

Jan. 2005 – Jan. 2007

Increased Productivity and Profitability of Wheat-based Cropping Systems to Reduce Reliance on Opium Poppy in Northern Afghanistan (RALF02-05)

Joint Development Associates (JDA)

Aga Khan Foundation (AKF)

International Maize and Wheat
Improvement Center (CIMMYT)

Cornell University

Balkh Savings & Credit Union (BSCU)

Purpose:

- **To engage farmers in diversification of their farming systems with alternative high value livelihood options that improve productivity and profitability in wheat-based cropping systems.**

Location & Target Groups

- Balkh, Baghlan & Badakhshan
- Farmers in each province
- Relevant government agencies and NGOs

Field Crops Focus

- Oilseeds:
 - Soybean
 - Canola (rapeseed)
 - Peanut
 - Sesame
 - Flax
- Pearl Millet
- Maize
- Legumes
- Wheat varieties

Demand for Soybeans

- **Poultry Farm Azia**
- Company Type: Private
- Company Description: The poultry farm Azia is a sizeable supplier of eggs and chicken in Tashkent, Uzbekistan. They have been in this business for several decades. Soybeans are essential part of the chicken diet in this battery farm. The company used to purchase US produced soybeans supplied via the inter-governmental agreements. However, **these supplies stopped recently and now the company urgently looking for direct suppliers of soybeans.**
- Annual Sales: \$300,000
- Sales: Uzbekistan
- **Quantity Needed: 4,000 tons annually**

Demand for Soybeans

- 10,000 MT of USDA imported soybeans auctioned in Tashkent, Uzbekistan:
 - 1 lot went for \$400/MT, another for \$385/MT

Field Crops Focus + Management

- Conservation Agriculture
 - No-till/minimum till
 - Raised beds
- Low external input sustainable agriculture (LEISA)







Expected Outputs

1. Markets and Marketing
2. Farming Systems Development
3. Capacity building

Markets and Marketing

1. Established market pathways and business plans for new crops and value added products.

Farming Systems Development

1. Farmers are familiarised with new high value field crops.
2. Farmers are familiarised with improved crop management technology (conservation agriculture, low external input agriculture).
3. Farmers integrate positive experiences with new crops and technology into their traditional farming practices.

Capacity Building

1. Build capacity of Afghan research, development and extension staff in topics relevant to the expected project outcomes.

Main Activities - Markets and Marketing

1. Gather market information, both locally and regionally, on promising new crops and value added products.
2. Analyze market information for crop profitability and opportunities for value addition by farmers at local level.
3. Participatory discussions including potential entrepreneurs about business potential of new crops and added value products.

Main Activities - Farming Systems Development

1. Participatory discussions with farmers about their interests in new crops.
2. Applied research of identified crops.
3. Exposure of farmers to new crops.
4. PTD of new crops.
5. Sharing of experience/ lessons learned and extend knowledge on crops, their best management practices and their contribution to farm income/competitiveness with poppy production.

Main Activities - Farming Systems Development

1. Participatory discussions with farmers about their interests in better crop management technologies.
2. Applied research of conservation agriculture and low external input sustainable agriculture methodologies.
3. Exposure of farmers to conservation agriculture and low external input sustainable agriculture methodologies.
4. PTD of conservation agriculture and low external input sustainable agriculture methodologies.
5. Sharing of experience/ lessons learned and extend knowledge of better crop management technologies.

Main Activities - Farming Systems Development

1. Optimisation of the traditional farming system with new field crops and better crop management technologies.

Main Activity - Capacity Building

1. Training offered to government, NGO staff and interested stakeholders.

Current Activities

- Balkh
 - CIMMYT International Trials & Nurseries
 - 9 bread wheat trials & nurseries (1064 varieties & lines)
 - 1 durum wheat trial (25 varieties)
 - In addition- PYT, AYT & EYT trials
 - Pre-release and seed increase plots
 - Soybeans
 - 18 varieties- on-station and on-farm
 - Canola- 1 fall sown variety
 - Peanut- 1 variety

Current Activities

- Baghlan
 - 2 bread wheat trials (248 varieties & lines)
 - Triticale trial (55 varieties & lines)
 - Soybeans- 10 varieties
 - Peanut, canola

Current Activities

- Badakhshan
 - Conservation agriculture & min. till
 - Wheat fertility management trial
 - Date of planting for wheat
 - International Triticale yield nursery (40 varieties)
 - EYTIRR (elite yield trial irrigated) – 25 varieties
 - High rainfall wheat screening nursery (299 varieties & lines)
 - High rainfall wheat trial

Current Activities

- Badakhshan continued
 - Soybeans
 - Canola variety trial (5 varieties)

Current Activities

- Kunduz
 - 12 CIMMYT bread wheat trials & nurseries (1268 varieties & lines)
 - In addition- PYT, AYT & EYT trials
 - Possibly soybeans (post-wheat)

Current Activities

- Sourcing seed
 - Pearl millet- 6 improved, disease resistant varieties from ICRISAT (post wheat)
 - Sesame- 6 improved, disease resistant, high yielding varieties from Mexico (post wheat)
 - OP Maize from CIMMYT (post wheat)

Current Activities

- PTD workshop in Mazar for govt. staff
 - DoA, Faculty of Agriculture at Balkh U.
- Soybean workshops for farmers and govt. staff
- Sourcing equipment for no-till to start soon
- Marketing research to start soon









12th SAWYT









Planted Nov. 1, 2004



Planted Oct. 1, 2004

Canola on March 24, 2005