

Do I need a pressure cooker if I want to prepare grains?

Grains usually contain higher loads of bacterial endospores which are very hardy and which survive the

Do mushrooms need light to grow and how much ?

Mushrooms are not plants, so they do not require the type and amount of light to grow like plants do.

Different types of mushrooms require different light levels. Specific light level for the type you want to grow.

A source with a wide spectrum of light, especially containing lots of bluish light (natural daylight or white

Should I let the grain sit and soak overnight, or pressure cook right away?

Grain(particularly rye and wheat) carry high loads of bacterial endospores.

If one experiences bacterial contamination problems the grain can be left to soak overnight (up to 24 hours).

If you let it soak too long, the grain itself will eventually start to germinate, which is not desirable. This can

What's the best way to prepare grain for mushroom cultivation?

The 3 most important aspects of grain preparation are to achieve an uniform, correct water content, to

There are 2 main approaches to grain preparation:

Method 1.) Rinse the grain several times under flowing water and simmer it until the grains are soaked

Method 2.) Fill the jars directly with the proper amounts of grain and water and pressure cook for 1 hour

Basic rye recipe for 1 pint jar:

- 100g(3.5 oz ~ 125 ml) rye
- 110g(3.9 oz =110 ml) water
- knife tip full of gypsum

Basic millet or birdseed recipe for 1 pint jar:

- 100g(3.5 oz ~ 140 ml) birdseed
- 80g(2.8 oz = 80 ml) water
- knife tip full of gypsum

If you are going to prepare rye for producing spawn, you might use a tad less water(I use 105g in that case)

Fill into the jar, screw the lid fitted with a polyfill filter or a filter disc on the jar and pressure cook for 1 hour

The water retaining capacity can vary depending on the grain quality, the type and size of the pressure cooker

Which one of the 2 methods is better? It's mainly a matter of personal preference, try both and see what works best for you

When should I shake whole grain jars?

When you prepare whole grain jars, it's good to shake them after the pressure cooking while they are still hot

After the inoculation:

First time you shake the jars immediately after the inoculation.

The second shake should occur once the colonization is visible at around 5-10% of the jar surface.

A third shake can be made after the mycelium is visible at around 50% of the jar surface.

More shaking doesn't always mean faster colonization, so don't overdo it.

Why is dung and straw better pasteurized than sterilized?

There are several reasons for this. Dung and straw are used as so called bulk substrates. This means

The second, probably more important reason is the contamination risk of sterilized substrates.

When you pasteurize substrates at 160-170°F (71-77°C) some beneficial micro organisms, mainly bacteria

This is the reason why you can inoculate bulk substrates with spawn in open spaces without taking special

If you sterilize the bulk substrate it becomes as much susceptible to contaminants as for instance rye grass.

The above is only true for pure dung and straw, the only allowed additives are gypsum and calcium carbonate. As soon you add a additive high in nutrients to the substrate, for instance brown rice flour or wheat bran.

What is casing

The term "casing" as it is used in the mushroom cultivation is the method by which substrate is crumbled.

How and how deep should I apply the casing layer?

Fill the colonized substrate in a opaque casing container, level it with a clean spoon or fork and spoon. Don't try to create a completely flat surface, small vales in the casing surface are beneficial and necessary. The thickness of the casing layer should relate to the depth of the substrate layer (deeper substrate layer). It should be around 1/4th of the substrate depth. So if your substrate is 4 inches deep, the casing should be 1 inch thick.

What is

Overlay is a term that refers to the condition which can occur to an overly colonized casing layer. A casing layer that is too thick will often pull away from the sides of the container.

Why is my casing pulling away from the sides?

Casings will oftentimes "shrink" during the course of colonization, and will often do so towards the ends of the container.

What is a contaminant?

The contaminants are so named solely because they are undesired. If one were trying to culture Peni

The five most probable vectors of contamination are:

1. the cultivator.
2. the air.
3. the substrate to be inoculated.
4. the spores or mycelium that was being transferred.
5. the inoculating tools, equipment, containers, facilities, etc.

Different contaminants are associated with different stages of mushroom cultivation. Contaminants in

Molds and bacteria do not grow well in a climate specifically adjusted for mushrooms. Although both m

The contaminants can be divided into two well defined groups. Those attacking the mushrooms are ca