

B-48 Evaluation of cardamom (*Elettaria cardamomum* Maton) cultivars for adaptation to low elevations

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Cardamom, *Elettaria cardamomum* (Maton), is a shade and cool loving plant which usually grows in the natural forest in the central hills (above 1000m MSL) of Sri Lanka. But the natural forest is diminishing and available land for cultivation is reducing drastically. As an alternative, low elevation plantations in the wet zone were identified for cultivation. To select cultivars which are adapted to low elevation, 10 promising cultivars which performed well at normal conditions, were evaluated. The experiment was conducted multilocally at 150 to 300 m (AMSL) in Kegalle, 100 to 150 m (AMSL) in Nuwara-Eliya and below 100m (AMSL) in Kalutara districts. Selected rubber plantations consisted of 7 to 10 year old rubber plants at the time of commencement of the experiment. Growth and yield parameters were recorded regularly.

Establishment and growth of all 10 cultivars were very satisfactory at all 3 locations. There were no adverse effects on growth during the rubber leaf wintering period. All the cultivars flowered after 2 years. Panicle formation and fruit setting varied depending on the cultivar. Cultivars EC1/102, EC1/101 and EC1/100 performed very well and gave high yields at all 3 locations while EC1/700 were intermediate and EC1/400, EC2/402KN, EC2/403MT, EC2/405MT were poor performers at low elevations.

It can be concluded that rubber shade can be utilized as an alternative to natural forest for cardamom cultivation and cultivars EC1/102, EC2/400MT, EC1/101 and EC1/100 can be successfully grown at low elevations.