

Changes on free amino acids during the alcoholic fermentation of strawberry and persimmon

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Summary: Changes in amino acids and ammonium were monitored during the alcoholic fermentation of strawberry and persimmon purees. Fermentations were carried out either by autochthonous or by commercial yeasts. The amino acid content in strawberry and persimmon was lower than that of grapes but enough to successfully perform the alcoholic fermentation, showing a different consumption pattern. Arginine, although is not present in the most strawberry substrates, appears in strawberry wines (2.75-3.36 mg L⁻¹). Additionally, as opposed to grape wine, an exceptional high consumption of proline was observed during the alcoholic fermentation of strawberry purees. The consumption of amino acids was highly influenced by the substrate and the *S. cerevisiae* strain used for the fermentation process. These results were confirmed by principal component analysis, which was able to group the samples based on substrate, harvest or yeast strain, considering the amino acids as variables. © 2014 Institute of Food Science and Technology.

6-aminoquinolyl-N-hydroxysuccinimidyl carbamate

Fermentation

Fruit wines

Yeast-available nitrogen

Amino acids

Fruits

Principal component analysis

Substrates

Yeast

6-aminoquinolyl-N-hydroxysuccinimidyl carbamates

Alcoholic fermentation

Available nitrogen

Consumption patterns

Fermentation process

Free amino acids

Fruit wines

Yeast strain

Fermentation