

Utilization and Post-Harvest Technology of Sardine, in Relation to Nutrition and Health

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Summary

Fish consumption in Japan is very high compared with other countries. Consumption runs at approximately 96 grams daily per capita, providing a good balance of protein, fats and oils, and carbohydrates.

The total fish catch in 1985 was 12,170,000 tonnes. The largest component was sardine which, at 4,200,000 tonnes, accounted for 34.5% of the total.

Attempts are being made to go beyond traditional sardine products to new forms such

as surimi. In fatty sardine fish (with lipids ranging about 10-20%), the characteristic components are generous amounts of polyunsaturated fatty acids (PUFA), which lower blood cholesterol level. One of the PUFA, eicosapentaenoic acid (EPA) has the effect of lowering incidence of adult diseases such as myocardial infarction. Gelatin capsule including tocopherol is useful for the prevention of fish oil oxidation.

Tests of traditional dried sardine products showed that lipid oxidation and hydrolysis had already occurred.