

IPM CRSP Trip Report

Country(s) Visited: Tajikistan

Dates of Travel: 8-13 May, 2013

Travelers Names and Affiliations:

- Dr. Douglas A. Landis, Professor of Entomology, Michigan State University
- Dr. Mustapha El Bouhssini, Senior entomologist, ICARDA, Morocco

In Tajikistan, we were also accompanied by two local scientists involved in the IPM CRSP project:

- Dr. Nurali Saidov. Project coordinator, ICARDA.
- Dr. Jalilov Anvar, Head of Plant Protection Department, Tajik Academy of Agricultural Sciences.

Purpose of Trip: Visit the demonstration plots of the IPM CRSP project in Tajikistan.

Sites Visited:

1. Hissor district, community Dorbat
2. Spitamene district, community Tagoyak
3. Muminabad, community dihbalane

Description of Activities/Observations:

On 9 May, the team visited the IPM demonstration plots in Hissor. These plots consist of the bread wheat Ormon (4 replications, 10/10 m²). This variety is resistant

to yellow rust, one of the major diseases of wheat in the country and also in the rest of Central Asia. In the middle of the plots, there was a 4-row strip of two flowering plant species to enhance natural enemies of Cereal leaf beetle, an important pest of wheat in this region. A total of 21 farmers (11 women and 10 men), the head of Agricultural Department and the president of the community came to visit these plots. Farmers received packets containing IPM publications in Tajik distributed by Nurali. The farm owner (a woman) described the demo to the group followed by short presentations by Nurali, Anvar and local officials. A vigorous discussion followed which included local concerns regarding maintenance of irrigation cannel systems in addition to IPM issues. The plots were well managed with good stands and very few weeds compared to neighboring farmers' fields. Notably there was no evidence of yellow rust in the Ormon plots while adject farmer practives varieties were devastated (flag leaves nearly completely yellowed). Weeds constitute the most important limiting factor for wheat production in the country. The use weed control and certified seeds of yellow rust resistant varieties would boost the wheat production in the country.



Farmers from the Hissor district

On 10 May, we visited the second IPM demonstration plot in the North of the country (Spitamene district, community Tagoyak). This demo site also consists of the variety Ormon and one strip of few flowering plant species to enhance natural enemies of Sunn pest, which is the most important pest in the North of Tajikistan. The Sunn pest adult population in the demo plots was high averaging 3-4 adults/ m². Twenty farmers (16 men and 4 women) and the head of Agricultural Department of the district came to visit the demo plots. Farmers also received packets with IPM publications in Tajik. The plots here were also well managed with good stand and very few weeds. The farm owner (also a woman) described the demo to the group followed by short presentations by Nurali, Anvar, and local officials. A discussion of Sunn pest management followed. In this region, weed and Sunn pest control, the use of certified seeds of yellow rust resistant varieties would significantly increase wheat production. Sunn pest nymphal population and egg parasitization will have to be closely monitored before a decision is taken for spraying pesticides.



Sunn pest



Farmer cooperator in Spitamen.

On 11 May the team visited the IPM demo plots in Muminabad district (community Dihbalane), with the variety Ormon and one strip of few flowering plant species to enhance natural enemies of pests, mainly Cereal leaf beetle. Twenty six farmers (21 men and 5 women) attended this field day. Farmers were also given IPM publications in Tajik. The farm owner (a man) described the demo to the group followed by short presentations by Nurali, Anvar and local officials. The demo plots were also well managed and had good stands compared to farmer-practice plots and local fields in general. The better stands, deep green color and general lack of weeds in the best practices plots were visually prominent from more than 100m away, prompting an idea for larger scale, and strategically positioned demos (see recommendations below). In this region, weed control and the use of certified seeds of yellow resistant varieties would boost wheat production.



Muminabad farmer discussion

On 12 May, the team met with four other plant protection specialists from Tajikistan (list provided in the table below). At the beginning Nurali gave a general presentation summarizing the achievements of the IPM CRSP project in Tajikistan. Anvar also gave a presentation on wheat rusts in the country. Then, there was a general discussion on the project and other plant protection issues. In the afternoon of the same day, Nurali, Doug and Mustapha met to discuss next season activities, which are summarized below in the suggestions/recommendation section.

Suggestions, Recommendations, and/or follow-up Items:

- The flowering plants used in the demo plots were not at flowering stage appropriate to benefit the relevant local pest insects. For example, in Hissor the plants were vigorous and appeared ready to flower in time to support Sunn pest parasitoid; however Cereal leaf beetle and not Sunn pest is the principle insect pest in that district. In both Spitamene district and Muminibad, the plants selected were either flowering too late or in to little abundance. Our local cooperators were aware of this issue and were already discussing the use of earlier flowering species including rape.
- In order to achieve increased impact, we discussed the use of fewer, but larger sized demo plots strategically positioned by well-traveled roads. Based on what we saw this year, such plots would be visually distinct from several hundred meters away and could be accompanied by signage to explain plot differences. The number of demo sites should be reduced from three to two in the country next season.
- Efforts should be put on training farmers on the importance of weed control, safe use of pesticides and the use of certified seeds.
- It would be useful to organize an IPM training workshop the last year of the project with participants from the whole Central Asia. The topics should also include seed issues, agronomy, and safe use of pesticides.



Yellow rust on wheat.

List of Contacts Made:

Name	Title/Organization	Contact Info (address, phone, email)
Salokhudin Mukhidinov	Professor, Department of Plant Protection of Agrarian University	
Khakhor Khakhor	Department Head, Plant Protection, Tajik Agrarian University	
Mavlon Vokhidov	Deputy of State Agency of Plant Protection and chemicals, Ministry of Agriculture	
Tabakal Mirzoev	Assistant Professor, Department of Plant Protection, Tajik Agrarian University	