

## A NOTE ON DEMAND AND SUPPLY OF POPLAR WOOD IN PAKISTAN

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### Introduction

In Pakistan three species of Poplars are indigenous i.e. *Populus ciliata*, *P. alba* and *P. euphratica*. *P. ciliata* and *P. alba* are strictly temperate species and grow in the moist and dry temperate zones in the northern parts of the country in the altitudinal range from 1500-3000 m. While *P. euphratica* occupies the riverain tract right from sea-level to 4000 m in the mountains (Sheikh, 1985). The indigenous Poplar species are comparatively slow growing and take a long time to attain exploitable size (Sheikh, 1972), therefore, do not find a high recognition for the commercial production of poplar wood. The search for fast growing tree species to meet the rapidly increasing demand for wood in the country lead to the introduction of exotic poplars in late fifties. The first introductions were from Italy followed by clones from U.S.A., Yugoslavia, Turkey, Netherlands, Australia, etc. Research work conducted over a period of 15 years indicated the suitability of some clones like *Populus euramericana* CV-I-214, and *Populus deltoides* clones 63/51, 18/62, 90/60, 69/55 for large scale planting in different parts of the country.

The tremendous demand from the wood-based industries (specially match industry) has lead to extensive plantations of fast growing exotic poplars on irrigated farmlands and forest plantations.

### Extent of poplar trees

The area under the naturally growing indigenous poplar species is very small and in a degraded form. According to a rough estimate it would not be more than 2000 ha (Sheikh, 1985). Presently most of the poplar wood is produced by the exotic species cultivated on the private farmlands of N.W.F.P and Punjab provinces. It is estimated that farmland trees of miscellaneous species cover an area of 0.376 million ha in the provinces of N.W.F.P and Punjab, which is about

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81% of the total farmland tree cover (0.466 million ha) in the country (Amjad, 1996). This farmland area bears 18.7 million poplar trees having a standing volume of 1.96 million m<sup>3</sup> (Amjad, 1991, Amjad et al, 1992). The proportion of N.W.F.P and Punjab in this tree stock is 73.3% and 26.7% respectively. While in irrigated forest plantations poplar is grown over a small area of 1708 ha only.

### **Production and demand of poplar wood**

It is estimated that approximately 0.58 million m<sup>3</sup> of poplar wood is harvested from felling of 5.54 million trees on farmlands. While about 0.029 million m<sup>3</sup> of poplar wood is produced from irrigated plantations of forest departments. According to an estimate about 0.267 million m<sup>3</sup> wood of poplar is used only in match industry against a total demand of 0.273 million m<sup>3</sup>. This shows that match industry is the major present and potential user of poplar wood grown in Pakistan. The total estimated annual demand of poplar wood for various industries is 0.375 million m<sup>3</sup>. About 0.234 million m<sup>3</sup> of poplar wood is estimated to be used in rural and farmyard construction, shuttering and other unrecorded uses.

### **Utilization of poplar wood**

Poplar has multiple uses due to its good wood qualities like white colour, lack of smell, good workability, even-grained, light weight, relatively high strength in proportion to its weight and resistance to splintering. Generally the farmers cut the poplar trees at the age of 5-8 years, when its average diameter is 15-20 cm. The tops and branches are converted into fuelwood. The major use of poplar wood is manufacture of matches. The other uses include, furniture, packing boxes, sports goods, particle board, shuttering and rural construction. However, in irrigated forest plantations it is harvested on 11 years rotation basis.

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