

**【P4 - 20】**

**Studies on Changes in Quality Properties of *Kochujang* by *Paecilomyces japonica* addition**

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Change in quality properties of the *Kochujang* prepared with the powder of *Paecilomyces japonica* and extract of *P. japonica* by different solvents were investigated during 90 days of fermentation at 20°C.

The moisture content was not significantly different from other *Kochujang* because moisture content was controlled during manufacturing in proportion to the addition of *P. japonica*, but in general increased in proportion to fermentation time. PH of *Kochujang* made with *P. japonica* was lower than control group and decreased continuously according to the fermentation time. Amino nitrogen continuously increased till 60 days and decreased slightly on 90 days. Amino nitrogen of *Kochujang* made with *P. japonica* was higher than control group and was highest on 30 days and 60 days by 179.2mg% and 282.2mg% respectively. Value of L, a, b in Color decreased with proportion to fermentation period and L, a, b value of *Kochujang* made with *P. japonica* was lower and in particular that of *Kochujang* made with *P. japonica* powder was lowest.

From the result of sensory evaluation test, the color of control group was similar to "clear red" but that of *Kochujang* made with powder of *P. japonica* was close to "dark reddish brown" and that of *Kochujang* made with extract of *P. japonica* was darker than that of control group and the preference of dark color was low. Texture was "glossy and smooth" in all and preference was high. In salty taste, the *Kochujang* by *P. japonica* addition was stronger and *kochuang* made with extract was stronger than that made with powder. In hot taste, the *Kochujang* made with *P. japonica* was weaker than control group and the *Kochujang* made with *P. japonica* was scored higher in flavor than control group and *Kochujang* made with powder of *P. japonica* was the highest in score. In overall preference, the *Kochujang* made with *P. japonica* was better than control group like the result of flavor but especially *kocujang* made with water extract of *P. japonica* among the extract was best one unlike the result of flavor.