



## First report of molecular identification of 'Candidatus Phytoplasma mali' in apple trees in Belgium

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Apple proliferation (AP) is a quarantine organism for the European Union that has been assigned to the *Candidatus* taxon, '*Candidatus* Phytoplasma mali' (Seemüller & Schneider, 2004). Although the first case of AP was recorded in Belgium in 1981 (Maroquin *et al.*, 1981), no molecular identification of this agent has been officially reported since then.

In September 2009, two samples out of around twenty apple trees close to each other and showing witches' broom, the most typical symptom caused by '*Ca.* Phytoplasma mali', were sampled by the Federal Agency for the Safety of the Food Chain in a nursery in south-west Belgium. DNA was extracted from 0.5 g of leaf midribs using a simplified extraction method derived from the existing protocol (Ahrens & Seemüller, 1992). Samples were then tested for phytoplasma by PCR using the universal primer pair fU5/rU3 (Lorenz *et al.*, 1995), all yielding PCR products of expected size. BLAST analysis of a sequenced amplicon (GenBank AccessionNo. FN641799) revealed 100% of identity with nine '*Ca.* Phytoplasma mali' isolates (16SrX group). Infected trees as well as adjacent trees have been uprooted and burned to prevent disease spread. To our knowledge this is the first report of '*Ca.* Phytoplasma mali' in orchard apple trees in Belgium, confirmed by molecular tests.

### References

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