

**NOTE: A Comparison of Molecular Diagnostic Procedures
for the Detection of Aster Yellows Phytoplasmas (16Sr-I) in
Leafhopper Vectors**

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Different molecular procedures were compared for the detection of aster yellows phytoplasmas (AYP) in the leafhopper vectors *Macrostelus quadripunctulatus* (Kirschbaum), *Euscelidius variegatus* (Kirschbaum) and *Euscelis incisus* (Kirschbaum). Polymerase chain reaction (PCR) with universal and group-specific primers designed on the 16S-rDNA sequence was most sensitive in nested assays. A dot-blot procedure with an oligoprobe designed on the 16S-rDNA was less sensitive and consistent to detect phytoplasmas in total insect DNA, but consistently detected amplicons from direct PCR. The dot-blot assay with a probe based on a phytoplasma plasmid sequence detected AYP in most vector specimens and did not react with DNAs from leafhoppers infected by flavescente dorée and psyllids infected by apple proliferation phytoplasmas. This last assay is almost devoid of contamination risks, faster and cheaper compared to PCR, therefore it has to be preferred for field-scale analysis of leafhopper populations.

KEY WORDS: *Macrostelus quadripunctulatus*; *Euscelidius variegatus*; *Euscelis incisus*; phytoplasmas; molecular detection.

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