SELECTION OF COFFEE VARIETIES RESISTANT TO *FUSARIUM STILBOIDES*

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Session 2-
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Introduction

Fusarium stilboides Steyaert causes Fusarium Bark Disease in Arabica coffee, associated with yield losses and tree death in coffee-growing countries in East Africa. A lack of resistant varieties or effective chemical control methods greatly hinders disease management. This study investigated the response of four coffee cultivars to *F. stilboides*.

Materials/Methods

Fifteen (15) seedlings of each of the four coffee genotypes were inoculated with *F. stilboides* at a concentration of 10^6 using the injection method with a 0.5 mm syringe. The inoculated seedlings were incubated at 24±2 0C for 105 days. The plants were watered regularly as necessary while symptom development was observed and assessed weekly. Disease severity was evaluated using a modified scale of 0-4, while incidence was scored as a percentage of infected seedlings. The experiment was laid out in RCBD of 4 replications

Conclusion/Perspectives

The variation in response to disease infection exhibited by the four genotypes presents a key input in breeding programs for resistance to *F. stilboides*

Results/Discussion

Coffee seedlings inoculated with *F. stilboides* developed symptoms such as wilting, stunted growth and defoliation. In the first season, Robusta had the lowest severity levels compared to other genotypes. In the second season, Batian and Ruiru 11 which are commercial varieties had pronounced severity when compared to other genotypes. The TN002B (I) isolate was highly virulent as compared to other isolates.

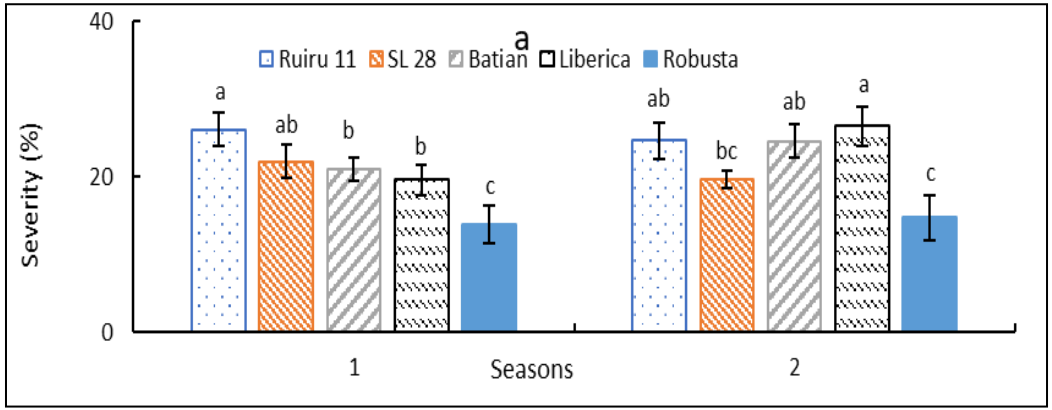

Figure 1: Reaction of different coffee types to infection by *Fusarium stilboides*

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