

Research Progress of Drying Processing Technology of Tilapia

Abstract: Drying is one of the important methods in tilapia processing. Dried tilapia food can meet the requirements of consumers in nutrition, color, flavor and other aspects, and is easy to preserve, widely loved by consumers.

The main drying technologies of tilapia include [microwave drying equipment](#), heat pump drying, vacuum freeze drying, vacuum microwave drying, supercritical CO₂ drying and combined drying. This paper will discuss the types, advantages and disadvantages, research progress, application status and development trend of tilapia drying technology in recent years.

Key words: [tilapia microwave drying](#); processing; energy saving; research progress



China has become the largest country in Tilapia breeding and production. In the past 10 years, its output has increased at an average rate of 14.75% per year, accounting for about one third of the world's total output, which ranks first in the world. Tilapia is one of the most important freshwater aquaculture species in China, and one of the most competitive and industrialized freshwater fish species.

Tilapia has the characteristics of fast growth, good meat quality, high yield and rapid reproduction. It has become a world-wide cultured fish with high economic value. It is also known as one of the main sources of animal protein in the future. It has the advantages of rich nutrition and delicious taste.

Because the water content of tilapia is about 70%, it is easy to decay and deteriorate. In order to maintain the quality of tilapia meat, effective processing technology and reasonable storage and processing must be adopted.

At present, the main storage and processing methods of tilapia are drying and freezing. Freezing processing is relatively simple, but the initial investment of equipment is large, and the later transportation cost is relatively high. Drying processing is a traditional and common technology for aquatic products preservation, and it is also one of the important processes in the process of aquatic products processing.

Drying is a very complex process. The research on Tilapia drying methods at home and abroad

mainly includes hot air drying, heat pump drying, vacuum freeze drying, vacuum microwave drying, supercritical CO₂ drying, combined drying and so on.

Each drying method has its own advantages and disadvantages, and no drying method can meet all aspects of technical requirements of products. This paper mainly analyzed the characteristics of tilapia drying technology, and put forward the development trend of tilapia drying technology in the future, in order to promote the research and development of tilapia deep processing technology in China.

