

Improving farm productivity through Sustainable Agro-forestry models in India.

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Pulp & Paper industry is growing rapidly in India, and its estimated market size is 17 million tonnes in 2017-18. About 90% of the pulpwood is sourced from farm forestry and rest 10% comes from Government sources. Eucalyptus is a major pulpwood tree species grown over 1.0 million ha in India, and ITC PSPD has promoted ~0.29 million ha area with pulpwood plantations in last 25 years. Further to boost farm income and generate sufficient pulpwood on sustainable basis for expanding business of paper industry, recently an innovative agro forestry models are being developed & tested with focus on wood & food security. The income from agriculture crops fulfils the regular needs of the small and marginal famers, whereas, income from harvest of pulpwood after four years, serves as fixed income.



Plantations growth data recorded at 3 years age shared below:

Model	Spacing	No of Trees/Ha	Height (m)	GBH(cm)	Volume/Ha	Fresh Wood (MT/Ha)
Block Plantation	3.0m * 1.5m	2222	11.95	22.25	44.2	39.8
Block Plantation	2.70m * 1.35m	2744	10.45	19.75	40.0	36.0
AF Paired Row	(8.5m + 1.5m)/2 * 1.0m	2000	12.20	23.20	42.1	37.9
AF Single Row	(9.0m + 1.0m)/1 * 1.0m	1000	11.70	25.60	26.8	24.1

1. Land allocation in Paired Row Design is ~25% to Forestry and ~75% to Agriculture
2. Land allocation in Single Row Design is ~10% to Forestry and ~90% to Agriculture

**Agro forestry on farm lands is the best option to improve farm productivity
& profitability for small & marginal farmers**