

## Short Commentary

### The Property and Application of Shiitake Mushroom

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#### Introduction

Shiitake mushroom (香菇, xiāng gū) has been considered as functional food for decades in modern world. But in Chinese history, Shiitake mushroom has been known for its nutritional and culinary values as well as tonics herbs and used as medicines for centuries.

In Chinese, the word of Shiitake mushroom means "fragrance mushroom". Foragers may find wild shiitake mushrooms grown in East, Southeast Asia due to the lukewarm to warm temperature and high humidity. It is recorded that shiitake mushroom had been cultivated back to 800 years ago. Now by the progressive development of agriculture, shiitake mushroom can thrive in nursery farming under the control of temperature and humidity. It has become a sustainable mushroom compared to other mushroom species. Thanks to the advance of technology, the mushroom farm in Asia applied wood log and wood dust bag to grow mushroom. The wood logs were made of Maple tree, Acacia tree Ring-cupped Oak and are planted with fungi spores (Figure 1). The differences of environment, such as the varieties of trees, light, temperature, acidities, relative humidity, wind and altitudes and the height of mountains influence the grow of mushrooms and the morphologies, qualities and colors.



**Figure 1:** The mushroom farm.

In Chinese cooking, shiitake mushroom play an important role no matter what we cook i.e. in meat, soup, and vegetarian meal (Figure 2). Even in soy sauce, flavors seasonings powder, shiitake is the subtle main ingredients to increase “umami” flavor in meals.



Figure 2: Shiitake mushroom.

Shiitake mushroom is alkaline food considered as “queen” in plant related food because it contains much essential nutrients for human being’s need such as protein, Fat, Carbohydrates, Vitamin B, K, and Iron. No to mention that there are 30’s enzymes and more than 20 amino acids in mycelium of shiitake mushroom with along being source of antioxidants and boost immunity. Furthermore, it contains Vitamin D precursor “Ergosterol”. Either you eat fresh shiitake mushroom or solar dry ones. After sun exposure, the Ergosterol will turn into Vitamin D within body. The shiitake mushroom fruit body produces aroma called “lenthionine”. Some basic researches state artificially synthesized sporocarp has the beneficial effect for cancers up to 90%. The main component for cancer control is from the polysaccharides in herbs. Lentinan is derived from the purification of polysaccharides and served as healthy supplement. In “Ben Cao” noted, shiitake mushroom is “sweet, balanced, non-toxin”. Everyone can get benefit from them. The savory sensation from eating mushroom is thanks to the soluble substances, and one of the main components is (5'-GMP). That’s why mushroom is so popular. The best mushroom is the dried form mushroom, not the fresh ones because during the progress of drying, the enzymes can make the favors richer. Do not wash the fresh mushrooms and wrap the fresh ones directly and put them in the refrigerator. The dried mushroom can be stored in sealed boxes and put under dry and cool spaces. How to choose good mushrooms depends on three steps. Step one: Observe the color Step two: Smell the flavor Step three: Taste the mushroom. Put the trust on your eyes, noses and taste buds. Whenever you cook or making soups, you better use dried mushrooms, especially the “winter mushroom” which is the best of all. In winter, the temperature changes dramatically, and the mushroom will cope with the weather change, resulting in bigger and thicker fungi tooth and stronger flavors. Mushrooms from different districts have diverse qualities and flavors. Good mushrooms is shiny, no crack but the gills corrugated. The more corrugated gills, the better. In winter, mushrooms grow slowly, and the color will be

darker. You’d better choose bigger, thicker mushrooms without damages. The dried mushrooms should have strong and good flavors and if the mushrooms smell like rotten materials, they will be harmful to your health. Otherwise, the drier the mushrooms, the better they are and the longer they can be preserved. The soft dried mushrooms are not qualified and easy to decompose. The more cracks, the flavors of mushroom is light and smell badly.

## DIY Dehydration Shiitake Mushroom

- Prepare 600g fresh shiitake mushrooms
- Just slightly wash the shiitake mushroom and remove the dirt, don’t soak in water.
- Place the shiitake mushroom in dehydrator and set 135F for 16-20 hours.
- Keep the dry shiitake mushrooms in well-sealed bottle and store under cool, dark, dry closet.

## Recipe: Chicken Shiitake Soup

It is a comfort food in Chinese family. During summer, you may also add with fresh bamboo, it tastes fresh and makes spirit uplift. It will expel disturbing mood in hot and tired of the summer season.

### Ingredients:

Chicken thigh	:	(500g)
Goji berry	:	5-6
Ginger	:	5-6 slices
Rice alcohol	:	1ml
Salt	:	1/2 teaspoon
Dry shiitake mushroom	:	6-10 (Depends sizes)

### Procedure:

- Chop chicken thigh into small size.
- Rinse chicken thigh with boiled water.
- Rinse the shiitake mushroom quickly, don’t rinse too long, otherwise, the water-soluble compounds “Polysaccharides” will be wasted. Soaking dry shiitake mushroom in drinking water for half an hour until it is soft. If the size is too big to eat, you may cut in 1/2-1/4.
- Prepare 1Liter water in pot. When the water is boiling, put the chicken thigh, shiitake mushroom, (if fresh bamboo available) and soaking water of mushroom, wait until boil again then turn in simmer for 20minutes. The soaking water if shiitake mushroom is full of aroma and immunity-boost compounds. Do not waste it.

- e) When the soup is done, add the Goji berry, salt, rice alcohol

### Recipe: Stir Shiitake and Pork

- a) Pork meat slice 300g
- b) Fresh shiitake mushroom or dry shiitake mushroom (must pre-soaking for cooking) 10, around 1/2oz
- c) Garlic :1/3 clove crushed
- d) sweet chili peppers: 1/2 pound
- e) Broccoli: 1/2-pound floret
- f) organic extra virgin olive: 2 Tbsp
- g) Salt:1/2-1 teaspoon
- h) White wine: 1 teaspoon
- i) Oyster soy sauce:1 Tbsp
- j) Ginger: 4-5 slices

#### Procedure:

- a) Crush garlic and let sit for few minutes to release more health-promoting properties.

- b) Remove stems from shiitake mushrooms and slice.
- c) Heat fry skillet. When pour the olive oil, add Garlic, Ginger and stir.
- d) Add pork meat, shiitake mushrooms, Broccoli, sweet chili peppers then add some water, white wine, oyster soy sauce and cover for 5 minutes.
- e) Remove skillet cover and season with salt.

**Common Name:** Shiitake Mushroom

**Latin:** *Lentinula edodes* (Berkeley) Pegler, *Lentinus shiitake* Sing., *Tricholoma shiitake* Lloyd, *Collybia shiitake* Schroet., *Lepiota shiitake* Tanaka, *Cortinellus shiitake* P. Henn., *C. edodes* S. Ito et Imai & *Armillaria edodes* Sacc.

**Origin:** China, Taiwan, Japan, Korea

**Properties:** Immunity, Tonic

5 Tastes in TCM : Sweet

Yin and Yang : Balance