



PART ONE

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PART ONE



**WELCOME
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FUNGI**



FROM FASHION TO FARMING: THE STORY BEHIND THE MUSHROOMERY

My name is Buttons. I was really into sewing as a kid. I started off hand-stitching curtains and random bits of fabric into clothing. I got pretty hooked so my mum bought me a sewing machine and sent me off to lessons. I studied costume design after leaving school, and in my early 20s started a little business making ready-to-wear clothing and costumes on consignment. I was very bad at business, but I loved to make and wear very loud, colourful clothing. I'd often get compliments for my outfits as I walked down the street – and still do – but in reality my market was pretty limited, as not many people had the balls to wear such outlandish garb.

When I was making costumes on consignment, I'd be writing up quotes, thinking nobody's going to pay that, so I'd bring the price down, undercutting my time – and then the customer would try to bargain me down even more.

In this consumer world we live in, we are so used to buying cheap clothes – often made using slave labour overseas – that we've completely lost touch with how much time it really takes for something to be made, and how much money we should be paying for that human's time.

So, by the time I was 27 I found myself hating my job and decided I wasn't going to do it anymore. I was just going to save that passion for me. I was in a quarter-life crisis, not knowing what to do for work for the rest of my life. For over a decade I'd been a bartender babysitting adults to help cover things, and now every week I had a new great idea for what my career would be: carpenter; plumber; mechanic; horticultural therapist.

Around this time, one of my housemates weeded our garden and left it bare – so with my partner at the time, I decided to plant some veggie seedlings bought from our local nursery. I'd been fortunate to grow up eating organic produce, but had fallen into the habit of buying whatever food was cheapest. I realised I had no idea what the plants that give us our different foods look like.

It was so exciting nurturing those seedlings, watching them grow, slowly learning what a zucchini (courgette) plant looks like, what a cucumber plant looks like ... And I started to remember how good real vegetables tasted! We were soon growing every edible thing we could fit in our garden, and before long our entire garden was full of produce.





Saprotrophic mushrooms

Saprotrophic fungi live off dead and decaying matter. These are the most commonly cultivated mushrooms as they can be grown in sheds and don't need the assistance of living trees. This group of mushrooms includes button, field, Swiss brown, shiitake, oyster, lion's mane, enoki, turkey tail and chestnut, to name a few.

The mycelium from which these mushrooms sprout is usually found growing through leaf litter in forests, manure or fallen-down dead trees.

These are the easiest mushrooms to grow, as all you need is the right type of decaying matter and moisture. Just like our mycorrhizal mushrooms, each type of saprotrophic mushroom will have a particular type of medium on which they like to grow. For example, button mushrooms like to grow in compost, while shiitakes like to grow on hardwood.

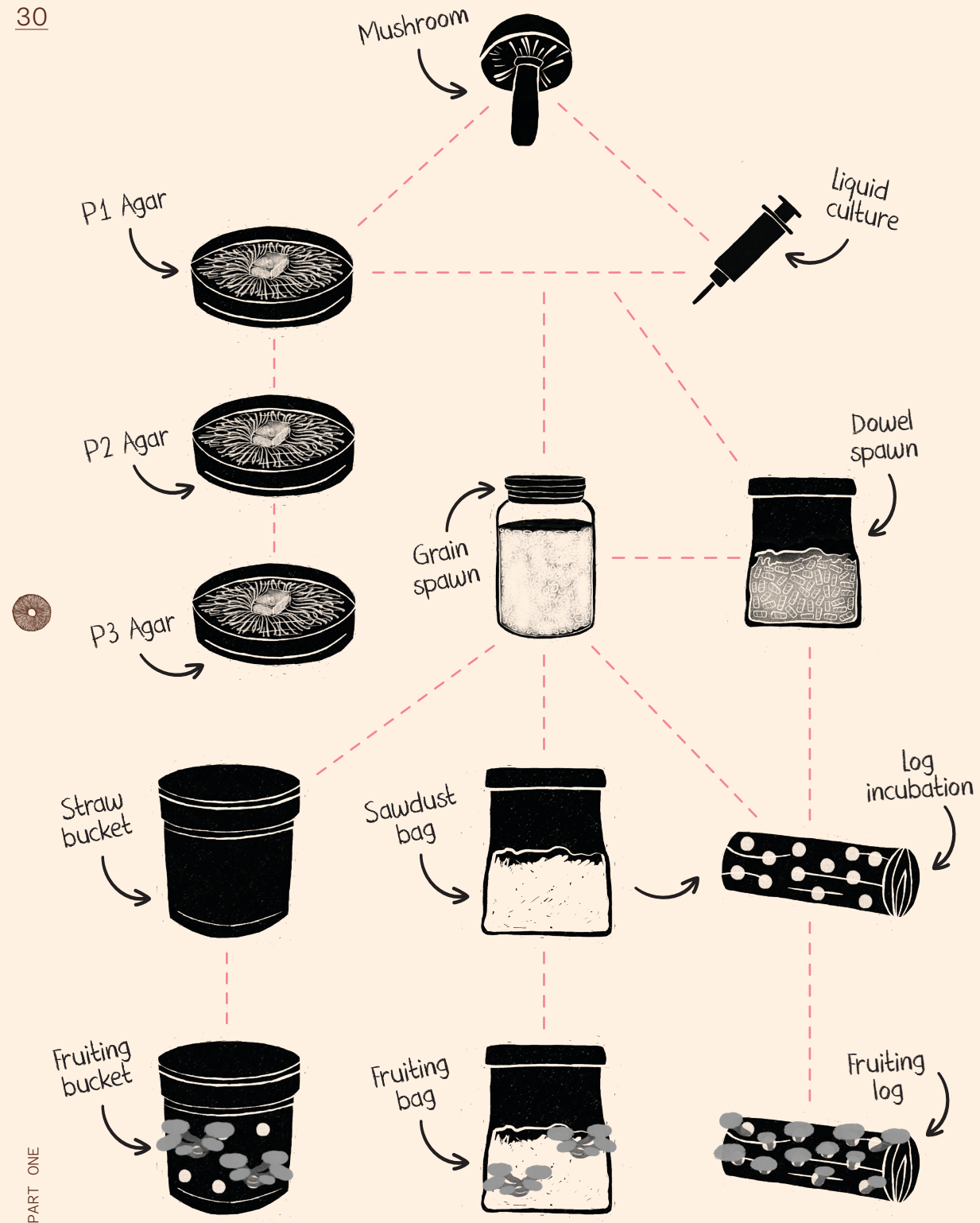
In this book I am going to focus on teaching you how to grow gourmet saprotrophic mushrooms – focusing on oyster, lion's mane and shiitake mushrooms. Some of these techniques can be used to grow other saprotrophic mushrooms, such as enoki, turkey tail and chestnut.

FUNGI & FIRST NATIONS

Prior to European colonisation, some Aboriginal communities in Australia were using fungi for food, as slow-burning tinder for fire, as well as ceremonially. I have also heard of a red bracket fungus being used as a chew toy for teething children.

Early Europeans recorded varied attitudes to fungi among different Aboriginal groups. In many early naturalists' recounts, most Aboriginal people believed fungi to be 'the fallen stars of evil spirits' that were not to be touched. Sadly in Australia, as in other countries around the world, European colonisation has had a devastating effect on First Nations peoples, and much Indigenous knowledge has been lost.

This book has been written on the land of the Wurundjeri people of the Kulin Nation. I pay my respects to their Elders past, present and emerging.



The more food (substrate) we give our mycelium, the more mushrooms we will get when we fruit our block.

From a mushroom culture, you can create more cultures or grain spawn, by taking a piece of that culture and adding it to sterilised agar or grain.

From grain spawn, you can create more spawn, or inoculate your fruiting block.

From one 2 litre (2 quart) jar of grain spawn, you could inoculate roughly eight 20 litre (5 gallon) buckets of straw. That will yield a hell of a lot more mushrooms than your original one 2 litre (2 quart) jar of grain spawn would have alone!

You can get multiple crops of mushrooms from one fruiting block.





If you are using a jar of spawn, use a fork to scrape the spawn into your decontaminated bowl.

Spray your glove-covered hands again with IPA. Use your hands to break up the grain spawn, until there are no lumps left. This will encourage a good dispersal of mycelium through your substrate.

Put a layer of straw in the bottom of your bucket. Sprinkle some grain spawn on top.

Top with more straw, then use your fists and your full body weight to pack the straw down so it's nice and tightly compacted. Make sure you get good compaction the entire way around the bucket – otherwise more air will be able to circulate, creating more chance of contamination.

Once the straw is tightly compacted, repeat the layers of straw and spawn, then compact it all down again. Keep doing this until you can't fit anything else in the bucket.

Put the lid on, gently tapping the lid edges down with the mallet, if needed, to help seal the bucket.

Congratulations, you have inoculated your first fruiting block!

Mark on the bucket the date and the type of oyster mushroom you have inoculated.

Move your bucket to your incubation chamber. At home, this just needs to be a dark, dry place, such as under the stairs, or in a wardrobe – get creative!

Now simply leave your block to colonise, checking on it after 1 week in summer, or 2 weeks in winter.



INOCULATING LOTS OF BUCKETS?

This method works well when you've scaled up! Set up your inoculating table as before, spraying all your equipment with IPA, including your surface, buckets, lids and gloved hands. Pour all your pasteurised straw on the decontaminated surface. Sprinkle your grain spawn over the top, then mix together until the grain is dispersed.

Place a few generous handfuls of straw in a bucket, making sure you get a good mix of spawn and straw, and packing it down using your fists and your full body weight so it's tightly compacted. Continue until your first bucket is entirely full, then seal with the lid and label the bucket.

Then simply repeat with the remaining straw and buckets.

WAIT, THERE'S MORE

After you've harvested your first crop, your bucket will fruit more mushrooms! You may get a flush every two to six weeks – so don't give up on it too soon.

Your mushrooms will fruit in rounds. We call these flushes. The first flush is generally the biggest, and each flush will get exponentially smaller until your bucket isn't really growing any more mushrooms. You could get anywhere from two to seven rounds off a 20 litre (5 gallon) bucket. Your last round could be just one individual mushroom!

You can start to mist your fruiting block again four weeks after your last flush to promote growth. Soaking will also promote growth if you are struggling to get your next flush of mushrooms.

When you get to trying for your third round, open up the lid of your bucket to see if the mycelium is still moist. Remember it should be as moist as a wrung-out sponge. If it's dry, it's time for a soak to rehydrate the mycelium.

Rehydrating your mycelium

Remove the lid and put the bucket in a clean sink, on its side. Fill the sink with water. If your bucket starts to float, weigh it down with something heavy, to keep the bucket submerged in the water.

Leave to soak for four to seven hours.

Once the fruiting block is rehydrated and is moist to touch, leave the bucket upside down with the lid off, and place a brick (or something similar) under one side of the bucket to prop it up, so the water can drain out. Allow to drain for seven hours.

Check the hydration: you need the fruiting block to be as moist as a wrung-out sponge. If it's still too moist, allow it to drain for longer, as you don't want it to be waterlogged.

When it's at the perfect hydration, put the lid back on, move your bucket to your fruiting chamber (don't at any point return it to the incubation chamber) and wait for those cute little pins to poke their heads out once more!



Leaving the skins on, char the celeriac, carrots, onion, garlic and ginger in a hot chargrill pan, over a gas flame, or under your oven's overhead grill set to high. Use tongs to turn those ingredients so they are slightly charred on every side. Each ingredient will char at a different rate, so just take them off the heat as soon as they are charred to perfection. Set aside.

Place the cinnamon stick in a dry stockpot with the star anise, cardamom pods, peppercorns, coriander seeds and cloves. Toast them over high heat for a few minutes, until the cardamom browns slightly and you smell the aromatics release.

Add the charred vegetables to the pot, leaving the skins on to enhance the flavour of the broth. Pour in 6 litres (6 quarts) of freshly boiled water. Add the dried or fresh shiitake mushrooms and 'fish' sauce and crumble in the stock cube, sugar and salt. Put the lid on and bring to the boil over high heat.

Once the broth is boiling, remove the lid and cook for 2 hours. Taste the broth and add more sugar and/or 'fish' sauce if needed, then top the pot up with more hot water and cook for at least another 1¼ hours.

Add the beetroot, leaving them whole (I also leave the skins on). Cook over high heat for about 30 minutes, until tender when pierced with the tip of a sharp knife, but not broken down. Remove the beetroot from the broth, then slice and set aside for serving. Top up the broth with more hot water as needed.

While the beetroot is simmering, prepare the fresh mushrooms by cutting off the substrate and separating any clusters into individual mushrooms. Place a frying pan over high heat and glug some olive oil in. Allow to heat, then add the mushrooms and sprinkle some salt over them. Cover and cook for about 6 minutes, until golden, stirring every so often and adding a little water if the pan is drying out. Turn off the heat.

It's noodle time! I use a noodle basket to lower the noodles into the broth and cook them in the bubbling broth – but if you don't have a noodle basket, just cook them in a separate pot of boiling water. Cook the noodles for 6–8 minutes, or until just tender, then either pull them out of the broth or strain off the water.

It's serving time! Place some kale in eight deep serving bowls. Add the hot rice noodles, then ladle that wonderfully rich hot broth on top. Top with the beetroot slices, sauteed mushrooms, spring onion, radish slices and a good handful of herbs.

Serve with lemon wedges, chilli slices, chilli paste and garlic chilli oil in separate bowls for diners to add to their warm, refreshing bowls of joy.





PREP TIME
15 MINUTES

COOK TIME
10 MINUTES

MAKES
4 × 250 ML
(8½ FL OZ) JARS

ROSEMARY MUSHROOM PICKLES

If you are in the fortunate position of growing too many mushrooms to eat in a week, preserve them! Over the years, I've made a hell of a lot of these pickles from the excess mushrooms from the farm and selling them at the farmers' market. They are delicious on toast with cream cheese, on cheese boards, in salads and sandwiches, or just straight out of the jar. If you are a mushroom hater, I don't know why you are here, but these pickles are not the place to get acquainted with them, as this dish really shows off their chewy texture!

I am always collecting jars for preserves. Get into the habit and it will save you buying them – but don't let that habit get out of hand, or you might just find yourself in a hoarder's paradise.

1 kg (2 lb 3 oz) oyster mushrooms

4 rosemary sprigs

600 ml (20½ fl oz) white vinegar
(the better the quality, the better the flavour)

1 garlic clove, sliced

2 tablespoons raw sugar

1 teaspoon Celtic sea salt

1 tablespoon black peppercorns

pinch of chilli flakes

Sterilise your jars and lids (see page 120 for sterilising instructions).

Prepare the mushrooms by cutting off any substrate and separating any clusters into individual mushrooms.

Give the rosemary sprigs a rinse and put one sprig in each jar.

Pour the vinegar into a pot. Add the garlic, sugar, salt, peppercorns and chilli flakes. Bring to the boil.

Add the mushrooms and cook for about 5 minutes, until they are just starting to soften, but still have a good texture. Don't cook them for too long!

Using tongs, transfer the mushrooms to the jars. Ladle the brine into the jars, filling them to the brim. Put those lids on quick smart, making sure the lids are tightly sealed, using a tea towel wrapped around the jar so you don't burn your hands.

Turn the jars upside down and leave to cool for a few hours.

Your pickles will be ready to eat the next day! They will keep in your pantry for up to 4 months, but once opened you must put them in your fridge and use within 1 month.





BEEF WELLINGTON

And now for the grand finale! This spectacular dish gained recent international notoriety when Australian woman Erin Patterson was found guilty of murdering three lunch guests by serving them beef wellington that she had deliberately laced with deathcap mushrooms that she herself had knowingly foraged. Prior to that catastrophic lunch, the true origins of this dish are also somewhat controversial, with some claiming the British stole it from the French in honour of the Duke of Wellington's victory over Napoleon at the Battle of Waterloo.

I've watched many videos on the laborious process of putting this masterpiece together, with lots of people cutting corners here and there – such as using shop-bought puff pastry, for instance – but I really wanted to do it justice and go the whole way. It's worth it, believe me. I almost hyped myself out of it, but after making the puff pastry the day before and leaving it in the fridge overnight to rest and chill properly,

I thought, how hard can this be? Now you just need to make some crepes. And the duxelles (finely chopped mushrooms, sautéed with onion, herbs and butter until reduced to a flavoursome paste). And sear a log of beef. Then put the layers together and throw it all in the oven.

And to make the whole elaborate process much more manageable, you can whip up the crepes and duxelles the day before, or on the morning of your dinner party, keep them in the fridge and simply bring them to room temperature when you're ready to roll.

When her guests presented to hospital, Erin Patterson claimed she had bought the mushrooms from an Asian grocery store and from a supermarket. This claim alone had quite an effect on the mushroom-growing industry due to the wider population's lack of mushroom knowledge. It was easy for people to worry about the possibility of deathcap mushrooms accidentally making it into the food system.

Let me squash any aspersions Erin Patterson may have caused you.

Deathcap mushrooms are mycorrhizal. As you've learnt in this book mycorrhizal mushrooms have a relationship with a living tree and cannot live without that connection. The majority of mushrooms we commonly find at grocery stores and supermarkets are saprotrophic mushrooms grown in sheds on dead and decaying matter. You cannot grow a deathcap mushroom in a shed without a connection to a living tree-root system. It is just not possible that you could accidentally grow a deathcap mushroom.

So, don't let the 'mushroom murders' put you off beef wellington! Let's reclaim mushrooms and this magnificent dish! Challenge yourself. I dare you.

