

Standardization of Nutrient Management for Enhancing Productivity in *Casuarina* Species

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Abstract

Casuarina is suitable for pulpwood and fuel wood. Casuarina species have been the farmer's favorite as they grow well in agrarian ecosystem. In the recent years, Casuarina wood is in great demand for paper making. With increase in paper consumption, many paper mills have expanded their production capacities and are now facing shortage of fibrous raw material. Under such situation a paradigm shift is essential from general silvicultural packages to site-specific, management packages to harvest higher utilizable biomass at the shortest rotation period. To elucidate information on enhancing the productivity of Casuarina, a field experiment was conducted with Casuarina species viz., *C. equisetifolia* Forst. & Forst. and *C. junghuhniana* Miq. from seed and clonal sources raised under five nutrient levels. Two weedings and one pruning were given up to 18 months after planting (MAP). The study was taken up at Agricultural Research Station, Bhavanisagar during 2010-2012. This area had a mean annual rainfall of 700 mm received in 50 rainy days. The soil type was vertisol of Irugur series which was low in N and P and high in K. seed raised plants of *C. equisetifolia* with 50 % more fertilizer application (112.75:270:150 NPK Kg ha⁻¹) recorded the maximum productivity over the soil test recommendation value and significantly recorded the maximum available N, P, K in the soil compared to all the other interactions. This interaction also recorded high N, P, K content in the needles of *C. equisetifolia*.