COIR DUST TO IMPROVE COCONUT PRODUCTION

L.P. Vidhana Arachchi and K.S. Jayasekera
Coconut Research Institute, Lunuwila.

About 70% of the area under coconut in Sri Lanka are within the intermediate and dry zone. Coconut production was adversely affected during the last decade due to recurring droughts resulting immature nutfall, poor setting of female flowers, low copra outturn, and even the death of palms. Hence improvements in soil physical conditions are essential for increase soil moisture availability.

Laboratory studies were conducted to study the properties of coir dust and its effect on moisture storage and nutrient balance. Field experiments with mature coconut were aimed to evaluate the effect of different coir dust application rates on the nut yield and the soil physical properties.

Moisture content of coir dust at field capacity is 1112 $\pm$ 18% gH o/g coir dust. Incubation studies on the nitrogen availability of coir dust indicated that the "optimum" ratio of Urea : coir dust to be 0.5 - 1.0% w/w. Different field application rates of coir dust have reduced the bulk density of the top soil with increases in infiltration of water. Nut yield was also increased with the coir dust rates upto 9000 kg coir dust/ac. Results showed that coir dust is an effective soil ameliorant to improve coconut production.