

Effect of selected protective cultures on ochratoxin A accumulation in dry-cured Iberian ham during its ripening process

LWT - Food Science and Technology (2015) 60, 923-928

Alicia Rodríguez*, Victoria Bernáldez, Mar Rodríguez, María J. Andrade, Félix Núñez, Juan J. Córdoba.

Food Hygiene and Safety, Meat and Meat Products Research Institute, Faculty of Veterinary Science, University of Extremadura, Spain.

* Corresponding author: aliciarj@unex.es

Abstract

Dry-cured Iberian ham is a meat product prone to be contaminated by ochratoxin A (OTA) because of colonisation by OTA-producing *Penicillia* on the surface of the product during its ripening. The ability of non-toxigenic moulds to control the growth of indigenous ochratoxigenic strains and OTA accumulation on this product was evaluated. Two protective cultures consisting of the antifungal protein-producing *Penicillium chrysogenum* RP42C and a mix of selected autochthonous non-toxigenic mould strains were spread on the surface of 45 dry-cured Iberian hams at drying stage and ripened up to 9 additional months. The results showed that the RP42C strain limited the growth of OTA-producing moulds and mainly the OTA accumulation in dry-cured Iberian ham throughout the processing in the meat industry. The use of protective cultures of non-toxigenic mould strains combined with an appropriate HACCP plan holds potential for reducing health hazard of OTA accumulation in dry-cured Iberian ham.