

Minimum Diurnal Temperature: An Important Parameter in the Deployment of Coffee Berry Disease Resistance Genes in *Coffea arabica* L.

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SUMMARY

Cultivar Ruiru 11 is an Arabica Coffee variety resistant to Coffee Berry Disease caused by *Colletotrichum kahawae*. Long term observation on field resistance of the variety revealed sporadic but transient occurrence of Coffee Berry Disease on the variety. An examination of possible pre-disposing weather parameters indicated strong negative correlations with mean minimum temperatures during the sixth week after blossoming. Strong negative correlations were also observed between minimum temperature/lowest temperature) and severity during the 4th and 6th week post flowering. Incidence of the disease showed strong negative correlations with the number of days for which minimum temperatures below 15°C was recorded.

In this paper detailed discussion on the conditions under which expressivity for CBD may be compromised are given. The implications of the present observation on screening and breeding strategies, gene deployment and management of resistance in the field are also discussed.