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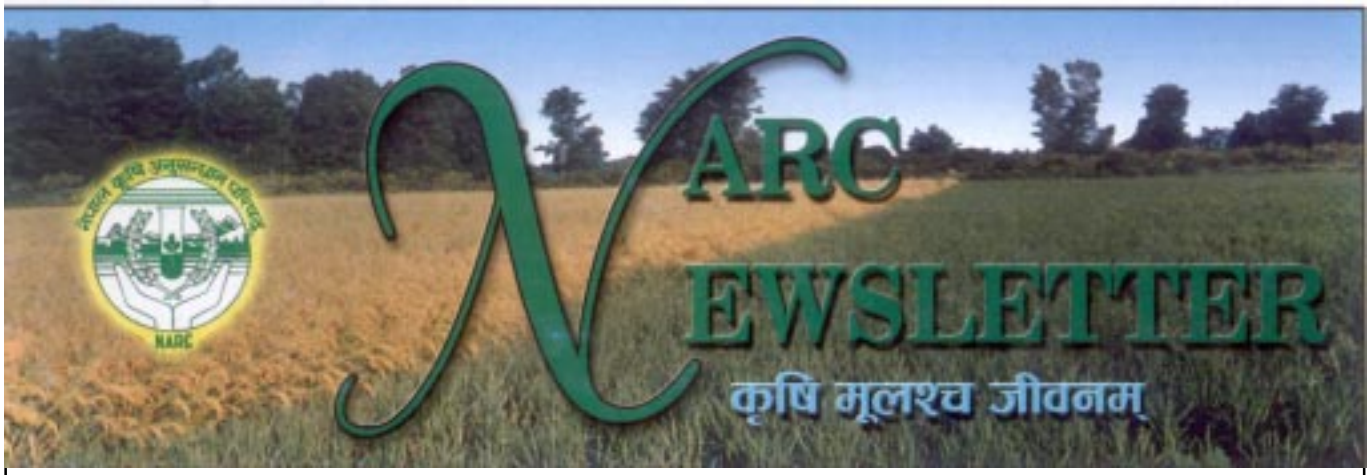

A Quarterly Newsletter of Nepal Agricultural Research Council (NARC)
Vol. 11 No.1 January - March 2004

CIMMYT's Board of Trustees Visited NARC

The Board of Trustees and Directors of Mexico-based International Maize and Wheat Improvement Centre (CIMMYT) visited Nepal on 23-26 March 2004. The objectives of the visit was to have an update on agriculture research and development initiatives and achievement in Nepal with special focus on wheat and maize. It was also an opportunity to explore ways and means to enhance collaboration and strengthen linkage between CIMMYT and NARC/Nepal for addressing poverty and livelihood issues on Nepalese farmers.

Photo: Rajendra Bajracharya

NARC Executive Director briefing, Board Chairman (left) Director General (right)

During the stay in Nepal, the CIMMYT high-level delegates visited different divisions of NARC and research fields in Kathmandu valley. The delegates at different meetings were briefed about NARC and its activities activities, status and achievement concerning Wheat and Maize research programs . The delegates had other official meetings with Ministry of Agriculture and Cooperatives and Donor representatives. The delegates had interactions with PVS farmers at Lalitpur as well.

The delegates consisted of Alex McCalla, CIMMYT Board Chairman; Board members: Robert Goodman; Sebastian Acosta; Tini Colijn-Hooymans; Edwina Cornish; Jesus Moncada; Hisao Azuma; Lene Lange; Klaus Leisinger; Uraivan Tan-Kim-Yong; John Witcombe; Romano Kiome; Pilar Junco; CIMMYT Head Quarter staffs: Masa Iwanaga, Director General; Peter Ninnes, Executive Officer-Research; Martin Van Weerdenburg; Shivaji Pandey, Director, Sustaining African Livelihoods; Michael Morris, Director Global and Strategic Research; Larry Harrington, Director, Intensive Agro-

Contd. on page 8

Photo: Rajendra Bajracharya

CIMMYT Board Trustees on field visit

Rice and Soybean Varieties Released

Variety Approval Release and Registration Sub-Committee under National Seed Board that met on 29th and 31st of March 2004 officially released one variety each of rice and soybean crops for farmers to cultivate in different eco regions.

Rice

The rice variety: Hardinath-1 (BG-1442) is released along with a complete package of practices after 11 years' research and experiment at Rice Research Programs, different research stations, disciplinary divisions and farmers' fields. This is a early rice variety (Chaite) recommended for farmers to cultivate in terai, inner terai, valleys and river basin.

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ISSUE HIGHLIGHTS

Sri Lankan Delegates Visited NARC

A Sri Lankan delegates consisting Mr. Dhanasena Hettiarachchi, Secretary Ministry of Agriculture and Livestock and Dr. H Gunasena, Executive Director of Sri Lanka Council for Agricultural Research Policy (CARP) visited different offices and fields of NARC on 26-29 January 2004.

The high-level delegates visited NARC Headquarters at Singh Durbar Plaza, National Agriculture Research Institute (NARI) and National Animal Science Research Institute (NASRI) at Khumaltar, National Wheat Research Program at Bhairahawa, National Maize Research Program and Grain Legumes Research Program at Rampur. The delegates also visited Institute of Agriculture and Animal Science (IAAS), Rampur.

Secretary Level Meeting between MOAC/Nepal and MOAL/Sri Lanka

With the view to discuss on possible areas of cooperation to promote development and cooperation of agricultural research in Nepal, a meeting between the Secretaries of Ministry of Agriculture and Cooperative, Nepal, Mr. P. P. Manandhar and Ministry of Agriculture and Livestock, Sri Lanka Mr. D. Hettrarachchi was held at Ministry of Agriculture and Cooperatives, Singh Durbar. At the meeting Mr. Raghunath Prasad Sapkota, Executive Director NARC; Dr. H. Gunasena, Executive Director of CARP, Sri Lanka; Dr. S.P. Pandey, Director of Planning and Coordination, NARC were present.

13th NARC Day

The Thirteenth Day of the establishment of Nepal Agricultural Research Council (NARC) is being observed with special function on 7th May 2004 at NARC Building, Singh Durbar Plaza, Kathmandu.

MoU for Scientific and Technical Cooperation between Nepal and Sri Lanka

With a view to promote development and cooperation in the field of agricultural research and in particular to accelerate the progress of research and training in scientific cultivation of various crops Nepal Agricultural Research Council (NARC) and the Sri Lanka Council for Agricultural Research Policy (CARP) signed a memorandum of understanding (MoU) on 26 January 2004 in Kathmandu.

Under the MoU, both the parties will exchange technical expertise; germplasm and breeding materials; scientific literature, information and methodologies; scientific equipment as available and required in program of common interest. For the implementation of the cooperation both the organization will initiate to establish mutual relations between their scientific and technical divisions; to create facilities for exchange of scientists and technical experts and their proper placement; and grant of fellowship to scientists and students.

Both the organizations will jointly develop annual workplans in advance to set activities to be carried out in succeeding years. Research findings will be published upon mutual agreement. In order to follow-up the execution of the MoU and suggest necessary measures for its development, a joint meeting will be held once a year alternatively in Nepal and Sri Lanka.

The MoU was signed by Mr. Raghunath Prasad Sapkota, Executive Director, NARC and Mr. Dhanasena Hettiarachchi, Secretary, Ministry of Agriculture and Livestock, Sri Lanka.

The International Year of Rice 2004

With the fundamental aim of promoting and guiding the sustainable development of rice and rice-based production systems, the International Year of Rice (IYR) - 2004 is being celebrated over the world with various events and functions organized by national and international governmental and non-governmental organizations. The IYR activities have been focused on increasing public awareness of the contributions of rice-based systems to food security, better nutrition, poverty alleviation and livelihood improvement; increasing public awareness of the diversity and complexity of rice-based production systems, and the challenges and opportunities for their sustainable development; promoting and providing technical support to ensure the sustainable development of rice and rice-based systems at the global, regional, national and community levels; and promoting the conservation and enhancement of rice-based products in order to derive economic, social, cultural and health benefits for the world's human population.

The International Year of Rice that has the theme "The Rice is Life" helps to promote improved production and access to Rice. Development of sustainable rice-based systems will reduce hunger and poverty, and contribute to environmental conservation and a better life for present and future generations.

With a declaration from the Fifty-Seventh Session of United Nation's General Assembly on 16 December 2002, the Year 2004 was dedicated to this vital food crop, which feeds more than half the world's population while providing income for millions of rice producers, processors and traders. FAO was invited to facilitate IYR implementation in collaboration with other relevant organizations. (More in NARC Newsletter, Rice Special Issue, May 2004)

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National Workshop on Horticulture

Nepal Agricultural Research Council (NARC) organized the 4th National Workshop on Horticulture from 2-4 March 2004 at Khumaltar.

The three-day workshop held with the theme "Horticulture Technology for Enhancing the Livelihood of Nepalese Farmers" was participated by representatives from NARC, DOA, NGOs, INGOs involved in research and development who put forward their findings and shared knowledge and experiences in different aspects of horticulture. The workshop also provided an opportunity to review the past activities and achievements and identify issues important for the horticulture research and development in the country.

In the workshop 101 various papers and posters on different aspects of fresh vegetables, vegetable seeds, potato, fruits, flowers, spices, tea and coffee were presented in different sessions. The workshop, after deliberate discussions in various groups, made out recommendations for improving horticulture research and development.

A special exhibition on horticulture was organized during the workshop period. Technologies on vegetables, fruits and floriculture; tools and implements; seeds, horticulture products from different organizations (Private, NGOs) were displayed in the exhibition.

Photo: Rajendra Bajracharya

Exhibition on Horticulture research and development

Recommendations

VEGETABLES

CAULIFLOWER

- *Silver Cup-60* and Pusa Ketuki, *T-621* and *Amazing* varieties for early season in western terai
- *Snow Crown* for mid season
- *Tropical-45*, *Silver Cup-60*, *Rummy*, *White Flash* for off-season cauliflower production
- 45X45cm spacing for seed production of Kathmandu Local
- Using solution of Neem and Chinaberry with tobacco for Aphid control

CABBAGE

- Green Crown and Green coronet recommended for late season cropping
- *Gonjales*, *T-721* and *Vector Boy* varieties in pipeline

POTATO

- *396082-21* and *LBR 40* varieties for hills (high yielding and resistant to late blight disease)
- *378711-7* and *38876-26* varieties for Rice -Wheat crop rotation
- *LT8 X TPS 67* variety identified for True Potato Seed (TPS)
- *388764-26* variety for river basin and mid-hills of Western Development Region
- *396082-21* variety in pipeline for trial in farmers' field
- *396082-21* and LBR 40 varieties in pipeline for hills
- 10 X 10 cm. spacing for pre-basic seed production in glass house
- 100:100:90 kg/ha of NPK and 20 tonnes of farm yard manure (FYM) at Parwanipur condition
- Integrated Disease Management (IDM) technology in potato production
- Sustainable tissue culture technology for virus-free potato seed production
- 30-60 days cold storage for potato chips
- Intercropping of cauliflower, cabbage and radish in potato-maize system

TOMATO

- Spray of multiplex @5ml/littre water at 25 days of planting along with 150:60:60 kg/ha of NPK for rainy season tomato
- *Manisha*, *NS-815*, *Surakshya* and *T-5975* with proper package of practices identified for off-season tomato production
- *Bari-5*, *Bari-4*, *CLN 1621 L* and *Lapsi Gede* varieties for warmer regions in pipeline
- Use of Effective Micro-organism (EM) mixed organic matters
- Tomato cropping in plastic house in rainy season

GINGER

- Variety *Z1-9721* (very good in yield plus quality)

GARLIC

- First week of September to first week of November recommended for garlic planting in foot-hills and river-basin area of Western Nepal

BEAN

- *LB-37* (Lumle Simi) and Four Season suitable for different seasons in river basin and mid-hills

RADISH

- 45X60 cm spacing for seed production of *Mino Early* variety
- Root planting for seed production of radish variety *Chalis Dine* at 40-60 days of seeding without detopping

CUCUMBER

- Planting cucumber in Poly House

BRINJAL

- Use 10 tonnes of agriculture-lime per hectare for higher production
- *PS-1* variety ready for release

ONION

- 3rd week of July recommended for off-season onion planting

FRUITS

CITRUS

- *Madam Virus* variety, a good source of genetic indexing for the control of Huanglongbing disease in citrus

APPLE

- Wooden rack with paper cushion for apple storage

WALNUT

- Tongue grafting on 30 March and Patch budding on 30 May recommended for walnut production

COCCONUT

- DAP 205 kg + MOP 2.0 kg + Urea 1.0 kg + Lime 0.5 kg + Borex 0.150 kg + Multiplex 0.250 kg +Common salt 0.5 kg + FYM 30.0 kg per tree per year to control fruit dropping

TEA

- 1 hour fermentation at 25°C for quality of CTC tea

GUAVA

- Pick out first fruits and flowers for off-season guava production
- Spray of Ethephone hormone @1800ppm

PINEAPPLE

- Use of more fertilizer in acidic soil than recommended

COFFEE

- Improved technology and market access for coffee crop

MANGO

- Compost 50 kg + Oil cake 10 kg + Bone meal 2.5 kg + NPK 720:182:671 gm + Agromin 0.5 kg per tree per year for improving old orchard

Policy Recommendations

- Effective implementation of Seed Law
- Review & modify the existing horticultural research policy and mandate of Horticulture Research Division
- National policy on hybrid seed research to be developed
- Emphasis to be given to establish collaborative research between private and public sectors
- More genetic resources of horticulture crops to be collected, maintained and documented
- Steps to be taken for patenting agricultural intellectual property right (IPR)
- Written document to be developed to share genetic resources and technology in between private and public sectors
- Lobbying to reduce levy imposed by importing countries
- Policy for Nursery Act should be developed
- National policy on GMO production to be decided

Marketing

- Appropriate storage facilities to be developed at transit ports for export market
- Identification of products for export market
- More research to be done on marketing aspects of horticultural crops

Linkages

- Linkages to be established between producers and research organization for market driven products
- Linkages with agro-based industries with respect to their requirements for raw materials
- Steps to be taken to ensure the use of locally available agricultural commodities by agro-based industrialists
- Partnership at all levels for coordination
- Effective linkages
- Focused programmes implementation

Ways and means

- NARC should coordinate all stakeholders at national and regional level. DADO should take lead at the district level.
- Involvement of all stakeholders should be contributory and participatory on mandatory basis
- All existing formal bodies such as NTWG, RTWG etc. should be practically functional
- Partnership should be on research and development activities both at all levels including from policy formulation to M&E
- Research and development activities should be implemented in a coordinated approach at particular site with mutual understanding
- NARC should have an unit to coordinate for partnership involved at national level and DADO at the district level
- MOAC should make it mandatory for all other stakeholders (I/NGOs, CBOs etc.) in implementing the national programme for any geographical locations
- Responsibility and accountability of each stakeholders be spelt out, agreed upon and evaluated by participatory means

Prioritization of research needs (For Domestic market/ Export market/Poverty reduction)

Apple (Varietal improvement & pest management, High density planting (second generation technology) to reduce cost of production, intercropping with NTFP, Post harvest)

Walnut (High shelling, Thin shell)

Citrus (Management, Post harvest)

Mango, Banana Litchi, Guava (Management, Post harvest)

Tea, and coffee (Organic farming & Processing, management)

Cardamom & spices (Varietal investigation, management, Processing)

Potato, Cole crops, Tomato, Carrot, Onion, Chillies (Reduce yield gaps, Hybrid technology, Management, Product diversification, Low cost technology, Conservation of indigenous species, Off-season, Post harvest, adoption constraint)

High value vegetable seeds (Research on seed production technology in high hills)

Flowers (Research initiation)

Mushrooms, Saffron (Research initiation)

Agricultural Biodiversity Conservation Strategy

- Bal Krishna Joshi

Value of agricultural biodiversity is well known. Plant genetic resources must be conserved and registered for long-term food security and economic development of the country. Patenting system of genes, crop varieties, species or crop modification technology increases the dependency of farmers and crop biologists, especially in developing countries. International agreements affecting agricultural biodiversity are: Agenda 21 (1992); Convention on Biological Diversity, CBD (1992); General Agreement on Tariffs and Trade, GATT (1947), later are under World Trade Organization, (WTO); Trade Related Intellectual Property Rights, TRIPS (1995), one of the agreements in WTO); Union for the Protection of New Varieties of Plants, UPOV (1961) and World Intellectual Property Organization, WIPO. In addition, agricultural biodiversity is affected by developmental activities. There are many reports and case studies of genetic erosion. In order to protect plant varieties the TRIPS Agreement has provided three options, i. protection through patent, ii. protection through an effective *sui generis* (of its own kind) system or iii. protection through a combination of patent and *sui generis*. But how we can protect endangered, underutilized and wild relatives of cultivated crop species or varieties that helps to control genetic erosion. Biopiracy and genetic erosion are two systems of creating gap between primary users (eg farmers) and plant genetic resources (PGRs)

Ex-situ and field gene bank conservations are effective and costly strategy to conserve plant genetic resources including endangered and underutilized crop species or varieties. Agricultural crop biologists should have other visions of conservation in addition to these two systems. Priority should be given to endangered, underutilized and wild relatives of cultivated plants to protect effectively and economically. Nepal has 8 national parks, 4 wildlife reserves, 1 hunting reserve and 4 conservation areas, many government's agricultural farms, many public roads, buildings and areas, and many religiously protected areas eg Temple.

These 4 areas (conservation areas, agricultural farms, public areas and secrete places) are the excellent locations for conserving agricultural biodiversity in natural condition. Areas where agriculturally important crop species are planted for conservation should be defined as Agriculture Green Bank (AGB). All these areas should have AGB. For establishing AGB, areas assessment all over the country and identification of plant genetic resources for conservation are the initial steps. Geographic information system (GIS)can be used to identify appropriate locations for particular crop species. PGR experts should help to incorporate the policy guidelines for developing AGB in conservation areas, road, channel, public buildings, secrete places and agricultural farms. Similarly crop species should be listed based on the suitability to a particular area. For examples tree species, wild pear, wild peach, wild apricot, *Kimbu* (*Morus nigra*), *Ainselu* (*Rubus ellipticus*), walnut, wild mango, *Kaphal* (*Myrica esculenta*), *Thindu*, *Kadam*, *Katush*, *Painu* (*Prunus cornuta*), *Bimira* (*Citrus medica*) etc may be suitable in roadside, conservation areas, and public areas. Annual crop species eg wild rice, wild vegetables, wild buckwheat, amaranths, wild pigeon pea, grass pea, wild fenugreek etc are suitable to agricultural farms, public areas and conservation areas. Some of agricultural PGR can be used as living fences around farms, buildings, temples etc. Instead of planting non agricultural crops in non-used areas of agriculture farms, public areas etc, agriculture related crops species should be planted which will help to get economic benefit and to conserve them. There are many more species that can be conserved through the establishment of AGB. PGR experts should initiate and design to conserve agricultural plant genetic resources following such a cost effective system of conservation.

●

Workshop on Sheep and Goat

A workshop on "Possibility of improving migratory sheep and goat production system" was held at Khumaltar on 9 March 2004.

The objective of the workshop was to share experiences obtained in the research under a HARP funded Project on migratory sheep and goat.

The workshop reviewed existing migratory sheep and goat production systems, its economic contribution, and constraints in different regions of Nepal. The workshop also made out recommendations health, nutrition and flock management aspects for improvement and sustainability of migratory sheep and goat production in different parts of hills and mountains in Nepal.

The traditional migratory sheep and goat production is very common in hills and mountains of Nepal. But it is now declining every year due to some reasons. Major problems in this system are lack of grazing lands, predation from wild animals, disease, parasites, lack of shepherds, restriction from community forestry in the traditional route.

With the view to make out solution to these problems and increase production of migratory sheep and goat to help the poor rural farmers, research programs are undergoing for last three years in Kaski, Jumla and Darchula districts.

Some of the solutions to the problems so far identified are:

- Use of solar lights and nylon-net to save the animals from wild animals at night
- Fenbendazol @5ml per 1kg body weight of animal to control internal parasites
- 100 grams of Granules (Corn ¾ + Cake of Rapeseed mustard ¼ + Common salt 1% + minerals 1%) per day during December-February to stunted animals for better growth of goat / sheep kids
- Sodium Thiosulphate@5gm (for kids) and 10gm (for adult) per kg body weight to minimize death rate caused by poisonous plants in mountains

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National Conference on Science and Technology

The 4th National Conference on Science and Technology organized by Royal Nepal Academy of Science and Technology (RONAST) took place in Kathmandu on 23-26 March 2004.

The four-day conference held to provide the scientists and technologists from home and abroad a forum to gather and share knowledge and experiences in different sectors of science and technology, was inaugurated by His Majesty King Gyanendra Bir Bikram Shah Dev in a special function. During the occasion, Rt. Hon'ble Prime Minister Surya Bahadur Thapa said the science and technology has a vital role to play in the overall development of the country, however he admitted that the funding is not sufficient. Dr. Richard R. Ernst, Swiss Nobel Prize winner, said that Nepal has talented scientists who could contribute to increase food production, control soil erosion and conserve environment.

About 1200 scientists and technologists including 40 international scientists from America, England, Germany, Italy, Switzerland, Japan, South Korea, China, India, Bangladesh and Indonesia participated the conference.

Photo: Rajendra Bajracharya

Special Rice Exhibition of NARC on IYR 2004 at the Conference

During the Conference, exhibitions on various aspects of science and technology was also held in which several institutions put their stalls. Nepal Agricultural Research Council (NARC) had its exhibition on different innovations and achievement.

●

National Review Workshop on Agricultural Research

Nepal Agricultural Research Council (NARC) organized a workshop on 1-2 January 2004 to review the research activities conducted in the last four months of the current Fiscal Year 2003/04.

In the meeting 50 different working papers by scientists/researchers on research activities from different entities under NARC were presented.

A total of 398 research projects on different subjects like crops, horticulture, livestock, fishery, food technology, agri-environment, biotechnology, outreach and communications are under operation in the current year.

The participants of the workshop also discussed on the planning guideline presented by Mr. Bir Bahadur Maharjan, Chief of Planning Division was also held.

●

TALK PROGRAM Held at NARC

"Improvement of Nitrogen Use Efficiency in Rice-Wheat Rotations of Nepal" by Dr. Junoo K Tuladhar, Scientist, Soil Science Division, Nepal Agricultural Research Council (NARC) on 5 March 2004 at Khumaltar, Lalitpur organized by Society of Agricultural Scientists (SAS/N) and National Agricultural Research Institute (NARI), NARC

NARC Scientist: Recent Ph.D. Holder

Mrs. Jagat Devi Ranjit, Senior Scientist (S-4) in NARC obtained Ph.D in Agronomy from Kasetsart University, Bangkok, Thailand

In her Ph. D course, Dr. Ranjit made study on " Weed seed bank and weed communities response to plant establishment and weed management in rice-wheat cropping system"

Weed seed bank was studied with seedling emergence method in the glasshouse from the soil samples of 4 soil depths based on the field studies under conventional and minimum tillage and 5 weed management in wheat and dry direct seeded rice in rice-wheat system at Khumaltar from 2001-2003. The diversity of weed species was greater in weed seed bank than in the field. Vertical distribution of total weed seed bank of grasses, sedges and broad leaves showed in descending order from 5 to 20 cm. in all seasons soil samples. Weed pressure was higher in 5- 10 cm soil depth. Tillage sytem affected on grass weed seed bank but no consistent effect on sedges and neither on broadleaved weeds over time. Sulfosulfuron and Fenoxaprop-P- ethyl effected annual grass weed seed bank. Anilophos and Bispyribac-sodium suppressed grass and sedge weed seed bank. Sulfosulfuron gave broad spectrum of weed control in wheat. Anilophos plus one weeding and bispyribac-sodium + straw mulch gave promising rice yield. Cultivar Pokhareli Masino showed some competetive ability in suppressing weeds under dry direct seeding.

Dr Ranjit has been working in the field of Weed Science in Agronomy Division, NARC.

TRAINING WORKSHOP/SEMINARS, STUDY & TOURS

(January - March 2004)

S.N. Name	Position/Discipline	Subject	Duration	Country
SEMINAR/WORKSHOP/MEETING				
1. Mr. Bhola Man Singh Basnet	Chief/CPDD	Electrornic Production of Agricultural Documents and Bibliographic data management	15-24 Jan	India
2. Mr. Govinda Raj Sedhai	S-3/Planning	Electrornic Production of Agricultural Documents and Bibliographic data management	15-24 Jan	India
3. Mr. Suresh Kumar Rai	S-4/Soil Science Div.	Electrornic Production of Agricultural Documents and Bibliographic data management	15-24 Jan	India
4. Mr. Raghunath Prasad Sapkota	Executive Director	Regional Steering Committee Meeting	7-9 Feb	Pakistan
5. Dr. Ram Pratap Sah	Director/Crop.&Hort.	Regional Technical Coordination Committee Meeting	7-9 Feb	Pakistan
5. Mr. Janmejaya Tripathi	S-4/Wheat Res.Prog	Regional Technical Coordination Committee Meeting	7-9 Feb	Pakistan
6. Mr. Ganesh Sah	S-4/ARS, Ranighat	Regional Technical Coordination Committee Meeting	7-9 Feb	Pakistan
7. Dr. Surya Prasad Pandey	Director/Planning	Planning Meeting on "Accelerating Technology Adoption to IRL"	16-17 Feb	India
8. Mrs. Shanti Bhattarai	S-4/Soil Science Div.	Planning Meeting on "Accelerating Technology Adoption to IRL"	16-17 Feb	India
9. Mr. Srimat Shrestha	S-3/Ag.Engg. Div.	Planning Meeting on "Accelerating Technology Adoption to IRL"	16-17 Feb	India
10. Dr. Niranjan Prasad Adhikari	S-4/Rice Res Prog.	Scientists' meeting of the International Network for Genetic Resources	23-26 Feb	Thailand
11. Mr. Madan Raj Bhatta	S-4/Wheat Res.Prog.	Collaborative Research Program on PVS/PPB	1-5 March	Bangladesh
12. Dr. Chandra Bahadur Karki	Chief/Pathology	2nd Regional Yellow Rust Conference	22-26 March	Pakistan
13. Mr. Ram Prasad Uprety	S-5/HCRP, Kabre	Inauguration of the Asian Centre for Underutilized Crops (ACUC)	22-23 March	Sri Lanka
14. Mr. Bhim Bahadur Khatri	S-3/Potato Res. Prog	5th World Potato Congress	24-30 March	China
15. Mr. Surendra Lal Shrestha	S-3/Potato Res.Prog	5th World Potato Congress	24-30 March	China
TRAININGS				
16. Mr. Ram Chandra Adhikary	S-3/Potato Res.Prog	TPS Research Activities/Potato seed production program	18-25 Jan	India
17. Dr. Bindeswor Prasad Sah	S-4/Bio-Tech.Unit	Visit of Scientists of bio-technology labs & IPM Laboratories	19-25 Jan	India
18. Mr. Bhanu Bhakta Pokharel	T-6/ARS, Dailekh	Abiotic Stresses Training Course	2-12 Feb	India
19. Mr. Hari Kumar Prasai	T-6/RARS, Lumle	Abiotic Stresses Training Course	2-12 Feb	India
20. Mr. Santa Bahadur Biswokarma	T-6/HCRP, Kabre	Abiotic Stresses Training Course	2-12 Feb	India
21. Mr. Mahesh Mishra	T-6/ARS, Pakhribas	Abiotic Stresses Training Course	2-12 Feb	India
22. Mr. Sesh Raman Upadhaya	S-3/NMRP, Rampur	Abiotic Stresses Training Course	2-12 Feb	India
23. Mr. Sanjaya Bista	T-6/Entomology	Queen breeding in honeybee	26 Feb-10 Mar	India
24. Mr. Yagya Prasad Giri	S-4/Entomology	Management of white grub and mass production (NPV)	5-18 March	India
25. Mr. Ram Prasad Ghimire	T-6/Bovine Res.Prog.	Training on Project Planning Activities	21Mar-4April	London
26. Mr. Nabin Gopal Pradhan	T-6/Horticulture	Agro-Biotechnology	15Mar-8Aug	Japan

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ecosystem; Tom Payne; David Hoisington, Director, Genetic Resources; Kevin Pixley, Director, Tropical Ecosystems; Hans-Joachim Braun, Director, Rain-fed Systems.

CIMMYT an acronym in Spanish for International Maize and Wheat Improvement Center is an International non-profit organization that works with research partners worldwide, more specifically in developing countries to help the world's poorest people.

IFAD-Legume NTCC Meeting

A meeting of the National Technical Coordination Committee (NTCC) for the IFAD / ICRISAT Legumes Project "Farmer Participatory Research into Integrated Management of Grain Legumes in Nepal" was held in Kathmandu on 15 March 2004.

The objective of the meeting was to present and review the findings of the researches at different sites in the year 2002 / 03 and to develop programs for the year 2003 / 04.

In the meeting, reports from different project sites were presented for review. Observation from farmer representatives on the project was also held. The meeting also worked out in preparing annual programs for the next year in each of the project sites: Regional Agricultural Research Stations (RARSs), Lumle and Nepalgunj; National Grain Legumes Research Program (NGLRP), Rampur; National Oilseed Research Program (NORP); LI-BIRD; and FORWARD.

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The variety is released on the basis of research results and farmers' preference as it is very good for rice-vegetable pattern due to early maturity, good eating quality, high yield with high milling recovery, good market acceptance and demand from other farmers. This variety is also suitable for Bhadiya Rice cultivation.

Paddy, brown rice and polished rice of Hardinath-1(BG-1442)

Hardinath-1 has been found to be resistant to Leaf blast, Neck blast and BLB diseases and Stem Borer and BPH insects and has yield potential of 5000 kg / ha under recommended condition. Crop maturity period is 100-115 days.

Soybean

The vegetable soybean variety (Huaichan#2) is released with the name Tarkari Bhatmas Ek (1) along with a complete package of practices for farmers to commercially cultivate in the mid-hills of Nepal.

This is the first vegetable soybean released in Nepal after ten years of research trials at research stations and farmers' fields at different locations.

This variety has been recommended as it is disease resistant, has high yielding capacity with large size pod and attractive green seed, has non lodging short stature and suitable for monoculture planting as well as with maize, is suitable for vegetable purpose both tender seed as well as dry seed, and is sweet in taste with short cooking time.

The Tarkari Bhatmas Ek (1) has been found resistant to Bacterial pustules diseases and has yield potential of 10.85 tonnes of fresh pod per hectare and 2.1 tonnes of seed per hectare under recommended condition. Crop maturity period is 90-30 days

Photo: Rajendra Bajracharya

Soybean variety "Tarkari Bhatmas-1"

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