

## Central Asia Regional IPM CRSP Project Report: October 2006-March 2007

Submitted by: Dr. K. Maredia and Dr. D. Baributsa

### A. Research/Outreach Achievements:

#### ***Collaborative Research on Enhancing Efficiency and Product Lines of Biolaboratories:***

Studies on predatory mites colonization have been conducted in laboratories of the Institute of Plant Protection in Uzbekistan and the Center of Production of Biological Facilities for Plant Protection in Kyrgyzstan. Laboratory research conducted in Uzbekistan and Kyrgyzstan showed that the two newly introduced predatory mite species *Amblyseius swirskii* and *Amblyseius cucumeris* have been found effective against pests of vegetable and fruit crops. Using the USAID protocol, an initial environmental evaluation will be conducted before the mites are released to control pests into agricultural systems. Dr. Barno Tashpulatova is also conducting various laboratory experiments on conditions of acclimatization and preservation of predator mites before release. After experiments on evaluation of various size of jars (30 ml to 1 liter), it was shown that 250 ml jars were the most optimal size for development and rearing of newly introduced predator mites in Central Asia. Dr. Tashpulatova is reviewing the history and development of biolaboratories (creation) and the use and development of biological methods by former Soviet Union Institutes.

#### ***Collaborative Landscape Ecology and Biological Control of Pests:***

Research plots were established in Tajikistan and Kyrgyzstan to test 12 known native plants that have the potential to provide habitat for beneficial insects. The initial tests revealed that seven plant species were most attractive to natural enemies of pests in Tajikistan, whereas five were most attractive in Kyrgyzstan. Dr. Saidov led teams of collaborators to collect Central Asian native plants for testing and propagation. Participants covered more than 3000 km<sup>2</sup> and collected more than 60 local nectar plants in Tajikistan and Kyrgyzstan. These species are being evaluated in the selected agricultural systems in Tajikistan and Kyrgyzstan. Data entry and analysis on attractiveness of nectar plants to natural enemies of pest has been done and the report is being finalized. Germination studies of seeds of nectar plants are being conducted in greenhouses. Dr. Saidov has been in contact with Dr. Peter Pichler, Manager of Oxfam GB for possible collaboration between the IPM-CRSP in Central Asia and Oxfam GB. A joint effort is underway by the IPM-CRSP project and the Biotechnology Center of Tashkent State Agrarian University (TSAU) to publish a brochure in Russian on "Biological facility requirements for quality checking of pest control methods". This brochure will be distributed to participant of the stakeholders forum in Dushanbe, Tajikistan.

#### ***Strengthening IPM Outreach and Educational Programs:***

An inventory of all IPM educational programs is being conducted and new materials are being developed. Dr. Murat Aitmatov has initiated contacts with institutions and various universities in the region. - In collaboration with the Tajik Agricultural Academy of Science, the IPM-CRSP has opened a Farmer Field School (FFS) where 13 women and 2 men have been trained. Six faculty members from the Tajik State Agrarian University have been selected to become the Master-trainers through the IPM-FFS. The members of this FFS have started their regular meeting on March 6, 2007 and will meet regularly every Tuesday. - A summary leaflet/flyer in Russian covering the ecologically-based IPM approach with highlights of IPM CRSP regional project was developed and sent to more than 40 private and government institutions in Tajikistan and Kyrgyzstan. Discussions are underway with the Tajik State Agrarian University to introduce IPM in their agricultural education curriculum. - In collaboration with TSAU, the IPM-CRSP has developed a manual on creation and training of ToT and FFS. In addition, both partners will be conducting a training of trainers of scientists from various universities including the Andizhan Agriculture Institute, Namagan and Fergana Universities and the Nunkun State University. TSAU in collaboration with

the IPM-CRSP developed special brochures of pest calendars during vegetable production. Three pest calendars were developed for cabbage, carrot and tomato. In addition, a manual on pest management in organic agriculture is being developed and will be widely distributed to agricultural universities and NGOs in the Central Asia region. In collaboration with the Advisory Training Center in Kyrgyzstan (Ms. Petra Geraedts and Ms. Gulnaz Kaseeva) a manual on FFS management has been developed and published. This document will be useful to government institutions, NGOs and International agencies planning to open FFS.

#### **B. Networking in the Region and Internationally:**

- Dr. Barno traveled to Samarqand to visit a private Biolab for initiating research collaboration and Drs. Aitmatov and Saidov visited the Samarqand Agrarian Institute for future research collaboration.
- The three IPM CRSP team members and 10 other IPM specialists from Uzbekistan, Tajikistan, Kyrgyzstan, Turkmenistan and Kazakhstan have been provided membership in the International Association of Plant Protection Sciences (IAPPS).
- The three IPM CRSP team members regularly attend regional meetings/conferences to present the USAID IPM-CRSP project activities.
  - In March 2007, Dr. Tashpulatova attended a two-week training course on sunn pest in Tajikistan.
  - Dr. Nurali Saidov attended a joint workshop of ICARDA, the Central Asia and Caucasus Association of Agricultural Institution (CACAAI) and the Global Forum on Agricultural Research (GFAR). The goal of the forum was to design and develop a research need program for Central Asia and Caucasus in the area of genetic resource management, natural resource management and socio-economic, policy and capacity building.
- In addition, various conferences have been held in the region (Uzbekistan and Tajikistan) to explain in greater details the ecologically-based IPM approach to scientists and institution leaders in the region. Drs. Nurali Saidov and Murat Aitmatov conducted a workshop on “Assessment of Integrated Pest Management (IPM) training needs and building cooperation with different stakeholders in Tajikistan” in November 2006. The goal of this workshop was to increase the awareness of the IPM-CRSP activities in Tajikistan. This workshop served as platform for building linkages between all stakeholders involved in IPM research, teaching and extension in Tajikistan.

#### **C. Publications/presentations/Information Sharing:**

- One-page flyer on the IPM-CRSP project was developed and translated into Russian for a broader audience in the region.
- A directory of IPM Professionals/Stakeholders in the region was developed and is posted on the IPM CRSP project website.
- A summary paper on the progress of the project activities is under development. This paper will be published in an international journal.
- Maredia, K., F. Zalom and R. Paroda. Ecologically-Based Participatory and Collaborative Research and Capacity Building in IPM in Central Asia Region. CGIAR Meeting, Washington, D.C. December 4, 2006.