

## Application of Herbs and Spices Extracts as Preservatives for Wet Noodles

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### Abstract

In Indonesia wet noodles generally produced by home and small scale industries. Due to the characteristics of wet noodles, this product undergoes spoilage quickly. This has stimulated the use of preservatives to prolong shelf life of wet noodles. Unfortunately, the lack of knowledge and awareness of wet noodles producers has caused the use of illegal substances to preserve wet noodles. The purpose of this study was to apply herbs and spices as alternatives wet noodles preservative which easy to applied in household and small scale industries. The herbs and spices included in this study were Indonesian bay leaves (*Syzygium Polyanthum* (Wight.) Walp), galangal (*Alpinia galanga* L. Swartz), and garlic (*Allium sativum*). The results showed that based on sensory observation on odor and appearance, fresh garlic, boiled bay leaves, and fresh as well as boiled galangal extracts were able to extend the shelf life of wet noodles. However, microbiologically the addition of herbs and spices extracts did not improve the shelf life of wet noodles significantly. The additions of the extracts were more effective to inhibit the growth of mold and yeast, especially for fresh garlic extract. During storage, wet noodles with extracts of fresh garlic, boiled bay leaves, and fresh and boiled galangal showed decrease in pH, although not significant. Noodles with boiled bay leaves extract were less favorable because of the dark brown colour. Wet noodle with garlic extract was also less favorable because of the strong aroma. While noodles with galangal extract was still favorable since the addition of the extract did not affect the noodles appearance. The herbs and spices extract addition increased the production cost; the garlic extract cost was the most expensive as compared to the other herbs/spices extracts.