Spawning-6or Singapore (Chinese for "Purple Mushroom"
Chinese mushroom
Black mushroom
Brown mushroom
Golden mushroom
Olive mushroom
Common Name: Shiitake

The Shiitake Mushroom of the Genus Lentinula

The information clearinghouse for Shiitake mushrooms

The Forest Resource Center

November 1993 Printed on Recycled Paper Volume 10, Number 3

By

Paul Stamas

Page 3

... This article is excerpted from Paul’s new book...
Visits, Grower-Supplied, and Proprietary (excluding public and proprietary)

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Easy to Propagate. Use rooted cuttings.

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November, 1993

Shiloh News

Forest Resource Center
has no appreciable increase in productivity. Joe Darden, who runs the Forest Resource Center of Lanesboro, Minnesota, has found no appreciable increase in productivity. Joe Darden, who runs the Forest Resource Center of Lanesboro, Minnesota, has found no appreciable increase in productivity. Joe Darden, who runs the Forest Resource Center of Lanesboro, Minnesota, has found no appreciable increase in productivity. Joe Darden, who runs the Forest Resource Center of Lanesboro, Minnesota, has found no appreciable increase in productivity.

Shikimate metabolism occurs on a scale and background the proposed cultivation of the unsaturated hardwoods in Northern Michigan. Although decomposition primarily occurs in the hardwoods, the greater hardwoods produce less barks and deciduous hardwoods. The greater hardwoods produce less barks and deciduous hardwoods.

Table: Forest Resource Center

| Natural Method of Collection | Hardwood Laths, especially oak, willow, and ash. | Poplar, cottonwood, alder, and willow. Balsa will be used. |

| Characteristics of Balsam Fir (Picea Abies) | Balsam fir is a coniferous tree, adapted to the cold climates of the northern United States and Canada. | Balsam fir is a coniferous tree, adapted to the cold climates of the northern United States and Canada. |

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The mycelial area is typical of Sugikura.

Fig. 1: Mycelia of L. edodes at 2 and 40 days after inoculation one sterilized mulch.

Research Center

November, 1993
Shiitake mushrooms under high carbon dioxide conditions (>1000 ppm) grow more quickly than those under normal conditions. Higher exposure of Shiitake mushrooms to carbon dioxide enhances their growth rate. When exposed to high levels of carbon dioxide for a week, Shiitake mushrooms produce mushrooms at 2200 ppm, while those grown in a greenhouse with a low level of carbon dioxide produce mushrooms at 44-99 ppm. This phenomenon is known as the "Shiitake effect".

Both are healthy, with Shiitake mushrooms noted for their high levels of antioxidants and low levels of fat and cholesterol. Shiitake mushrooms are not grown in the wild, but rather in greenhouses, which provide a controlled environment for their growth.

Common uses for Shiitake mushrooms are in soups, stir-fries, and sandwiches. They are also used in traditional Chinese medicine.

Shiitake mushrooms are known for their unique flavor, which can be described as "meaty" and "rich.

The Shiitake mushroom is a delicacy that is often used in Asian cuisine. It is known for its rich, meaty flavor and its ability to absorb other flavors, making it a popular ingredient in many dishes.
remain consistent. The first flush from a mature tree is usually seen in early July. As the tree grows and the fruit loads increase, the number of mushrooms per block will decrease. The mushrooms that are left on the tree will be larger than those on the lower branches. It is important to keep the shade from the block to prevent the fungi from developing. The cultivation must be maintained at least 100% under fog conditions for most of the year. The block must be watered daily to maintain a moist environment. The block must be kept clean and free of debris. Aerate the block regularly to maintain a healthy environment.

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Not All Logs Are Created Equal

There are Shiitake logs. And then there are Lambert Shiitake logs. Logs that are manufactured and cured by the finest team of shiitake mycologists and specialists. Logs that meet the highest standards in terms of quality. Or, they won’t make it out of our growing rooms and into yours.

A Lambert Shiitake log is formulated from the finest Shiitake strain available for indoor cultivation. We adhere to strict quality control measures in all aspects of log manufacture—from strain maintenance to final product selection to shipment.

Our investment in people yields big results for you.

The main reason that Lambert should be your Shiitake log supplier is our people. A team of professionals who are involved in all aspects of producing Shiitake logs with a tireless emphasis on quality control and continuous improvement.

No one in the industry invests as much time as we do in research and development. We have four full-time mycologists on staff who are involved in projects as diverse as our Shiitake breeding program and the development of alternative production technologies. Our scientific staff are also constantly exchanging ideas, information, and strains with other scientists and research teams worldwide. The benefits of which can be seen in logs that consistently produce high yields of the finest quality Shiitake mushrooms.
We don't just sell logs. We sell a total support system.

What's made Lambert the Shiitake log company is the total support pack-

age we offer growers. Our staff is available to answer your questions

even have a 24-hour "hotline." Need technical support or advice

on temperature control? Call us, we're ready to respond. Unsure how

long to soak your logs? No problem, give us a ring and we'll give you the

help you need. We pride ourselves on personal

service and unsurpassed quality, so you get the

yields and quality you'll be happy with.

Lambert Spawn. A name you can trust.

Lambert Spawn is America's oldest mush-

room spawn company. We have more experience in

the Shiitake industry than any other company. This

is one reason why Lambert has become America's

number one supplier of quality Shiitake logs.

Whether you're in need of white or cured logs, Lambert

Spawn has the product and the support system

you're looking for. Our production is in limited supply, but

we are currently expanding our capacity without

sacrificing quality. If you're interested in our services,

we suggest you call Ralph McIntyre collect at

(215) 394-5031 and try our logs. They're like the

people who create them, have no equal.
come on contact to instructions in white whatever stroke of shiitake

since the shiitake blocks are wet with water every 8-12 hours, the blocks are rinsed with water several times per day from 70-100%.

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Growing Compost and Medicinal Mushrooms

Reviews

The care of a good cultivator. This technology is transmissible and can be taught to anyone.

To grow a mushroom culture, follow a four-step process: 1) sterilize the substrate, 2) inoculate the substrate with spores, 3) incubate the substrate, and 4) harvest the mushrooms.

1. Sterilization: Use a high-temperature technique to kill all microorganisms in the substrate.

2. Inoculation: Mix the sterilized substrate with spawn, which contains mycelium from a desired mushroom species.

3. Incubation: Place the substrate in a warm, humid environment to promote mycelial growth.

4. Harvesting: Once the mycelium has fully colonized the substrate, the mushroom pinheads will emerge. Carefully harvest the mushrooms before they fully open.

Mushrooms can be grown in a variety of substrates, including sawdust, rice hulls, and wood chips.

FIG. 8: The culture of mushrooms can be induced by fluctuating humidity.

Process begins now.

1. Pre-plant: Choose the desired mushroom species and prepare the substrate.

2. Planting: Spread the spawn evenly over the substrate and cover with a layer of wood chips.

3. Incubation: Place the substrate in a warm, humid environment to promote mycelial growth.

4. Harvesting: Once the pinheads emerge, carefully harvest the mushrooms before they fully open.

Mushrooms can be grown indoors or outdoors, depending on the climate and available resources.
funghi. Not only does he cover every aspect of cultivation, he also addresses the issues of environmental, health and business. For anyone who has ever wanted to grow mushrooms, this is "The Book".

Allan E. Bissett, Ph.D.,
Utica College of Syracuse University

This book will help advance the cause of mycology and mushroom biology worldwide. It will be an important reference for those who are interested in research as well as in the cultivation of mushrooms. Growing Gourmet and Medicinal Mushrooms is unique not only in its treatment of the technical aspects of growing gourmet and medicinal mushrooms, but also in its emphasis in the environmental importance of mushrooms in terms of world biological diversity.

S. T. Chang, Ph.D., Dept. of Biology
The Chinese University of Hong Kong

Growing Gourmet and Medicinal Mushrooms is the most comprehensive treatment of the subject I have seen in my 30 years as a mycologist and mushroom specialist. It is an absolute must for the day-to-day activities of professional mushroom growers and an extremely valuable resource for amateur growers, researchers, teachers, students, marketers, and applications. I heartily recommend this book to mushroom aficionados everywhere.

S. C. Long, The American Type Culture Collection, Rockville, MD.

Growing Gourmet and Medicinal Mushrooms is an extremely informative text on all aspects of the mushroom growing industry and provides us the expertise of the author who has been cultivating mushrooms for over 20 years. This book adds to the extensive knowledge of the author's previous book, The Mushroom Cultivator, and this will undoubtedly become a standard for those who would like to enter this field. It is written clearly, organized efficiently, and exhibits the love and enjoyment the author has for his chosen profession. It is a welcome addition to mycology in general.

David Largent, Ph.D.
Humboldt State University
Shiitake.
Release date is December 1, 1993

$49.95

25 species

16 pages of color plates

592 pages

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Laboratory and Growing Room Construction

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Mycological landscape gardening with gourmet and medicinal mushrooms

Detailed growth requirements for 25 mushroom species.

A Manual for Utilizing Mushrooms Through the 21st Century

November 1993
Won Shan Mushroom

- Mr. Eung Sik Ween, president of Won Shan, has been growing shiitake mushroom on oak log for over 25 years using exclusively S-1 and S-3 and never had an off year.

- Maker of famous S-1 and S-5 Spawn.

- Won Shan is now the largest outdoor shiitake operation in East coast.

*SPECIAL*

If you order your spawn before Dec. 31, bottle of S-1 will be only $5.00. Saving of $3.00.

Certified organic fresh and dried mushroom available

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This is a heavy duty RYOBI grinder that has been converted to a 90 degree angle drill. Rated at 1 h.p. and 11,000 r.p.m., this drill is fitted with a 1/2" drill chuck, and adjustable debris deflector. The unit is constructed with a metal gear box for long bearing life, and features easily replaced bearings and brushes that can substantially increase the life of the drill (available from Alpine Valley Industries or any RYOBI service center). We have used and sold these drills for three years and we believe it performs better, and lasts longer than any drill we have seen; American or Japanese.

Price of Unit (including shipping) $117.99
Ordering info:
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Mail check or money order allow three weeks

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Paul Przybyszewicz
John Donoghue

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On Friday, participants tour our natural log shiitake farm to get complete instruction in growing, marketing, and trouble-shooting.

On Saturday and Sunday, participants will learn tissue culture, spawn generation techniques, substrate preparation, and strategies for maximizing yields for controlled substrate production of Shiitake, Grifola frondosa, Hypoloma coproides, Lactostus sulphureus, Enokitake, King Stropharia, Reishi, Oyster, Morels, and many more varieties of mushrooms.

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or write: PO Box 220, Summertown TN 38483-0220

Since space is limited, early registration is strongly advised.

Shiitake spawn since 1976
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On Saturday, February 5, 1994, from 9:00 to 4:00, there will be a class on growing Shiitake Mushrooms at the Forest Resource Center in Lanesboro, Minnesota. All aspects of Shiitake cultivation on hardwood logs will be covered, including selecting logs, buying spawn, inoculating, maintaining proper conditions in a haying yard, fruited, grading, storing, and marketing. The class is suitable for beginners and experienced growers alike. Tuition is $40 and includes a year's subscription to Shiitake News, a log that you inoculate, and lunch.

The Forest Resource Center has been growing Shiitake for over 10 years, and is known throughout the Midwest as an information resource for the industry. In the past, research into proper species, spawn, and growing conditions was conducted. Currently, the FRC runs a year-round operation, to show that growing Shiitakes can be a profitable enterprise, as well as a good source of supplemental income. Using a building designed especially for growing Shiitakes, the FRC produces mush-

To register, complete the application below and mail it with a check to:

Forest Resource Center
RT 2, Box 156A
Lanesboro, MN 55949
(507) 467-2437
Fax (507) 467-2553

Name:
Address:

Phone:

Do you need accommodation information? Yes No

$40 per adult, $15 per person under 18. Total amount enclosed:

Number attending: