

Mushroom Box™ Growing Instructions:

Black Morel Mushrooms

www.mushroombox.co.uk

Introduction

Morels are probably the most sought-after mushroom of all. Prices can fetch hundreds of pounds per kilo, reflecting the rarity and unpredictable nature of this mushroom. Although indoor cultivation is possible, the techniques are patented, and most morels are collected from the wild. Some growers have had moderate success with the procedure developed by Stamets, which is described below. Morel-growing is and probably always will be, fairly unpredictable!

Growing Morels

A couple of mycologists have unraveled the secrets of morel-growing, and filed patents on the subject. Ower describes an indoor growing method, whereas Miller describes an outdoor symbiotic method using elm or ash tree seedlings. These patents were issued in the USA (see below). They were not necessarily issued in all countries. USA patents do not cover the UK, unless they are also issued by the UK or European patent offices – so it does not necessarily mean you cannot copy the techniques described. In any case, patents offer no protection against the home grower.

Ower's indoor morel technique:

<http://www.freepatentsonline.com/4594809.pdf> (1985)

<http://www.freepatentsonline.com/4757640.pdf> (1986)

<http://www.freepatentsonline.com/4866878.pdf> (1989)

...also published in *Mycologia* 74(1), Jan-Feb 1982

Miller's patents pertaining to growth of morels associated with elm tree roots:

<http://www.freepatentsonline.com/6907691.pdf> (2005)

<http://www.freepatentsonline.com/6951074.pdf> (2005)

An alternative method for outdoor growing has been developed by various mycologists including world-famous Paul Stamets – probably the best known mushroom enthusiast...

Outdoor Cultivation of Black Morels

Although slower, this has been seen as the more successful, and 'reliable' method for morel-growing.

First purchase our Black Morel Outdoor MushroomBox kit.

Next, select your growing site: This should be shaded, preferably by elm, ash, apple, oak or other trees. Ideally, the growing site should be surrounded by fresh woodchips. A site that has been burned (eg campfire site) or where water from a stream occasionally floods is ideal.

Select a 2.75m² area and remove the layer of organic soil from the site, until you reach clay.

Next, mix the following dry ingredients together: 50litres of peatmoss with 25litres of ash/charcoal from a woodstove or charcoal barbeque and 10kg of gypsum (plaster).

Spread this substrate over the prepared site, to a depth of 100mm. Water liberally until saturated, then sprinkle the spawn across the site. Using a spade, mix the spawn thoroughly with the substrate.

Cover the morel bed with 50-100mm of wood chips (elm, ash, apple, oak etc) and heavily water the site. Then do nothing further – leave nature to do the rest.

Often, the morel spawn will migrate through the soil, resulting in fruiting in a location nearby. So keep your eyes peeled! Morels have been reported over 100m away from the prepared morel-growing site.

Usually, outdoor morels will take at least a year before fruiting, but sometimes 2-5years.

Indoor Cultivation

Indoor cultivation is considered to be the holy grail of morel-growing, and based on Ower's work, it is certainly possible, but exacting environmental conditions need to be employed for success. A good description is provided here -

<http://www.thefarm.org/mushroom/morel.html> (follow steps 9 onwards) - but don't be fooled by its simplicity – it's a lot harder than it looks!

Prepare your indoor growing substrate – 20% sand, 30% soil, 40% small wood chips, 5% rice hulls, 2.5% soybean meal, 2.5% sphagnum. Saturate with water and mix well. Once mixed pasteurise the mixture in the growing trays.

Separate the sclerotia from the spawn. Inoculate trays with sclerotia and refrigerate for one month at 1-5C.

Remove from refrigerator and saturate the growing medium with water until waterlogged. Leave for 24hours and then drain.

Apply a casing of 15mm thickness

Place growing trays in darkness at 18-21C, with 1-2 air changes per hour, and leave for 7-10days for primordia formation.

When primordia appear, increase temperature by 2C, ensure substrate humidity is around 60% and air relative humidity is 85-90%. Increase air changes to 6-8 per hour. Maintain light withday/night cycles of 12hours each (either natural or artificial light)

Approximately 3-7days later, decrease the humidity slightly and decrease the air temperature to 10-15days for maturing the fruits.

If you enjoyed growing these mushrooms, please visit our website to find out more about our range of mail-order Mushroom Boxes™ and other mushroom kits.

You will also find growing tips, step-by-step pictorial guides, and recipes.

<http://mushroombox.co.uk>