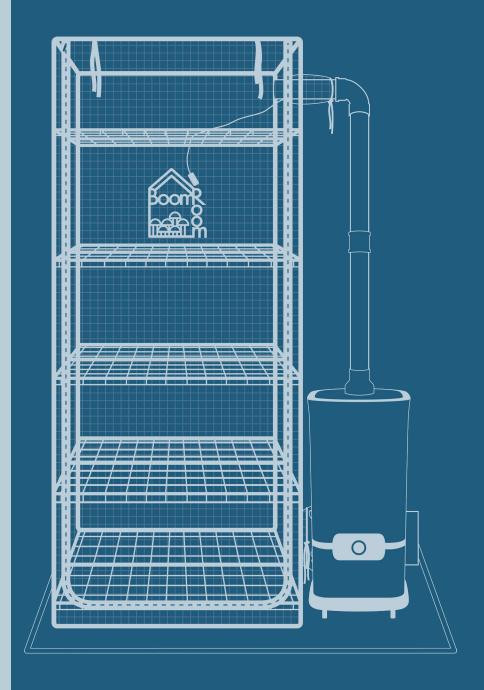
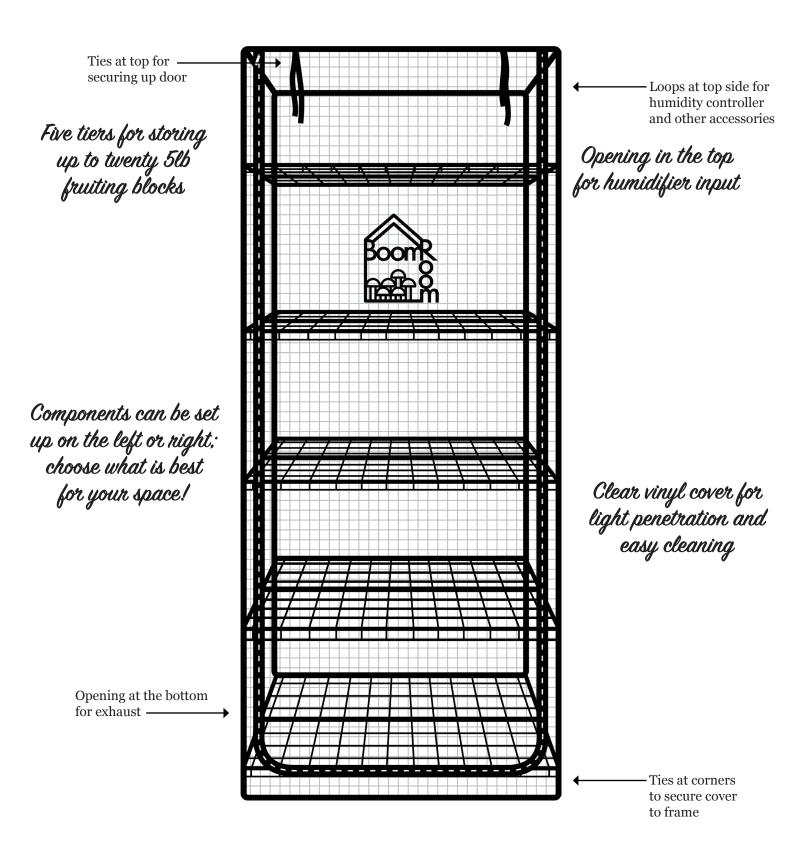


## **BoomRoom II**

SETUP AND GROW GUIDE



VISIT NORTHSPORE.COM FOR VIDEOS AND FURTHER READING!



Thank you for purchasing a North Spore BoomRoom II! We thrive on the success of our customers and want to support you every step of the way. Inside this guide, you will find all the information you need to get started. As always, if you have any questions, don't hesitate to reach out!

All of the components in this guide are included with the complete BoomRoom II kit. If you purchased a BoomRoom II tent and are interested in any of the accessories, they can be purchased separately at NorthSpore.com.



PRIOR TO ASSEMBLY READ THROUGH SAFETY, WARNINGS, AND PRECAUTIONS ON PAGE 10.

# 

#### **VINYL COVER ALSO INCLUDED**

x18

**NOTE:** You will also need a Phillips head screwdriver to assemble your BoomRoom.

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MYCO-MISTER AND VENTILATION 11 CLEANING

#### Considerations For The Placement Of Your BoomRoom

#### 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**

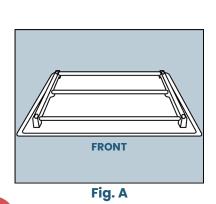
The fruiting range for most mushrooms lies somewhere between 55 and 80 degrees Fahrenheit. Mushrooms can grow at temperatures outside of their fruiting range, within reason, but temperature is an important consideration in the placement of your BoomRoom. If you have limited placement options, we recommend choosing mushroom species with fruiting ranges that align with the temperatures you can maintain.

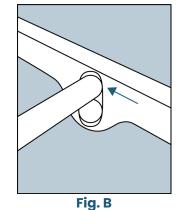
#### VENTILATION

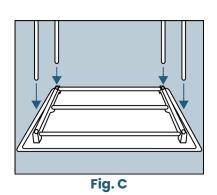
If you put your tent in a living space, we recommend setting up your tent near a window so that it can be vented outside. The filter will stop the majority of, but not all, spores from entering the air in your environment. If you have allergies or asthma, we do not recommend growing in a living space unless you can vent out a window. Ducting has been included with your kit for this purpose.

#### **ASSEMBLING YOUR BOOMROOM**

- 1. Place your Spore Floor in the desired location of your grow tent. Put the plastic tray on the left or right side of the Spore Floor to leave room for your Myco-Mister Ultrasonic and FAE Fan. Your BoomRoom can be set up with the components on either the left or right side; choose whichever is best for your space.
- 2. Fit three long tubes between two of the plastic connectors (**Fig. A**). The middle support should be placed in the top opening (**Fig. B**). Ensure all tubes are all the way in their holes; twisting can aid in getting them in farther. This will ensure the structural integrity of your tent!
- 3. Place four of the short tubes in the openings at the four corners (Fig. C).
- 4. Repeat until you have reached the top of the unit.
- 5. Place the shelves across the supports.
- 6. Unzip the cover and fit it over the frame and tray with the opening at the front. Secure cover to frame using the ties. Ties at the top can be used to secure the door up during the next steps.







#### **VENTING YOUR BOOMROOM**

Fig. G

- 1. Identify the intake and exhaust ends of your FAE Fan by locating the arrow that indicates the direction of airflow. The arrow points in the direction of the exhaust end of the FAE Fan. A negative pressure setup will be created by exhausting outside of the tent, meaning air and therefore excess CO2 are pushed out.
- 2. Your FAE Fan will use the port located at the bottom of your tent. Place your hose clamp around the port sleeve and position the filter around the intake end of the FAE Fan. Slide the port sleeve around both the filter and fan. A second person can be helpful during this step. Move the hose clamp into position so it will hold both the port sleeve and filter in place around the intake end of the fan. Using a Phillips head screwdriver, tighten the hose clamp in place. (**Fig. D**) Included with your FAE Fan are operating instructions.
- 3. Your FAE Fan speed can be adjusted with the included speed controller. Connect the controller to your FAE Fan. At the top of your tent, behind the port for the mist nozzle, you will find hang loops. Using an S-hook or similar, hang your speed controller from one loop.

#### **OPTIONAL STEP: VENTING YOUR BOOMROOM OUTSIDE**

- 1. Identify the intake and exhaust ends of your FAE Fan by locating the arrow that indicates the direction of airflow. The arrow points in the direction of the exhaust end of the FAE Fan. A negative pressure setup will be created by exhausting outside of the tent, meaning air and therefore excess CO2 are pushed out.
- 2. Your FAE Fan will use the port located at the bottom of your tent. Place your hose clamp around the port sleeve and slide the port sleeve around the intake end of your FAE Fan. Move the hose clamp into position so it will hold the port sleeve around the intake end of the fan. Using a Phillips-head screwdriver, tighten the hose clamp in place.
- Extend one end of your ducting and place your second hose clamp around it. Place the ducting around the exhaust end of the FAE Fan. A second person can be helpful during this step to keep the fan in place. Use a Phillips-head screwdriver
  - to tighten the hose clamp around the unit. Check to ensure a secure fit **(Fig. E)**. Follow instruction 3 under 'Venting your BoomRoom' to install your FAE Fan speed controller. Included with your FAE Fan are operating instructions.
  - 4. Foam board insulation can be cut to fit an open window. Cut a hole in the insulation to thread the duct through to the outside.

#### MYCO-MISTER ULTRASONIC AND HUMIDITY CONTROLLER SET-UP

- 1. Your Myco-Mister ultrasonic should be placed on the Spore Floor directly to the left or right of your BoomRoom tent. The directional mist nozzle is designed to fit into the port on the top of your BoomRoom. (Fig. F) A manual with operating instructions is included with your Myco-Mister Ultrasonic. Refer to the manual to complete the set-up of your humidifier.
- 2. The humidity controller works by cycling the Myco-Mister on and off to maintain the set humidity. A manual with operating instructions is included with your humidity controller. Using an S-hook or similar, hang your humidity controller from a loop aside your FAE Fan speed controller.
- 3. Run the humidity sensor through the same port as the Myco-Mister mist nozzle. Position the sensor so it hangs just below the top rack in the middle of your tent. **(Fig. G)** This placement will give an accurate reading while ensuring the sensor is not in direct mist, as it could sustain water damage over time.
- 4. Tighten the pull cord of the top port around the sensor wire and the mist nozzle, and secure.

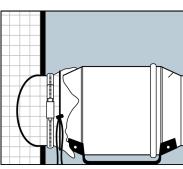


Fig. D

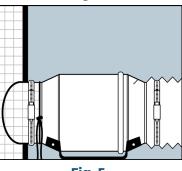


Fig. E

# You are ready to get growing!

Your BoomRoom II can hold up to twenty 5-pound fruiting blocks, as each shelf can accommodate up to four blocks. Below you will find information on what your mushrooms need for proper growth and how best to provide it using your BoomRoom accessories!

#### **GROWING**

For the majority of mushroom species, all that is needed to initiate fruiting is a change in environmental conditions. Fresh air, humidity, light, and temperature are the environmental changes that trigger fruiting from fully colonized substrates.

#### FRESH AIR

Like humans, mushroom mycelium exhales CO2 and inhales oxygen. It will also suffocate if not given plenty of fresh, oxygen-rich air to breathe. When mycelium is colonizing a substrate the CO2 concentration surrounding it is very high. As the mycelium reaches the edge of the substrate, it senses a lower CO2 concentration, which signals it to produce mushrooms. Sufficient fresh air exchange in your BoomRoom is essential, as the mycelium must sense this lower CO2 concentration (and therefore a higher oxygen concentration) to trigger the growth of the mushrooms.

#### Dialing In Your Myco-Mister Ultrasonic

A relative humidity between 80 and 90% is recommended, as most species of mushrooms will fruit well within this range. Your humidity controller works by cycling the Myco-Mister on and off to maintain the set humidity. The water level can be monitored at the blue gauge on the right side of the unit. You will find that with a faster fan speed or in cooler temperatures, your Myco-Mister will require more frequent refilling.

#### Dialing In Your FAE Fan

Higher temperatures and a greater number of fruiting blocks will contribute to a higher concentration of CO2 and, therefore, a need for a higher fan speed. Adjusting the fan speed correctly may require some trial and error. A CO2 meter can remove the guesswork.

#### HUMIDITY

The mushroom fruit body you are trying to grow is primarily composed of water. For this reason, mycelium will wait for rainfall or humid conditions to produce mushrooms. This is why proper moisture content within your substrates and a humid growing environment are essential for high mushroom quality and yield. Even short dry spells can cause mushrooms to abort their growth.

#### LIGHT

Unlike plants, mushrooms don't use light as an energy source to grow, but they do need some light to grow properly. Mycelium uses light to sense that it is at the edge of its growing substrate and that it is a suitable environment to produce mushrooms, similar to how a decrease in CO2 at the edge of a growing substrate is a trigger for fruit body development.

It is commonly believed that mushrooms prefer to grow in the dark. If placed in complete darkness, mushrooms may never fruit, and those that do will grow elongated or misshapen and won't develop the color typical of their species. Mushrooms tend to grow in darker places not because they don't need light but because those places tend to have more ambient moisture.

Indirect light from a window or artificial lighting can be used. If you use artificial lighting, we recommend it be on for 12 hours a day, and a digital timer can assist in automating this process.

#### TEMPERATURE

In natural conditions, many mushrooms fruit in response to seasonality, using a cold snap to know the growing season is coming to an end and there is a limited amount of time to produce mushrooms. Because of this, the majority of mush-

is coming to an end and there is a limited amount of time to produce mushrooms. Because of this, the majority of mushrooms grow better in relatively cooler temperatures, but this is somewhat species-dependent. When cultivating mushrooms indoors, the ambient temperature of your setting is an important variable to consider.

The fruiting range for most mushrooms lies somewhere between 60 and 80 degrees Fahrenheit, with some exceptions. It is a good idea to select species that have fruiting ranges closer to the temperatures you can provide if your options are limited.

#### INTERACTIONS

Environmental factors influence one another and affect your growing conditions, and knowing some of these interactions can help dial in optimal conditions.

When you are growing at higher temperatures, your mushrooms will grow faster and therefore have an increased rate of CO2 production. In this instance, we recommend a higher fan speed for ventilation. Higher temperatures hold more humidity, but you might find that after increasing your fresh air exchange, there is an increased demand on the humidifier to maintain the correct humidity levels.

Colder temperatures require less ventilation, as less CO2 is produced, but cooler air also holds less humidity and will therefore require more humidification.

#### **HARVESTING**

Unlike plants, mushrooms grow incredibly fast and can reach and exceed their peak harvest time over a single day. Make sure to keep a close eye on your mushrooms so you don't miss the opportune time to harvest!

Looking for a few key indicators will help you determine when your mushrooms are ready to harvest. The general rule is that mushrooms should be harvested before their caps flatten or become concave; mushrooms with a veil should be harvested when it just begins to break.

To harvest, reach your hand around the base of the mushroom cluster and twist. This motion should be enough to pop your mushrooms off the block. You can also use a knife or scissors if you prefer. Be sure to remove all of the fruiting body remaining on the block down to the myceliated sawdust to prepare for a second fruiting and prevent rotting and possible contamination.

A single mushroom can release billions of spores a day. In the humid environment of your grow tent, the spores will stick to the inside of the fan housing and clog it over time. The filter will prevent most but not all of the spores from entering the fan housing. Although you can clean your fan unit, harvesting your mushrooms at the ideal time will not only prolong the life of the mushrooms but also the fan and filters.

Growing mushrooms typically involves some trial and error. Although the basic needs are the same, they vary slightly from species to species and within different growing environments. Even veteran growers take time to dial in the successful fruiting of species new to them.

On these pages, you will find some of the more common problems you may run into and what adjustments you might make to grow a successful flush or get it right the next time around!



#### **FUZZY STEMS**

**Primary Cause:** Excessive CO2 and/or moisture

#### Possible Solution:

- Increase your fan speed or clean your filter to increase fresh air exchange.
- Lower the humidity setting.



#### **BROWN OR CRACKED CAPS**

**Primary Cause:** Not enough humidity, harvested too late

#### Possible Solution:

- Increase the humidity setting.
- · Harvest your mushrooms earlier.



#### **PALE FRUITING BODIES**

Primary Cause: High temperature and/or low light environment

#### Possible Solution:

- Relocate your tent to a cooler location.
- Relocate your tent so it is within close proximity to ambient light or use artificial lighting

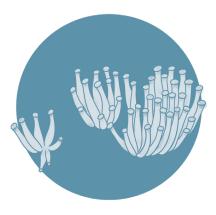


#### **ELONGATED STEMS AND UNUSUAL GROWTH**

**Primary Cause:** High CO2

#### Possible Solution:

• Increase your fan speed or clean your filter to increase fresh air exchange.



#### **GROWTH STOPPED AFTER PINNING**

**Primary Cause:** Aborted growth due to low humidity or a temporary drop in proper humidity

#### Possible Solution:

- Increase the humidity setting.
- Keep an eye on the water level in your humidifier to ensure it doesn't run out using the blue gauge on the right side of the unit.

#### **NO GROWTH**

**Primary Cause:** High CO2, high temperatures, substrate wasn't fully colonized, substrate too dry (more common with shiitake blocks)

#### Possible Solution:

#### Patience

Sometimes all your block needs is more time. Not all species of mushrooms will begin to grow within two weeks of being placed in your BoomRoom. If the block is not fully colonized, it will take longer to fruit, as it will not begin to do so until it has colonized the entire substrate.

#### Soaking

Keep your block in its bag and submerge it in cool water. Often, a weight is needed to keep the block under the water. Most species only require a soak of about 20 minutes, after which you can drain the water out of the bag and place it back in your BoomRoom. Keep an eye on the block while it soaks. Most kits are dense enough that they will stay intact, but species with a more wispy mycelium, such as the lion's mane, are vulnerable to breaking apart if left to soak for too long!

#### Cold shocking

Put your blocks at refrigeration temperatures (approximately 40°F) overnight or for up to 24 hours. This step is especially helpful if you are growing shiitake or other late-season mushrooms.

#### Relocating

If the temperature where your BoomRoom is located is too high, some species of mushrooms may not fruit. Try relocating your BoomRoom to a cooler area.

#### **Spores**

If you put your tent in a living space we recommend setting up your tent near a window so it can be vented outside. The filter will stop the majority of but not all spores from entering the air in your environment. Particular species of mushrooms release more spores than others. If you have allergies or asthma we don't recommend growing in a living space unless you can vent out a window. Ducting has been included with your kit for this purpose.



- Keep the BoomRoom and all of its electrical components away from children and pets.
- Children should never be left unattended around the BoomRoom or allowed to play with it, as it poses
  a potential suffocation danger.
- To avoid the risk of suffocation to animals or children dispose of the plastic bags immediately.
- Discontinue use of any electrical accessories if their power supply cords become damaged. Damaged power cords are an electrocution hazard.
- Do not plug in any of the electrical components with wet hands as this is an electrocution hazard.
- Keep the BoomRoom and all of its electrical components away from heat sources such as heaters,
   radiators, furnaces and direct sunlight.
- Turn off and unplug all electrical components before relocating them or your BoomRoom.
- Assemble in a clean and well lit environment with adequate surrounding workspace.
- Do not assemble if parts are missing, contact North Spore for replacement of missing parts.
- Turn off your Myco-Mister before removing the water tank for re-filling.
- Keep an eye on the water level of your Myco-Mister as it should not be on if the water tank is empty.
- Do not climb on or place more than 20 pounds weight on each shelf. Exceeding the maximum shelf capacity can damage the BoomRoom and create a safety hazard.
- Only use the BoomRoom for the purpose for which it was intended.

North Spore's products shall be used only for lawful purposes. North Spore cannot and does not promise that its products will yield any particular results for you. North Spore will not be liable to you or to any other person for any damages of any kind in connection with the use of our products, and we make no warranties of any kind, including warranties of merchantability or fitness for a particular purpose, relating to or arising from the use of our products, except as required by law.

### UNPLUG YOUR FAN, HUMIDIFIER, HUMIDITY CONTROLLER AND ANY OTHER ELECTRICAL COMPONENTS PRIOR TO CLEANING!

#### CLEANING YOUR BOOMROOM

Over time, the components in your BoomRoom will collect spores, so it's helpful to clean them every so often to avoid build-up and prolong the life of the components. Consult the manuals included with your components for specific protocols as set by the manufacturer.

Clean all surfaces with a damp cloth and mild cleanser. Do not use bleach or abrasive products. Note that the FAE Fan can be partially disassembled; refer to the instructions included with your fan. After cleaning, the BoomRoom tent can be sanitized by spraying 70% isopropyl alcohol inside and out.

CAUTION: Always allow ample time for all of your components to dry before plugging them back into power.

#### FILTERS AND DUCTING

Filters should be cleaned more often to maintain high levels of fresh air exchange. Filters can be washed by hand and reused. Replace your filter every so often, as filters will become worn with repeated use.

Ducting can be washed to prolong its life or replaced. Ducting does not have to be cleaned as frequently as your other BoomRoom components.

#### MINERAL BUILD-UP

To prevent calcium and lime buildup, ALWAYS use distilled water in your humidifier.

If you have mineral buildup on your ducting, shelves, and/or clear vinyl tent, you can use the following water and vinegar solution. White vinegar is a natural acid that can break down calcium and lime mineral deposits. To use this method, mix equal parts vinegar (4%-6% acidity) and warm water in a spray bottle. Spray the solution onto the affected areas and let it sit for 10-20 minutes. Then wipe it off.

For electronic components, consult the manuals included for specific protocols set by the manufacturer.

CAUTION: Always allow ample time for all of your components to dry before plugging them back into power,

