

1992 Dadhwal, K.S., Raizada, A., Pratap Narain and Datta, D.P. 1994. Agroforestry systems of Doon Valley and plains of western Uttar Pradesh. In: Agroforestry Traditions & Innovations (eds.) Pratap Narain, K.S.Dadhwal and R.K.Singh, ICAR-UNDP Advance Centre on Agroforestry, CSWCRTI, Dehradun: 12-18.

*The paper discusses the effect of trenching (tree root pruning) aspect and direction of tree planting on associated agricultural crops under various agroforestry systems such as agri-*

silvi, silvi-pastoral, agri-horti, agri-silvi-horticultural systems. It is revealed that *Eucalyptus*, *Grewia optiva* and *Bauhinia purpurea* reduce crop yields near tree line and the effect is more pronounced upto 4m distance. *Eucalyptus* root pruning enhances *rabi* wheat yields. Better crop yields were recorded under the canopy of *B.purpurea* in comparison to *G.optiva*. Poplar trees produce about 3-4 t/ha/year of leaf litter (leaves + twigs) which returns about 29, 2.8, 21, 24 and 29 kg/ha/year of N,P,K,Ca and Mg, respectively. This litter decomposes rapidly (90% of the weight lost in the first year) and nutrients being released are available to the underlying crops.