



How to Prepare Raw Fertile Substrate™

A Brief Guide to Premixed Mushroom Substrate

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Dear Fungaian,

What a joy! You are a symbiont with the mycosphere.

This package contains 10lbs. of raw, uncooked organic manure-based mushroom substrate. Just add water, mix and pasteurize according to the instructions below.

Hopefully this guide offers some helpful tips for preparing it, but for more information about making your own mushroom substrate & spawn, check out our how-to videos at www.fungaia.life/videos.

Thank you for your work to foster fungi. The world could use a lot more people like you.

Fungaia is a homegrown, donation-based business. Your support is deeply appreciated, and helps to sustain a vision for creative education. If you have any thoughts, questions or issues, please get in touch. We're here to help, and we'd love to hear from you.

Mush love!

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Mixing Instructions

Begin by estimating the amount of substrate you will need for your mushroom spawn. Most folks use a 1:1, 2:1 or 3:1 ratio of bulk substrate to grain spawn by weight. The substrate will slightly more than double in weight when water is added.

Measure the water needed according to the table below. For best results, use well-filtered water or pure spring water. Heating the water beforehand will speed absorption. Note: these are estimates. The actual water needed will vary with the fluctuating moisture content of the ingredients.

Dry Substrate Weight	Water Needed	Total Mixed Weight
1 pound	2.5 - 3 cups	2.25 - 2.5 pounds
1 kilogram	1.25 - 1.5 liters	2.25 - 2.5 kilograms
Full box (10 lbs / 4.5 kg)	6.25 - 7.5 qts / liters	22.5 - 25 lbs / 10.5 - 12 kg

Mix all the ingredients in a bucket or large plastic tub. Add most of the water, mix and test before adding the rest. Make sure to get the corners.

Test hydration by squeezing a handful of substrate. It should drizzle water. If only a few drops fall, add more. If it gushes, and water begins to pool in the bottom of the tub, it's too wet and should be drained.

Pasteurizing

Dung-loving mushrooms thrive in a substrate that has been pasteurized, rather than sterilized, to preserve some of its beneficial microorganisms.

For small amounts of substrate, an Instant Pot or crock pot set to "keep warm" will work well. A large soup pot with a lid and a rack in the bottom, like a large vegetable steamer, is a good makeshift pasteurizer. For larger amounts, it helps to first pack the substrate into bags, as a large mass will cook unevenly. Place the bags with plenty of space for steam to circulate and leave over low heat.

Pasteurize at 165°F - 190°F (74°C - 88°C) for 12 - 24 hours. Allow to cool completely before spawning.