

Early Growth Comparison among Clone, Clonal seed origin Seedling, and Local bare root seedling of Casuarina in North coastal Andhra Pradesh

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Abstract

BTTL *Casuarina junghuhniana* Clone, Seedling propagated from the seeds of IFGTB collected from clonal seed orchard of both *C. equisetifolia*, *C. junghuhniana* and locally collected (north coastal AP) bare root *C. equisetifolia* seedling were planted in trial plot at Achutapuram, Vizag dist of AP to evaluate difference in growth performance among these planting stocks. Each planting stock was planted in four replications and observations on height, GBH, Survival, branching pattern, pruning ability and bole structure were observed. The early indications of superiority of IFGTB seeds of *C. junghuhniana* followed by *C. equisetifolia* over local seed sources was observed. This could be attributed to the superiority of the clones present in the clonal seed orchards and result of random mating of the superior *casuarina* clones bank. The growth trend of BTTL *C. junghuhniana* clone after one year also is in comparison with IFGTB seeds which supports the fact that initially *Casuarina* clone grows slow and it picks up well in later years. Plantation rising through clone as well seeds collected from CSO will be the most promising and commercially better option for both *C. junghuhniana* and *C. equisetifolia*. Planting of local seed origin seedling will be in the benefit of the farmer community at large.

Comparative growth data of IFGTB Seedling with Clone and bare root seedling after one year

S. No	Sp Variety	Total No of Plants	Sample Size	No of plants survived in sample	Survival %	Av height in Mt	Av Girth in Cm
1	BTTL - CJ Clone	972	200	189	94.5	4.2	10.2
2	IFGTB - CJ	600	200	194	97	4.9	13.5
3	IFGTB - CE	600	200	195	97.5	4.7	11.6
4	BTTL - Bare Root	1330	200	196	98	3.3	7.1