

CAC NEWS

CGIAR Collaborative Research Program for Sustainable Agricultural Development in Central Asia and the Caucasus (CAC)

ARMENIA * AZERBAIJAN * GEORGIA
KAZAKHSTAN * KYRGYZSTAN * TAJIKISTAN * TURKMENISTAN * UZBEKISTAN



MESSAGE

FROM DR. REN WANG,
DIRECTOR, CGIAR



Dear Colleagues,

It is my pleasure to share these introductory remarks with the readers of CAC News and to congratulate all of you on recent, well-deserved recognition of the remarkable work of the CGIAR Program for Sustainable Agriculture in Central Asia and the Caucasus. I refer both to the positive outcome of the Independent External Review of

the Program in 2008 and to the CGIAR's King Baudouin Science Award for Outstanding Partnership, which the Program received during our 2008 Annual General Meeting (AGM08), held at Maputo, Mozambique, early last December. As stakeholders in this important collaborative program, all of you deserve a share of the credit for its extraordinary accomplishments.

What I find especially striking about the Program's achievements is their great breadth. The Program began with a concerted effort to conserve potentially valuable plant genetic resources. As a result, genebanks are now operating in all eight of the CAC countries, together safeguarding seed of some 47,000 crop samples. Using these genetic resources, breeding programs have developed 40 new varieties of high-yielding, stress-resistant cereals, grain legumes, tubers and vegetables, and these are now being grown on an estimated 357,000 hectares in the eight countries that make up the region.

In addition, the Program has made great strides in promoting improved practices for natural resource management, including the use of raised beds for cultivating winter wheat as well as various conservation agriculture practices. The latter have been adopted on nearly 8 million hectares in Kazakhstan alone.

In the course of this work, the Program has made a significant contribution to national capacity strengthening, reaching 7,000 scientists across the CAC region. From a long-term perspective, this may be the most important achievement and contribution of the CAC program to the countries in the region.

These achievements, together with significant progress in the agricultural policy arena, have provided countries of the region,

in the words of Dr. Christopher Martius, head of the CAC Program's Facilitation Unit at ICARDA's regional office in Uzbekistan, "a sturdy bridge to modern agriculture."

Just as noteworthy as the Program's scientific and technological achievements are the strong and inclusive partnerships through which it has worked. Involving eight CGIAR Centers with ICARDA playing an excellent leadership and coordinating role, various other international partners and a consortium of eight national agricultural research systems, the Program has constructed, to quote Dr. Martius again, "a powerful model for ... agricultural research, which can be studied and duplicated in other parts of the world where farming systems are imperiled." [...continuation on next page](#) ➔

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IMPORTANT EVENTS

➔ Indeed, as the CGIAR proceeds with implementation of reforms agreed to unanimously by our Members at AGM08 – including a major push to enhance partnerships at all levels – the CAC

Program should serve as an inspiring and instructive sign of the way forward.

**Dr. Ren Wang,
Director, CGIAR**

IMPORTANT EVENTS

CGIAR KING BAUDOIN AWARD 2008 GOES TO CAC PROGRAM

During the Annual General Meeting 2008, the CGIAR Program for Sustainable Agriculture in Central Asia and the Caucasus (in short, CAC Program) has been awarded the CGIAR King Baudouin "Science Award for Outstanding Partnership".

The Annual General Meeting of the Consultative Group on International Agricultural Research was held in Maputo, Mozambique, from December 1 to 5, 2008. AGM08 brought together over 700 of the world's leading food and environmental scientists and civil society to strengthen and expand partnerships that stimulate economic growth in Africa, Asia and Latin America. Through dialogue and the sharing of experiences, participants explored how agricultural research, science and technology, and food policy initiatives can better improve the lives and livelihoods of poor people, and launch new initiatives that bring the benefits of modern science quicker and faster to poor farmers.

In receiving the King Baudouin Award in the name of the whole CAC Consortium, Dr. Christopher Martius, Head of the Program's Facilitation Unit (PFU) based in Tashkent, Uzbekistan, emphasized: "I am very pleased to receive the prize, and do so in the name of the Consortium and of the partners that collaborate for more sustainable, and more profitable agriculture in the highly degraded lands of Central Asia and the Caucasus. The Program is an example of fruitful and constructive collaboration between the NARS in all our partner countries and the CG centers, and across all centers involved." He received the award together with Academician Hukmatullo Akhmadov, who is President of the Tajik Academy of Agricultural Sciences, and Chairman of the Central Asia and Caucasus Association of Agricultural Research Institutes (CACAARI), who represented the eight partner countries, and Dr. Mahmoud Solh, Director General of ICARDA and Chairman of the CGIAR Task Force on Central Asia, representing the Centers involved in the Consortium.

Dr. Martius emphasized that the Award is received on behalf of the whole consortium and added: "The whole collaborative Program would not have been possible without the incessant enthusiastic support from the NARS to establish a CGIAR support office



During the Baudouin prize awarding ceremony: Acad. Hukmatullo Ahmadov, Chairman, CACAARI (second right), Dr. Christopher Martius (third right), Head, PFU CGIAR-CAC Program, and Dr. Mahmoud Solh (third left), Director General, ICARDA, are receiving the Award on behalf of all the Consortium partners.

in the region that provides bridges into the modern world of science. The program owes its existence also to the great efforts of the former and the present Directors General of ICARDA, Dr. Adel El-Beltagy and Dr. Mahmoud Solh. They worked untiringly to get this Program off the ground." He furthermore emphasized the role of his predecessors, Dr. Surendra Beniwal and Dr. Raj Paroda, in firmly establishing the program in the region as a forum for close and equitable collaboration.

Being honored with the Award, the representatives of the CAC Program stressed that it represents an immensely satisfactory recognition of their past efforts, which renews their commitment to increase efforts in the region for agricultural development in poor rural areas. Dr. Solh emphasized that "the CAC program is an excellent example of true participation of NARS, CGIAR centers and advanced research institutions that applies research to find solutions to the particular development challenge of regions in economic transition. However, these regions also offer wide opportunities for improvement." Providing better land use technologies and linking poor farmers to markets through agricultural development will provide opportunities for the predominantly rural populations in these countries. This also calls upon donors to increase their contributions to the stability in this highly important region in terms of increasing global food security.

RESEARCH HIGHLIGHTS

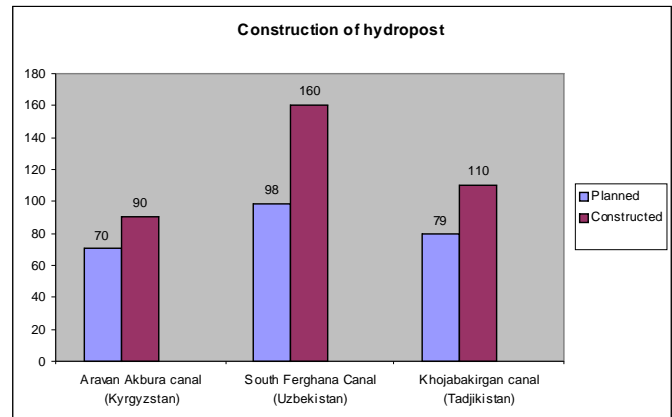
*Natural Resources Management***WATER FLUME METERS FOR WATER USERS ASSOCIATIONS**

Improved water management can considerably contribute to increasing agricultural production, farmers' incomes and water savings as well as reduce water conflicts. This is a result from the "Integrated Water Resources Management in Ferghana Valley" Project.

Volume-based water distribution requires measurements that can not be done without monitoring tools. Most parts of the local water distribution networks have either no constructions in place to distribute water or have much dilapidated ones. Hence, construction and repair of water measuring structures has become a necessity. Correct water distribution and accounting is an essential part of IWRM and shall contribute to long-term sustainability of user participating institutions.

For these reasons, the Swiss International Development and Cooperation Agency (SDC) has decided to purchase Water Flume Meters (WFM) for the Water User Association Project. This project is being implemented by the Scientific Information Center of the Interstate Coordination water Commission (SIC ICWC) and the International Water Management Institute (IWMI) covers three pilot canal command areas of the larger IWRM-Ferghana Project. The project was carried out from October, 2007 until November, 2008.

In this project, local hydro-technicians and representatives of the WUAs from the IWRM-Ferghana project zones were trained on construction of locally recognized flumes such as SANIIRI, Cipolletti and Thomson. As a result, 360 were constructed in Water Users Associations of the project's three pilot canals (See Figure).



Construction of Water Flume Meters in Water Users Associations of pilot canals in the IWRM Ferghana Canal

Water Users Associations located along the pilot canals and small transboundary rivers were able to build 360 water flume meters under this project. They have learnt how to construct and build different types of water flume meters. All constructed hydro-posts have been calibrated, cost-estimated and registered on the WUAs' books as their assets. Representatives of WUAs and Water User Groups (WUGs) have been involved in all stages throughout the construction starting from the preparation of canal beds till attestation of flume meters. Manuals and posters on hydro-post construction, operation and maintenance have been disseminated among the leaders of WUGs and WUAs. The topics that the WUAs have been trained in and given pertinent training materials included necessity of water flume metering in WUA water management, handling recorded data, decision making based on water distribution results and solving water use conflicts among WUGs.

Kahramon Jumaboev, IWMI - CA

THREE CIP ADVANCED POTATO CLONES SHOW OUTSTANDING PERFORMANCE IN TRIALS CONDUCTED IN PSKEM, UZBEKISTAN

Thirty two clones of potato have been tested under the mid-elevation conditions of Pskem (1 300 m asl) in a site allocated by the Ministry of Agriculture to the Institute of Vegetables, Melons and Potato, Tashkent, Uzbekistan with the specific purpose of conducting potato research. Pskem is situated in Bostanliq district in the northern part of the country, at the borders with Kazakhstan and Kyrgyzstan. The location has been chosen for its potential of multiplying CIP clones under more favorable conditions than those present in Tashkent.

Planting started on June 09, 2008 at the distance of

70 x 25 cm. Visual observations were accompanied with phenological and biometrical observations, which included dynamic harvest as a means to measure earliness in CIP clones.

Plants were harvested between October 9 and November 1. The tubers were divided in large (>55 mm), seed size (25-55 mm) and unmarketable (<25 mm) fractions. Tubers of each fraction were then counted and weighed. Afterwards, tubers were packed into netbags containing 200 seed-sized tubers or 100 large (consumption) tubers. Seed-sized tubers were carried to Tashkent to be stored in

RESEARCH HIGHLIGHTS



The CIP Regional Seed Specialist is conducting observations

a large warehouse in the outskirts of town.

After harvest, the project researchers proceeded to assess organoleptic performance of each clone. A group of seven independent participants – all farmers living nearby the research site - was asked to appreciate cooking performance as well as tuber shape, taste, smell, color. Harvested tubers were cut into slices and fried in oil. The French fries thus

Clone	Yield (t/ha)	Marketability (%)	Some characteristics	Cycle (days from planting to harvest)	Organoleptic tests, Value from low -1 to high-5
388611.22	47.0	91.0	Yellow flesh, compact tubers, round to oval	105-110	5, SFF
397077.16	58.0	90.0	Many appealing oval to oblong tubers, yellow skin, yellow flesh; copious berry setting	105-110	5, SFFCh
397073.16	52.0	96.0	High yielding, appealing tubers, oval, uniform shape	95-100	5, SFF

Features of promising CIP clones

SFF – suitable for French fries;
SFFCh – suitable for French fries & Chips.

produced were evaluated by giving a value from 1 to 5 where 5 indicated the highest rate.

CIP clones 388611.22 (47.0 t/ha), 397077.16 (58.0 t/ha) and 397073.16 (52.0 t/ha) were the most appreciated in terms of cooking performance, yield and tuber marketability with more than 90% of commercially-sized tubers. They will be passed to the State Commission for Variety Testing after three years of tests under different agro-ecological conditions. Clone 397077.16 was also selected in Kazakhstan and Tajikistan.

Carlo Carli, CIP Tashkent

IMPROVING LAND PRODUCTIVITY AND FARM INCOMES OF COTTON GROWERS IN CENTRAL ASIA

Cotton and wheat crops are of crucial importance for the transient economies of the independent Central Asian states. For example, 40 % of total export earnings of Uzbekistan account for cotton which is grown on irrigated land area of 1.47 million hectares. However, cotton monocultures grown in large area have some side effects such as soil fertility depletion or reduction of the biological diversity. This creates conditions for adaptation of some pests and diseases to the constant environment. One of the solutions for this problem is to diversify the cropping system through intercropping of legumes. This makes good use of the slow-growth feature of cotton in initial stages and wide spacing (60 to 90cm) between cotton rows planted on the raised-beds. Inter-cropping is known to be an effective system for increasing crop production per unit area and per unit time for both irrigated and rainfed agriculture. Besides, mixed inter-cropping with legumes such as Mash (*Vigna radiata* or *Phaseolus aureus*) not only improves biodiversity, but also supplements protein diets, provides fodder for livestock or biomass for surface mulching, beneficial effect on soil fertility. Moreover, it can help small growers to meet their diversified domestic needs from the limited land area. Thus, Uzbek farmers who are seriously constrained by

flexible capital for farm improvement can adopt intercropping of mungbean in cotton and other widely spaced crops such as maize developed under the SLMR Project.

Field experiments were conducted in Jizakh province of Uzbekistan. Here, improved mash cultivars (Marjon, Zilola and a local variety, Navruz) were grown as intercrop with cotton and maize. The



Intercropping of mash into cotton (a) and maize (b)

Raised beds spacing	Sole crops		Cotton + Mash		Maize + Mash	
	Cotton	Maize (2Rows)	Cotton	Mash	Maize	Mash
90 cm	5.41	4.63	4.82	1.32-1.72	3.86	1.33

Productivity of different systems of growing cotton and maize (t/ha)

total productivity of the system (cotton + mash; maize + mash) was 6.1 t/ha and 5.2 t/ha, respectively, about 12-14 per cent higher than the mono-cropped alternative (cotton 5.4 and maize 4.6 t/ha). Mash cultivar Marjon gave the maximum yield (1.7 t/ha) in the inter-cropping system as compared with 'Zilola' and the local cultivar. Though preliminary results show a slight decrease in cotton yields (4.8 against 5.4 t/ha – see table), the total system productivity and profitability was doubled due to higher prices of the mash crop. The new

method of intercropping mungbean into cotton/maize may contribute to improving livelihoods of the cotton growers and reversing land degradation through fertility enhancements under paucity of nitrogenous fertilizers. Income from mash provides flexible capital which can be used by farmers to make further improvements on their farms. This intercropping system is being favored by farmers and hence will spread across the region.

Tulkun Yuldashev, SLMR project

WINTER WHEAT IMPROVEMENT IN NORTHERN KAZAKHSTAN

Dozens of the new winter wheat varieties have been bred in the south of Kazakhstan, and this work continues. The most promising varieties were Akdan, Tungish, Egemen and Orda, and one variety of them, Egemen, was released in Kazakhstan. Winter wheat breeding activities are performed as a result of successful cooperation under the International Program for Winter Wheat Improvement, developed and implemented jointly by CIMMYT and the International Centre for Agricultural Research in Dry Areas (ICARDA) with the national Kazakh breeding system.

The severe climate and cold winters of Northern Kazakhstan are not favorable for growing winter wheat. However, breeding wheat varieties adapted for these conditions, in combination with zero tillage technologies (including leaving the straw and crop residue on the field and direct sowing) can be a good solution for wheat production and diversification in this part of the country. In recent years, global climatic change has led to softer winters, and the option to grow wheat in the Northern Kazakhstan becomes a more realistic objective.

To determine ecological flexibility under the conditions of Northern Kazakhstan, more than 500 varieties and breeding lines of winter wheat originating from 18 countries around the world were tested in the period 2005-2008. The number of plants before and after winter was counted, and survival varied from 0% (total loss) to 100% survival. Varieties from Eastern Europe (Hungary, Romania, Czech Republic, Moldova, and Bulgaria) featured the lowest survival rates of 0 to 20%, while best results were shown by varieties from Russia, Ukraine, and Kazakhstan. Material delivered from Novosibirsk, Russia, demonstrated good frost resistance. After evaluation of these varieties under these severe conditions, the most frost resistant varieties were selected. In three locations (North Kazakhstan: Shortandy; North-West: Karabalyk; East: Ust-Kamenogorsk) 53 varieties that had shown good yield and frost resistance were

selected and planted in the 2007-2008 cycle. The best entries from CIMMYT-Turkey's International Nurseries (14th FAWWON and 10th WON-IRR) of the 2006-2007 cycle were also selected and planted at Karabalyk Experimental Breeding Station (North-West Kazakhstan) for further studying and breeding.

The best winter wheat varieties from the last year's trials were tested under production conditions on an area of 2 hectares for each variety in 2006-2008 cycles. The varieties demonstrated high productivity and did not yield to spring wheat.

CIMMYT has been laying considerable emphasis on



Winter wheat fields at "Esil-Agro" farm in the Northern part of Kazakhstan

capacity building in winter wheat breeding in Kazakhstan. This year, two young breeders from Karabalyk Experimental Station and Kazakh Agricultural Research Institute of Farming participated in the five-month training course on winter wheat breeding in Turkey. The research on winter wheat adoption in severe climate conditions of the North Kazakhstan is being continued.

Murat Karabaev, CIMMYT Kazakhstan

Seed Production

PLANTING WINTER WHEAT IN GEORGIA

New wheat varieties are gaining area in Georgia. The area planted to two selections from the Turkey/CIMMYT/ICARDA nurseries, Shark/F4105W.21 (7EY IR-9809) and FRTL/Nemura (7EY IR-9823), have been increased from less than 90 ha in 2007-08 to almost 1,200 ha in the present season. The collaborating private partner, Lomtagora Seed Farm, had managed to produce 280 tons of seed of both varieties on its land, and sold 240 tons at an average price of \$850 per ton before the planting season. The farm has multiplied the well-known Jagger variety since the late 1990ies but the new varieties exceeded it in yield by 30-40% and increased the farm income considerably. The farm management has decided to increase multiplication of these varieties, and they were planted on 150 ha.

Most of the sold seed was planted in Shida Kartli and Gare Kakheti. As much as 700 ha have been planted to both varieties near the villages of Duisi and Ubnisi.

About 345 ha have been planted in the Sagarejo area by a private company. It was agreed that Lomtagora Farm would monitor performance of the varieties in the production fields in cooperation with ICARDA and CIMMYT.



Winter wheat plating in Georgia

Lomtagora Farm began experimenting with planting wheat on raised beds, and planted FRTL/Nemura (7EY IR-9823) on 1 ha with help of a raised-bed planter, which was provided by the NGO Association of Bio-Farming ELKANA. Researchers of the Research Institute of Farming participated in first attempts of using the Indian-made raised-bed planter in Lomtagora.

David Bedoshvili PFU/ICARDA/CIMMYT

STUDY ON GREENHOUSE GAS EMISSIONS

A three year study on the amount of greenhouse gas (GHG) emissions conducted in the ZEF-UNESCO Khorezm project revealed that irrigated farming in the Aral Sea basin represents a significant source of GHGs. It produced high emissions of N₂O from cotton and wheat fields, and even higher emissions of CH₄ from flooded rice fields. The good news is that a mix of optimal cropping systems, including tree plantations, would reduce such GHG emissions, while at the same time improving carbon sequestration, increasing soil fertility, preventing soil degradation, and increasing incomes of the farmers.

Information on bio-fuel characteristics of the local tree species of the Aral Sea Basin was collected to

support species selection for afforesting such marginal land patches. Quantitative fuelwood properties such as wood density, ash content, calorific value (using the Firewood Value Index, FVI), the biomass-to-ash ratio, moisture, C and N contents in wood of *Elaeagnus angustifolia* L., *Ulmus pumila* L. and *Populus euphratica* Oliv., three native tree species, were examined over four years. The results show these trees hold potential of earning tangible salaries from the sale of wood for timber leaves for fodder, and from certified carbon emissions (however, for the latter to come through, additional research and institutional arrangements are needed).

John Lamers, ZEF

DEVELOPING GREEN SEEKER A CROP YIELD PREDICTION AND NITROGEN MANAGEMENT CALCULATOR

Activities are underway to develop crop yield prediction and nitrogen management tools that will help farmers making better use of their resources. While the crop is growing, they can determine crop growth and adjust fertilization and irrigation management. These experiments are underway in

the experimental sites of the ADB-funded Sustainable Land Management Research project in Kyrgyzstan, Tajikistan and Uzbekistan.

For the development of this “nitrogen calculator”, the winter wheat variety “Moskvichka” has been planted into standing cotton at a seed rate of 200 kg/ha using

a planter for zero tillage imported from India. The experiments were done at the Uzbek Cotton Growing Research Institute's experimental sites. Nitrogen fertilizers were added at the rates of 0-250 kg/ha (at incremental steps of 50 kg/ha). NDVI measurements are being continuously taken once a week. For validation of the Green Seeker nitrogen calculator, four nitrogen-rich strips (NRS) were established near this site.

The NDVI measurements for wheat were impaired by the presence of the cotton stalks. Removing the cotton stalks improved the NDVI values of the wheat. But in NRS plots, the NDVI readings in wheat were higher in the presence of cotton! This is consistent with the assumption that application of

nitrogen delayed the winter killing of the cotton plants. Recently taken NDVI measurements on this site indicate that the effect of nitrogen rate on NDVI is becoming clearer during the tillering stage of plants in December. Another observation suggests that NDVI values of winter wheat increase even in early winter season when the soil temperature was close to zero during December 18-25, 2008.

In Tajikistan, Kyrgyzstan and Turkmenistan, the concurrent experiments on Green Seeker have been established on many sites, some of them in collaboration with private farmers. Currently the data is being collected and processed.

Tulkun Yuldashev, ICARDA SLMR Project

WORKSHOPS/CONFERENCES/MEETINGS

IWRM PRINCIPLES BEING ADOPTED TO THE CONTEXT OF TRANSBOUNDARY SMALL RIVERS

Three stakeholders workshops in the IWRM-Ferghana project were held on November 12- 15 in remote trans-boundary small rivers (TSR) locations of the project – in Isfana and Kadamjay, two Kyrgyz settlements located on the Kyrgyz-Tajik and Kyrgyz-Uzbek borders, respectively, and Ferghana, a provincial center in Uzbekistan. The workshops were conducted jointly by IWMI-Central Asia staff and country managers for each project country.

The TSR component was added to the IWRM-Ferghana project in 2007 with focus on the two trans-boundary mountain rivers, the Khodjabakirgan-say that flows from Kyrgyzstan to Tajikistan and the Shahimardan-say shared by Kyrgyzstan and Uzbekistan. Participants in the workshops included district-level deputy governors, leaders of local village authorities, province and district level heads of water management organizations, chairs and directors of local water users associations as well as individual farmers.

The purpose of the workshops was to clarify problems, discussing solutions and plan activities jointly with the stakeholders, in accordance with IWRM principles. In moderated discussions using flip-charts, participants listed their problems with local water management and distribution, each

group came up with their specific problem list. All those problems were then categorized either organizational or technical, tabulated and tallied. Against the backdrop of problems thus identified, each group was further asked to reflect on the current institutional arrangements in local water management from the point of view of their compliance with the two basic IWRM principles of hydrographic management and public participation. This was followed by identification of all the stakeholders concerned. Once each group presented their views, the findings were compared, aggregated and further elaborated for any further insights from the audience to make the picture as comprehensive as possible. Thus major steps and goals were identified in terms of bringing local water management situation in line with project experiences. Finally, participants of each workshop were asked to nominate key organizations and their specific representatives to form a working group who will be contacted for further consultations and feedback, once a locale-specific draft strategy for each particular part of the TSR in question has been prepared, based on the findings and analysis of each workshop proceedings.

*Murat Yakubov and Jusipbek Kazbekov,
IWMI-CA*

SECOND REGIONAL WORKSHOP OF THE COMMUNITY ACTION IN INTEGRATED AND MARKET ORIENTED FEED-LIVESTOCK PRODUCTION IN CENTRAL AND SOUTH ASIA PROJECT

The Second Regional Workshop of the ICARDA-IFAD Community Action in Integrated and Market Oriented Feed-Livestock Production in Central and South Asia Project was held in Dushanbe, Tajikistan, on 25 November, 2008. The Regional Workshop was attended by a representative of IFAD, the Heads and the collaborating scientists from

Pakistan, the CAC-NARS and scientists from ICARDA Headquarters in Aleppo, Syria, and its Regional office for CAC in Tashkent. The Meeting was hosted by the Ministry of Agriculture of Tajikistan and the Research Institute of Livestock located in Dushanbe, the capital of Tajikistan. During the Regional Workshop, participants reviewed

WORKSHOPS/CONFERENCES/MEETINGS

research methodology and achievements of the project.

In his welcome address, Academician Amir Karakulov, National Coordinator in Tajikistan, thanked all participants for their continued support and cooperation. He emphasized that ICARDA and IFAD are helping to achieve sustainable agricultural development and natural resource management in the region by promoting cooperation for research in non-tropical arid areas, capacity building and human resource development.

In his welcome address, Mr. Davlat Saidov, Head of the Science Department of the Ministry of Agriculture, Tajikistan, thanked all participants for their participation in this Workshop organized by ICARDA and IFAD. He mentioned that such collaboration will lead to a reduction of poverty and hunger in Tajikistan and Central Asia.

In her welcome address, Dr. Barbara Rischkowsky, Project Coordinator, ICARDA, expressed her

gratitude to Tajik scientists for hosting this conference and to ICARDA-Tashkent office for the excellent organization of this conference.

In his opening statement, Dr. Antonio Rota, Senior Technical Advisor on Livestock and Farming Systems, IFAD, provided a brief introduction of IFAD grants. He informed the participants that an IFAD grant is directed to reach 3 objectives including development of modern agricultural technologies on a base of local institutes and further implementing them in the rural communities, identification of new area for development and further investment, and exploring models which can be upscaled through government and IFAD's investments. He mentioned that successful activities on mohair fiber give opportunity to develop a new project which will start in near future.

Aziz Nurbekov, Nariman Nishanov and Habibullo Hamdamov, ICARDA's Livestock project

SECOND PROJECT STEERING COMMITTEE MEETING OF THE COMMUNITY ACTION IN INTEGRATED AND MARKET ORIENTED FEED-LIVESTOCK PRODUCTION IN CENTRAL AND SOUTH ASIA PROJECT

The Second Steering Committee Meeting of the ICARDA-IFAD Community Action in Integrated and Market Oriented Feed-Livestock Production in Central and South Asia Project was held in Dushanbe, Tajikistan, on 26 November 2008. The event was hosted by the Ministry of Agriculture of Tajikistan and Tajik Research Institute of Livestock. The workshop brought together a representative from IFAD, national coordinators and principal investigators of the project from Kazakhstan, Kyrgyzstan, Tajikistan and Pakistan and scientists from ICARDA Headquarters in Aleppo, Syria, and its Regional office for CAC in Tashkent.

Dr. A.Karakulov opened the Second Steering Committee Meeting with a welcome address to the participants. He highlighted that livestock production is the most important sector in agriculture

of Tajikistan. Dr. Antonio Rota, Senior Technical Adviser on Livestock and Farming Systems, IFAD, made a welcome speech in the opening session. He emphasized that for the success of the project it is necessary to organize meetings and field days with participation of the policy makers to widely extend the results of the project on local, regional and global level. Participants of the Steering Committee Meeting reviewed the progress in project implementation, budget utilization in the second project year (2007/2008) and discussed and agreed the workplans and budgets for the next planning year 2009.

Aziz Nurbekov, Nariman Nishanov and Habibullo Hamdamov, ICARDA's Livestock project

FIELD DAYS UNDER THE COMMUNITY ACTION IN INTEGRATED AND MARKET ORIENTED FEED-LIVESTOCK PRODUCTION IN CENTRAL AND SOUTH ASIA PROJECT

Field day to the project sites in the Soghd province (Khujand site) was organized on November 24, 2008. Participants got acquainted with the nucleus flock of mohair goats owned by farmers Suleyman Umarov and Turgunboy Madaliev. Dr. Matazim Kasymov briefly explained the idea of the experiment on community based breeding plan, and participants were provided answers to the questions related to the feeding, grazing, and shearing practices as well as identification of mohair quality. Then participants visited household of farmer Rajabboy Mamatkulov where the principal

investigators of the three project components made short presentations of the progress achieved on project implementation in the Sogd province of Tajikistan.

Field day to the project sites in Dusti community near Dushanbe was conducted on November 27, 2008. Participants were demonstrated mung bean and alfalfa fields of farmer Abdumajid Boboshoev, alfalfa field of Latipov Gulmurod's farm, and farmer Niyazov's winter wheat and mung bean fields. Drs. Madaminov and Nurbekov explained the experiments being conducted on these fields. Then

the participants were demonstrated the sheep flocks of farmers Mamasharif (experimental) and Tojiddin (traditional). Later participants visited hayfields where farm trials on improvement of the carrying

capacity of degraded hayfields were demonstrated.

Aziz Nurbekov, Nariman Nishanov and Habibullo Hamdamov, ICARDA's Livestock project

INTERNATIONAL SCIENTIFIC CONFERENCE ON PROSPECTS OF APPLICATION OF THE BIOLOGICAL METHOD OF PROTECTION OF AGRICULTURAL PLANTS FROM PEST ORGANISMS

Drs. Zakir Khalikulov and Ram Sharma from ICARDA-CAC Regional Program participated in the international conference titled "Prospects of application of the Biological Method of Protection of Agricultural Plants from Pest Organisms" organized by Tashkent State Agrarian University (TSAU) in collaboration with Regional Office of ICARDA for Central Asia and the Caucasus countries on November 25-27, 2008. The conference was attended by representatives of the Governments of Uzbekistan, Tashkent State Agricultural University, UNESCO, ICARDA, Japan International Research Center for Agriculture IRCAS, AVRDC, Kazakhstan

and other organizations. On behalf of Dr. Christopher Martius, Dr. Zakir Khalikulov highlighted the collaborative role of ICARDA in strengthening national agricultural research systems through crop germplasm exchange, capacity building and infrastructure development in Central Asia and the Caucasus. Dr. Ram Sharma made a presentation on the potential threat of Ug99 stem rust for the region and outlined ICARDA's collaborative work with the wheat improvement program in Uzbekistan for developing rust resistant varieties.

INTERNATIONAL CONFERENCE ON NATURAL RESOURCE CONSERVING AGROTECHNOLOGIES

An International Conference on Natural Resource Conserving Agrotechnologies was jointly organized by the Uzbek Cotton Growing Research Institute

and ICARDA, on December 5-6, 2008. ICARDA scientists presented their findings on the use of optical sensor (Green Seeker; cf. article above).

A SERIES OF EVENTS OF THE WORLD VEGETABLE CENTER - CAC

The AVRDC's Regional Varietal Trial of vegetable crops plays an important role for introducing new high yield and qualitative varieties of vegetables into vegetable production in CAC region. The workshop on "Review and Planning Meeting on Vegetable Variety Selection and Adoption in Central Asia and the Caucasus" held in Tashkent, Uzbekistan on November 25-27, 2008, was organized by AVRDC-The World Vegetable Center and its CAC Regional office with assistance from the Program Facilitation Unit (PFU) of the CGIAR Program for CAC.

Over 30 participants from CAC region, AVRDC-The World Vegetable Center and PFU-CAC participated in this workshop. The review of varietal trial in each country of CAC region was conducted through oral presentations of specialists from the partner institutions. The workshop participants noted achievements of CAC countries on identification of AVRDC' promising lines of various vegetable crops to release it in a future. Participants concluded that the Regional Varietal Trials should be continued in 2009 y. The existing problems of varietal trials and a pathway of further collaboration were discussed during the workshop.

The Second Steering Committee Meeting on Central Asia and the Caucasus Vegetable Research and Development Network held in Tashkent, Uzbekistan on November 27, 2008. The CACVEG regional network was established officially in 2006. This network's goal is to improve the livelihoods and increase income in the CAC countries through development of the sustainable vegetable production and market systems by enhancing



Workshop participants

WORKSHOPS/CONFERENCES/MEETINGS

capacities of both public and private sectors with synergistic partnership.

Over 20 participants, including the national coordinators on R&D and specialists of CAC countries. AVRDC – The World Vegetable Center and PFU – CAC participated on this meeting.

The national reports on the certain directions of varietal trials were presented during the meeting by

the national coordinators of each country. Collaborative discussion was focused on existing activity, a status and problems and to find ways of the further strengthening of capacity of NARS and vegetable R&D in CAC region.

***Dr. Ravza Mavlyanova,
World Vegetable Center – CAC***

Announcements:

NEW NGO COMMITTED TO IMPROVE RURAL LIVELIHOOD IN KHOREZM REGION

A new NGO, KRASS (Khorezm Rural Advisory Support Service), was established in November 2008, in the Khorezm region of Uzbekistan under the aegis of the ZEF/UNESCO Khorezm project. KRASS is a self-governing, independent, non-governmental, not-for-profit and non-political organization, based on voluntary membership of practitioners, researchers, and other specialists sharing common ideas and interests on research and development.

KRASS has defined as its mission 'to contribute to improvement of rural livelihoods, poverty alleviation and increasing long-term food security and environmental sustainability in rural Uzbekistan through rendering agricultural support services'. The mission's profile includes manifold objectives, such as promoting a rational use of land and water

resources for sustainable development and mitigation of environmental problems; disseminating innovative, modern and improved agricultural and irrigation methods and techniques; increasing the agricultural knowledge and skills of the farming population and the youth of rural Uzbekistan and others.

The NGO has established agreements for long-term cooperation/partnership with national and international structures such as Urgench State University, Cotton Research Institute, Mamun Academy of Khiva, Tashkent Institute of Irrigation and Melioration, ICARDA, CIMMYT, DLR, GTZ, ZEF, UNESCO, Uzbek Association of NGOs, University of Würzburg and Bonn in Germany and is open for new partnership and agricultural support projects to be implemented in the region.

Future Events

BRIDGING WORKSHOPS

The International Center for Agricultural Research in the Dry Areas (ICARDA) and the International Water Management Institute (IWMI) have launched the idea of "Bridging Workshops" to overcome the knowledge divide between the advanced research institutions, including the Consultative Group on International Agricultural Research (CGIAR) system, and young professionals from national agricultural research systems (NARS) of the developing countries. These workshops will guide the young researchers towards the state-of-the-art of multi-disciplinary and cutting edge research, applying an open-space and open-mind environment where participants are mentored by experienced scientists, and encouraged to interact and ask all those questions they could never ask in

conventional workshops. This initiative will involve lead international scientists and young and mid-career scientists of NARS in the exchange of information and experience.

The second 'Bridging Workshop' is planned for 2009 and will address productive and sustainable use of saline water and salt-affected soils in agriculture. The subsequent workshops, organized every alternate year, will address different aspects of integrated water and land management. Each workshop will culminate in the development of proceedings and post-workshop collaboration will enhance interaction among the workshop participants and other researchers working on related aspects.

Awards

We are pleased to inform our partners in the region that Dr Kristina Toderich has recently been awarded with the Degree of "Doctor of Philosophy" from the

Tokyo University of Agriculture and Technology, Japan. Presenting the Certificate to Kristina Toderich during a ceremony in which several other

scientists were honored, Prof. Hidefumi Kabatake, President of the University, highlighted that this degree is the recognition of Dr Toderich's research and academic achievement. In her thesis work "Genus Salsola of Central Asian Flora: its structure and evolutionary trends" she developed a new concept on the systematics and cellular mechanism of adaptation of higher plants to salt stress. The full

text of the thesis can be downloaded from www.icarda.org/cac.

All colleagues from CGIAR CAC Program congratulate Dr. Toderich on this achievement, which also exemplifies the increased efforts of the program in forging stronger links between applied research and academia.

International Visitors

Dr. Paramjit Minhas, Director Research, Punjab Agricultural University, and Dr. Balwinder Sidhu, Director of Agriculture of the Government of Punjab, India, visited SLMR research sites Tashkent,

Syrdarya and Jizzah in Uzbekistan for short discussions on salinity management in raised bed system and relay planting of wheat in standing cotton to avoid late planting and yield losses.

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DISCLAIMER: While every effort has been made to ensure the accuracy of the information, the Program Facilitation Unit (CGIAR-CAC) cannot accept any responsibility for the consequences of the use of this information. The Newsletter provides a brief overview of agricultural research and other activities of the Program during the last quarter .