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## Pemanfaatan Asam Laktat Hasil Fermentasi Limbah Kubis sebagai Pengawet Anggur dan Stroberi

## The Utilization of Fermented Lactid Acid of Cabbage Waste as Grape and Strawberry Preservation

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Abstract:

Waste if the fermented cabbage has the potential to be used as a food preservative ingredients. The purpose of this study was to utilize lactic acid fermented cabbage as a preservative waste fruit and strawberry wine. This type of research is experimental, while steps include: waste fermentation cabbage with 3% NaCl, microbiological and organoleptic test. Organoleptic tests include aroma, texture and color. A total of 20 pieces and 20 pieces Strawberry Wine used in this study, 10 pieces were used as controls and 10 pieces were used as treatments for each type of fruit. The treatment group was soaked in a solution of lactic acid fermentation proceeds cabbage as much as 100 ml for 1 to 7 x 24 hours. Microbiological test results showed that the number of microbes on the fruit wines, on the 5th day control as much as 3.6 x 106 cabbage / gram and on the 5th day of treatment as much as 6.0 x 106 cabbage / gram. The number of microbes on the fruit Strawberries, on the 5th day control as much as  $3.0\ x\ 106$  cabbage / gram and on the 5th day of treatment as much as  $5.8\ x\ 106$ cabbage / gram.Untuk fruit wine organoleptic test results on the control day-to-5 blackish-red fruit, smell (++), the fruit does not experience shrinkage, and on treatment day 5, red fruit is still fresh, smell (+) and fruit suffered swelling of 1.398 gr. Strawberries organoleptic test results show on the control day-to-5 blackish-red fruit, smell (++), fruit shrinkage by 10 grams, and the treatment day 5, a faded red fruit, smell (+), as well as fruit experienced swelling of 2.172 gr. The conclusion that can be drawn is that the number of microbes in treatment more than in the control because of the lactic acid bacteria, shrinkage at greater control of the treatment. Thus the lactic acid from fermented cabbage waste can be used as a preservative of fruit wine and strawberries.

Keywords: Lactic Acid, Waste Fermented Cabbage, Preservatives, Grapes, Strawberries.

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