

## Perennial Horticulture- A Good Livelihoods Alternative

Badakhshan offers good and conducive physiognomic and climatic conditions for promotion of perennial horticulture. AKF Badakhshan, through the generous support of donor agencies, has taken perennial horticulture as one of the potential components of income diversification and livelihoods improvement program for the remote rural mountain communities. In this connection, a number of initiatives have been taken encompassing mother stock and associated nurseries development; establishment of commercial, farmer demonstration orchards and capacity building of farmers in horticulture. As a result, sizable area in Badakhshan has been brought under horticulture with new improved and marketable varieties of apple, pear, apricot and peaches etc.

The newly introduced varieties are well suited to the local environment and are being rapidly adopted by the farmers. During 2007 and 2008 only around 35 farmer demonstration orchards, 5 associated nurseries, 110 commercial orchards have been established with farmers in program area and more than 1200 farmers were provided trainings in orchard management.

The perennial horticulture program of AKF Badakhshan is flourishing and farmers are establishing and managing orchards successfully. The farmers getting dual benefits from the small parcel of land i.e. from the orchards they simultaneously harvesting fruits as well as fodder crop as a result of tree inter-cropping with alfalfa. There are many benefits of this alfalfa tree inter-cropping - being a leguminous crop it enhances soil fertility, quick additional return for the farmer as fructification in fruit trees takes 3 long years and poor farmers do not afford this delay; it also reduce the damages of falling fruits in orchard as it provides soft ground cover. The older orchards established in the year 2006 have begun production and here is a small story of one of AKF supported commercial orchards established with a farmer in Baharak area:

Mr. Abdul Wadood of Baharak established a small commercial orchard in 2,560 square meter area through the motivation and technical support from AKF NRM Baharak team. The AKF team helped the farmer in orchard design, layout, provision of necessary tools and equipment and some basic training in orchard management. The farmer was also facilitated in selection of apple varieties from Baharak MSN and the varieties selected were Smothee, Galaxy, Discovery, Fuji, Red Falstaff and Gala. Total number of plants planted was 160 in 4 X 4 meters distances. After establishment of the orchard regular follow-ups and technical support were provided to the farmer by NRM Baharak team.



The orchard began bearing fruits from 2007 but in a small scale which were consumed by his family however, the year 2008 went very well for the farmer as his orchard produced 300 Sers (1 Ser = 7 kg so total produce was 2100 kg) of apples. It was first time that the farmer decided to

sell his produce in the market in last August 2008. So for test marketing he took 30 *Ser* (210 kg) of Gala variety to Faizabad market and easily sold his produce @ 200 Afs per *Ser* (28.57 Afs per Kg) and earned 6000 Afs. He was so happy and he moved around in Faizabad market, did shopping and found some more and new customers/dealers in fruits.

The next day he brought the remaining 270 *Ser* (1890 kg) of apples to Faizabad market and this time he sold his produce @ 240 Afs per *Ser* and earned an amount of 64,800 Afs.

Talking about alfalfa inter-cropping Mr. Abdul Wadood informed that he was getting 6 cuttings of alfalfa every year. In every cutting he made 180 bundles of alfalfa hay and over a year he collects round about 1080 bundles of hay. The bundle of alfalfa hay in the local market is 30 Afs in summer time whereas the price of a bundle goes beyond 50 Afs in winter. So he collects the hay and stores them in his house and sells them in winter and earning 54,000 Afs per year.

Thus the total annual income from the orchard (2560 square meter area) of Mr. Abdul Wadood in Baharak area for the year 2008 was calculated as 124,800 Afs equivalent to 2,496 US Dollars.



Analyzing the cost benefit ratio of agriculture practices in the same plot Mr. Abdul Wadood said that he used to cultivate the orchard area for wheat crop before AKF intervention and the total annual income out of this plot was hardly 60,000 Afs and round about 20-30 % of this income was used for agriculture inputs like plowing, hoeing, weeding, irrigating and chemical fertilizers etc. The per annum net income was less than 48,000 Afs with wheat cultivation.

As compared to wheat cultivation now the annual net income from orchard is more than double i.e. 124,800 Afs per year with little efforts and management cost. The farmer is so happy with his small orchard, as it brought changes in his life and living standard. Now Mr. Abdul Wadood is no more poor rather self-sufficient and he appreciates the AKF program and technical support being rendered by the organization for the betterment of poor farmers in Badakhshan.

It was also informed that in main Baharak Bazaar the local fruit sellers are selling their fruits in the name of AKF supported commercial orchards and same is true for the sale of fruit saplings indicating wider acceptability and appreciation of perennial horticulture development program of AKF Badakhshan by the communities.

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