

**Effect of Plant Density on Economic Return from
Thysanolaena maxima (Roxb) Kuntze (Broom Grass)
Plantation in Jaintia Hills, Meghalaya, India**

Etüban Lapasam and B. K. Tiwari

*Department of Environmental Studies, North-Eastern Hill University,
Shillong 793 022 Meghalaya, India
E-mail: ¹<bktiwarinehu@gmail.com>*

KEYWORDS Cash Crop. Benefit-Cost Ratio. Internal Rate of Return. Net Present Value

ABSTRACT *Thysanolaena maxima* is a wild grass cultivated by the farmers of Meghalaya for the production of broom panicles, which has high demand in South and South East Asia. Over the years *T. maxima* has emerged as an important cash crop of Meghalaya transforming the economy as well as landscape of the state. This research was aimed at investigating the effect of plant density on cash income of the farmers cultivating this grass. The study revealed that the growth and production of broom panicles were significantly impacted by plant density. The production of panicles in the plantations with lower plant density was significantly higher than those grown in higher plant density. The study concludes that plantation raised at a density of 3333 plants/ha (1.5x2.0 m spacing) gave highest net present value of Rs 126199.8 ha⁻¹ year⁻¹ up to three harvests. Based on the study, it is concluded that a density of 3333 plants/ha can be recommended for optimum economic return from cultivation of *T. maxima*.