

Microorganisms with technologically beneficial use

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Abstract

Microbial food cultures have recently come under various regulatory frameworks. Several of those regulatory frameworks put emphasis on “the history of use”, “traditional food”, or “general recognition of safety”. Authoritative lists of microorganisms with a documented use in food have therefore come into high demand. One such list was published in 2002 as a result of a joint project between the International Dairy Federation (IDF) and the European Food and Feed Cultures Association (EFFCA). The “2002 IDF inventory” was focused mainly on commercially available dairy cultures, and thus an updated inventory with a wider scope has been in high demand. A new IDF work group has now established an up to date inventory of microorganisms used in production of fermented foods. This inventory contains the species currently used in commercial food starter cultures as well as the microorganisms documented to constitute the safe and beneficial components of the complex associations employed in food fermentation processes.

Advances in genetics and physiology have greatly increased our understanding of microbial phylogeny and have led to substantial changes in microbial taxonomy. These advances have generally facilitated the safe use of microorganisms, but have also lead to some problems from a regulatory point of view, for example some newly described species with a long history of use may possibly be considered as novel. The more difficult problem to reconcile is basing a regulatory framework on evolving taxonomy when leading taxonomists cannot find a consensus position for the definition of the taxonomical unit or species. The taxonomy used in the inventory is based on species names with standing in nomenclature in May 2011.

The present “Inventory of MFC” contains 183 bacterial species and 30 species of yeasts and molds.

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