리의 전통주의 연구와 개발이 활발히 진행되고 있다. 또한 최근 미곡의 과잉생산으로 인한 과잉쌀생산에 대한 수요체 창출을 위한 쌀가공품의 개발이 매우 시급한 실정이다. 최근 알콜농도가 낮은 술을 선호하는 경향과 전통주의 특수한 풍미로 인하여 현재 전통주는 많은 사람들로부터 각광을 받고 있어서 현재 몇몇 지역에서 민속주와 토속주가 허가되어 시판되고 있다. 진양주는 전남 해남지역의 전통민속주로서 해남지역에서 생산되는 찹쌀을 원료로 하여 상온에서 발효시키는 독특한 방법으로 제조되는데 이 진양주는 발효과정에서 외부환경의 영향을 많이 받게 된다. 그중 외부온도는 진양주의 품질에 직접적인 영향을 미치게 된는데 아직까지는 진양주제조과정에서 최적발효온도에 대한 연구는 보고된 것이 없다. 본 연구에서는 발효온도를 20℃와 25℃로 하였을 때 발효과정에서 술의 품온, pH, 당도, 알콜함량, 총산의 변화를 조사하였으며 관능검사를 통하여 종합적인 기호도를 평가하여 최적의 발효온도를 탐색하고자 했다. 발효과정에서 술의 품온은 온도계를 사용하여 측정하였고 pH는 pH-meter로 측정하였으며 당도는 당도계를 이용하여 측정하였다. 알콜함량과 총산은 국세청의 주류분석규정에 따라 증류법과 중화적정법을 사용하여 측정하였다. 관능검사는 식품공학과 대학원생과 학부생 10명을 대상으로 종합적인 기호도에 대하여 5단계 평점법으로 실시하였다. 20℃에서 발효시 품온은 20.2~23.8℃ 사이에서, 25℃에서 발효시 품온은 25.2℃~28.2℃사이에서 변화되었고 pH는 20℃ 발효시 3.47~4.62 사이에서, 25℃ 발효시 pH는 3.28~4.65사이에서 변화되었고 최종 pH는 20℃에서 발효시 3.71로써 25℃ 발효시 3.58보다 높았다. 최종당도는 20℃, 25℃ 발효시 각각 10.2°Brix와 8.4°Brix 였고 알콜농도는 20℃발효시 13.8%로 25℃ 발효시 14.8% 낮았으며 총산은 20℃ 발효시 1.32%로 25℃ 발효시 1.62%보다 낮게 나타났다. 관능검사를 통한 종합적인 기호도는 20℃에서 발효시킨 진양주가 4.2로써 25℃에 발효시킨 진양주 3.5보다 높은 것으로 나타났다. 관능검사시 25℃에서 발효한 진양주는 신맛이 많이 난다는 결과로 볼 때 최종 pH가 3.58로 낮고 총산이 1.62%로 높아서 나온 결과라고 생각된다. 결론적으로 진양주를 제조할 시 발효온도는 20℃가 발효온도 25℃보다 더 적합하다고 생각된다.

[P-102]

누에 동충하초(*Paecilomyces japonica*)를 첨가하여 제조한 된장의 품질특성 변화에 관한 연구

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A Study on the Quality Characteristics of *Doenjang* Prepared with *Paecilomyces japonica*, from Silkworm

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Change in quality properties of *Doenjang* prepared with the powder of *Paecilomyces japonica* and extract of *P. japonica* by different solvents were investigated during 90 days of fermentation at 20℃. The moisture

content was not significantly different, pH of *Doenjang* 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. Value of L, a, b in Color decreased with proportion to fermentation period and L, a, b value of *Doenjang* made with *P. japonica* was lower and in particular that of *Doenjang* made with *P. japonica* powder was lowest. From the result of sensory evaluation test, the color of control group was similar to "yellow" but that of *Doenjang* made with powder of *P. japonica* was close to "dark brown" and that of *Doenjang* 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, *Doenjang* by *P. japonica* addition was stronger and *Doenjang* made with extract was stronger than that made with powder. *Doenjang* made with powder of *P. japonica* was weaker than other groups in sweet taste. In flavor and overall preference, *Doenjang* made with *P. japonica* was scored lower slightly in than control group and *Doenjang* made with powder of *P. japonica* was the lowest in score.

Key words : *Paecilomyces japonica*, *Doenjang*, Quality Characteristics, Extraction, Sensory evaluation

[P-103]

누에 동충하초(*Paecilomyces japonica*)를 첨가하여 제조한 고추장의 품질특성 변화에 관한 연구

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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℃. The moisture content was not significantly different, 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 expecially *Kocujang* made