

## **Impact of moisture conservation measures on establishment of dry land tree species in rainfed area**

**A.N. Mankar, S.M. Taley, K.A. Jadhav and G.R. Atal**

Received April 22, 2015 and Accepted July 30, 2015

**ABSTRACT :** The present experiment was conducted on medium deep silty loam soil to study the effect of Rain Water Conservation Techniques on growth of multipurpose tree species (MPTS) in terms of height and collar diameter. The experiment was conducted during the year 2012-2015 on AEEC Farm Dr. Panjabrao Deshmukh Agriculture University, Akola with five treatments viz., Half-moon terracing (T<sub>1</sub>), mulching with locally available grasses @ 10 kg/ plant (T<sub>2</sub>), Compartment bunding with bund height of 0.15 m (T<sub>3</sub>), Use of Soybean as cover crop (T<sub>4</sub>) and Control (T<sub>5</sub>) in four replications in Randomized block design. The result revealed that plant height and collar diameter of tree species were found significantly highest in half moon terracing (T<sub>1</sub>) followed by mulching with locally available grasses @ 10 kg/plant (T<sub>2</sub>) as compared to other treatments. Soil moisture content of Karanj, Sitaphal and Bel at different soil depth was also found highest in half moon terracing (T<sub>1</sub>) and mulching with locally available grasses @ 10Kg/ plant (T<sub>2</sub>).

**Key Words:** Growth, biomass, moisture conservation techniques, Karanj (*Pongamia pinnata*), Sitaphal (*Annona squamosa*) and Bel (*Aegle marmelos*).