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Chemical and Microbiological Characteristics of Sardine Meals Fermented with *Aspergillus oryzae* IFO 4202

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Sardine moist meals were inoculated with *Aspergillus oryzae* IFO 4202 and fermented. Accompanying the growth of the fungus, the chemical composition significantly changed during incubation. The fermentation contributed to the increase of lipids and reduction of histamine. Glucose supplement during fermentation inhibited the production of volatile basic nitrogenous compounds. The fermentation maintained superior quality of the proteins, protecting amino acid residues during incubation. The initial bacterial cell counts in meals were 3×10^2 CFU/g.

CFU/g in 72-h incubation. The Gram-negative rod-shaped bacteria: *Moraxella* spp. and *Acinetobacter* spp., were predominant in the positive bacteria, especially *Micrococcus* spp., gradually became predominant during incubation. Fermentation and glucose supplement enhanced this process. Fermentation with *Aspergillus oryzae* IFO 4202 FSTI of glucose was considered to be effective for improvement of the chemical and microbiological quality of fish meals.

Keywords: [sardine](#), [fish meal](#), [Aspergillus oryzae](#), [fermentation](#), [glucose](#), [bacterial flora](#)

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