FACTORS AFFECTING THE USE OF FERTILIZER BY MEDIUM AND LARGE SCALE COCONUT FARMERS IN GAMPAHA DISTRICT, SRI LANKA

S.D.N.M. Senadheera[1], A.M.K.R. Bandara[1] and H.A.J.Gunathilake[2]

Department of Agricultural Systems, Faculty of Agriculture, Rajarata University of Sri Lanka, Puliyankulama, Anuradhapura

Former Director, Coconut Research Institute, Lunuwila

Coconut cultivation has played an economically and socially attractive role in Sri Lanka being a key source of direct and indirect livelihoods. Depletion of soil fertility due to poor use of fertilizer has negatively affected the coconut production of the country. Thus, present study investigated the factors affecting the use of fertilizer by medium and large scale coconut farmers in Gampaha District of Sri Lanka. Multistage quota sampling method was employed to draw a sample of 227 farmers to collect primary data. Data were subjected to descriptive analysis, factor analysis and binary logistic regression. The descriptive analysis revealed that 37% and 16% of the farmers used inorganic and organic fertilizer respectively whilst, 92% of the farmers applied at least one type of fertilizer. As per the factor analysis, technical, monetary and demographic factors were identified as prominent factor groups. Binary logistic regression analysis revealed the prevalence of favorable weather pattern, usage of credit and application of organic fertilizer were significant ($p<0.05$) determinant of the use of inorganic fertilizer for coconut. Prevalence of favorable weather pattern has increased the possibility of applying inorganic fertilizer (OR= 258) compared to non-prevalence of a favorable weather. A negative relationship was observed between the application of inorganic fertilizer and organic fertilizer (OR= 0.018) while positive relationship was observed between application of inorganic fertilizer and supplementary material. The study further identified that, moisture conservation practices, credit usage, animal husbandry and application of inorganic fertilizer had significant ($p<0.05$) impact on application of organic fertilizer for coconut cultivation. In conclusion, introducing credit scheme and technical knowledge on irrigation, moisture conservation and animal husbandry will improve the use of both inorganic and organic fertilizers.

Keywords: Coconut, Inorganic fertilizer, Organic fertilizer, Soil fertility