All-in-One Monotub Bag 2.25kg, Grain and CVG, for a 25 to 30 Litre Tub

From sporesyringes.co.uk/growing-kits/all-in-one-monotub-bag-5lb, where the drawings move and the page is kept current.

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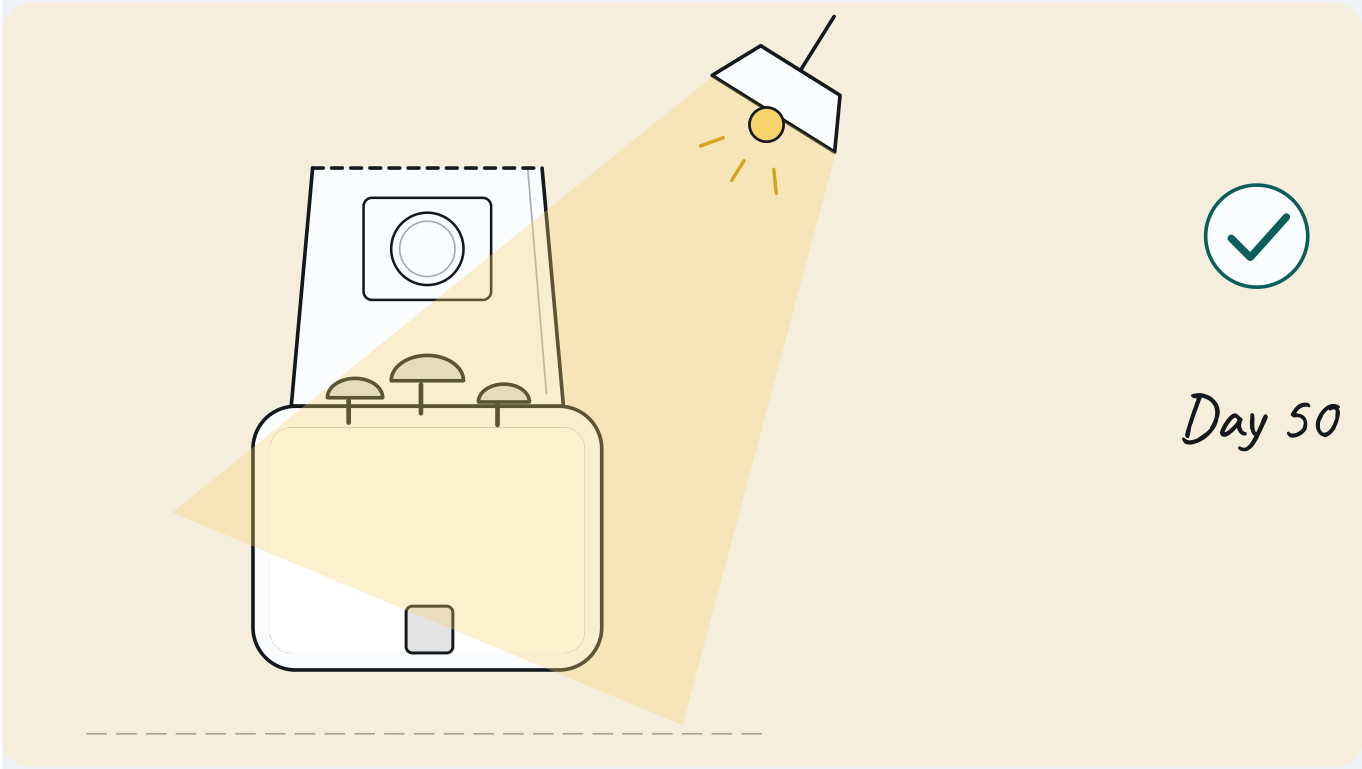
THE METHOD, STEP BY STEP



1 Liquid culture is not included: buy one first

2 A clean, draught-free space: windows and doors shut, surfaces wiped

3 Wash your hands; swab the port; never heat or wipe the needle

4 Needle onto the syringe, cover off

5 Needle all the way into the grey port, into the grain; inject it all in one place

6 Tilt the bag so the culture runs across the grain; then dark, at room temperature or 22 to 24 °C

7 Days 1 to 10: white grows in the grain; leave it alone

8 Day 10: mix the bag through the plastic, grain into the CVG

9 Day 15: mix again; leave it until all white

10 All white: cut the top open (or an X in the side for lion's mane)

11 Mist 2 to 3 times a day; mushrooms within 2 weeks

12 After the harvest, mist 10 to 15 times; the next flush in 10 to 14 days

About All-in-One Monotub Bag 2.25kg, Grain and CVG, for a 25 to 30 Litre Tub

A 2.25 kg bag of monotub substrate, half sterilised rye grain and half CVG (coco coir, vermiculite and gypsum), hydrated and sealed in a filter-patch bag with a self-healing injection port, sized to fill a 25 to 30 litre tub in one pour. Inject the liquid culture, mix on days 10 and 15, and by about day 20 the bag is ready to break up into the tub, or to fruit in the bag itself.

What it is

The 2.25 kg all-in-one monotub bag: a 50/50 mix of rye grain and CVG, hydrated, sterilised and sealed, with a filter patch for air exchange and a self-healing port for the needle. One bag fills a 25 to 30 litre monotub; with no tub, the top can be opened and the bag fruited as it stands. Liquid culture is not included.

Which tub

Sized for a 25 to 30 litre tub: the 25 litre fresh air exchange tub on this site, with its six patches. The bag can also be fruited on its own.

Substrate	2.25 kg, 50/50 rye grain and CVG (coco coir, vermiculite, gypsum), hydrated and sterilised
Bag	Filter patch, self-healing injection port
For	A 25 to 30 litre monotub, or fruited in the bag
Injection	10 to 20 ml of liquid culture; not supplied
Temperature	22 to 23 °C, in the bag and in the tub
Mixing	Days 10 and 15; into the tub or opened about day 20

All-in-one grow bag instructions

These are the twelve steps printed with the all-in-one bags, the 1 kg, 1.5 kg and 2 kg bags that colonise and fruit in one sealed bag. Each bag is half sterilised rye grain in the base and half CVG (coco coir, vermiculite and gypsum) on top: the culture goes into the rye, the grain colonises first, and the mixes carry it up into the CVG. The animation on each bag's page follows the same steps. Read the injection rules and the incubation rules first: they are what the sterile guarantee asks for. Psilocybe cubensis spores sold on this site are supplied for microscopy and taxonomy only and are not for use with these bags.

Step 1: the culture

The bag does not include a culture. Buy a gourmet liquid culture first; every culture on the liquid cultures page is kit-compatible. A 1 kg or 1.5 kg bag takes 10 ml, a 2 kg bag 20 ml.

Step 2: a clean work space

Move away from draughts. Close the windows and doors, and wipe the surfaces down with alcohol sanitiser before anything comes out of its packet.

Step 3: hands and port

Wash your hands. Use the injection swab that comes with the bag to clean the grey injection port. Do not heat or wipe the needle.

Step 4: the needle and syringe

Unscrew the syringe's end cap, open the needle packet and screw the coloured end of the needle onto the syringe. Again: do not heat or wipe the needle.

Step 5: injecting the bag

Remove the protective needle cover and push the needle all the way into the grey injection port, which sits in the grain at the base of the bag. Inject the culture into the grain in one place, then withdraw the needle.

Step 6: tilt, then room temperature or heat

Tilt the bag so the culture runs across the grain, as with a grain spawn bag, then leave it in the dark. At room temperature the first white mycelium shows in the grain in about two weeks; incubated at 22 to 24 °C it shows in 7 to 10 days.

Step 7: the first mix, day 10

When white is growing in the grain, about day 10 (a 50p-sized patch or more), mix the bag through the plastic, working the colonised grain up into the CVG on top. This speeds colonisation up considerably.

Step 8: the second mix, day 15

Mix the bag again on day 15, five days after the first mix, for the same reason, then leave it until the whole bag is white.

Step 9: when to fruit

When the substrate in the bag has fully colonised and turned all white, it is time to fruit the bag.

Step 10: how to fruit from the bag

To fruit it sealed, the Inject-and-Forget way, leave the bag closed: stand it in indirect light at room temperature, let the mushrooms grow inside the bag and open it once, to harvest. Nothing is misted. The flushes are smaller and there are more of them. To fruit it opened, cut the top of the bag all the way open, or cut an X into the side of the bag down where the substrate is for lion's mane and other side-fruiting species. The bag can also go under an extra-large humidity tent bag, or be broken up into a monotub with other bags.

Step 11: misting

Mist an opened bag on the top, or on the X cut in the side, two to three times a day; a sealed bag needs none. Within about two weeks the mushrooms form and mature. The pinning guide covers what to look for and when to pick.

Step 12: flushing the bag again

After harvesting the first flush, spray the surface of the substrate 10 to 15 times to replace the moisture. New mushrooms grow in about 10 to 14 days with the same care as before. If something is growing that is not your mushroom, the contamination guide explains what you are looking at.

Supporting articles

- Incubation rules and injection rules: the two short pages behind the sterile guarantee.
- Understanding fruiting conditions: temperature, humidity and fresh air, and what goes wrong when one is off.
- Pinning guide and contamination guide.
- Monotub kit instructions: for growers who would rather combine several bags in a tub.

The all-in-one monotub bags

The 1.8 kg, 2.25 kg and 5 kg monotub bags are the same half-grain, half-CVG bag sized to fill a tub: inject 10 to 20 ml of liquid culture, incubate at 24 to 25 °C, mix on days 10 and 15, and by about day 20 break the bag up and pour it level into the tub it is sized for (the 25 litre fresh air exchange tub for the 2.25 kg, the 45 litre for the 5 kg, two 1.8 kg bags for the 25 litre), or open the top and fruit it in the bag as above.

Injection rules

Almost every contaminated bag we have ever replaced went wrong in the thirty seconds between opening the syringe and finishing the injection. The syringe, the needle and the bag all arrive sterile; the job is to keep them that way for those thirty seconds. These are the rules our sterile guarantee asks you to follow, and they apply to gourmet liquid cultures and spawn bags alike.

Rule 1: never heat, flame or wipe the needle

Every needle arrives gamma-irradiated sterile in its own wrapper, and the syringe casing and end cap keep the contents sterile. Flaming a needle leaves soot and a hot tip that kills what it touches; wiping it with alcohol drags whatever was on the wipe onto the one part that goes inside the bag. Use the needle straight from the wrapper. There is a sticker on every bag saying the same thing.

Rule 2: seat the needle properly

A loose needle is the other big cause of contamination. Push the needle hub onto the Luer lock and give it a quarter turn until it stops. It should not wobble. If it does, take it off and seat it again before you go anywhere near the bag.

Rule 3: work still, not clean

You do not need to sterilise the room. You need still air. Close the windows and doors, turn off fans and heating, and wait a minute for the air to settle. Wash and dry your hands, then keep them away from the needle. A still air box helps but is not required for a bag with a self-healing port.

Rule 4: go through the port, once

Every bag has a self-healing injection port. Push the needle through the centre of the port at a slight angle, inject, and withdraw in one movement. Do not inject through the plastic beside the port, do not make a second hole, and do not open the bag to "check" the grain.

Rule 5: how much, and where

Use the amount the product page for your bag gives, and inject all of it in one place. Do not move the needle tip about inside the bag and do not wind the needle round in the port: that can damage the port. The liquid is spread afterwards, not with the needle. An Inject-and-Forget bag is mixed straight after injection. A grain-based bag is tilted so the solution runs across the whole base of the bag.

Rule 6: wipe the port, and nothing else

Every bag comes with a small alcohol swab. Just before you inject, wipe the injection port with it, once, and give it a few seconds to dry. That is the only thing on the outside of the bag that gets wiped: not the needle, not the rest of the bag, and nothing afterwards. The port reseals itself; do not tape over it and do not wash the bag.

Rule 7: one syringe, one job

A syringe is a single-use item. Draw from a fresh syringe for each strain or culture, cap it if you have to pause, and do not put a used needle back into a sterile bottle.Spare needles can be added at the basket.

What happens next

The bag goes somewhere warm and dark and stays sealed until it is fully colonised. That part is covered by the incubation rules. Follow both sets of rules, buy the syringe and the bag together from us, and if the bag still contaminates before it is opened for the first time, the sterile guarantee replaces it.

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Incubation rules

Once the bag is injected, the work is done and the waiting starts. Our spawn bags and all-in-one grow bags are made to stay sealed from injection to first harvest, so the incubation rules are mostly about resisting the urge to help. These are the rules our sterile guarantee asks you to follow after the injection rules.

Rule 1: keep it sealed

Do not open the bag, cut the bag, or add anything through the port after the injection. The filter patch lets the bag breathe; nothing else needs to. A bag opened "to have a look" is no longer a sealed bag, and it is no longer covered by the guarantee.

Rule 2: warm, dark, still

Put the bag out of direct light, where it will not be moved or knocked, at the temperature for its type: 22 to 23 °C for a grain-based bag (the 50/50 all-in-one bag, the LightBag, the SprinkleBags and every rye grain spawn bag), and 26 to 27 °C for the brown rice flour Inject-and-Forget bags. Grain-based systems are kept cooler so the grain layer at the base does not dry out. An airing cupboard, the top of a wardrobe or a heated incubator all work; the LightBag is made to colonise in dim light, the others prefer dark. Do not put a bag on a radiator, on a heat mat with no thermostat, or in a window: mycelium that goes past 28 °C stalls, and hot bags sweat, which is what contaminants like.

Rule 3: mix on the schedule, not before

An Inject-and-Forget bag is mixed well, through the plastic, on the day it is injected. That same-day mix is the reason Inject-and-Forget bags work so fast. A grain-based bag is the opposite: leave the grain where it landed, and only break it up and shake it after day 10, once the spores have germinated. After any mix, leave at least five days before the next one so the mycelium comes back healthy. Shaking a grain bag before day 10, or mixing more often than every five days, breaks the early growth and spreads whatever else is in there. When you do mix, mix well: knead the bag through the plastic, not a little shake.

Rule 4: wait for full colonisation

White mycelium spreads from the germination points and joins up. In a grain-based bag you see it first on the bottom of the bag, where the solution ran. An Inject-and-Forget bag that was mixed straight after injection shows hundreds of germination points all through the substrate. A bag is ready when the grain is white all the way through with no yellow, brown or grey patches. That takes two to four weeks for most gourmet species at the right temperature, longer if the room is cool. Slow is not the same as failed.

Rule 5: know what contamination looks like

Green, blue-green, black or pink patches, a wet grey slime, or a sour smell through the filter patch are contamination. White fluffy growth, small drops of yellow-brown liquid on the mycelium and a mushroom smell are not. If you are unsure, photograph the bag against a plain background in daylight and send it to us before you do anything else; the contamination guide has pictures.

Rule 6: when the bag is fully white, move on

A grain bag is fully colonised when every grain is covered in mycelium. For a spawn bag, that is the moment to mix it into bulk substrate for a monotub or bag-tek, with the substrate calculator giving the quantities; a grain bag is not fruited without a bulk substrate or a casing layer. A fruit-from-the-bag system is usually ready to fruit by day 20 on our mixing schedule: mix first on day 10, again on day 15 and again on day 20, then place it into fruiting conditions, still sealed until the product page says to open it. Opening the bag for the first time is where the guarantee ends and the growing begins.

If something goes wrong

Contamination before the first opening, on a bag and syringe bought together from us and handled by these rules, is covered by the sterile guarantee. Send the claim form with photographs of the whole bag, the injection port and the filter patch, and your order reference, and we will replace it.

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