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## Effect of commercial salts for the growth of microorganisms in Kimchi fermentation.

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The effects of various kinds of salts including Hanju, Chunil, Gueun and Bamboo for the growth of microorganisms in Kimchi fermentation were examined. Among various microorganisms related to the Kimchi fermentation, the growth of *Leuconostoc mesenteroides*, *Lactobacillus plantarum*, *Pichia membranaefaciens* and *E. coli* were selected. Experiment conditions are as follows : Each salt was adjusted to 3% or 5% concentration. The temperature and the initial pH were adjusted to 37°C, 18°C and 10°C and pH 5.3, pH 4.3 and pH 3.6, respectively.

The production of bacteriocin from *Lactococcus lactis* J-105 was also examined at 18°C in the presence of 3% or 5% salts concentration.

The growth of *Leuconostoc mesenteroides* was inhibited in proportion to the reduction of cultural temperature and initial pH. 5% salt concentration decreased the growth regardless of the kinds of salts. The growth of *Lactobacillus plantarum* was strongly inhibited by the 5% concentration of Bamboo salt during incubation at 18°C. When *Lactobacillus plantarum* was cultured at 10°C, its growth was remarkably decreased regardless of the kinds and concentration of salts.

In the case of *Pichia membranaefaciens*, Bamboo salt strongly inhibited the growth regardless of the temperature and initial pH. Apparent effect of inhibition on the growth of *E. coli* was also observed with Bamboo salt at 18°C.

The bacteriocin activity from *Lactococcus lactis* J-105 was decreased at the 5% concentration of all kinds of salts. Although the bacteriocin was slowly produced in the presence of salts, its activity was maintained during long period of incubation.