Influence of surrounding flora, vegetation, and altitude on infection of rubber leaves caused by fungi in village plantations in Côte d'Ivoire.

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Keywords: *Hevea brasiliensis*, Pathogens, Biotope, Flora, Altitude

1   SUMMARY

Hevea brasiliensis is a plant cultivated in Africa and Southeast Asia, for its rubber-rich latex. In Côte d'Ivoire, foliar fungal diseases of rubber trees are increasingly identified in village plots, but epidemiological factors other than climate remain unknown to date. They hinder the mechanism of photosynthesis of trees and greatly reduce latex production. To remedy this, a study was conducted to assess the incidence of pathogenic fungi present in the rubber orchard and to understand the relationship between it, the surrounding flora and the altitude of the plots. The study was conducted in 24 villages with rubber plantations at the sites of Tabou, Nouamou, Man, Daoukro, Zoukougbeu, and Gagnoa. It examined the presence of the pathogens *Corynespora cassiicola*, *Colletotrichum gloesporoïdes*, and *Helminthosporium heveae* in the plots, the surrounding vegetation, the flora, and the altitude of the plots. The results of the study showed that isolated plant species do not influence disease incidence. However, the types of surrounding vegetation: ripicole forests, shallows, forest patches, and fallows could influence the presence of these fungi in rubber plantations of the six localities studied. The model implemented, based on data, and predicts that the probability that a rubber plot is infested by these pathogens near these biotopes is 0.4 or 40%. In addition, this study shows that altitude is negatively correlated with disease incidence. For altitudes above 353 meters, Diseases are practically non-existent. These results could be considered indicators in the management of foliar fungal diseases of rubber trees in Côte d'Ivoire.