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Introduction

This book is intended to be a guide pointing you in the right direction. It is great for people considering starting their own mushroom farm, or those who have a mushroom business and are trying to think of ways to grow and increase their profits. A large portion of this book is focused on the marketing phase of the mushroom business. This is because as an individual, trainer, and provider this is where my expertise is. So this is the area I felt I could help the most with.

Mushrooms can be found in forests around the world. Given the proper environment, mushrooms will grow and can offer a good source of natural vitamins and minerals. Mushrooms can also bring illness and even death to people who are unaware of certain types of wild mushrooms. Cultivated mushrooms are therefore the preferred and most reliable source of supply. Mushrooms are commonly used for various dishes in different shapes and forms. The most commonly and easily cultivated mushrooms in Thailand and in South East Asian countries are oyster mushrooms (*Pleurotus Ostreatus*), ear mushrooms (*Auricularia polytricha*), and straw mushrooms (*Volvariella volvacea*). Other types of mushrooms such as *Lentinula* sp., *Lentinus* sp., *Ganoderma* sp., *Macrocybe* sp., *Agrocybe* sp. types can also be cultivated successfully but will require more attention and knowledge. It is therefore recommended that a new comer in mushroom cultivation start with easy to grow and commercially viable mushrooms.

****Please note** all video links in this eBook link to videos that are the responsibility of the various video creators on YouTube. We have provided these links to solid descriptions of these key topics to provide you the reader more value. We do not own the rights to this videos.

Why grow mushrooms?

10 Reasons to get into the mushroom growing business:

1. They are in demand
2. Offer a proven niche
3. Can demand high prices for great mushrooms
4. Are great for the environment
5. They can be grown almost anywhere
6. The startup cost can be very low.
7. You can get started for less than \$1,000
8. Marketing can be done cheaply and scale and grow with your new business
9. You can use Social Media Marketing to grow fast
10. The Mushroom Growing Business rewards locally grown suppliers

Benefits of Mushrooms:

1. **Mushrooms are Healthy** – Most varieties are high in vitamin D and contain many other powerful nutrients.
2. **Mushrooms are being studied for cancer research** – Recent studies have started into the possible links between mushroom consumption and lower risks for certain cancers.
3. **Mushrooms can boost other plant growth** – Since mushrooms produce carbon dioxide as they grow they are being used to boost the growth of other plants in green houses around the World.
4. They offer a higher dollar value per pound than most other vegetables that can be grown in micro farms.
5. **Are great to be grown on rack systems** – Saving space and getting the most out of your available space. Rack systems allow some small growers to earn a substantial income from a single grow room.

This book offers a simple process anyone can use to learn a good deal about growing mushrooms. As an eBook it also links to a number of videos and online resources. As the writer I want to highlight that I am not the absolute subject matter expert. I am a hobbyist in the mushroom growing area. My expertise is largely on the marketing and promotion side of things so I spend a good deal of time in this book focused on that part for you.

I have written many books on social media marketing, web design, and using technology in business. So this guide will also share many of those topics. My focus is on your success with mushroom growing as a business.

A 20 Step Outline for Mushroom Growing

As a Business

Section 1. About mushrooms

There are three different groups of mushrooms. Selecting the right type of mushrooms to be cultivated must be based on climatic conditions and market demand. Mushrooms offer a wide range of proteins, vitamins and minerals necessary for the body and are becoming more popular and in demand.

Section 2. Producing PDA medium

How to well prepare spawn production is necessary for proper spawn multiplication. This part can be extended in further projects, in the case where a disabled person wishes to expand his knowledge and start spawn production. Only those trainees that are especially interested in this part will have specific activities and hands on training. In general, this part will be only theoretical.

Section 3. Selecting tissue culture

A young, fresh and very healthy mushroom is used to prepare a tissue culture. This procedure is very delicate and requires extensive understanding and an extremely clean environment. It may not be suitable for beginners in mushroom cultivation.

Section 4. Multiplying spawn on sorghum seeds

This is also a highly specialized part of mushroom production and will attract only a few trainees due to its complexity. Therefore, only basic theory will be given, mostly in the classroom. Trainees should, however, know how to select and buy good quality spawn from various

suppliers. They should also know all steps involved in mushroom cultivation to allow future expansion of their mushroom farm.

Section 5. Producing substrate bags

Extensive practice will be required by trainees to make sure that they can produce spawn bags by themselves or be able to verify the quality of bags of spawn bag producers. This is hands-on training and will be, with the subsequent steps, the focus of training.

Section 6. Pasteurizing bags

Pasteurization is necessary to completely sterilize substrate bags. If bags are not properly pasteurized due to insufficient residence time in the pasteurization chamber or because temperature is insufficient, bags will be contaminated resulting in poor growth of mushrooms or complete spoilage of bags.

Section 7. Inoculating bags with sorghum seeds

Inoculation must be done with extreme caution. It is an extremely delicate step that will ensure higher yield with disease free substrate bags. Work must be done near a flame from an alcohol lamp during inoculation.

Section 8. Incubating bags

During incubation, moisture, light, temperature and ventilation must be monitored constantly. Incubation time will differ according to the type of mushroom and climatic conditions.

Section 9. Opening bags

Following incubation, mushroom bags must be opened according to the type of mushrooms.

Section 10. Maintaining and monitoring

Maintenance of the mushroom house is crucial for higher yields. When kept clean, there are less insects and pest, less diseases. Bags must be checked individually and kept clean.

Section 11. Harvesting

Harvesting should be done at least twice a day to ensure that mushrooms are selected young and healthy. When harvested at the right time, not too big, mushrooms can keep for a longer time and their taste is sweeter and more delicious. Depending on the type of mushroom, one substrate bag can produce a total of 250 to 500 grams of mushrooms.

Section 12. Packaging

When selling on the fresh food market or from the farm directly very little packaging is required. Most people use plastic or paper bags.

Section 13. Marketing

Marketing remains the key to a successful enterprise. Care must be taken to always review the competition and to offer clients reliability of supply and quality of mushrooms.

Section 14. Processing

Processing of mushrooms is limited only by a person's imagination. There are already numerous methods and recipes, which can offer value, added products. Nevertheless, in rural areas, the market may be small because of financial limitations.

Section 15. Waste management and recycling

Waste must be handled properly in each step of the mushroom cultivation process. Recycling and utilization of waste is not only a good way of preserving our environment but also of saving money.

Section 16. Troubleshooting

It is necessary to know the most common problems found in mushroom production, their symptoms and their remedies. Although this section will never replace the advice of an expert, it should help solve basic problems and help identify problems before they occur.

Section 17. Starting the business

As an entrepreneur in mushroom production, it is necessary to have basic knowledge in management and bookkeeping. This will allow tracking of profit and losses.

Section 18. Keeping records

Keeping records is very important since it allows monitoring of all expenses incurred in mushroom production. It also allows to verify how much profit is generated in the business and identify how certain costs can be reduced in order to generate more profit.

Section 19. Social Media Marketing for Mushroom Growers

This sections will go in depth on how to use Facebook and other social media channels to promote your new mushroom business and capture a local fan following online. You only need 100 raving fans to start and grow your local mushroom business, and this section will help you capture those raving fans.

Section 20. How to grow and scale your Mushroom Business

This section outlines how to grow and scale your mushroom growing business with modern marketing methods and what I call an integrated marketing approach.

Nature of mushrooms

Mushrooms or fungi do not contain chlorophyll; they must feed on plants or animal matter. Some mushrooms feed only on dead matter while others feed on living plants or animals, which they sometimes harm or benefit. Mushrooms need a controlled environment with appropriate humidity, light, temperature, ventilation, air pressure, pH and nutrients. They also need a disease free environment.

There are three different groups of mushrooms or fungi:

1. Saprophytes

Those Fungi or Mushrooms that feed on dead plants or animals. *Pleurotus Ostreatus* or Hed Nangrom is an example of this group. Saprophytes are useful as they help breakdown dead matter.

2. Parasites

Those Fungi or Mushrooms that feed on living plants or animals. Many parasites damage and sometimes kill plants or animals they live on.

3. Symbiotic fungi

Symbiotic fungi grow on living plants, but do not damage them. The fungus and plant help each other. Fly Agaric grows symbiotically with birch or pine trees and its mycelium grows around the tree roots. The tree provides the fungus needed sugar and the fungus gives the tree nutrients it has broken down from dead leaves. This process allows birch trees to survive in poor soil.

Mycelium living buried in soil or substrate, and mushroom (or fruit body) which appears above ground or substrate, are made-up of tiny thread-like tubes called “hyphae.” Mycelium is made of loosely arranged hyphae while mushroom is made of tightly packed hyphae.

Hyphae develop from spores that are produced in the gills of a mushroom. Thousands of tiny pollen-like spores are produced in the gills of a mushroom. When the spores are ripe, they are carried away by the wind. The parent mushroom quickly decays. If a spore lands on a suitable surface, it germinates to produce a thread-like hyphae. There are two types of spore, positive (+) and negative (-). A mushroom will only form if hyphae from + and - spores join to form a new hyphae containing both types. If conditions are right (enough food and moisture) this new hyphae grows and forms a tangled mass of threads. Eventually the mass of threads formed a “button” which begins to grow out of the soil or substrate thus creating a mushroom.

Uses for mushrooms

Mushrooms can be used as food (fresh, snacks, sweets...) as medicine and for industrial purposes (coloring, adsorbents...).

As a business owner you will have mushrooms available for resale, processing as nutritional products, canning, and even the sale of your own strains to other growers from around the Nation or World.

As a grower there are many ways you can profit from your mushroom growing efforts. Through every stage of your process you will have opportunities to earn profits. This is not the case with most businesses, and this makes mushroom growing a bit unique as an opportunity.

Here is a simple list of some areas of profit for you to consider.

There are many more but this is worth review as you consider setting up your business.

1. **The direct to consumer sale of your mushrooms** – Common methods include the sale of mushrooms to the local market via local farmers markets. As some farms grow they establish their own company store and offer other related gourmet items for sale in their store as well.
2. **Online sale and shipping of mushrooms** – while not as profitable as direct sales some growers are very successful in this space.
3. **Sale to local restaurants** – This is a key for local mushroom farm success. Regular sales and delivery to local restaurants is a powerful success tool for local growers.
4. **Grocery Stores** – Many local chains love to source from local growers. You do need to have your business established and liability coverage (insurance) before selling via grocery stores. It is a good idea before you sell any mushrooms.
5. **Food Co-Ops** – Co-ops offer a great opportunity to reach a local market with little money out of pocket. These businesses exist to help their member sell their products. Often these are more established than some farmers markets, and remain open year round.
6. **Dried Mushrooms** – There is a market for dried mushrooms and this can be a solid option versus letting any of your mushrooms spoil due to low sales compared to your production at any given time.
7. **Value added Mushroom Food Products** – Sometimes smaller mushrooms of mushrooms with cosmetic flaws make sense as a part of other products as added value ingredients.
8. **Shiitake Mushroom Sauce** – A favorite of foodies everywhere this sauce can be an entire source of income all by itself.

9. **Mushroom Croutons** – Again often using Shiitake mushrooms many growers cook these to prepare these as mushroom croutons as an alternative to traditional croutons for salad lovers everywhere. Hint – these are also great in casseroles.
10. **Shiitake & Oster Mushroom Grow kits** – Because of the growing interest in mushroom growing these kits are becoming wildly popular and can create a solid stream of income for your business.
11. **Used Growth Media or Substrate** – Popular for its nutrient rich ingredients even your spent or used substrate can be very valuable. Some growers who market this properly recoup their cost for their substrate this way. Making your substrate free increases your profit dramatically.

Those are just some of the many sources of profit for mushroom growers and their business. You too can start to capture these profits for yourself.

Here is a link to the most profitable strains of mushroom from the viewpoint of a successful business owner.

<https://www.youtube.com/watch?v=e47n20RSCDs>

Nutritional values in mushrooms

Mushrooms provide high protein and essential amino acids. Low in fat and high in fiber, they also provide vitamins thus stimulating the immune system. Eating two to three types of mushroom per day can provide the proper amount of essential amino acid required by the body. It also supplies high levels of protein and vitamins. Normally, one adult can consume about 200-800 gram per day. For elderly people and children, 200 and 500 grams are sufficient.

Mushrooms are being studied for their benefits for those battling cancer, and many other common illnesses that people struggle with. The research is interesting. It points to many of the health benefits that researchers are still looking into connected with mushroom consumption.

Tissue Cultures

1. Prepare materials:

Potatoes: 200 gr.

Dextrose: 20 gr.

Agar powder: 20 gr.

Water: 1 liter.

Cotton (gauze)

Note: Visually check potatoes for spots or rot. Buy dextrose and Agar of commercial grade.

2. Wash and cut potatoes into one-centimeter cubes; leave on or remove the skin.

3. Clean small flat bottles (small whiskey bottles as a container can be used).

4. Place potatoes in one liter of water. Simmer for 15 - 20 minutes.

5. Remove potatoes & keep the broth as clear as possible.

Add water to broth to reach one liter of liquid PDA

6. Bring water to stove. Add dextrose followed by agar. Slowly stir continuously with regular speed until completely dissolved.

7. Pour liquid PDA in bottle until you reach 5 - 10 mm high

8. Plug bottle with cotton.

9. Place bottles in autoclave at 121°C for 20 - 30 minutes to ensure complete sterilization.

Let cool down to around 37°C

10. Place bottles in slanted position as to increase surface area of the medium. PDA should come close to the neck but must not touch the cotton plug.

After PDA medium is settled in bottle, transfer all bottles to clean shelf in the clean room.

11. Check for contamination (contamination can be seen when dark spots or lines occur).

Selecting tissue culture

Do not want to use your own cultures to start here is a video for one of our YouTube friends who also sell cultures too.

<https://www.youtube.com/watch?v=1vsFzSaouJE>

1. Prepare materials:

- Special needle (insulated handle)
- Alcohol lamp
- Alcohol
- Cotton (gauze)
- Matches or lighter
- Bottles with PDA
- Laminar flow cabinet (or protected environment)
- UV lamp

2. Select a strong mushroom for culture.

- Healthy.
- Not too mature, not too young.
- Not too humid (at least 2-3 hours after watering)
- With a stiff stalk
- Make sure it is clean and far from any contaminated mushroom.

3. Clean the room, all necessary tools, inside and outside the laminar flow cabinet with alcohol. Transfer PDA bottles and necessary tools into the chamber.

4. Place all cleaned materials inside laminar flow. Turn on UV lamp and laminar flow. After 10-15 minutes, turn off UV lamp but leave laminar flow for the duration of the operation.

5. Clean both hands and bottles with alcohol and insert hands into the cabinet.

6. Hold needle with 2 fingers in a 45^{o-degree} angle, flame needle to disinfect until the needle turns red. Make sure it does not touch any surface after flaming.
7. While needle cools down (15-20 seconds - hold needle not to touch anything or place it on the clean surface of a glass).
8. Using other fingers, tear mushroom lengthwise (DO NOT use knife to cut).
9. With the needle, cut a small piece (2 mm x 2 mm) of fleshy tissue from inside the mushroom (in the middle between the cap and the stalk). Make sure that it is clean and did not touch the outside of the mushroom.
10. Flame around the mouth of the bottle. Using other fingers, remove cotton plug of PDA bottle in front of flame to secure against contamination.
11. Insert the needle in the bottle and inoculate by placing small piece of cut mushroom in the middle of the PDA's surface. Make sure the piece of mushroom does not touch anything before entering the PDA bottle
12. Close bottle immediately near the flame with cotton plug

Note: the bottom of the bottle should always be lower than the mouth of the bottle and the mouth of the bottle should remain near the flame at all times.

13. Label bottles and indicate: Date, type of mushroom, mother spawn #.

Culture from PDA to PDA

Because of the extremely delicate nature of tissue culture, it is highly recommended that tissue culture be done in only a few bottles of PDA since there is high risk of contamination. Then, several bottles of PDA can be prepared from the extremely pure mycelium.

9. With the needle, cut a small piece (5 mm x 5 mm) of mycelium on PDA. Make sure that the PDA not contaminated.

10. Flame around the mouth of the new PDA bottle. Using other fingers, remove cotton plug of PDA bottle in front of flame to secure against contamination.

11. Insert the needle in the bottle and inoculate by placing small piece of PDA mycelium on the middle of the PDA's surface. Make sure the mycelium PDA does not touch anything before entering the PDA bottle.

12. Close bottle immediately near the flame with cotton plug

Note: the bottom of the bottle should always be lower than the mouth of the bottle and the mouth of the bottle should remain near the flame at all times.

13. Label bottles and indicate: Date, type of mushroom, mother spawn # 14. Whether from tissue culture or PDA to PDA, from the time of incubation to full growth mycelium will take about 10 - 15 days. (Depending on species).

15. Keep PDA bottles with mycelium on clean shelf.

Check infection by other fungi in the bottle everyday. Also check growth rate.

16. After mycelium covers whole PDA medium, keep mature mycelium in cool place or in the refrigerator in the vegetables section.
17. Check for contamination. Separate contaminated bottles. Transfer contaminated bottles to clean.
18. Keep detailed notes of observations.

Step 4. MULTIPLYING SPAWN ON SORGHUM SEEDS

1. Prepare materials:

- Sorghum seeds
- Bottles (flask type)
- Cotton (gauze)
- Paper squares 7 cm x 7 cm
- Rubber bands
- Alcohol lamp
- Alcohol bottle

Note: Various types of grains can be used: Sorghum, millet, wheat

Grains must:

- *Have been recently harvested*
- *Contain few broken kernels*
- *Little contamination*
- *No fungi, no insects*
- *No more than 12% humidity*

2. Soak sorghum for one night; 2 liters of water per 1 kg of grain.

- Wash and strain sorghum seeds to remove all water.

3. Steam sorghum seeds for 30-45 minutes to soften grains and cook about 25%.

4. Drain water and spread sorghum seeds to cool down and decrease moisture.

5. Fill $\frac{3}{4}$ of bottle with sorghum seeds.

6. Carefully prepare cotton plug
7. Tightly plug mouth of bottle with cotton and leave out for ventilation.
8. Transfer all prepared bottles to the sterilization chamber.

Close chamber. Fire-up burner or stove to heat chamber. Make sure to release all air from the chamber before starting. Keep pressure in the chamber at 15 lb./sq.inch. or 121° Celsius for 30 minutes for small chambers and 45 minutes for medium chambers.

Let bottles cool down.

9. Transfer bottles to a clean and cool place.
10. Bottles must be cleaned and well prepared.

Prepare the well verified PDA bottles

11. Clean laminar flow chamber using alcohol.
12. Transfer PDA, sorghum seed bottles, paper and rubber bands in laminar flow chamber. Light UV lamp for 10 - 15 minutes before starting. Place needle in alcohol.

Turn off UV. Clean both hands with alcohol and insert hands into the chamber.

13. Using 2 fingers, take out needle, pass through fire as to burn alcohol, and disinfect needle. Make sure the needle turns red.
14. After the needle cooled down to normal state, use needle to cut small square (5mm x 5mm) of PDA with mycelium (white color).
15. Close bottle immediately. Remain near flame at all times.

16. Using other hand flame around the mouth and shoulder of the sorghum seed bottle.

Using other fingers, open spawn bottle near flame to avoid contamination.

17. Insert needle and inoculate sorghum seeds with PDA mycelium by placing small square piece in the middle of the bottle. Make sure the PDA mycelium does not touch anything before entering the sorghum seeds bottle.

Note: The mouth of the bottle should be near the flame. The mouth should remain higher than the bottom part at all times. Do not touch mouth of bottle with piece of PDA.

18. Close bottle immediately.

19. Place square paper over cotton and tie with plastic neck or rubber band.

20. Label inoculated sorghum bottles writing: Date, Spawn no., ref., and inoculation time.

Note: It takes about 10 - 15 days to get full-grown sorghum grain mycelium, depending on the species.

21. Keep mature sorghum seeds in a cool place or in the vegetable compartment of the refrigerator. Check for infection regularly.

22. Remove contaminated bottles.

Transfer contaminated bottles to cleaning site. Clean bottles as normal glassware.

23. Observe and collect data. Take notes to draw conclusions.

Note: A loss of about 3% is to be expected.

Step 5. PRODUCING SUBSTRATE BAGS

1. Prepare materials:

- Grow bags (polypropylene 7" x 12.5") alt sizes may be used.
- The Bags should be grow bags that withstand heat, and have filters attached
- Oak Pellets
- Soy Hull Pellets

Optional ingredients based on variety and desired yield.

- Calcium sulfate
- Calcium carbonate
- Magnesium sulfate

3. Substrate preparation

Weight each component separately. For most varieties of common commercially grown mushrooms a 50/50 mix of soy hull pellets to oak wood pellets is ideal. You can purchase both oak and soy hull pellets here. <http://mushroommediaonline.com/index.php/shop/>

So mix equal parts and mix each with water to break the pellets down into their sawdust or lose form. It may be easiest to mix each ingredient first with water then combine the two after the first mixing. Then mix the ingredients again to assure that the soy and oak are well mixed.

The soy hull ads the nutrients that the growing mushrooms will need and the oak provides not only the substrate to bond to but also other key elements as well.

Depending on the requirements of the breed you are working with you may want to add additional nutrients to your mix. Again, most

commercial varieties this is not needed since the oak and soy hull combination is an ideal fast fruiting mix.

Add Your Fast Fruiting Mix to your grow bags once thoroughly mixed.

Seal the bags once filled to the desired level for the size bag you are working with. Making sure to leave enough space at the top of the bag for properly closing and sealing the bags completely.

Step 6. Sterilizing Your Bags

There are many ways to sterilize your bags. For small operations (new farms) using a pressure cooker can help you sterilize several small bags at one time.

At this time we are considering offering grow bags, and even possibly pre-sterilized grow bags with the fast fruiting mix in our store. You can check back often or monitor our mushroom growing business group for announcements on this and other offers.

The shop link is found here

<http://mushroommediaonline.com/index.php/shop/>

You can Join the Mushroom Growing Business Group for free on Facebook here:

Larger farms will want to purchase larger containers for mass sterilization. The goal of all sterilizers is heat, and steam. When possible also pressure to speed up the process.

Some farms have used solar heating to treat their bags in specially prepared micro greenhouses with Fresnel lenses or other forms of solar magnification. Again the key is the high temperature and when possible steam.

Step 7. INOCULATING BAGS WITH SORGHUM SEEDS

Note: The inoculation room must be kept very clean and free of diseases to avoid contamination. Avoid sunshine from entering the area.

1. Prepare materials:

- Alcohol lamp
- Sorghum coated with spawn
- Fire
- Square paper (5'' x 5'')
- Rubber bands
- Cotton Alcohol
- Pasteurized substrate bags

2. Clean room with broom or dust vacuum Rub the floor with disinfecting solution.

3. Bring substrate bags from pasteurization chamber to inoculation area.

4. Light alcohol lamp.

5. Disinfect hands and pasteurized substrate bags with alcohol.

6. Take bottle of sorghum coated with spawn (all white color).

7. Shake well bottle against car tire (or old tire) to release sorghum seeds and then, bring bottles to inoculation room. Do not open bottle

8. Flame around the bottleneck. Open bottle very close to flame to take out air from inside.

9. Drop 10 - 20 sorghum seeds coated with spawn in the mushroom bag. Act very quickly and with very little movement.
10. Then bring cotton to close bag as quickly as possible. Repeat for all bags.
11. Leave bottle near the flame until all bags have been inoculated. Then close the bottle.
12. Following inoculation of all bags, place clean square paper to cover the top of the bag and tie with rubber band.
13. Bring bags to incubation room.

Step 8. INCUBATING BAGS

1. Clean around and inside the incubation house using a broom. Always inspect for cleanliness before entering with new spawn bags.
2. After inoculation, transfer substrate bags to mushroom incubation house.
3. Place bags on shelves for incubation.
4. Incubation.

Bags can be placed horizontally or vertically, which takes more space.

Note: At the beginning, little ventilation and light should be allowed. After about 10 days, there ventilation should regulate the desired temperature. After 20 - 25 days, area should be well ventilated and more light can be let in for constant monitoring.

5. Visually check mycelium on a daily basis looking for abnormal mycelium (such as black spots, green spots, brown spots, orange or red spots, etc....).

Try to find out the causes of abnormal mycelium (PEST, DISEASE).

6. Move bags to fruiting body area (or prepare for fruiting).

7. Separate contaminated bags and pasteurize again

or

separate partially contaminated bags and open them

or

tear the plastic bags off and reuse sawdust

or

ferment substrate as compost for gardening.

(See waste management).

8. Observe and collect data.

Take notes before drawing conclusions.

Step 9. OPENING BAGS

1. Clean around and inside the fruiting body house using a broom.
2. Transfer mature spawn bags to the mushroom fruiting body house using a trolley (or prepare them for fruiting).

Place bags on shelves.

3. Open bags according to type

3.1 Oyster mushrooms- Hed Nangrom (*Pleurotus ostreatus*)

Take off cotton plugs.

3.2 Filamentous fungi - Hed Khon Kao (*Lentinus squarrosulus*)

And

3.3 Hed Lom (*Lentinus polychrous*)

Cut plastic bags at the shoulder of the bag using a knife or cutter.

3.4 Ear Mushroom (*Auricularia polytricha*)

Cut the side of the plastic bags; four cuts per vertical line and cut on four lines around each bag.

2. Look at the temperature to control the atmosphere in mushroom houses

Open or close doors and windows in mushroom houses to control light and ventilation.

If temperature is too high, leave doors open during the night to change the air.

When people feel comfortable, it means mushrooms are in a good environment.

3. Check for mites and other pests at least twice a week.
4. Identify type of pest.
5. Keep bags clean at all times.
6. Allow natural pest control.
7. Identify and separate contaminated bags.
8. Manually pick all garbage.

Remove contaminated bags and pasteurize again.

9. Keep good and clear records of your mushroom production.

Step 11. HARVESTING

1. Look for mature mushrooms.

Mushrooms are ready to be picked 2 - 3 days after they first appear.

Pick mushrooms gently by grasping stalk and pulling out slowly.

Note: Mushrooms must be harvested at the most appropriate time. If too small, they cannot fetch a good price. If too big, their conservation period is reduced; they are not so sweet and tasty. Harvesting should be done two or three times a day.

2. Put mushrooms in order in a basket, about 5-8 kg per basket. Trim and peel by cutting at the base of the stalk to make the mushroom clean. Place mushrooms in basket.
3. Weigh all mushrooms and take notes.

Note: A bag of mushrooms should yield between 250 - 350 grams of mushrooms in 4 to 5 flushes.

Bags lose much of their weight once they have exhausted their pro

Step 13. PACKAGING

Packaging

Before packaging, make sure all mushrooms are well trimmed.

For selling fresh mushrooms on the market, little or no packaging is required. Mushrooms are weighed and placed in paper or plastic bags.

Mushrooms cannot keep for long and therefore all mushrooms must be sold quickly following harvesting. They can keep in a refrigerator for 12 - 24 hours. To avoid humidity from accumulating in the bag, place mushrooms in bags and blow air in them. Tie bag with rubber band.

If no refrigerator is available, place mushrooms on banana leaves in a cool area, or put them on top of water under the shade in a well-ventilated place.

Step 14. MARKETING

Marketing

Mushrooms can be sold directly to consumers or given to whole sellers. The profit will be reduced when dealing with an intermediate but if a good agreement can be made, it also saves on expenses related to marketing.

Prices of mushrooms will depend on the season and the type. Different seasons will give better yields for certain mushrooms.

Sales outlets:

- From the farm - Make sure people know you cultivate mushrooms
- Community
- Local market
- Neighboring markets
- Restaurants
- Hotels
- Supermarkets
- Quality control:

Mushrooms must be clean - trimming is very important

Collect young mushrooms - longer shelf life

- better tasting

-

Tip: harvesting after watering at least 2-3 hours will conserve mushrooms longer.

- Inoculated mushroom bags can also be sold and generate supplemental income.

Conserving mushrooms

Because mushrooms are highly perishable, strategies in conservation techniques are necessary. Drying is a good option since it allows mushrooms to be used in cooking. Drying can be done with electrical and solar dryers. Nevertheless, this cannot be done during the rainy season since dried mushrooms would take in humidity immediately and therefore their conservation cannot be guaranteed.

Fresh mushrooms can be processed and sold to shops and restaurants as finished products. Many products can be made with mushrooms. Aside from being added to soups and sauces, mushrooms can be converted into sweets, cookies, candies, various snacks, and can also be dried. However, facilities in rural areas are not necessarily capable of supporting such processing techniques. The following recipes are just of few examples of some of the easiest and most appreciated types of processed mushrooms in South East Asia, which can easily be done in small villages.

Step 17. TROUBLE SHOOTING

“Preventing is better than solving the problems”

Or a penny of prevention is better than a pound of cure.

If your Mycelium fails to form.

I can me the following things.

Improper initiation strategy.

Consult parameter of growth. Alter moisture, temperature, light, carbon dioxide, etc.

Note: If the substrate is too moist, decrease moisture.

Chlorinated or contaminated water.

Use activated charcoal water filters to eliminate chemical contaminants or any other ways of simple or appropriate technology.

Bad substrate.

Check substrate. Spread the substrate and remix the substrate, package again, make sure all raw materials are good and fresh.

Note: It is necessary to pasteurize immediately after bagging otherwise fermentation gas will slow down the rate of growth of mycelium or stop mycelium growth.

This is one of the reasons we recommend the Fast Fruiting Mix from MushroomMediaOnline.com to avoid these kinds of issues.

Bad pasteurization or sterilization.

Check method of pasteurization. Release all air and make sure there is continuous steam before starting pasteurization for a period of 3 hours.

Substrate in the bag is too hot when inoculation

Make sure that the substrate bag is not too hot before inoculation. Let your bags properly cool after your sterilization efforts.

Bad strain or spawn.

Obtain younger strain of known vitality & history.

Spawn contaminated.

Pasteurize and inoculate again with good spawn. This happens and if you screen better with the previous stages it will happen less. If you do a solid job with the previous screening you may still have 3% with issues.

Forgot to inoculate the bag.

Make sure to inoculate. Kind of reminds me of troubleshooting a computer problem and forgetting to check to make sure the computer is plugged in and has power.

Poor spread of mycelium, bad smell, spots and mites.

Good pasteurization but must decrease the temperature in the pasteurization chamber. Pasteurization was too quick and/or the chamber door was opened too quickly.

Slowly decrease the temperature in the chamber. Do not open the cover of the chamber too quickly. Check that the cotton plug is tightly closed.

Inoculation process.

Inoculate in hygiene conditions; clean and with no air movement.

Too high density in the incubation area, not enough ventilation to decrease accumulated temperature.

Spread the substrate bag and make more air ventilation in the incubation area. Check temperature and control surroundings to maintain 25-35 degrees Celsius.

Too high carbon dioxide.

Not more than 5% carbon dioxide. Check ventilation. Remember mushrooms need fresh air just like you and me.

Hygiene of the incubation house.

Improve hygiene in the incubation house.

Mycelium develops in patches. Substrate is not evenly prepared and some parts have more nutrients than others.

Improve your substrate mixing efforts. If you are using the Fast Fruiting mix you should have no issues since the pellets comes premixed and you just need to add water, and mix.

Bacteria, other fungi contamination.

Check the process causing contamination. Separate contaminated bags as soon as possible. Remix substrate separately. Remake substrate bags and pasteurize for a longer time. Follow process.

Mite contamination.

Immediately separate contaminated bags and pasteurize again.
Continue the normal process.

Note:

**Keep hygiene management; make sure to clean everything (person, area, tools, equipment, and surroundings during every step.*

**Stop using the area to cut the life cycle of all contaminants for a period of at least 1-2 weeks. For serious contamination cases, spray area with chemicals.*

**Use black-light with water or sticky-trap to decrease insects.*

Mycelium grows but fails to produce mushrooms.

Substrate formula is not suitable.

Adjust the formula; check pH; sawdust; additives; etc. Again, broken record here but you eliminate this issue with the fast fruiting mix.

Mites, mold, virus, bacteria and insects.

Check pasteurization process, inoculation, other processes and mushroom house management for hygiene.

Inhibited by environmental toxins.

Remove source of toxins.

Bad strain or spawn

Get yourself a new strain or spawn.

Mushrooms form, but stems are long; caps underdeveloped.

Inadequate light.

Increase or adjust light to correct wavelength. One thing that helps with some breeds is opening holes in the grow bags from the side closest to the light source. If you are growing on racks then just as you would try and make sure a plant receives sunlight, you want to make sure your mushrooms get light as well.

Excessive carbon dioxide.

Increase air exchange, open doors or windows and close at correct time.

Mushrooms produced only in the first flush, fail to produce subsequent flushes.

Inadequate substrate nutrition.

It is time to review your substrate. The reason we make the Fast Fruiting mix at 50/50 soy hull and oak pellets is to assure that the substrate has abundant nutrition.

Competitors.

Check hygiene, adjust light, temperature, humidity, air and ventilation.

Bad strain.

Again, get your hands on another strain.

Step 19. STARTING THE BUSINESS

Here are top tips from a successful business owner in one single video.

<https://www.youtube.com/watch?v=YVbV5kKvQjM>

Procedure to start a mushroom production farm

1. Identify location for the mushroom house

Make sure the land is above flooding level. Location should offer good ventilation.

2. Set-up mushroom house and equipment

3. Buy raw materials

It is highly recommended that you start the business by buying already inoculated mushroom bags. A minimum of 1,000 bags to start is both feasible and easy to manage. It will allow you to understand the basis of mushroom production without investing too much money.

4. Maintain mushroom house

Keep house clean. This will reduce disease and pest and will ensure higher yield. Constantly monitor humidity and light.

5. Check for contamination and disease

At least twice a week, visually check each bag to see if there are any spots or if only part of the bag becomes white.

6. Check for pest

At least twice a week, visually check each bag for small mites, flies, ants or other pests.

7. Harvest mushrooms

Harvest mushrooms at least twice a day to collect only young and strong mushrooms. These high quality mushrooms will ensure that your clients will be happy and will come back for more.

8. Sale and marketing of mushrooms

Mushrooms can be sold from the farm directly, within the village on the fresh market. They can also be supplied to restaurants and hotels. Always monitor the competition and adjust prices according to season and local demand.

9. Keep records

Records will make you see how much profit you make. See the following section for details in keeping records and to see expected income.

10. Seasonal business Vs Continuous business

Because of rice harvesting around Asia, there are certain times of the year when people are busy working in the fields. Furthermore, during the rainy season, wild mushrooms come out thus reducing the demand and therefore the price of cultivated mushrooms. Many people wish to stop producing mushrooms during this period. Nevertheless, there is still a market for certain type of mushrooms. Processing may also be profitable during the rainy season.

For a continuous income all year round, it is necessary to plan and make sure that there are always mushrooms at the fruiting stage while other bags are at the incubation stage. This means that the farm can become the major source of regular income for the family.

Considering a greenhouse for mushroom production?

Choosing the right greenhouse design

Here is a video about growing in greenhouses or grow houses.

<https://www.youtube.com/watch?v=t2mjl6fNfCk>

Also here is another video about using shipping containers as an alternative.

<https://www.youtube.com/watch?v=hzK9j8oarXw>

When you have a greenhouse, it means that you never have to quit gardening just because of weather conditions. You can keep on propagating cuttings and seeds and grow several plant varieties whatever the season.

When choosing a greenhouse, select a greenhouse style that matches the design of your home and the layout of your garden. Weather conditions should also be taken into account, as when your area experiences heavy snows during the winter, most likely you will not select a flat or straight roof design, rather a roof that will allow the snow to slide off easily.

The standard free-standing with curved or peaked roof greenhouse up to now is very popular that can be found in so many gardens. The rectangular or square shape permits for utmost growing space for plants, usually designed with benches on the sides and at the back.

Lean-to or home or wall attached greenhouses designs are manufactured and used when there is limited space at the backyard. These greenhouse designs are very accessible and convenient for connecting much needed water and power supply.

When choosing a certain design in the market, the “sky's the limit”. Small solariums of various designs are widely available, medium and large sized greenhouses and even prefabricated greenhouse kits for easy installation.

Here are some greenhouse designs:

1. **Gable greenhouse.** This design type usually is attached to a wall or garage or any structure utilizing only half the gable's actual gable design. Generally, this type has flat roof panels but slightly sloping and vertical sidewalls. At times, the gable types of greenhouse are also attached to another greenhouse employing the use of the end wall rather than sidewall.

2. **Barn style greenhouse.** This design type is, as the name suggests shaped similar to a barn having wide roof and interior and with shorter walls. This design is usually incorporated in a garden of country setting or theme or a rustic garden appeal. This greenhouse design can be attached to another greenhouse or can be beautifully constructed in a garden freestanding.

3. **Dome greenhouse.** This design is identical to a dome, meaning it is half a ball and placed directly on land. This design cannot be attached to a structure and only can be constructed as a freestanding type of greenhouse, as this design has no sidewalls. This type of greenhouse is a bit expensive to make due to the many pieces of different glazing that generally are needed to complete this design shape.

5. **Gothic style greenhouse.** This design type has a very historical gothic appearance. The walls and roof are formed in such a manner as to create a continuous form, allowing snow to fall down easily. This design type can be either attached or freestanding, however it is usually not recommended attached except when your home's design is very much similar to a gothic design.

6. **Hoop greenhouse.** This type of design is constructed with a metal pipe or PVC to make the hoop's shape then enclosed with plastic covering. This type of design is very cost effective on your initial purchase, but the maintenance of continuously replacing the cover (plastic) can really add up.

One will find that the majority of greenhouses are manufactured from aluminum material that is weatherproof and lightweight. Galvanized steel also is sturdy and lightweight. Wood can also be used, but one has to make sure to use a lumber that has been pressure treated such as redwood or cedar because these are weather resistant.

As to whatever greenhouse design should you decide on, be sure to look for a structure with the highest strength and stability and must have these features:

- Will be cable to endure extreme weather conditions, like very high winds and snowfall build up.
- Should have the necessary support for grow lights, sidewall shelving and hanging grow bags.
 - You need to consider misting systems and a high moister environment for growing mushrooms.
 - Airflow and temp control are also critical.
- Should have an intricate detail of having hinged screened storm doors as well as large side or individual roof vents.
- A wide selection of styles and sizes offered. Keep in mind that costs can limit your greenhouse size, however extensions can later be added when needed and when you already have enough budget for it.
- The door may be easily adjusted to be dropped or lowered into the foundation's opening so to get rid of an elevated step when you feel that it is needed.

Take note that often, most greenhouse owners complain of a limited space when they built their greenhouse on a budget. So whatever design you choose, just remember to get the largest that your money can buy.

How Greenhouse Climates Work in the Growth of Plants

There are geothermal heated greenhouses that support a plant's life process in changing climate conditions. These heated greenhouses consume a large amount of heat energy when it comes to gardening and agriculture. However, it should be satisfying to most gardeners because of the good results they provide to the growth and development of a plant.

Most of these energy needs and geothermal conditioning are basically structured according to the environmental and ecological orientation of most greenhouses. The energy needs are adjusting based on the certain climate changes that may occur from the different seasons of the year. They are built with light materials that have minimal insulating features to create a stable climate inside the greenhouse.

The external climate brings a different approach to an internal climate system in a greenhouse. The necessity to have a greenhouse may occur during colder seasons where there is limited sunlight. The main purpose of having an internal climate system is to optimize the needed factors for plant growth. The internal climate factor that will be obtained is the photosynthesis process involved in environment and plant reactions.

Photosynthesis is the reaction process between the plants and the sun's solar radiation. This means that carbon dioxide is supplied by sunlight to create a life process for the plants. There is a certain amount of climate heat that is calculated to designate the needed supply for lighting and heating. The greenhouse climate is essential in calculating the needed heat and coldness to the demand of the greenhouse.

The existence of heating and humidifying systems can adjust to the conditions of any external climate changes. Some processes that take part to the continuous energy balance maintained in any greenhouse is the water transport through the soil, plant canopy, and air. The formation of chlorophyll affects the entire internal climate. This happens because of the effect of heat transfer, solar light, oxygen and carbon dioxide cycle.

Here are some factors in valuing each aspect of parameters that is important to the climate condition and character of the internal climate.

1. The air movement in the greenhouse may influence the needed heat transfer on the air composition to the plant canopy. It also involves the process of water transfer to the plant canopy. This process will sustain the energy balance needed by the plants to continue a healthier life process in the greenhouse.

2. The heating installation is essential for the proper distribution of temperature inside the greenhouse. It also allows a controlled air movement to maintain the humidity and moisture in air characteristics that is affected by the external climate changes.

3. The water transport in the greenhouse also plays a big role in sustaining the photosynthetic process in the environment the plants. The roots have aspects pertaining to cultivation base that offers a needed amount of water, which is also needed in humidity and greenhouse temperature.

4. The air temperature affects the whole energy state inside the greenhouse. It is the connective heat supplied in the different aspects of the environment. The characteristic of the air movement in the greenhouse influences the leaves and stems of each plant.

5. The light factor is very essential in producing photosynthesis reaction to the plant's canopy and to the formation of carbon dioxide that serves a big role in the respiration of the plants. Its necessity takes significance on the plants' development and life process inside the greenhouse. Solar radiation provides instant intensity of light spectrum to supply the needed warmth and heat energy during colder seasons.

6. The soil or ground base temperature affects the condition of the climate inside the greenhouse as well. The significant parameter involves the transfer of heat energy directly to the ground structure,

which includes the roots and the water flow system that partakes in the plants' growth.

7. The carbon dioxide concentration also takes part in the life process inside the greenhouse. The normal average of carbon dioxide concentration in the external air atmosphere is 0.03%. This is important to maintain a balanced temperature and humidity density in a greenhouse. Mushroom growth will be inhibited if carbon dioxide levels climb due to low air flow.

It is important for a greenhouse to have installed systems to create an environment that will provide continuous life process for plants in changing climate conditions. A well-planned greenhouse climate should assure a person of having proper distribution of light, temperature, water, carbon dioxide, and other essential factors needed for every plant to grow.

How Does a Greenhouse Work: The Benefits that Can Be Derived From Its Operation

For people who are fond of plants, flowers, vegetation, and other ornamental plants, having their own greenhouse may be a dream come true. For mushroom growers focused on growth a low cost greenhouse operation may be ideal for your business growth.

A greenhouse or conservatory is a type of structure where plants are developed and grown. Usually, greenhouses are made of plastic or glass. This is to allow the natural light coming from the outside environment to permeate inside.

Because of its special condition, many people are wondering why do plants have to be cultivated inside this super special structure, wherein fact, it can be grown outside with the natural forces readily made available anytime, anywhere.

The answer to this particular issue is based on how the greenhouse really works. It is only through the understanding of its full operation that people will appreciate the advantages and environmental use of greenhouses.

Heat It Up

Putting up and maintaining a greenhouse can be a daunting task. However, the benefits that it brings not only to the environment but also to the owner of the hothouse cannot be underestimated. For one thing, greenhouses are perfect cultivating area for people who wish to grow their own vegetable farm or ornamental plants. This means that they have an all-year round supply of these items.

However, some people cannot just identify the real purpose of greenhouses because they believe that there is not so much difference between the outside environments with that of the interior condition in the greenhouse.

They say that light, water, and air are, in fact, readily made available in the natural environment. Inside the greenhouse, lights, water, and air are artificially supplied. They further contend that once the person who is in-charge of the process has failed to do his job, chances are, the plants will die.

Hence, they insist that it would be better to cultivate the plants on its natural environment rather than locking them up in a glass-made 'prison.'

The problem with these people is that they do not understand the main operation of the greenhouse that is why they cannot appreciate the goodness of greenhouses. They are not pleased about the benefits that greenhouses may bring.

Therefore, in order to gain the right appreciation of the purpose of greenhouses, here is a list of detailed facts about the real operation of greenhouses:

1. It uses solar energy

Like the natural environment, greenhouses make use of the solar energy as well. That is why greenhouses are made of glass or plastic to allow the natural light to pass through.

2. It converts the solar energy to heat

This is where the greenhouse benefits start. Basically, when the solar energy enters the greenhouse, the heat that goes along with the light are trapped inside the area. Once inside, the heat is distributed throughout the place. This is similar to the condition of a car that is parked in area with direct sunlight.

Have you ever observed that after you have parked your car in an open area with direct sunlight you can still feel the heat being trapped inside your car?

The same thing goes with the light and heat inside the greenhouse.

Generally, when the “electromagnetic radiation” of the sun enters the greenhouse, the things inside the structure like the soil, plants, and other notable material inside the place are being heated up.

Consequently, the materials that make up the greenhouse, like the glass or the plastic trap the hot air or the heat inside the room. Thus, it heats up both the air and the plants inside. Likewise, it also heats up the air close to the ground.

The main purpose of this particular structure of a greenhouse is to prevent “convection.” This is because through convection, heat is eliminated through the presence of fluids.

The main focus of the issue here is that this particular amount of heat should not escape the hothouse in order to proper growth to the plants.

It is for this reason that many people deem it more to cultivate their plants inside a greenhouse because with proper cultivation process as well as the regulated amount of light and heat present in the area, optimum plant growth and development is highly expected.

Indeed, just by looking at it, many people will still question the efficiency of greenhouses. But as soon as they understand the real concept behind the operations within the area, they will soon realize that greenhouses are absolutely added features for the environment.

Tips on Planning and Building Your Home Greenhouse

Building a greenhouse is like building a house. You should have a well-designed plan and several things need to be taken into consideration. There are different types of home greenhouses but your choice should depend on the growing area, architecture, location and costs. Most importantly, the greenhouse that you will be building should, of course, serve its purpose of maintaining a proper environment for plants to grow.

As mentioned, there are several things that need to be considered when putting up a greenhouse. To give you some tips, here are the things to be included in the planning stage:

- Location. First thing to note in building a greenhouse is its location. The best location for a greenhouse is a place where it will get maximum

sunlight. Morning sunlight is best for plants because it makes them start processing early which will result to maximized growth.

Thus, the best location is on the east side where it gets maximum morning sunlight especially from November to February. North of buildings or any major structure is the last location to be considered as it only provides little light. Also, it is best to make sure that the trees nearby the chosen location will still allow enough sunlight to reach the greenhouse.

Other things to be considered when choosing location are good drainage, location of sources of water, electricity and heat. The location should also be convenient for the owner or the caretaker as well as to the utilities.

- Greenhouse type. In general, a home greenhouse can be any of these two types – a free-standing structure or one that is attached to your house or garage. Attached greenhouses also have different kinds. One example of an attached greenhouse is the lean-to. This is a half greenhouse attached directly to one side of a house or building with doorway, if possible. This type is close to sources of heat, water and electricity and is the least expensive. However, this kind of structure also has some limitations on space, ventilation, and sunlight.

Another attached greenhouse variation is the even-span. This kind of structure has one gable end connected to a building. It provides more

usable space and allows for better air flow to maintain temperature. It is also the most costly, though, among the attached ones.

The third type of an attached greenhouse is the window-mounted. This type can be attached on the east or south side of the house or building. This is a glass enclosure that extends a foot or so, which gives enough space for growing a few plants at low cost.

Freestanding greenhouses are separate structures that are not limited to a small space. Since it is set apart from an existing structure or building, it should have its own water and electricity sources as well as heating system.

When choosing the preferred structure, make sure that enough space for benches, storage, as well as future expansion is considered. The University of Maryland Cooperative Extension Service suggests a minimum area of 6 feet by 12 feet for a free-standing or even-span greenhouse.

- Structural Materials. Your greenhouse should also have a good structural foundation to withstand extreme weather conditions. There are several options for a frame and framing materials to choose from. Do-it-yourself greenhouse plans commonly use wood or metal pipes as their structural material. There are different kinds of frames available which range from simple to complex designs. Some examples of frames are Quonset, gothic, rigid-frame, post and rafter, and A-frame.

Another material to be considered is the covering for your greenhouse. Your choice of frame and covering should correctly match. Some factors to be considered to choose a good covering is its ability to trap the most amount of heat inside, as well as its life span. The different choices for greenhouse covering include regular glass, fiberglass, double-wall plastic, and film plastic.

- Foundations and flooring. Glass frames and the double-wall plastic need a permanent foundation and the plan should be provided by the manufacturers of the frame. It is also recommended for the greenhouse to be elevated a little to have enough space for water to flow. Thus, permanent flooring is not advisable as the soil may stay wet and make the floor slippery. A walkway made of gravel, concrete or stone is advised for easy access to the all the plants.

- Environmental systems. Once you now have a good plan for the structure of your home greenhouse, the next thing to consider is its proper maintenance. Aside from sunlight and heat, different elements are important to maintain the ideal growing condition for plants. These environmental systems that should be included in greenhouse planning are heating, air circulation, ventilation, cooling, controllers and automation, water and lighting systems.

Building a greenhouse can prove to be demanding and challenging. Complete knowledge about greenhouse is needed for you to be able to build a productive structure. A considerable amount of time is needed

to make a good plan which should cover all aspects. It pays to learn and scout for different options before making your final decision.

Step 18. KEEPING RECORDS

It is very useful to keep records of income and expenses. It allows to verify how much profit is being made. If the profit is low, you must see how you can reduce expenses without reducing the quality. If profit is high, it may be time to expand the farm with the money acquired from the profit.

You can use our Excel sheet for mushroom growers for your business record keeping. This is available for free download from our Blog on mushroomsmediaonline.com

Just like tracking your budget for the business you also want to track your production to look for opportunities for growth, improvements, and ways to increase profits, and reduce expenses.

Step 19 Using Social Media Marketing to Promote Your Mushroom Business

Introduction

You've likely heard about influencer marketing, but may not really know what it's all about. This special report will show you exactly how to **start making money as an influencer**, while increasing brand awareness and boosting engagement, all at the same time!

Influencer marketing is all about the outreach and foothold you have in your chosen niche. The more you're able to connect with a specific audience, the easier it will be to land influencer marketing opportunities. Choosing the overall niche of a mushroom farm or local mushroom business may not even be narrow enough at first and there are many ways to narrow your focus.

The great thing about influencer marketing is that you don't need a large following or any previous experience in advertising. You can easily become a well-paid influencer with just a few thousand followers.

It comes down to the relationships you build within your niche. If people trust your recommendations and believe you to be an honest and genuine person who wants to help them achieve their goals, the easier it will be for you to participate in influencer marketing campaigns that convert for your clients and partners.

In this special report, we'll take a close look at what the top influencers are doing to secure profitable partnerships and how they set themselves up for ongoing success.

Let's begin!

Choosing Your Niche

In order to become an influencer that people want to work with, you need to first choose a **profitable niche**. In this case your niche is your mushroom business, or even more specifically the primary part of the business you want to focus on. Local sales to consumer, Restaurant sales, or online sales as an example. By focusing at least at first on one segment of your business niche at a time you can focus in more on the target customer for that micro niche, or sub niche of your mushroom business.

In this book I have shared links to Mushroom growers who are also increasing their business on YouTube and providing value to growers from around the World at the same time. Some channels have millions of views and thousands of followers. These business owners now have a new stream of income for their business.

Other business owners we know are successful as consultants to new farms, or as trainers of classes to teach others both in person or online.

Companies and brands want to work with influencers who have secured a foothold in their market, and who have demonstrated that they're able to connect with a large audience.

So, while it may be tempting to venture into multiple niches, if you want to position yourself as a reputable influencer, you'll want to choose **one main market**, especially when just starting out.

If you're unsure what niche market is the best one for you, consider your own personal experiences and skills. What are you knowledgeable about? What skills do you possess that others would find useful or helpful in one way?

Drawing from existing skills is the easiest way to find a niche that you'll be able to move in quickly with little, if any learning curve involved.

It's also a great idea to choose a niche that you're passionate about. If you know a lot about a specific topic, chances are people will be interested in learning from you and hearing your own personal stories.

If you're personally interested in a specific subject matter, it'll also come across in your marketing and communications and people will return to you again and again because your marketing message will resonate with them.

So, choose a niche that you want to be known as the *go-to* person for. Your entire brand will focus around this niche so you'll want to choose carefully.

Once you've determined what niche market you're interested in, you'll want to survey the competition. Analyze the top blogs in that market so you can identify key topics and gauge what people are most interested in, as well as what they're struggling with.

This will help you determine a unique angle for your own brand, so that you're able to connect with a larger audience of people who are looking for specific information. It will also help you create your own website or blog so that it's providing content that people are hungry for.

Then, take it to social media. Follow the top influencers in your market on Facebook, Instagram and Pinterest. Look at what they're doing, what kind of topics they're covering, as well as the type of responses they're receiving from their existing audience.

Write everything down!

Market research is an integral part of being able to build a strong foundation for your brand, but it also sets the tone for your marketing style and voice.

You should also keep an eye out for what topics the competition hasn't covered yet because this is a great entry point for your own website or social media account.

What next?

It's time to gauge the profitability of the niche!

Validating a niche is an important step because you don't want to venture into a market that's not profitable. You can easily research the

profit potential of a niche by evaluating the number of existing products and services being offered in that market.

For example, if your niche caters primarily to those who are looking for digital products, such as courses, books or videos, go to the top marketplaces and search for that particular content.

Amazon is a great place to start, especially if you're interested in a niche that's information-heavy, such as training programs or guides.

YouTube is also an invaluable place in which to conduct quick niche research because you can easily gauge the popularity of a niche just by the number of videos published daily, as well as the number of people subscribed to channels in that market.

You'll also want to research potential keywords in your niche market by using a tool such as the WordStream available here:

<https://www.wordstream.com>

When you use a keyword tool to uncover keywords, you'll be able to determine how many searches are being conducted by active buyers and consumers who use those same keyword strings.

This is a great way to evaluate a market's overall popularity quickly and easily.

If you discover that targeted keywords in any potential niche market are receiving thousands of searches a month, it's a clear indicator that the market is a profitable one with an ongoing demand for products and services.

Tip: Make sure that your keyword research focuses on **highly-targeted search terms** and not broad ones.

For example, if your niche is weight loss, searching for a broad term like "weight loss" isn't going to give you the information you need. It's far too wide of an outreach.

Instead, you'd want to drill down into a specific segment of the weight loss market, like "low carb diets".

Becoming an influencer in a niche isn't that difficult to do. It all begins by defining your brand, choosing a specific segment of a niche and then building a foundation that allows you to connect and engage with that audience.

It will take time to build that platform, but once you do, you'll be able to make money from your efforts for years to come.

Standing Out From The Crowd

There are no stones left unturned when it comes to niche marketing, so don't try to reinvent the wheel, or strategize some way to approach the market that hasn't been done before.

Instead, you should focus on following existing strategies that have been proven to be successful. Then, add your own special and unique touch to your approach.

For example, if you research the low carb diet niche you'll find countless workout guides, membership sites and weight-loss challenges. But what if you came into the market with a strong focus on helping people lose weight with low carb-high fat recipes, instead of workouts?

To stand out from the crowd, you want to follow trends while also creating your own! Being able to present the same old topic with a fresh, new perspective is all it takes to garner attention and get people excited about what you have to offer.

One fatal mistake that new influencers often make is trying to be all things to everyone. As the saying goes, a jack of all trades is a master of none, and this is especially true when it comes to building a strong presence in your market.

Instead of covering all topics in your niche, choose 1-2 and focus on just those. Sure, you can occasionally post an off-topic article, but by large, your content and overall engagement should be geared towards **very specific topics**.

This is how you create a brand where you're known as an expert.

Again, you want to become the go-to person in your niche and to do that you need to choose a very specific topic and maintain a strong focus on creating content that satisfies a targeted audience. You can branch out later.

Bringing something new to the table is important to stand out from the crowd, and the easiest way to do that is to choose a topic and then create as many different channels around that market while offering something fresh.

For example, if you discover that most YouTubers in your market are creating formal videos that take a serious approach, consider creating a channel that offers candid conversations and off-beat interviews and content.

Tell personal stories, share your experiences and don't be afraid to open up to your audience. People can relate to that because it shows them that you once dealt with the same issues and struggles that they are now facing, and that you know how to overcome them.

Taking a personal approach also makes you more approachable which will result in more people coming to you for content, advice and leadership. Sharing stories of personal growth will connect you to your core audience.

Put your own spin on common topics! Your own personal stories are uniquely yours, so while you're covering subject matter that's been done many times before, you're still able to create a strong brand with a clear message that will resonate with your audience.

Offering a unique viewpoint while sticking to the topics that are proven to be popular within your niche is the easiest way to build a stand-out brand that captures attention.

Creating Your Base

One of the easiest ways to become an influencer in your market is to choose your platforms carefully. Rather than try to build a presence across every available platform, you should choose just one at a time and concentrate on building an audience that's highly engaged.

Besides, it's hard to position yourself as an expert in a niche if you're struggling to find the time to be everywhere. Grow your audience in one central platform first, and then expand your outreach as you find time and learn ways to automate your marketing.

Choosing your primary platform can be tricky because it will be based on where your audience congregates. This means you'll need to do some more research to figure out where the majority spends their time.

Start by evaluating the different social networks to determine which one is the most popular in your niche. Chances are, you'll find people across the board, but one platform should stand out to you. Go with that one.

For example, Instagram is known for fashion icons, makeup tutorials and beauty bloggers, while Pinterest is known for chefs, artists, designers and DIY leaders. However, you'll also find fashion icons, make up tutorials and beauty bloggers on Pinterest as well.

There's always going to be a cross-over, but it's important to determine the platform most preferred by your audience so you can focus your energy on building a following there.

Tip: Go ahead and secure your brand name on all popular social networks so that you can use it later when you broaden your outreach. It's an important component of protecting your brand, even if you'll initially only be focusing on one platform.

When determining what social network to go with, you should consider the demographics of your audience. Older people tend to flock to Facebook, while younger consumers prefer Instagram, Snap Chat or Pinterest. Twitter is a mixed bag, and Pinterest is typically geared towards older professionals.

Choosing just one platform when you're just getting started will make it easier for you to build a strong presence quickly, while ensuring you spend your time wisely.

Developing An Action Plan

Becoming a successful influencer involves creating a plan of action that will take you from beginner-to-pro quickly and easily.

Developing a plan will also help you stay focused while catering to what your audience wants most.

Begin by creating a priority list. This would include the top tasks you need to complete in order to establish a foothold in your market and grow a following.

Example:

Create a blog and publish 5-10 posts to boost exposure and give people enough content to encourage them to return.

Set up social engagement automation using tools like Tailwind that will not only help you keep your accounts active, but will provide you with useful demographic and statistical information that can help shape your content and future campaigns.

Grow a YouTube channel: Publish 1 video every week on the same day to create a consistent schedule that subscribers will come to rely on.

Set up a mailing list account: Connecting with your target audience is a lot easier when you're able to reach out to them whenever you choose so start building a mailing list right away.

Your influencer plan should also include specific hashtags that you'll be targeting throughout your broadcasts and updates. Hashtags will become part of your brand and will help you connect with your key audience.

If you're not sure what hashtags to use, spend some time researching what existing influencers in your market are actively using. Then, create a swipe file of all possible hashtags and vary it up in your messages.

You can use the All Hashtag Generator tool to quickly locate popular hashtags in your niche. It's available here: <https://www.all-hashtag.com/hashtag-generator.php>

Just enter a seed keyword and the website will display lists of suggested hashtags based on relevancy and overall popularity. This is a great way to find hashtags that a great fit for your brand.

Create a Content Calendar

Staying consistent is key to becoming a successful influencer. People need to know what to expect from you, and will come to rely on you for regular updates.

Creating a content calendar is also the easiest way to stay focused and on track, but it also helps you generate fresh ideas for new topics, while keeping a pulse on what you've already created content around.

Regardless how you plan to publish your content, or the format you're intending to offer, a content calendar is the way to go.

How often you create and publish new content will depend on your niche as well as what your audience is accustomed to. This means, back to research!

Look at how often competitors are posting content as well as what formats they offer. If you plan to create a YouTube channel, you'll likely want to upload at least one new video each week. If you plan to blog,

you'll initially want to post 5-10 pillar posts and then schedule future posts on a weekly basis.

Use automation to your advantage whenever possible!

When it comes to social media, you can use tools like Tailwind to automate your posts and updates. With Wordpress, you can schedule posts to go live on specific dates and times.

The more you integrate automation into your brand building and content publishing schedule, the easier it will be to maintain consistency and to build a following.

When it comes to what kind of content you should be creating for your audience, analyze what people want most and then give that to them.

Here are a few ideas:

Digital Products

These are easy to deliver, free to ship and cost you nothing in inventory or overhead. They also satisfy the need for instant information without having to wait for anything to ship.

Creating informative, unique and well-written eBooks are one of the easiest ways to make money online, but it's also a great way to get your foot in the door of any niche and begin to build a tribe of your own.

Write a comprehensive guide to tackling a problem in your market, or write a short report that solves one specific problem and give it away to build your following and grow your list.

The key is to focus on solving a specific problem in your digital product, or addressing one key issue that your market is dealing with. If you plan to create videos, try to focus on discussing one point so that each video is branded specifically to solve an issue or address a problem.

Problem solving products will always be easier to sell, but they also help you identify and target your customer base so that when it comes time

to create marketing campaigns you know exactly how to reach your audience.

When it comes to creating informative posts for your website or blog that your audience will love, consider creating a swipe file of the top 10 questions from within your chosen market. Then, create a pillar post that answers those questions. This is a great way to optimize your site for relevant keywords as well.

Example:

- How to make money self-publishing on Amazon: Top Questions Answered
- How to lose weight with LCHF: Top Questions Answered

Try to create an editorial calendar for your content so that you know what you plan to write about (or create) in advance.

Ideally, you want to be thinking 3-4 weeks in advance so that you can plan accordingly. That will also ensure that you're not left scrambling for content ideas.

Just the same, focus on one key topic within your social media campaigns and broadcasts.

The idea is to brand yourself as the best source for information about a specific subject so don't veer too far off course. You don't want to confuse your audience or your brand.

Show 'Em What You're Made Of

Part of being an influencer is being able to attract attention from potential joint venture partners and that means you'll want to be as transparent as possible in providing information that will convince someone you're worth partnering up with.

To start, you'll want to implement some form of tracking into your campaigns so that you can keep a pulse on traffic, as well as provide that information to potential partners.

Do this early on so that you have important historical data and can provide as much information to a future partner as possible.

This includes:

Installing Google Analytics on your blog so you can monitor traffic and maintain a monthly snapshot of incoming traffic volume.

Keeping track of channel subscribers and conversion rates if you are monetizing your channel.

Monitor your email marketing campaigns, paying attention to subscriber rates, retention rates and open rates. Anyone looking to partner you, or hire you to help them in marketing their business will be interested in knowing how engaged your audience is and how often they open and respond to your emails.

Set yourself up for long-term success early on and you'll be able to attract the right partner when the time comes!

Making Connections

It's one thing to post a ton of content, or keep your blog or channel up to date, but it's another to engage with your audience.

As an influencer, **engagement is what matters most.** It's what separates you from those who will struggle to build a tribe and connect with their audience.

So, do your best to always connect and communicate with those who follow you, or subscribe to your content.

Answer blog comments, give a shout back to those who reach out to you via social media, and show people that you are not only approachable, but that you're genuinely interested in helping them in some way.

Keep in mind that with social media networks, they use algorithms to determine what content should be seen first as well as what (and who) gets the most exposure. A lot of this relies on how engaged your

audience is so do your best to be present and active within your market.

This is also why automation is so important when it comes to building your brand and engaging your audience. By automating posts, updates and broadcasts, you'll free up time that can be used to personally connect and respond to people in your niche.

Collaboration Is King

Content is King, sure, but when it comes to becoming an influencer, **collaboration is everything**. That means you have to be willing to put yourself out there and to always be on the lookout for networking opportunities.

Join relevant forums and social groups, including popular groups on Facebook that are focused on your niche. Not only will the help you get to know other influencers, but it will also put you in touch with their following, and help you figure out what kind of content to create that will be well received.

Collaborating early on isn't always easy, especially if you are targeting established influencers who've already done the work of building a following and solidifying the foundation of their brand.

Instead, focus on seeking out possible networking opportunities with people who are at the same level as you.

Keep it simple! Collaboration doesn't have to be a difficult venture. Consider guest blogging on popular websites in your market, provide content to seasoned bloggers who may then offer future networking opportunities.

Later, consider co-creating a digital product, or offer to feature someone on your growing channel.

The size of your audience does matter, especially when it comes to landing networking opportunities with seasoned professionals, but the level of engagement matters just as much.

If you can show an influencer that you have an avid audience and that you're dedicated to providing value within the market, you'll increase your chances of being offered joint venture partnerships that can help you take your business to the next level.

And of course, collaborating with influencers only helps boost your brand power. Associations are everything when it comes to online business, so by partnering up with someone who has an existing

following you'll be able to tap into their tribe and further your own brand awareness!

Micro-influencing (a term referring to those with smaller, yet engaged audiences) is the first step in building your profile and boosting exposure, so start off small and formulate a plan that helps you align with others in your market where you can help each other grow.

Success Strategies

Right off the start, you want to make sure that every aspect of your business is professional and set up for success. This includes upgrading your social media accounts to professional ones.

There are many perks that come from business-versus-personal accounts, including the ability to schedule posts, but you'll also be given access to key data and metrics that will help you keep a close eye on how your posts and ads are performing.

You also want to take a close look at other areas of your business, including:

Hosting

Make sure that you go with a reliable hosting provider, and that your website is loading quickly. You can determine page load speeds from within your Google Analytics account. That account will also help you tweak and optimize your websites for better exposure.

Mailing List Account

Make sure you identify yourself in all your email correspondence, including how someone initially subscribed to your email. In addition, you want to make sure there's always an easy way for someone to opt out of your broadcasts.

Your overall brand needs to look and feel polished and professional. This includes everything from the graphics or logo you use to represent your business, to the images used as social media headers or YouTube video splash screens.

If possible, hire a professional graphic designer from sites like <http://www.UpWork.com> so you're able to stand out from the crowd.

If you want to be a brand ambassador and land high-paying partnerships and offers, you need to make sure that you are well-represented and that comes down to paying close attention to every aspect of your brand and how you can improve it as you grow.

Making Money As An Influencer

There are many ways you can make money as an influencer, starting with paid posts.

This is when a company or brand hires you to create a post about their offers, or request that you review their products or services.

The point of your post is to exposure your client's brand to new followers, and to help them maximize overall exposure by tapping into your existing audience.

This means that you'll want to closely evaluate the offers you get to create posts for a company.

After all, a post can serve as an endorsement and so you want to be careful who you align your brand with.

You may think that only seasoned influencers with a huge following get hired to create posts and articles that highlight someone's brand, but that's far from true.

Lots of companies are always on the lookout for micro-influencers who are starting to get a foothold in the market because quite often they're more relatable than those who have been doing this for some time.

So, don't count yourself out, even if you're just getting started. The key is to be able to show a potential client that you are establishing yourself as a leader in your market and that you are consistently growing your audience.

Your growth can't be stagnant. You need to always be building subscribers, connecting with your audience and adding more fuel to your brand fire.

Brands are looking for persuasive influencers who can help them connect with new customers so you want to be able to demonstrate your ability to do this for them.

An important thing to keep in mind when accepting paid post work is to always be transparent with your audience. Just like in affiliate marketing where it's important to notify readers that you may be compensated for recommending products or services, when it comes to creating paid posts the same rule applies.

You want to be upfront about your relationship with your client, and let people know that you may be rewarded or compensated for the post.

The last thing you want is to damage your reputation or your brand by not disclosing this information because chances are, your audience will find out later.

If you are hired to create paid posts via social media, one easy way to notify your audience that you are compensated is by adding "Paid partnership with COMPANY NAME" under your social media username, or within the post itself. You can also tag the post with the hashtag #ad or #partnership to further clarify.

You could also end up being a brand ambassador. Companies hire influencers to help them build brand awareness and pay them on a retainer-style basis.

The influencer is then responsible for helping a company tweak and improve their engagement, and promote their social media platforms to expand their outreach.

Attracting Sponsors

Okay, so you're ready to start making money as an influencer! The next step is to start attracting the right sponsors and partnerships.

One of the easiest ways is to start looking for partnerships or clients on your own just by searching for hashtags (#ad, #partnership, etc.) that are used by other influencers. This is an easy way to quickly identify who is hiring influencers as well as what kind of posts they're interested in.

The key is to learn as much as possible about your average sponsor and their audience. Make sure their following aligns with yours so you can create a mutually beneficial partnership that boosts both brands.

When it comes to pricing, you'll want to spend time evaluating the going rate for different types of opportunities. Just keep in mind that underpricing yourself means you're also devaluing your brand and minimizing what you bring to the table.

Often, companies will look beyond those who are charging ridiculously low rates in favor of a brand who knows their value.

Higher rates often equate to having a greater perceived value so keep this in mind when determining what you plan to charge possible clients.

Your rates will also be based on whether it's a one-time gig or if the company plans to hire you regularly. Consider giving special pricing to long-term clients. In addition, you should base your rates on the platforms they are interested in having you use.

If your following on Pinterest is only half the size of your following on Instagram and a company is only focused on Pinterest, your rates will need to be adjusted accordingly.

Always be upfront and honest with the companies that hire you. If you're still working on building a following in one avenue, but feel your brand power is stronger on another platform, let them know you want to build long-term, trusting partnerships with clients who know they can count on you.

Final Words

It'll take time for you to grow a following and connect with your tribe. The key is to stay consistent and do your best to always engage and communicate with your audience.

Provide as much value as possible so that not only potential customers see your commitment to offering high-quality content, but potential partners notice you. The sooner you can get on their radar, the better and there's no better way than by creating content that gets people talking.

Focus on community first. Consider creating your own Facebook group, membership site, or training program. These things help to establish yourself as an expert and leader in your market.

And above all else, never give up. You've got this!

Resources

Here are links to some of the resources found in this guide.

Tail Wind:

>> <https://www.tailwindapp.com>

Helps you monitor your Pinterest and Instagram activity, following and overall growth. Invaluable tool for influencers. Easiest way to monitor your Pinterest ROI.

Niche Research:

>> <https://www.Amazon.com> & <https://www.Youtube.com>

Keyword Research:

>> <https://www.wordstream.com>

Finding Hashtags:

>> <https://www.all-hashtag.com/hashtag-generator.php>

Use the All Hashtag Generator tool to quickly locate popular hashtags in your niche.

Step 20 Growing and Scaling your Mushroom Business

Now that you have started using your marketing methods to grow and expand it may be time to consider taking steps to grow and scale your overall business.

Often times once you have a solid foundation it is time to call in some experts to help you grow and scale your business. Since no single person can know it all and do it all, part of growing in scaling your business is hiring other professionals in areas that you are not as strong in.

Some areas to consider are marketing support to include:

Logo Creation (improvement)

Social Media Marketing Management

Web Design

Facebook, YouTube, LinkedIn, and Google Adwords advertising.

Business plan writing and support. This can be critical to capture the attention, respect, and interest of investors, and even traditional loans.

Here again some of the resources you need can come from Government sources for free, or at a reduced fee.

You can also outsource your efforts successfully to professionals who can help you with anything you need done remotely. These professionals can help you grow and scale your business in ways you cannot even image.

In my own business 360MobileVideo I help companies of all sizes grow and scale their business through marketing support, social media management, and planning. Offering true start to sale support I can help you grow your business.

For some clients I develop a marketing plan, or a complete business plan. For others I help them execute and grow their business with these plans through many stages of the process.

Visit my company website for more information on my services to see how I can help you set up, grow, and scale your business.

<https://360mobilevideo.com>