

International Journal of Forestry and Crop Improvement

Volume 8 | Issue 2 | December, 2017 | 125-129 | ■Visit us: www.researchjournal.co.in

RESEARCH ARTICLE

DOI: 10.15740/HAS/IJFCI/8.2/125-129

Compatibility of soybean-safflower in sapota timber based agroforestry system

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ABSTRACT: An experiment was initiated from 2006 to 2016 to study the compatibility of Soybean – Safflower in Sapota Timber based Agroforestry System at Main Agricultural Research Station, University of Agricultural Sciences, Dharwad on medium black soils under rainfed conditions. Sapota was planted at 8 x 8 m and a timber tree is planted in between two sapota trees. Timber tree species viz., Pterocarpus marsupium, Tectona grandis, Terminalia paniculata, Lagerstroemia lanceolata and Terminalia alata. Field crops viz., Soybean and Safflower were grown in alleys of Sapota – Timber trees every year in both Kharif and Rabi season, respectively. Both crops growth was better with Tectona grandis + sapota and Lagerstroemia lanceolata + sapota and Pterocarpus marsupium + sapota as compared to other tree species. The grain yield reduction was increased as growth of trees advanced and was minimum in Kharif season than Rabi. Among the tree species, better growth was observed in Tectona grandis + sapota + field crop and Lagerstroemia lanceolata + sapota + field crop as compared to other tree species. The sapota grown and fruit yield were higher in Tectona grandis and Lagerstroemia lanceolata as compared to other tree species.

KEY WORDS: Grain yield reduction, Compatibility, Sapota, Timber trees

HOW TO CITE THIS ARTICLE: Mutanal, S.M., Mokashi, M.V., Ghatanatti, S.M. and Pawar, K.N. (2017). Compatibility of soybean-safflower in sapota timber based agroforestry system. *Internat. J. Forestry & Crop Improv.*, **8** (2): 125-129, **DOI: 10.15740/HAS/IJFCI/8.2/125-129.**

ARTICLE CHRONICAL: Received: 25.10.2017; Revised: 07.11.2017; Accepted: 25.11.2017

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