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Review Article

Agroforestry for income stabilisation of dryland farmer

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Abstract : The economic evaluation of different tree based cropping was assessed under different levels of economic status of the farmers in dry lands under two categories *viz.*, 1) Income stablility for poor and marginal farmers 2) Economic gain system for medium dry land farmers. Inclusion of nitrogen fixing tree species like *Faidherbia albida* (African babul), *Hardwickia binata* (Yepi) etc. would cause improvement in soil fertility and increase in crop productivity especially benefiting the poor and marginal farmers. The study conducted in *Faidherbia albida* based cropping system, the yield and returns from corps (maize+soybean and maize+field bean) were improved to maximum extent when grown in association with trees compared to respective sole crops because of the complementary effects of *Faidherbia albida*. Studies carried out in *Hardwickia binata* based alley cropping revealed that yields and monetary returns were higher in sunflower crop when grown as intercrop in pollarded trees of Hardwickia than grown in unpollarded trees. The improvement in yield and returns is mainly due to abundant availability of light to sunflower crop grown underneath because of removal of crown. The benefic cost ratio was also increased when sunflower was intercropped in pollarded trees. It was clearly evident that in both the tree based cropping systems, the returns from the system (both from trees and crops) were maximum when compared to sole cropping systems. Benefit cost ratio was doubled in tree based cropping system. Agrihorticultural system is considered to be economic gain system especially for the dryland farmers who afford to take cost investment for maintenance of fruit trees being a commercial component in the system. In a study with ber based agrihoriticultural system, it was observed that though the ber trees affected the growth and yield of sunflower crop when grown as intercrop resulting reduced monetary returns from the crop, but the overall combined monetary returns were increased by 145 per cent in intercropping of soybean in guava and by 48 per cent in intercropping of soybean in curry leaf over sole cropping of soybean. Benefit cost ratio was also substantially high in both agrihorticultural systems. Thus the agroforestry, a version of tree cum crop farming practices would benefit the poor and marginal farmers to improve their economic status especially in semi arid tropic areas.

Key Words : Agroforestry, Income stability, Dryland farmer

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Drylands constitute about 72 per cent of the total cropped area of 142 mha in the country contributing about 42 per cent of total food production. Crop production in drylands is risky, uncertain and uneconomical because of vagaries of monsoon. For imparting stablility and providing sustainability to the farming system, specially in drylands, a tree cum crop farming system will be one of the most appropriate and alternate land use system matching the land capability. It mainly aims at generation of assured income with minimum risk through efficient utilization of available resources. Various options are now available to the dryland farmers to choose a system matching his land capabilities, meeting the needs of the farmer, stabilizing the income of the farmer etc. Keeping in view the importance of agroforestry specially in drylands, the economic evaluation of different tree based cropping systems were assessed under different levels of economic status of the farmers

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