Relative Performance of Three Coffee Cultivars under Varying Shade Levels

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ABSTRACT

Three coffee cultivars (75227, 74165, and 74158) were planted under varying light regimes estimated using LI COR 776-point quantum sensor. Split plot design with four replications within the shades (main plot) was used to subplant the coffee cultivars (subplot). Biochemical constituents, yield and yield components at seedling and maturity stages were determined using standard protocols. Significantly higher ($p < 0.05$) yield and yield components were obtained at both stages between 50-70% light regimes. Among the coffee lines 75227 out performed the other two cultivars with regards to metabolite synthesis at seedling and yield at maturity. Hence, biochemical and dry matter synthesis at seedling stages are efficiently correlated determinants to predict mature coffee performance at a later stage.