

Toxin production by bacterial endosymbionts of a *Rhizopus microsporus* strain used for tempe/sufu processing.

Rohm B, Scherlach K, Möbius N, Partida-Martinez LP, Hertweck C (2010) Toxin production by bacterial endosymbionts of a *Rhizopus microsporus* strain used for tempe/sufu processing. *Int J Food Microbiol* 136(3), 368-371.

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Abstract

Mould fungi are not only well known for food spoilage through toxin formation but also for the production of fermented foods. In Asian countries, the fermentation of soy beans and tofu for tempe and sufu production with various *Rhizopus* strains is widespread. Here we report the finding of toxinogenic bacteria in a starter culture used for sufu production. By means of metabolic profiling of the fungus under standard conditions for tempe and sufu production, we found that toxins of the rhizoxin complex are produced in critical amounts. Considering that rhizoxins are severe toxins with strong antimitotic activity it is important to notice that our findings uncover a health-threatening symbiosis in food processing. A simple PCR method for detecting toxinogenic endofungal bacteria in starter cultures is proposed.

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doi: 10.1016/j.ijfoodmicro.2009.10.010

PMID: 19942312

