

Nata organisms: An overview on the fermentative microbial ecosystem

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The *Acetobacter* and *Gluconacetobacter* genus (both from the *Acetobacteraceae* family) are the most notable acetic acid producers, their intermediate metabolites being exploited biotechnologically for the production of vinegar, Kombucha, cocoa and nata de coco.

Extensive efforts are being made to better understand the dynamic interplay of microbial populations during fermentation processes, with ample literature existing on virtually every food product currently being consumed. In the case of nata de coco, *Gluconacetobacter* strains have been found to play a key role in cellulose production. Despite abundant literature with isolated cellulose-producing strains, little work has been done in analysing population dynamics of the microbial communities. This presentation will address the microbial interplay in the production of nata de coco, with an overview of the taxonomy of the major acetic acid strains involved. An overview on the efforts and potential implications of upgrading nata de coco production through biotechnology will also be addressed.