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# Czech J. Food Sci. Moťková P., Vytřasová J.:

## Comparison of methods for isolating fungal DNA

Czech J. Food Sci., 29 (2011): S76-S85

In this study methods of fungal DNA isolation were optimised and compared. The aim of the isolation processes was to obtain DNA of sufficient quality and quantity necessary for its amplification, as most detection techniques require DNA amplification before the proper DNA detection itself. For this purpose, classic methods of DNA extraction were compared and optimised while isolations using commercial kits were also done. The methods were evaluated from several perspectives, with focus especially laid on the isolated DNA not contain PCR inhibitors which would prevent DNA amplification, thus inhibiting the detection itself. For optimising the individual methods, collection strains of the genus Aspergillus were used. After the evaluation, two most suitable methods were selected and chosen for isolating potentially aflatoxigenic moulds taken

the commercially supplied kit for isolating DNA from plant leaves from Sigma and a classic method according Cenis in combination with the cell wall disruption by means of liquid nitrogen.

**Keywords:** 

fungal DNA; DNA isolation; PCR; *Aspergillus* 

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