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Effect of plant spacing on yield of ginger (*Zingiber officinale* L.) at mid country intermediate zone

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Ginger (*Zingiber officinale* L.) is a biennial or perennial herb belongs to family *zingiberaceae*, grown for the pungent, spicy underground pseudo- stems or rhizomes. The plants are propagated by small divisions of the rhizomes. As there are some discrepancies in spacing recommendations available for farmers, this experiment was conducted to find out the optimum spacing for ginger planting on beds. The research was conducted at the Central Research Station, Department of Export Agriculture, Matale. The site was located in mid country Intermediate zone – IM3b (7-8° N and 80-81°E) at 375 m above mean sea level. Four different spacing treatments namely T1 (15 x15 cm), T2 (25 x25 cm), T3- control (30 x30 cm) and T4 (45 x30 cm) were selected. Each treatment was allocated in 90 x 180 cm elevated beds in Randomized Completed Block Design with four replicates. Cultivar Chinese ginger was used as planting material and rhizome divisions (approximately 35g) were used as seed material. Yield was taken 9 month after field planting.

According to the results, higher yields were recorded at T1 (35.5 tons/ha) followed by T2 (30.16 tons/ha) though the difference was not significant ($P < 0.05$). Nevertheless the yield of T1 was significantly different from T3 and T4. The lowest yield (18.15 tons/ha) was observed at T4, which was significantly lower than T1 and T2. Planting material usage for treatment T1, T2, T3 and T4 were 7, 2.1, 1.75 and 1.75 tons/ha respectively. Though T1 gave the highest yield, the cost of planting material was also very high for T1. Fresh yield to seed weight ratio values for T1, T2, T3 and T4 are 5.07, 14.36, 13.21 and 10.37 respectively. This implies that the cost of seed material would be considerably high for T1. Therefore it could be concluded that appropriate spacing for Chinese ginger would be 25x25cm (T2) for mid country intermediate zone areas.