



RESEARCH  
PROGRAM ON  
Dryland Systems



**AVRDC**

The World Vegetable Center

## CRP-DS

**Activity Cluster:** Establishment of Seed System Platform

**Reporting Center:** ICARDA

**Collaborators:**

1. AVRDC, Tashkent
2. Kodyrjon Azamjon Water Users Association, Kuva district, Fergana, Uzbekistan

**Activity:** Production of high quality seed of wheat and mungbean in Kuva, Fergana



Seed is the most important input of crop production and can contribute up to 25% to the productivity. Besides, seed production compared to grain production brings higher income to the farmers because price of the highest quality seed is usually more than twice the price of grain. Under CRP-DS activity on establishing a seed system platform in Fergana Valley Action Site quality seed production of new, improved varieties of wheat and mungbean was undertaken by selected farmers with technical knowledge and resources to do so. The activity was undertaken in collaboration with the Water Users' Association of Kuva, Fergana.

## Objective

Production of high quality seed of improved varieties of winter wheat and mungbean

## Seed production

Four farmers participated in seed production of a new, high yielding variety of winter wheat 'Yaksart' (Table 1). Also, four farmers participated in quality seed production of two new varieties of mungbean (Table 2). The farmers were provided information about standard package of practices for seed production of both wheat and mungbean. During field visit by the ICARDA and AVRDC experts the crops in the seed production plots were observed in excellent condition (Figures 1 and 2)



Figure 1. Seed multiplication field of wheat



Figure 1. Seed multiplication plot of mungbean

Table 1. Production of elite quality seed of winter wheat by the farmers in Kuva district, Uzbekistan in 2015

Farm's name	Gender	Wheat Variety	Area (ha)	Yield (t/ha)	Production (t)
Ezozkhon Matmusaeva	Female	Yaksart	20	6.1	122
Odiljon Valijon	Male	Yaksart	20	7.2	144
Oftobkhon Salaeva	Female	Yaksart	22	6.6	145
Mirzakhmad Akbarali	Male	Yaksart	22	7.4	163
Total			84		574

The wheat farmers obtained high yield of wheat which was indicative of standard management practices. The four farmers produced 574 ton of wheat. Considering a minimum net profit of USD 0.10 per kg of seed at the time of harvest, the farmers were able to earn USD 683/ha from wheat seed production. This high profit was possible due to selection of right wheat variety and managing the crop following standard seed production package of practices. All of the wheat seed was sold to the Government seed processing facility.

Table 2. Production of elite quality seed of mungbean by the farmers in Kuva district, Uzbekistan in 2015.

Farmer's name	Gender	Variety	Area (ha)	Production (t)	Seed available for selling (ton)	Seed grade
Ezozkhon Matmusaeva	Female	Durdona	1.0	0.5	0.5	Elite
Muborakkhon Tukhtasinova	Female	Durdona	1.0	1.3	3.0	Elite
		Marjon	2.0	1.7		
Akbar Khojimatov	Male	Durdona	3.0	7.0	5.0	Elite
Muborak Toshpulatov	Male	Durdona	1.0	2.0	0.8	Elite
Total:			8.0	12.5	9.3	

The mungbean farmers planted 8 ha of land with two varieties of mungbean and harvested 12.5 ton of seed. After subtracting production cost, the farmers were able to earn a net profit of approximately USD 1900/ha. Mungbean is a catch crop which is planted during hot summer months after wheat harvest in June. The high profit margin from a short duration crop like mungbean, seed producing farmers seem highly motivated to continue the activity. This is also attractive for other farmers in the district which should result in more areas under mungbean seed production and grain production in the coming years.

### **Outputs**

- Four farmers (2 men and 2 women) planted 84 ha under wheat seed production from which they produced 574 ton of seed.
- Four farmers (2 men and 2 women) planted 8 ha under seed mungbean seed production and produced 12.5 t of high quality seed.

### **Outcome**

- Wheat seed production could result in additional income of USD 683/ha compared to grain production.
- Mungbean seed production could resulted net profit of USD 1900/ha.

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Citation:

Mavlyanova, R. and R.C. Sharma. 2015. High quality seed production of wheat and mungbean in Kuva, Fergana. Report. ICARDA, Tashkent