

## Identification of *Lactobacillus* Isolates from the Gastrointestinal Tract, Silage, and Yoghurt by 16S-23S rRNA Gene Intergenic Spacer Region Sequence Comparisons

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*Lactobacillus* isolates were identified by PCR amplification and sequencing of the region between the 16S and 23S rRNA genes (spacer region). The sequences obtained from the isolates were compared to those of reference strains held in GenBank. A similarity of 97.5% or greater was considered to provide identification. To check the reliability of the method, the V2-V3 region of the 16S rRNA gene was amplified and sequenced in the case of isolates whose spacer region sequences were less than 99% similar to that of a reference strain. Confirmation of identity was obtained in all instances. Spacer region sequencing provided rapid and accurate identification of *Lactobacillus* isolates obtained from gastrointestinal, yoghurt, and silage samples. It had an advantage over 16S V2-V3 sequence comparisons because it distinguished between isolates of *Lactobacillus casei* and *Lactobacillus rhamnosus*.

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