

Antimicrobial Effect of Natural Medicines on Bacterial Species from Soybean Curd Residue

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Soybean curd residue (SCR), known as a major waste product of soybean processing, is the water-insoluble fraction which is removed by filtration during soymilk production. For these reasons, SCR was usually considered as food waste. SCR might have a good potential as a functional food material, value-added processing and utilization. SCR contains high-quality protein and consists of a good source of nutrients, including protein, oil, dietary fiber, minerals, along with un-specified monosaccharides and oligosaccharides. Also, SCR might be a potential source of low cost protein for human consumption. However, SCR could be a source of bacterial contamination when during food processing. This study was aimed to investigate antibacterial capacity of natural product through detecting relationship between SCR and microbial. We isolated five bacterial strains from SCR and elucidated antibacterial activity of nature medicines to extend storage capacity of food made with SCR. Thus, the extract which showed antibacterial effects in *Corynebacterium callooniae* and *Raoultella amithinolytica* is a combination of seven kinds of extracts: *Glycyrrhiza uralensis*, *Cudrania tricuspidata*, *Salvia miltiorrhiza* Bunge, blueberry, *Acorus gramineus*, *Ginkgo biloba* L., *Camellia sinensis*. This study suggested that antibacterial activities of natural medicines could be used for extension of storage capacity in SCR-contained food.

Key words: Soybean curd residue, Antibacterial, Microbial, Storage capacity

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