

EFFECT OF BRINING TIME ON THE QUALITY OF WET SALTED DRIED TILAPIA FISH



By

M.Nilani



FTC292

Main Library, Eastern University, Sri Lanka

Department of Biosystems Technology, Faculty of Technology

Eastern University, Sri Lanka

2026

ABSTRACT

Tilapia is an excellent source of macro and micronutrients. It has a very short shelf life (12 to 24 hours) at normal temperature. Preservation method is very important to extend its shelf life. Combining salting and drying is one of important preservation methods of Tilapia. This study was focus on effect of brining time on the quality of wet salted dried Tilapia fish. The research evaluated the effect of different brining times on the physicochemical properties, sensory characteristics and ensure microbial qualities of wet salted dried Tilapia fish. Five diffrent time period were used to wet salting the Tilapia fish (T₁:1 minute, T₂:30 minutes, T₃:1 hour, T₄:1 hour 30 minutes, T₅:2 hours). Physicochemical analysis revealed that increasing the salting time ash and protein content increased but moisture, fat content and pH decreased. Color L* value (Lightness) was increased but a* value (Green to red) and b* value (Blue to yellow) were decerased according to increasing wet salting time. Sensory evaluation was conducted by 30 semi trained panalist, using seven point hedonic scale to assess texture, flavor, taste, color and overall acceptability. The results showed that 2 hours wet salting Tilapia fish (T₅) received the highest preference scores among tested duration. Microbial analysis after 48 hours of incubation the fungi and bacterial colonies of microbes were reduced according to increasing salting time of Tilapia. Tilapia fish at 2 hours of wet salting (T₅) had better results than the other treatments. The study offers valuable insides into the wet salted preservation of Tilapia, demonstrating that optimal brining time significantly enhances the effectiveness of the preservation process.

Keywords: Brine salting, Microbial quality, Physiochemical quality, Salt penetration, Sensory evaluation.

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