

## **Factors influencing the nutritional composition, quality and safety of dried fishery products**

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Dried fishery products are popular processed food items throughout the world. However, there is a frequent complain about the quality and safety of dried products. To reduce quality loss of dried fishery products, excellent quality raw materials with vacuum drying, oven drying, solar tunnel drying with different pre-treatments of chlorinated wash, bleeding, gutting, blanching, ultrasound, and treatment with various plant extracts have a broad potential application for the improvement of quality and safety of the dried products. Moreover, various chemical preservatives have also been found to be effective in increasing better organoleptic scores of the products although they have potential health hazards. Drying temperature and relative humidity should below 60°C and 10-43%, respectively to prevent loss of nutrients, quality decrease and consumer acceptability. Multilayer plastics, polyethylene films of high gauge, poly vinyl alcohol film containing 2% green tea extract along with vacuum packaging and oxygen scavenger packaging ensure the best quality protective effectiveness to prevent the dried fishery products from absorbing moisture and oxidizing of lipid. Recommended storage conditions for dried products are <60% relative humidity and temperature from 0-10°C; low oxygen levels of 0.5%. Low dose gamma irradiation (<5 kGy) reduces microbial loads, extends the shelf life and improves the taste and texture of dried fish. Ultraviolet light treatment, 10 mins cold oxygen plasma treatment, 3 mins atmospheric plasma treatment, corona discharge plasma (0-3 mins) and high hydrostatic pressure effectively inactivate the microbial contaminants from dried fishery products with better sensory properties. These findings will be helpful to develop an effective quality control for producing safe fishery products for domestic consumption and earning foreign currency.

**Keywords:** Dried fishery products, Factors, Nutritional composition, Quality, Safety