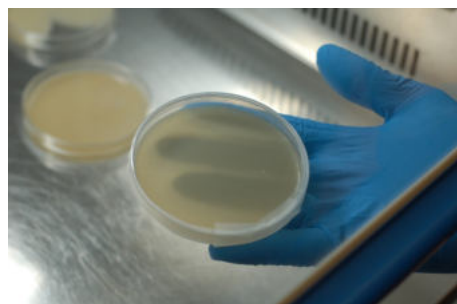


Prepare Agar Medium Petri Dishes

This recipe guides through the preparation of a general nutritional medium which can culture almost any type of mushroom (of those which is possible to culture).



Materials: Petri dish, agar-agar, marker, distilled water, pressure cooker, precision scale (0,1 g), aluminum foil, parafilm / kitchen wrap

Recipe 1: malt extract powder

Recipe 2: soja flour, sugar beet molasses

Part 1: Calculate Ingredient Ratios

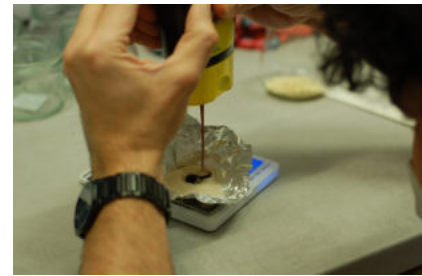
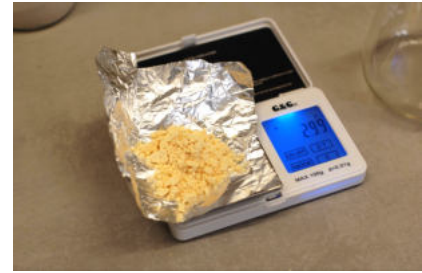
Below are the quantities for creating medium for 10 Petri dishes (10cm diameter); multiply the numbers and keep this ratio to fit your vessel.

Components (Recipe 1)	Quantity	Custom Quantity	
Malt Extract (Nutrient source)	2 g	multiplier	g
Agar-agar (Footing for the growth - 3D support)	2 g		g
Distilled water (To homogenise the nutrients) - Not tap water, because the mixture coming out from every tap has a slightly different content of minerals or antimicrobial substances)	100 ml	x	ml

Components (Recipe 2)	Quantity	Custom Quantity	
Soja flour (protein source)	2 g	multiplier	g
Sugar beet molasses	1g		g
Agar-agar (Footing for the growth - 3D support)	2 g	x	g
Distilled water	100 ml		ml

Part 2: Weigh Ingredients and Mix Into Flask

- Using a scale, weigh the ingredients you need.
(Build a vessel with clean aluminum foil or paper)
- Put the ingredients in a flask/jar and mix vigorously!
(Room temperature water is fine, warmer would be better)
HINT: don't fill the vessel more than 1/3 of its volume, to reduce overboiling issues.
- Cover the top of the flask with aluminum foil (it will prevent microbes to fall in your medium later on)



Tips for Weighing

- Don't put ingredients back into the jar where they came from, even if there is extra (you don't want to contaminate the whole jar)
- Have a different scoop/spoon for every ingredient to weight (to avoid cross contamination of ingredients)
- Make a small aluminum foil or paper vessel for holding the ingredients
- If you are having trouble getting it well mixed, heating the water before adding the ingredients helps

Part 3: Sterilize in Pressure Cooker

- Add a couple centimeters of water into the pressure cooker, put the vessels in, sitting in the water but not floating, close the cooker and reach temperature and pressure point (121°C, 15 PSI).

(No air tight containers in the pressure cooker, they could burst)

- Always read the pressure cooker manual and use it accordingly.

- Reduce the heat and keep it at the minimum temperature so that the water still boils
- Wait 40 minutes (From the point where pressure and heat are reached)
- Shut the heating source, and let the cooker cool down by itself

HINT: Don't release the pressure; A sudden drop makes the medium overboil and spill in the cooker

- When the cooker is just warm, release the pressure (there should be no pressure), open the lid, carefully take out the medium.
(if everything went well, the aluminum cap is still in its place)



Part 4: Pour Liquid Medium Into Petri Dishes

- Prepare the working station, cleaning the workspace and sterilizing with spiritus (Use kitchen paper soaked with with alcohol 70%)
(Use gloves, because that solution is damaging your skin)
- With a fast but decisive hand movement, fill each PD with some medium, just enough to fully cover the surface (it doesn't need to be thick)
- If you have a sterile environment, leave the Petri dish slightly open to allow moisture to escape, and don't condense later on
- Wrap with parafilm
- keep it in the fridge until needed.

