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Growth performances of selected cinnamon cultivars at different locations in Matara, Galle, Kalutara and Rathnapura districts

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True cinnamon (*Cinnamomum zeylanicum* Blum, 2n=24) endemic plant popularly known as Ceylon cinnamon belongs to the genus Cinnamomum of the plant family Lauraceae. This paper describes growth performances of selected ten cinnamon cultivars in four different locations regarding field establishment, plant height (cm) and plant diameter (mm).

Based on the germplasm screening and competitive evaluation, ten cinnamon lines were selected. They are CRS 351, CRS 166, CRS 156, CRS 23, CRS 201, CRS 83, CRS 317, CRS 184, CRS 318 and CRS 40. These selected lines have been vegetatively propagated and initiated four different experiments at Cinnamon Research Station in Matara, Kosgoda in Galle, Lihiniyawa in Kalutara and Pallebedda in Rathnapura districts. The experiment plot having 25 planting points were laid out in a randomized complete block design (CRBD) with four replicates. Detailed study of growth characters including establishment percentage, plant height (cm), plant diameter (mm) were recorded 3, 6, 12, 18, 24, and 30 months after field planting.

Among the different locations, maximum variation of establishment percentage was observed in Rathnapura district at Pallebedda experiment (6% – 85.2%). But 7% - 100% field establishment percentage was recorded Matara district followed by in Galle 63%- 95.8% and in Kalutara Districts 66% - 98% . Due to higher percentage of casualties in Pallebedda experiment, Vegetative propagated plants are not suitable for dry areas of intermediate zone like Pallebedda.

Plant height measurement in Matara and Galle experiments did not show significant differences even at initial stages. Therefore all the cultivars gave better performances regarding plant height in Matara & Galle districts. The highest plant height & plant diameter in four locations were exhibited in CRS 317 in Galle district (214.2 cm 47.5 mm) respectively. Finally, plant height and plant diameter in each location showed same pattern.

Based on the overall growth performances CRS 317 exhibited higher results in each location and Matara district is more suitable CRS 317 for vegetatively propagated Cinnamon plants.

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