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Editorial Office, Pakistan Journal of Phytopathology

We hereby submit our manuscript entitled « First Detection of Candidatus Phytoplasma asteris in Papaya (Carica papaya L) Orchards in Côte d'Ivoire », written by Néhémie Pierre Anicet LOBOGNON, Kouamé Daniel KRA and Marie Noel Yeyeh TOUALY, for publication in the journal Plant Protection.

Papaya is eaten for its thiamine, folate, riboflavin, niacin, vitamins A, B1, B2 and C and fibre content. According to FAOSTAT 2022, Côte d'Ivoire is the second largest African exporter of papaya to the European market, with an export volume that has fallen from 658 tonnes in 2020 to 358 tonnes in 2023. This drop in production is due to the pressure exerted by plant pathogens and pests on papaya plants. In Côte d'Ivoire, the Solo varieties are the most widely grown and exported, varieties on which several studies on viral diseases have been carried out and control methods proposed and applied by growers. Despite the application of methods to combat viral diseases, these diseases are still present in papaya trees in Côte d'Ivoire, causing incidence rates of up to 100% in some fields. This has led many growers to abandon papaya cultivation. Several phytoplasma diseases have been reported in papaya, presenting practically the same symptoms as viral diseases. The above leads us to ask whether one or more phytoplasmas might be associated with the persistence of diseases in papaya trees in Côte d'Ivoire.

The aim of this work is therefore to find out which phyoplasma or phyoplasmas could be associated with the various forms of leaf deformation in papaya.

To this end, a phytosanitary study of papaya plantations was conducted in four major papaya production areas in Côte d'Ivoire. The observed symptoms were then described, and their prevalence and severity were assessed. Finally, phytoplasmas were detected and identified using the PCR technique. The results are summarized in five figures and three tables.

All authors have approved the manuscript and are in agreement with its submission. We hope that the content and form meet the requirements of the journal and that this article can be considered for publication in the Pakistan Journal of Phytopathology.

We confirm that this manuscript has not been published elsewhere and is not under review by any other journal. Thank you for your kind consideration of our manuscript.