

## **First report of phytoplasma infection on *Sesamum indicum* L. in Sri Lanka**

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### **Abstract**

Phytoplasma is an important group of prokaryotes infecting number of plant species including economically important crops causing different diseases resulting in significant crop loss worldwide. There are no effective control methods available for phytoplasma diseases yet. Therefore, the viable alternatives include early detection to remove infected plants from the field and control of insect vectors. Sesame is one of the important oilseed crops in Sri Lanka. Symptoms similar to phytoplasma infections in sesame crop has been observed in some areas in Sri Lanka, particularly, in Monaragala district, resulting significant yield loss in affected areas. The main objectives of this study were to characterize symptoms of affected sesame plants and confirm the association of phytoplasmas in these symptomatic plants. Phyllody was the main characteristic symptom of the affected plants in Monaragala district, which is consistent with existing reports in other countries. Nested PCR confirmed the association of phytoplasmas in infected plants by detecting amplicons of the expected size only in symptomatic plants and not in healthy plants. This is the first report on sesame plants infected with phytoplasma in Sri Lanka. Further research is needed to study phylogenetic status of the predominant groups of phytoplasmas in affected sesame plants in Sri Lanka.

**Keywords:** *PCR, Phytoplasma, Sesame, Sesamum indicum L., Sri Lanka*

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