P92

GINGER CULTIVATION UNDER MULTIPURPOSE TREE SPECIES IN THE HILLY AREA OF BANGLADESH

M.Aslam Ali[1]*, M. Jamaluddin[2], G.M.Muzibur Rahman[2] and Pil Joo Kim[3]

[1]Graduate Training Institute(Crop Science), Bangladesh Agricultural University, Mymensingh, Bangladesh.

[2,3]Department of Agroforestry Bangladesh Agricultural University, Mymensingh, Bangladesh.

[3]Div. of Applied Life Sci., Gyeongsang National University, Kaswa-dong, Jinju, 660-701, South Korea

The present study was investigated in the hilly areas of Bangladesh to assess the feasibility of ginger cultivation under multipurpose forest and fruit tree species. There were three treatments such as i) ginger grown under open field condition, ie. full sunlight (T_1), ii) ginger grown under Gamar tree (spacing of 90 cm×90 cm (T_2) and iii) ginger grown under guava tree (Spacing 180 cm×180 cm) tree (T_3). The experiment was laid out in Randomized Block Design (RBD) and each treatment was replicated three times. From data it was observed that some morphological parameters of ginger such as plant height, number of leaves per hill, leaf length and leaf breadth were higher in the treatments T_2 (Gamar trees spaced at 90 cm×90 cm) and T_3 (Guava spaced at 180 cm×180) as compared to the treatment T_1 (Ginger grown in open field condition) A positive andlinear relationship was observed between the weight of rhizome and yield of ginger which caused the highest yield of ginger (23.63 t/ha) under guava tree species at partial shaded condition in the treatmentT_3 (180 cm×180 cm), whereas the lowest yield (15.64 t/ha) was recorded in the T_2 treatment when ginger was cultivated under Gamar tree species at closer spacing (90 cm×90). Therefore, it was revealed that partial shaded condition favoured the optimum growth and yield of ginger, whereas the dense shade from intensively planted tree species badly affected the dry matter production and yield of ginger.

Key words: Ginger, tree species, growth, yield