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Sea salts as a potential source of food spoilage fungi

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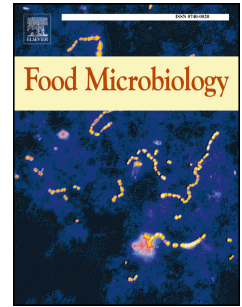
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1 **Sea salts as a potential source of food spoilage fungi**

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11 **Abstract**

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13 Production of sea salt begins with evaporation of sea water in shallow pools called salterns, and
14 ends with the harvest and packing of salts. This process provides many opportunities for fungal
15 contamination. This study aimed to determine whether finished salts contain viable fungi that
16 have the potential to cause spoilage when sea salt is used as a food ingredient by isolating fungi
17 on a medium that simulated salted food with a lowered water activity (0.95 a_w). The viable
18 filamentous fungi from seven commercial salts were quantified and identified by DNA
19 sequencing, and the fungal communities in different salts were compared. Every sea salt tested
20 contained viable fungi, in concentrations ranging from 0.07 to 1.71 colony-forming units per
21 gram of salt. In total, 85 fungi were isolated representing seven genera. One or more species of
22 the most abundant genera, *Aspergillus*, *Cladosporium*, and *Penicillium* was found in every

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