

729. Prajapati, M.C., Nambiar, K.T.N., Puri, D.N., Singh, J.P. and Malhotra, B.M. 1993. Fuel and fodder production in Yamuna ravines at Agra. *Indian J. Soil Conserv.*, 21(3): 8-13.

Presented are the results of an experiment on *Acacia nilotica* and *Acacia tortilis* raised at three spacings viz. 3 x 3m, 4 x 4m and 5 x 5 m with fodder grass *Cenchrus ciliaris* sown in the inter-spaces conducted during 1977-92 at Chhalesar, Agra for ascertaining fuel and fodder productivity potential of uncultivable deep ravines. At the rotation of 15 years the crowns of *Acacia nilotica* trees marginally touched in spacings of 3 x 3m and 4 x 4m and those of *A.tortilis* 3 x 3m. The values of the growth parameters of both tree species were minimum on top and maximum on bottom of ravines. Twenty per cent of trees planted on ravine top attained height less than 5 m with 10 per cent of *A.nilotica* and 24 per cent of *A.tortilis* having dbh less than 5 cm. Fuel yields were highest, 27 t/ha/yr in *A.nilotica* and

28.7 t/ha/yr in *A. tortilis*, 3 x 3m spacing. Plants on ravine side and bottom yielded more fuel than on top demonstrating that microhabitat on gully bottom is more congenial for plant growth. Grass yields (1.5 to 2.0 t/ha/yr) appeared to be independent of tree spacing. In the 14th year, the topfeed was upto 4.2 t/ha. The mean phytomass production varied from 3.3 to 4.6 t/ha/yr.