Application of edible fungus retort machine in the production of edible fungi

Summary
This is a piece of information about the use of edible fungi and the sterilization of edible fungi and the sterilization process of edible fungi.

In the production of edible fungi, no bacteria is one of the keys to the success of production. In order to better serve the manufacturers of edible fungus retort machines, Zhucheng Zhongyuan Machinery Co., Ltd. sorted the edible fungus production materials for reference. Here, the needle mushroom mushroom retort machine is taken as an example, and other mushroom retort machines are used in the same manner.

First, the process

Preparation → Pretreatment → Mixing of raw materials → Bagging → Sterilization → Strong cold → Inoculation → Cultivation → Mushroom management → Harvesting packaging materials processing and mixing

1. Pre-wet and immerse the prepared raw materials according to the specifications of the production requirements.

2. The pre-wet raw materials are directly transferred to the automatic mixer by the conveyor belt according to the ratio, and fully stirred and mixed. After 20 minutes, the raw materials are stirred.
Second, bagging: Bagging with automatic bagging machine. This machine is a double-press bagging method for disc volume, which replaces the most heavy bagging and pressing process in the bagging operation.

3. Sterilize the culture bag that will be loaded with the material, and send it to the edible fungus with a sterilized turnover car. Most of them are steamed by atmospheric pressure sterilization. The edible fungus retort machine uses water to heat the steam to generate steam. The culture material is heated to 100 °C for 8-14 hours to kill bacteria and mold in the edible fungus raw material. If the temperature reaches 126 °C, the liquid culture material only needs 30-45 minutes to be sterilized thoroughly, solid culture It takes 2-4 hours. This retort machine sterilizes 5000 culture bags at a time.

The steps are as follows:

1. First, pull out the sterilization basket in the pot and load the items to be sterilized. Be careful not to pack too much, so as not to hinder the circulation of steam and affect the sterilization effect. Do not touch the barrel end of the conical flask and the end of the tube to prevent the condensate from drenching the paper at the mouth and penetrating into the tampon.

2. Push the sterilization basket into the retort machine and close the pot door.

3. Steam is introduced into the pot and the exhaust valve is opened at the same time to remove cold air from the pot. After the cold air is completely drained, close the exhaust valve so that the temperature inside the pot gradually increases as the steam pressure increases. When the pressure in the pot rises to the desired pressure, the heat source is controlled to maintain the pressure for the required time.

4. After the time required for sterilization has arrived, open the vent valve to allow the temperature inside the sterilizer to drop naturally, open the lid, and remove the sterilized items.
5. The sterilized medium taken out was placed in a 37 °C incubator for 24 hours, and it was checked if no bacteria were grown.

Edible fungus retort machine

Fourth, inoculation

1. Inoculation: After the sterilization is finished, it is inoculated after cooling. The inoculation room is purified by millions of air, and the operator should be inoculated according to strict aseptic operation.

2. The bacteria: the inoculated culture bags are sent to the fermentation workshop with the culture turnover rack, the fermentation workshop can accommodate 600,000 culture bacteria rods, the temperature is controlled at 18-20 degrees Celsius, the air humidity is 65%, and the carbon dioxide content is 200 mg/kg. The following.

V. After the mushroom is sprayed for 25 days, the good stick is moved into the constant temperature mushroom plant, where it can be controlled by environment such as temperature, light, ventilation, humidity, and CO2 content. After 30 days, the mushroom can be collected.

6. Harvesting Industrialized production is only harvested at a rate of 300-350g per rod. After harvesting, the mushroom stick can be used to cultivate other varieties of
edible fungi in addition to organic returning and fuel, such as: oyster mushroom, chicken leg mushroom and so on.

Edible mushroom factory production industry is an industry that determines the success or failure of details. The cultivation of bacteria, production process, environmental control, pollution prevention and other processes require high technology and rich experience. Among them, the prevention and control of miscellaneous bacteria is a very important link, which is why some edible fungi manufacturers have worse production quality. The number of bacteria in the environment is more and more, the sterilization is not complete, and the bacteria are difficult to control. The advantage of losing edible mushrooms.

jooyan edible fungus retort machine adopts single-tank horizontal carbon steel steam retort machine. The process is simple and the price is cheap. The pot door is equipped with safety anti-missing system. The design is designed according to the high temperature and high pressure of 145 degrees, which can fully meet the requirements of sterilization of edible fungi. It is suitable for sterilization of various edible fungi. According to the production demand, it is equipped with different sterilization baskets and crafts. It can produce various professional edible fungus retort machines for mushroom retort machines.

Steam retort machine
Edible fungus retort machine matching trolley

The advantages of jooyan's edible fungus retort machine are:

1. Sterilization time is short, and sterilization is thorough; avoid sterilization dead angle;

2. The cooling time is short, the bacteria package is cooled from 100 °C to normal temperature in about 35 minutes; the production efficiency is greatly improved, and the retort machine is easily sterilized by multiple drops every day;

3. Completely sterilized, and the cooling is completed under a sealed vacuum state, and the survival rate of the bacteria is almost 0;

4. The cooling temperature is even, the temperature of each part of the bacteria package in the pot, the high temperature retort machine is kept in a uniform state;

5. Steam-type sterilization improves the quality of the bacteria package, and avoids the biological fermentation produced by the bacteria package at 65 °C ~ 30 °C (the growth of the bacteria in the bacteria package occurs long);

6. The working process of vacuum cooling is actually a process of low-pressure puffing of a bacterial material. After the liquid material is vacuum-expanded, it can...
be better harvested for the growth of mycelium and fungal fruit bodies after inoculation. The nutrient content of the bacteria package provides conditions, that is, it can increase the yield of the mushroom (fruit body) and shorten the cycle of mushroom (grill growth). (About three days or so) 7. After the bacteria package is sterilized in the high-temperature retort machine, it can be directly cooled in the pot, thus avoiding the cross-contamination produced by the workers. At the same time, it also avoids the secondary pollution of suspended dust in the air in the traditional air-cooling mode;

Edible fungus retort machine structure diagram

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