

GROWTH ANALYSIS AND YIELD OF WHEAT IN AGRISILVICULTURE SYSTEM IN TARAI REGION OF NORTH-WEST INDIA

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ABSTRACT

A field study was carried out to assess the effect of pruning at different height i.e. at 50, 100 and 150 cm in jatropha (*Jatropha curcas* Linn.) with control (no Pruning) and fertility levels 50%, 100% and 150 per cent of recommended dose of NPK in wheat on crop growth parameters and yield in agrisilviculture system. The pruning in jatropha favoured growth parameters with varying magnitudes. The growth indices like CGR, RGR, NAR, LAR, LAI, RLGR and SLW were observed to be higher under various pruning heights than under no pruning. Magnitude of reduction varied with pruning heights and fertility levels. The relative crop growth rate in terms of NAR and LAR has been higher under pruned compared to unpruned jatropha. Grain, straw and biological yield reduced by 16.56, 12.56 and 13.85 %, respectively under jatropha in comparison to sole crop which indicate that pruning is essential for improving wheat yield under jatropha based agrisilviculture system.

Key words: Agrisilviculture, Fertility levels, Growth indices, *Jatropha curcas*, Pruning.