B-11: Cinnamon intercropping with coconut in low country intermedi zone of Sri Lanka

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Cinnamon (*Cinnamomum verum*) is one of the potential spice crops intercropping with coconut in the intermediate zone of Sri Lanka. T experiment was commenced in 1995 at the Intercropping and Betel Resear Station. The suitability and appropriate plant density of cinnamon intercropping with coconut in low country intermediate zone of Sri Lanka v evaluated in this experiment. Five treatment combinations were test 120cm x 60cm spacing with 3 rows between coconut rows. 120 cm x 90 c

spacings with 2 rows between coconut rows. 120 cm x 90 cm spacing with 2 rows between coconut rows, 120 cm x 90 cm spacing with 3 rows between coconut rows and 120 cm x 120 cm spacing with 3 rows between coconut rows. 2.4 m radius was kept free around each oconut palm. Growth, yield and plant water status were recorded.

Differences of mean plant heights and yields between treatments were found significant ($p \geq 0.05$). Higher mean values were obtained for these characters in 120 cm x 60 cm spacing with 3 rows and 120 cm x 90 cm spacing with 3 rows and the lowest was observed in 120 cm x 90 cm spacing with 2 rows between coconut rows and plant heights of 165.4 cm, 170 cm and 138 cm were obtained during the second year for the above treatments respectively. After 70 consecutive days of severe dry period, water potential values of these cinnamon plants were between - 13 to - 15 bars and the critical value may be below – 18 bars.

Results of this experiment indicate that, there is a potential for expanding cinnamon as an intercrop for more dryer parts of intermediate zone. Either 120 cm x 60 cm spacing with three rows of cinnamon or 120 cm x 90 cm with three rows of cinnamon between two rows of coconut is found to be suitable planting arrangement for intermediate zone.