

Intensification Of Lentil Production In The Medium High To Medium Low Lands Of Bangladesh For Food And Nutritional Security

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Abstract

Lentil (*Lens culinaris* Medikus subsp. *Culinaris*) is one of the major pulse crops in cereal-based cropping systems which occupied 2nd position in respect of area and production but in respect of consumer's preference it ranks first among all the pulses in Bangladesh. It's also significant contribution to food, feed and sustainable agricultural production systems through soil health improvement. But lentil area and production were started to decline in nineties due to priority in spring rice production for food security as well as due to lack of improve variety and optimum management practices and sometimes lack of optimum type of land also. Among pulses, lentil is mainly grown after the harvest of monsoon-rice in the winter season (October-March) in Bangladesh. But in most cases, lentil cultivation, after the monsoon-rice harvesting is delayed in medium high-medium low lands and further aggravated by higher infestation of diseases and insect pests and forced maturity, resulting in lower yields. It was also identified that global climatic changes led to more frequent high temperature during the end of crop cycle. In this endeavor, lentil relay cropping, a conservation technology in the standing monsoon rice field, 10-15 days before of rice harvest has great promise which is generally ensure timely sowing and best use of residual soil moisture and also low cost (45% less) technology and best way of fallow land utilization specially medium high - medium low lands of monsoon rice field. For better adaptation and successful crop production, various combinations experiments on lentil as relay crop with monsoonal rice have been conducted at on- station as well as on-farm during last five years. It was found that, lentil as relay crop was produced upto 2070 kg/ha seed yield which was increased upto 64% over sole crop. Farmers are also giving priority to lentil production due to technological intervention in the rice field, higher yields and stable market price. Simultaneously spring rice area is decreasing due to draw down of ground water, high cost of production and low price of rice. Now this technology is very much popular to the new niches farmers and gradually lentil is gaining its area and production. It's also multi-dimensional impacts on food supply, livelihood improvement and nutritional security.

Key word: Lentil, relay cropping, livelihood and nutritional security.