, especially downy mildew, rust and turicum blight and has no lodging problem as it has uniform and shorter plant height. This variety has yield potential of 9 metric tonnes/ha under the recommended condition. Crop maturity period is 110 days in summer and 150 days in winter season. It gives better yield if planted in September-October in inner terai and October-November in terai.

This is the first hybrid maize variety developed and released in Nepal. This is a single cross hybrid maize developed from NML-1 X NML-2. As it gives higher grain yield, has uniform plant and ear height, the Nepalese farmers have been attracted to hybrid maize. Seed multiplication of this hybrid variety have begun in different private companies and seed may be available for farmers in the next season.



The first hybrid maize variety developed and released in Nepal

Patron:
Raghunath Prasad Sapkota
Executive Director

Published by :

Communication, Publication and Documentation Division
Nepal Agricultural Research Council, Khumaltar
P.O. Box No. 5459, Kathmandu, Nepal

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Bhola Man Singh Basnet : Division-Chief (Technical Editor)
Krishna Raj Bhatta : Editor

Website: <http://www.narc-nepal.org>

To

Printed at : The Rising Sun Printers, Teku, Kathmandu, Tel.: 243557