Table of Contents

Editorial Board

For Authors

- Authors Declaration
- Instruction to Authors
- Guide for Authors
- Copyright Statement
- Submission

For Reviewers

- Guide for Reviewers
- Reviewers Login

Subscription

Czech J. Food Sci.

A. Kunicka-Styczyńska, E.

Pogorzelski: l-Malic Acid Effect on Organic Acid Profiles and Fermentation By-products in Apple Wines

Czech J. Food Sci., 27 (2009): S228-S231

Industrial wine yeasts Saccharomyces bayanus and two interspecies hybrids (S. cerevisiae × S. bayanus) were checked for their suitability for fermentation of apple musts with different L-malic acid content (4, 7 and 11 g/l). The fermentation profiles including main organic acids, acetaldehyde, diacetyl, glycerol, esters and polyphenols were presented. The results were obtained by HPLC method (organic acids, acetaldehyde, glycerol, diacetyl), GC (esters), colorimetrically (polyphenols) and enzymatically (L-malic acid, ethanol). Although the fermentation profiles of wines were characteristic for specific yeast strains, similarities in organic acid profiles of wines fermented by S. bayanus

and its hybrid S-779/25 were noted. In all the tested wines L-malic, pyruvic and citric acids were dominant. Statistical analysis of all wine parameters indicates that yeast strains respond individually to different acidities of the fermentation environment. In order to choose the right yeast strain for the fermentation of acidic musts, information about fermentation profiles should be included in the collection certificate of yeast strains.

Keywords:
L-malic acid; organic acid profiles; wine yeast; Saccharomyces bayanus; interspecies hybrid

[fulltext]