Short Communication

Range Mgmt. & Agroforestry 42 (2) : 341-345, 2021
ISSN 0971-2070

Biomass and carbon sequestration potential under silvipastoral system in sub-humid region of India

Sarita Kumari Tudu, P. R. Oraon, Abhay Kumar* and B. K. Singh
Birsa Agricultural University, Ranchi-834006, India
*Corresponding author e-mail: abhayzimi@gmail.com
Received: 28th November, 2020 Accepted: 11th October, 2021

Abstract
A study was conducted to evaluate the biomass and carbon sequestration with intercrops of forage in 9 year old teak and gamhar based silvipastoral system. The maximum average tree height was recorded in gamhar (5.68 m) + hybrid napier, while all other attributes *viz*. diameter at breast height, tree volume (m^3 $tree^{-1}$), tree biomass, total carbon stock and carbon sequestration combining all components (tree species, forage crop and soil), were found highest in teak + hybrid napier (8.50 cm, 0.057 m^3, 45.07 t ha^{-1}, 45.16 t ha^{-1} and 165.74 t ha^{-1}, respectively) with tree density of 833 trees ha^{-1}.

Keywords: Biomass, Carbon sequestration, Carbon stock, Silvipastoral system