Impact of Casuarina Wind Breaks – A Case Study

K.T. Parthiban*, A. Rohini and V. Anandhi

Forest College and Research Institute
Mettupalayam 641 301, Tamil Nadu, India
*Email : ktparthi2001@gmail.com

Abstract

Agriculture is the main stay of economy in the State of Tamil Nadu. The predominant crops grown are rice, sugarcane, banana, cotton, fruits and vegetables. Among the various crops, banana occupies 27 per cent share of production among the crops cultivated in Tamil Nadu. During the recent past, the banana growers faced serious problems of lodging and uprooting of banana stems due to heavy wind, hurricane and cyclone which resulted in considerable economic loss. Against this backdrop, Forest College and Research Institute has promoted a linear model wind break using *Casuarina equesitifolia* (MTP1) and *C. junghuhniana* Asur hybrid clone (MTP2) along and around banana plantations in Mettupalayam taluk of Coimbatore district. Casuarina is a multipurpose tree species amenable for agro and farm forestry system and also as wind break and shelter belts. The casuarina based wind breaks established around banana plantations were investigated for its impact on productivity and economics. This paper analyses the impact of casuarina wind breaks in the commercial horticulture plantations and their the effectiveness as wind breaks. Economic impact of Casuarina grown as border crop in banana plantations was studied in the Pugulur and Jadayampalayam regions of Mettupalayam taluk in Coimbatore district. Partial budgeting technique was employed to show the effect of change(s) in crop enterprises. Hence, it was analysed through the partial budgeting technique which showed a positive net return of income in the banana cum Casuarina plantation compared with the pure banana crop. The results indicated that the sample farmers following this model gained higher net income through higher yield and also found that it prevented soil erosion in their fields as an added advantage besides improving soil fertility through nitrogen fixation.