

EUCALYPTUS CAMALDULENSIS GROWS MUCH BETTER THAN *CERATONIA SILIQUA* AND *ZIZYPHUS MAURITIANA*

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In February, 1975 a study was planted in the Pakistan Forest Institute to compare the survival and growth of three species viz. *Eucalyptus camaldulensis*, *Ceratonia siliqua* (Carbo) and *Zizyphus mauritiana* (Ber). While major treatments were deep and shallow ploughing, minor treatments were (i) shallow planting with mulch, (ii) shallow planting without mulch, (iii) deep planting with mulch and (iv) deep planting without mulch in three replications. Size of the plot was 50 x 20 m. Out of this 3 subplots of 17 x 6.5 m were ploughed upto a depth of 45 centimeter and the other three upto the depth of 23 centimetre. As indicated above, these two were regarded as major treatments.

Method of planting. One year old tube plants of the three species were planted at 2 x 2 m in 23 centimetre deep, 30 centimetre wide pits in the case of shallow planting and 45 centimeter deep and 30 centimeter wide pits for deep planting. Plants to be mulched were provided with pebble mulch, one metre in radius and 5 centimetre in depth. Each plant was given 4 gallons of water after planting.

Following quantity of rain was received during the seven years of the study:

Year	Rainfall (mm)
1975	440
1976	634
1977	442
1978	445
1979	267
1980	374
1981	398
Average	429 mm (17 inches)

The study was first assessed in 1977 and it was found that the survival of Eucalypts was the best irrespective of major or minor treatments. Similarly survival of *Z. mauritiana* and *Ceratonia siliqua* was significantly better (5% level) with deep planting plus mulching as compared to shallow planting and no mulching. So far as heights or diameter were concerned no treatment significantly

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influenced these parameters. The average heights of the plants were 5, 2.6 and 1.1 metres for *E. camaldulensis*, *Z. mauritiana* and *Ceratonia siliqua* respectively. Diameter of *E. camaldulensis* was 5 centimetre; negligible for other two species.

Observations were again recorded in February, 1982.

Heights and diameter of three species after 7 years:

Species	Mean height (m)	S.E. (m)	Mean diameter (cm)	S.E. (m)
<i>Eucalyptus camaldulensis</i>	12.03	0.60	13.62	0.86
<i>Zizyphus mauritiana</i>	4.15	0.49	3.94	0.32
<i>Ceratonia siliqua</i>	2.61	0.34	2.39	0.24

No treatment has any effect on any of the species but growth rate of *Eucalyptus camaldulensis* was highly significant as compared to *Zizyphus mauritiana* and *Ceratonia siliqua*. *Eucalyptus camaldulensis* is, therefore, recommended for large scale planting in Peshawar district.