



USER GUIDE

Thank you for purchasing a North Spore Boomr Bin! The Boomr Bin is designed for the cultivation of edible and medicinal mushrooms using either manure-based or hardwood-based substrates. Its innovation potential is limitless, with opportunities to explore different substrate/species combinations as well as growing techniques, allowing you to embark on your mushroom-growing journey with ease and confidence.

FRUITING BLOCKS

This guide is specific to using your monotub by combining colonized spawn and substrate but it should be noted that the Automated Boomr Bin is a fantastic growing chamber for ready-to-fruit products, such as North Spore's Fruiting Block Kits, which have a subscription option, as well as 'Spray and Grow' Kits. The Boomr Bin comfortably holds four kits and the automated air exchange and humidification systems allow you to dial in the conditions you need to grow a wider variety of ready-to-fruit species at home. A smaller footprint than a Martha tent such as the Boom Room also makes the Boomr Bin more space-friendly. Use your Fruiting Block Kit Instruction Booklet to help you dial in the correct conditions for the gourmet and medicinal mushroom species of your choice!

All of the components in this guide are included with the Automated 'Boomr Bin' Complete Kit. If you purchased a Boomr Bin separately and are interested in the accessories they can be purchased together at NorthSpore.com.

INSIDE YOUR AUTOMATED KIT YOU WILL FIND:

- 1 Boomr Bin monotub
- 1 FAE Fan Mini w/ power control
- 1 Myco-Mister Mini humidifier
- 1 Monotub hose connector
- 1 MYCOntroller (Humidistat)
- 1 Sheet of 2" monotub filters
- 1 Sheet of 1" monotub filters

YOU WILL ALSO NEED:

- 3 Wood Lovr or Boomr Bag sterile substrate (5 lbs each) **OR** 15 lbs of a sterilized substrate
- 1 Organic Sterilized Grain Bag with Injection Port (3 lbs) **AND** a spore or liquid culture syringe **OR** 3 lbs of colonized grain spawn
- Coco coir (2 lbs) **OR** vermiculite
- *NOTE: Check out our Monotub Refill Kit which includes 3 bags of substrate, an organic sterilized grain bag with injection port, additional filters, and 2lbs coco coir (all you need is a spore or liquid culture syringe)*
- 1 Bottle of 70% isopropyl alcohol (rubbing alcohol)
- Nitrile or latex gloves
- Two spray bottles (one for alcohol and one for water)



GRAIN SPAWN

If you are using a North Spore Grain Bag with Injection Port with a spore or culture syringe, follow the included instructions to create colonized grain! Keep in mind it can take approximately a month for the grain spawn to be fully colonized and ready to use.

You may also choose to buy colonized grain spawn which is ready to use upon receipt. One bag of North Spore grain spawn can inoculate two Boomr Bins at 6lbs. Note that grain spawn should not be saved once opened as it can become compromised with a contaminant in storage, so it is best to make two bins at once. If you only have one bin you could use the remainder for outdoor growing, or growing in a bucket or container. Check out our site for more information on alternative growing methods!

BULK SUBSTRATE

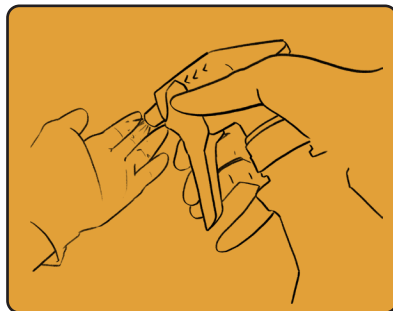
The type of sterile bulk substrate you need depends on the mushroom species you're growing, with our two different refill kits catering to each substrate. Boomr Bags are the best choice for dung-loving mushrooms while Wood Lovr can be used to grow a variety of edible, hardwood-loving varieties. You may opt to make your own sterile substrates as well, using a pressure cooker, hot water bath, or by another means.

PREPARATION

1. SANITIZE YOUR WORKSPACE AND PREPARE YOUR BOOMR BIN

Maintaining a sterile environment is crucial for the study of mycology and growing mushrooms in particular.

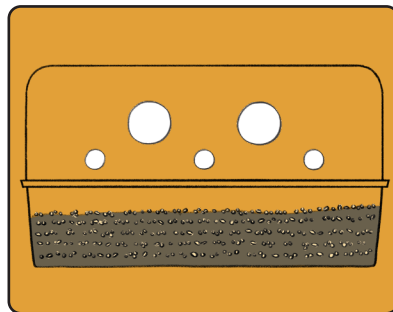
1. Ensure your workspace is clean overall and devoid of air turbulence by shutting windows and doors and turning off any heating or cooling units. You can also clean and inoculate your Boomr Bin inside of a NocBox still air box to further mitigate contamination.
2. Disinfect your workspace, hands, tools, and all components of the Boomr Bin with 70% isopropyl alcohol.
3. Once dry, place the accompanying self-adhesive filters (1" and 2") in their appropriate spots along the length and width of the lid of the Boomr Bin.



2. COMBINE YOUR GRAIN SPAWN & BULK SUBSTRATE IN THE BOOMR BIN

This is where the magic happens!

1. Test for appropriate field capacity by squeezing a handful of your bulk substrate. If a couple of drops of water are released, your substrate is at proper field capacity. If it's too dry, hydrate the blend with water from your spray bottle as you fill your bin.
2. Begin by adding a thin sprinkling of colonized grain spawn, then add another inch of substrate followed by more spawn. Keep sandwiching grain spawn in layers of bulk substrate until you've reached your desired depth of 3 to 5 inches total.
3. Make sure the Boomr Bin lid is also sterilized with 70% isopropyl alcohol and for good measure wipe down the sides of the bin just above the inoculated bulk substrate.
4. Once loaded, tightly fit the lid and clamp it shut, resisting the urge to open it until the substrate is fully colonized.



CONSIDERATIONS FOR THE PLACEMENT OF YOUR BOOMR BIN

LIGHT

We recommend setting up your tent in a room with a window so that your mushrooms will receive indirect light. If that is not possible any form of artificial lighting can be used; you do not need a specific type. We just recommend that it be on for 12 hours a day, and a digital timer can assist with automating this process.

TEMPERATURE

The fruiting range for most mushrooms lies somewhere between 55-80 degrees, with some exceptions. Mushrooms can grow outside of their fruiting range, but it is an important consideration for placement of your BoomrBin as the temperature in the bin will be the same as the environment in which it is placed. It is a good idea to select species that have fruiting ranges closer to the temperatures you can provide if your options are limited.



COLONIZATION

MONITORING SUBSTRATE COLONIZATION

Regularly check your Boomr Bin for signs of colonization. As the mycelium spreads, you'll notice white spots expanding from each point of grain spawn, along with drops of yellowish liquid called mushroom exudate which is a sign of proper hydration and rapid colonization. Keep an eye out for pinning, or the formation of small knots of dense white mycelium, or "baby mushrooms" as we call them, which usually occurs after 2-3 weeks.

CASING THE SUBSTRATE

When you observe hyphal knots or pins, it's time to case your Boomr Bin. Gently remove the lid and add a thin layer of coco coir to the top of the colonizing substrate. Spray the casing layer with water to ensure proper hydration and return the lid onto the base. *If you do not choose to use the below accessories, simply maintain humidity by spraying the tub daily and providing indirect light for healthy mushroom growth. Harvest your mushrooms at the desired stage, typically before the caps fully flatten out.*



FRUITING

Four conditions influence mushrooms as they grow, humidity, fresh air exchange or FAE, Light, and temperature. Temperature and light are external conditions that can be influenced by where and how you store your Boomr Bin. **Humidity and fresh air exchange can be controlled by using the Myco-Mister Mini and FAE Fan Mini that are included with your automated Boomr Bin complete kit. These modifications are specific to fruiting mushrooms, and should only be used once your substrate has fully colonized.**

FAE FAN MINI

Proper ventilation is critical for your mushrooms' growth and vitality as it supplies the oxygen they need to breathe while filtering out carbon dioxide. The Fae Fan Mini system works by cycling CO₂-rich air out of the growing environment while simultaneously pulling in fresh O₂-rich air through the adhesive filter patches attached to the side of the Boomr Bin. FAE stimulates the initial stages of mushroom development and ambient oxygen levels in the growing environment will influence the shape and structure of your mushrooms. Gourmet edible mushrooms such as oysters, chestnut, and nameko are sensitive to CO₂ levels and will develop thin, leggy stems and undersized caps if FAE is not properly maintained.

FAE FAN MINI SET-UP

1. Remove the self-adhesive filters on one end of the lid.
2. Place a bolt into each of the four holes from the outside of the fan and then fit the black mesh filter over the bolts on the inside of the fan.
3. Affix to the side of your Boomr Bin lid by screwing it into place and then securing the bolts with the nuts on the inside of your bin.
4. Plug the fan into the cycle timer and test the system to make sure everything is functioning properly. You should be able to feel air being pushed outside of your Boomr Bin.
5. Adjusting the fan speed properly may require some trial and error. Higher temperatures and a greater amount of fruits forming will contribute to a higher concentration of CO₂ and therefore a need for a higher fan speed. A CO₂ meter can be purchased separately to remove the guesswork.



MYCO-MISTER MINI AND HUMIDITY CONTROLLER

Mushrooms are over 90% water, meaning that they require moisture at every stage of development and especially during formation of primordia, or the initial stages of mushroom growth. Low humidity can stunt or even abort growth, and can lead to thin, cracked stems and discoloration in mushrooms and mycelium. The Myco-Mister Mini and MYCOntroller system maintains relative humidity (RH) levels at their optimum range (80 - 90%) by a simple turn of a dial.

MYCO-MISTER SET-UP

1. Attach the rubber hose connection port to the Boomr Bin. Hold the port in one hand, push both sides of the port together to flatten it, and then fold it to create a "C" shape. Place it in the hole directly below your FAE Fan mini and release once in position
2. Place monotub hose connector into the port on the Boomr Bin and the top port on your Myco-Mister Mini. Adjust the length of the hose so it is as short and straight as possible, any dip in the hose can allow water to pool and may cause the Myco-mister to malfunction.
3. Be sure to monitor the water level of your Myco-Mister Mini. You will find that with a faster fan speed or in cooler temperatures your Myco-Mister Mini will require more frequent refilling.

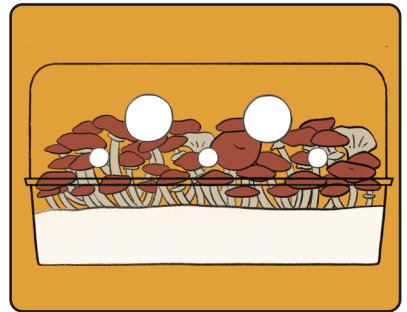
MYCONTROLLER SET-UP

1. Plug the Myco-Mister Mini into your MYCOntroller humidistat.
2. On the opposite end of the lid, cut a one-inch slice in the 2" filter and slide the humidistat probe inside. The humidistat probe monitors the ambient humidity inside the tub and signals to the humidifier when to turn on and off. Placing the probe on the opposite end of the Boomr Bin ensures it is not in front of the humidifier mist which could cause a false reading.
3. Relative humidity between 80-90% is recommended as most species of mushrooms will fruit well within this range. Your MYCOntroller works by cycling the Myco-Mister Mini on and off to maintain the set humidity.

As you embark on your adventures in cultivation, remember that patience and attention to detail are key. With practice, you can achieve consistent and bountiful harvests, all thanks to our innovative Boomr Bin system. Happy growing!



For more information on growing mushrooms, when to harvest mushrooms (Pssst, before their caps flatten out), and troubleshooting common issues your mushrooms may have as they develop, see pages 6-9 of our BoomRoom II Manual!



WARRANTY: This product is guaranteed under warranty and covers defects in material or workmanship from 1 year of date of purchase. The original bill of purchase (with purchase date) must be submitted. The warranty will not apply in cases of: Misuse: by non-compliance of the instructions, normal wear and tear, incorrect use, e.g. overloading, non-approved accessories, force or damage caused by external forces, if the plug has been tampered with or removed, partially or completely dismantled product, or interference by non-qualified persons.

For growing edible fungi *North Spore's products shall be used only for lawful purposes*

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