

## Characterisation and detection of spoilage mould responsible for black spot in dry-cured fermented sausages

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### Abstract

Moulds responsible for black spot spoilage of dry-cured fermented sausages were characterised. For this purpose, samples were taken from those dry-cured fermented sausages which showed black spot alteration. Most of the mould strains were first tentatively identified as *Penicillium* spp. due to their morphological characteristics in different culture conditions, with one strain as *Cladosporium* sp. The *Cladosporium* strain was the only one which provoked blackening in culture media. This strain was further characterised by sequencing of ITS1-5.8S-ITS2 rRNA and  $\beta$ -*tubulin* genes. This mould strain was able to reproduce black spot formation in dry-cured fermented sausage ‘salchichón’ throughout the ripening process. In addition, a specific and sensitive real-time PCR method was also developed to detect *Cladosporium oxysporum* responsible for the black spot formation in sausages. This method could be of great interest for the meat industry to detect samples contaminated with this mould before spoilage of product avoiding economic losses for this sector.