

## Editorial

# Insights into Bacterial and Fungal Communities from Serofluid Dish: A Traditional Chinese Fermented Food

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Received: October 07, 2016; Accepted: October 10, 2016; Published: October 14, 2016

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Serofluid dish, is unique to the northwest region of China is a seasoning and beverage flavor of a soup, its sweet and sour, cool juice color such as nectar, fragrance attractive, especially when people enter the heat of the summer season, bowl of pulp water, it can be described as both cool and refreshing, but also quench their thirst Qu Shu, which is much loved by patrons. According to *Materia Medica Meng Quan Description*: Cook cooked millet rice, by heat into the cistern, cold flooding in the five or six, the taste of acid and white flowers, color pulp, named pulp or hot when the tea, or porridge for porridge Sip, wake Chufan, digestion and thirst, to reconcile the organs and said. Ming China's long ago began to produce and consumption of pulp, Chinese medicine, pulp sweet acid, cool, can be in the stomach, the stagnation of thirst According to medical research, eat some celery pulp on high blood pressure and other patients with hypertension can play a stable or lower blood pressure and soften blood vessels. Serofluid dish (or jiangshui, in Chinese) has a history of more than two thousand years, as a traditional Chinese fermented foods, is made from vegetables (celery and lotus dishes Etc.) by fermentation [1]. With the development of science and technology we have found a series function of serofluid dish. For example, it has the effects of improving digestion, lowers cholesterol levels and fall blood pressure in vitro and in vivo [2]. Besides, microbes have been studied previously in Serofluid dish fermentation [3,4]. On the other hand, the lactic acid bacteria have been identified in serofluid dish [5]. Has served as low calorie food that has been one of the major carbohydrate and vitamin source in Chinese diet. Can be drunk alone can also be cooked with raw materials into the food flavor of the unique cultivation of rich health effects, to further expand the use of pulp processing and utilization of the way has important scientific and economic value.

Serofluid dish is fresh celery and other vegetables into the soup or rice soup after a variety of micro-organisms co-fermentation of a fermented food. Most of the traditional slurry from the natural fermentation, in the course of this inevitable by many factors and constraints, such as raw material processing temperature. In the whole fermentation process, any part of the accident may lead to abnormal fermentation or even failure, the natural fermentation time required

for a longer fermentation and the fermentation quality is not stable, is not conducive to large-scale factory and standardized production. The use of artificial inoculation fermentation can avoid the shortage of natural fermentation and is to achieve the pulp production of industrial production of better processing methods. However, the method of inoculating fermenting slurry is still in the laboratory research stage. One of the bottlenecks is the lack of pure culture characteristics of the fine fermentation of bacteria. Slurry vegetables are a branch of the fermentation of the main processing mechanism, if the nutritional role of soup by the role of microbial fermentation of protein decomposition and blanching effect. Although the northwest region of China has been eating edible pulp years of history. However, most of a series of studies in last two decades have shown less than 1% of the microbes of a community are possibly cultured in vitro with known cultivation approach, but 99% still remain unexplored [6]. We do not know the type of microorganisms, so it is difficult to cultivate [7]. As one of the traditional fermented vegetables in China, there are some commercial products in the market, but most of them are produced by themselves or small factories. The market is short of production and processing standards. The processing volume is small, the consumption period is short. The product health is difficult to be guaranteed, the quality of instability, the preservation of a single measure, inconvenient to carry, consumption of the strong limitations of the production of long-term lack of system production, technical optimization and theoretical research and development are very limited, more difficult to achieve the modernization of traditional high-quality food. Nitrate in vegetables can be converted into nitrite, nitrite and food decomposition products in the amine-amine reaction, generating N-nitroso compounds, which are carcinogenic substances. It is generally believed that the content of nitrite in fermented vegetables is high, which directly affects the development of fermented vegetables. Most of the pulp water for the family-style production, in the production process, highly susceptible to contamination of bacteria, the quality of the finished product instability, to a certain extent affected the pulp of the market, so that pulp market in the domestic and international market visibility is low. Vegetable raw materials affected by the season, processing a single, flavor improvement research less, so that pulp long-term single taste in the status of a single product, while the short shelf life due to pulp water, finished product preservation by environmental factors, greatly restricted it is difficult to realize the industrialization and how to optimize the preservation measures of pulp water and effectively extend its shelf life, a more comprehensive study needs to be carried out. It is time to analyze the entire population and their functional potentiality in fermented food [8,9].

Aerobic bacteria such as *Bacillus subtilis*, *Saccharomyces cerevisiae* and *Acetobacter* were dominant in the early stage of the natural fermentation, a number of acid-resistant yeast increased [10,11]. If this stage to continue fermentation, will have a strong flavor

of alcohol or yeast flavor affect product quality; more than 10 days if not sterilization preservation, acid-resistant mold will breed, causing rotten products [12]. In the serofluid dish sample studies, there are lots of bacterial colonies, such as lactobacillus, pediococcus and so on. We need to further understand the prokaryotic and eukaryotic organisms, lay a foundation for its industrialization [13].

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