The Inhibition of Contaminated Molds by Some Essential Oils in Cheeses

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INTRODUCTION

Mould growth on cheeses should be inhibited by some preservation methods, such as chemical food preservatives. But consumer perception that the use of industrially synthesized food preservatives may be associated with potential toxicological problems has generated interest in the use of naturally occurring compounds \cite{1}. Some certain herbs, spices or their oils with well-known antimicrobial properties have been used for a long time in some foods such as cheese to prevent fungal growth \cite{2}.

THE CONTAMINATED FUNGI STRAINS COMMONLY ISOLATED FROM CHEESES

Mold growth except mould-ripened cheese varieties on the cheese surface causes undesirable flavor, economic loses and quality problems which of them are capable of producing toxic secondary metabolites. The genus most frequently isolated was \textit{Penicillium} sp. producing mycotoxins such as ochratoxin-A and citrinin as responsible for spoilage in cheeses \cite{3}.

USING SOME EOS FOR THE CONTROL OF UNDESIRED MOLDS IN CHEESES

The selected plant essential oils have been classified as generally recognized as safe (GRAS) by the Unites States Food and Drug Administration (FDA) as approved flavors or food additives \cite{4}. It was determined that the growth of \textit{Penicillium} sp. could be inhibited with phenolic compounds Eos \cite{5}.

CONCLUSION

Natural phenolic compounds could inhibit the growth of the fungi and their toxin production. This is a consumer pressure to reduce the use of such preservatives and perhaps replace them with other more natural ones. They could be used by the food industry as antifungal agents without toxic risk. Eos or their products could be treated with cheeses in order to protect from fungal contamination. The using of some essential oils treatment on the surface of cheeses for inhibiting undesired fungi may be an alternative protection instead of chemical in future.
REFERENCES


