

**University of Missouri  
Center for Agroforestry**

**Shiitake Mushroom Market Research**

**2006**

The goal of this study is to broaden market opportunities for all individuals and businesses in the shiitake mushroom marketplace. The specific objective is to strengthen networks of suppliers, processors and retailers. Your answers to the survey will help to provide a more detailed understanding of the shiitake mushroom marketplace and the forces that impact this market. Survey results will be compiled, interpreted, and summarized in a report that will provide you with valuable information for developing market strategies and identifying the potential for growth in this market.

Your answers are completely confidential and will be released only as summaries in which no individual's answers can be identified. This survey is voluntary. However, you can help us very much by taking a few minutes and answering the following questions.

Thank you very much for your participation. Your help is greatly appreciated.

**1. General questions**

**1.1 In which activities are you involved?** (Please check all that apply):

- Sell growing supplies for shiitake mushrooms
  - Spawn
  - Growing kit
  - Tools and other supplies
- Sell fresh shiitake mushrooms, in bulk
- Sell fresh shiitake mushrooms, packaged
- Sell other specialty mushrooms, fresh
- Produce and sell value-added products:
  - Frozen shiitake mushrooms
  - Dried shiitake mushrooms
  - Soup mixes with shiitake mushrooms
  - Shiitake mushroom meals
  - Shiitake mushroom sauce
  - Gift packs with shiitake mushrooms
  - Medicinal products with shiitake
  - Other shiitake value-added products (please specify):  
.....  
.....  
.....
- Other specialty mushroom value-added products (please specify): .....  
.....  
.....
- Distributor / broker for other growers that are located:
  - Locally
  - Nationally
  - Internationally
- Sell specialty mushroom related products
  - Books
  - Video, DVD
  - Mugs
  - Others (please specify):.....

**1.2 Where do you grow the shiitake mushrooms?** (please check all that apply)

- Outdoors
- Indoors

**1.3 What growing medium do you use to grow shiitake?** (please check all that apply)

- Natural wood logs. Please specify what kind of logs do you use? (type of wood, diameter)  
.....
- Sawdust
- Other. Please specify .....

**1.4 If you use natural logs, do you supply your own wood?**

- Yes
- No **How much do you pay for the logs (\$/cord)?** .....  
**How many logs do you buy (per year)?** .....  
**What kind of logs do you buy** (e.g., red oak, white oak, sugar maple, etc.)?  
.....

**1.5 What kind of spawn do you use?** (please check all that apply)

- Sawdust
- Wooden plug spawn (dowels)
- Grain spawn
- Stick spawn
- Thimble spawn
- Other .....

**1.6 Do you grow other specialty mushrooms besides shiitake?**

- Yes
- No

**1.7 If yes, what kinds of specialty mushrooms do you grow?** (Please check all that apply and specify if you grow them indoor or outdoor)

Specialty mushroom type	Outdoor	Indoor
<input type="checkbox"/> Oyster mushrooms	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Maitake	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Reishi	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Stropharia	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pom-pom	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Others (please list) ..... ..... .....	<input type="checkbox"/>	<input type="checkbox"/>

Which, if any are your favorites? Why?

.....  
 .....

**1.8 Do you sell your shiitake mushrooms / products under a brand name** (name, design, symbol or combination that identifies your products and differentiate them from competitors)?

- Yes
- No

**Which of the following benefits led you to develop a brand name?** (please check all that apply)

- Increase awareness
  - Encourage repeated purchase
  - Build trust and relationships
  - Stimulate word of mouth advertising
  - Other .....
- (Go to 1.9)

**Why not?** .....

(Go to 1.8.1)

**1.8.1. Do you plan to create a brand name in the future?**  Yes  No  Maybe

**1.9 Do you advertise your shiitake mushrooms / products?**

**Yes**

**No**

**What types of advertising do you use?** (please check all that apply)

**Why not?** .....

- Website
  - Magazines
  - Newspapers
  - Billboards
  - Radio
  - TV
  - Flyer
  - Catalog
  - Other (please specify): .....
- (Go to 1.10)

(Go to 1.9.1)

**1.9.1. Do you plan to use advertising in the future?**       **Yes**    **No**    **Maybe**

**1.10 What do you do to generate publicity?** (please check all that apply)

- Nothing
- Sponsor community events
- Participate with a booth in a fair
- Offer free samples
- Publish news releases on the Internet
- Send news releases to local newspapers / radio stations
- Collaborate with charities
- Others (please specify): .....

**1.11 Where do you get your information about growing shiitake mushrooms?**(please check all that apply)

- Supplier
- Cooperative Extension
- University Researchers
- Growers association
- Other growers
- Internet
- Magazine
- Workshops
- Others .....

**1.12 Is farming for you a:**

- Full time occupation
- Part time occupation
- Hobby

**1.13 If farming is a part time occupation or hobby, what is your primary occupation?**

.....

**1.14 What is your approximate annual gross sales figure from shiitake mushrooms?**

- |   |  |
|---|--|
| <input type="checkbox"/> Less than \$5,000    | <input type="checkbox"/> \$100,000 - \$500,000 |
| <input type="checkbox"/> \$5,000 - \$25,000   | <input type="checkbox"/> \$500,000 - \$1 mill. |
| <input type="checkbox"/> \$25,000 - \$50,000  | <input type="checkbox"/> \$1 mill. - \$5 mill. |
| <input type="checkbox"/> \$50,000 - \$100,000 | <input type="checkbox"/> More than \$5 mill.   |

**1.15 What percentage (in terms of annual gross sales) do shiitake mushrooms represent from your total farming business?**

Own production ..... (% of total farm gross sales)  
 Total amount sold as distributor/broker ..... (% of total farm gross sales)

**1.16 What percentage (in terms of annual gross sales) do shiitake mushrooms represent from your specialty mushroom business (shiitake and other specialty mushrooms in total)?**

Own production ..... (% of specialty mushroom gross sales)  
 Total amount sold as distributor/broker ..... (% of specialty mushroom gross sales)

**1.17 How large is your shiitake mushroom production operation?**

	2003	2004	2005
<b>Log-grown</b>			
Number of logs			
Pounds/ year			
<b>Sawdust-grown</b>			
Pounds/ year			

**1.18 How long have you been in the shiitake mushroom production business?**

- |   |   |
|---|---|
| <input type="checkbox"/> Less than 1 year | <input type="checkbox"/> 11 - 20 years      |
| <input type="checkbox"/> 1 - 5 years      | <input type="checkbox"/> 21 - 30 years      |
| <input type="checkbox"/> 6 - 10 years     | <input type="checkbox"/> more than 30 years |

**1.19 Is your shiitake mushroom production:**

- Conventional
- Pesticide free
- Organic certified
- Organic non-certified

**1.20 What percentage (if any) of your certified organic shiitake mushroom production is sold as certified organic? .....**

**1.21 During which months of the year do you sell fresh shiitake mushrooms? (circle all that apply)**

Jan. Feb. Mar. Apr. May June July Aug. Sep. Oct. Nov. Dec.

- Year round
- None

**1.22 During which months of the year do you sell value-added shiitake mushroom products?**

Jan. Feb. Mar. Apr. May June July Aug. Sep. Oct. Nov. Dec.

- Year round
- None

**2. Barriers to entry the shiitake mushroom business**

**2.1 What is, in your opinion, the minimum successful operational scale (gross revenue) for a full time shiitake mushroom grower?**

Dollars / year	Pounds/year

**2.2 How did you obtain the capital to start the mushroom production business?**

- |  |                                      |
|--|--------------------------------------|
| <input type="checkbox"/> Self financed | <input type="checkbox"/> Partners    |
| <input type="checkbox"/> Bank loans    | <input type="checkbox"/> Other ..... |

**2.3 How long did it take for your shiitake mushroom production business to become profitable (Revenues exceeded expenses)?**

..... years

- Not profitable yet after ..... years

**2.4 Do you hire people to help you with production of fresh or value-added shiitake mushrooms?**

- Yes
- Full time (how many) ..... For what purpose(s) .....
  - Part time (how many) ..... For what purpose(s) .....
  - Seasonal (how many) ..... For what purpose(s) .....
- No

**2.5 What critical resources are needed for this business?** (Please select the **top five** critical resources by checking the appropriate boxes. Rank checked boxes in order of importance with a number from 1 to 5 (1 being the most important and 5 the least important))

Critical resources	Rank
<input type="checkbox"/> Production skills	.....
<input type="checkbox"/> Business skills	.....
<input type="checkbox"/> Market knowledge	.....
<input type="checkbox"/> Labor availability	.....
<input type="checkbox"/> Access to credit	.....
<input type="checkbox"/> Own financial resources	.....
<input type="checkbox"/> Tools and equipment	.....
<input type="checkbox"/> Production information	.....
<input type="checkbox"/> Other (please specify)	.....
.....	.....

**2.6 What attracted you to start a shiitake mushroom production business?**

.....

.....

**2.7 What, if anything, keeps other people from getting into a shiitake mushroom production business?**

.....

.....

### 3. Suppliers

**3.1 Who is / are your primary supplier(s) for your shiitake mushroom production?** Please specify.

Item	Name of primary supplier
Spawn supplier	.....
Growing medium (logs/ sawdust)	.....
Tools and supplies	.....
Packaging	.....

#### 3.2 Do you have alternative suppliers?

Spawn supplier	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Growing medium (logs/ sawdust)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Tools and supplies	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Packaging	<input type="checkbox"/> Yes	<input type="checkbox"/> No

#### 3.3 Do you have contractual arrangements with your suppliers?

Spawn supplier	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Growing medium (logs/ sawdust)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Tools and supplies	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Packaging	<input type="checkbox"/> Yes	<input type="checkbox"/> No

**3.4 How would you describe the spawn available through supply channels in terms of the following characteristics?**

Quality	<input type="checkbox"/> Good	<input type="checkbox"/> Average	<input type="checkbox"/> Poor
Availability	<input type="checkbox"/> Readily available	<input type="checkbox"/> Average	<input type="checkbox"/> Hard to obtain
Stability	<input type="checkbox"/> Stable supply	<input type="checkbox"/> Average	<input type="checkbox"/> Unstable supply

### 4. Buyers

**Where, and for how much, do you sell your fresh shiitake mushrooms?** (please check all that apply)

Buyer category	Check for yes	<u>Log-grown</u> Price (range) /unit	<u>Sawdust-grown</u> Price (range) /unit
On farm sales	<input type="checkbox"/>		
Online, direct to consumer	<input type="checkbox"/>		
Catalog sales	<input type="checkbox"/>		
Farmers market	<input type="checkbox"/>		
Restaurant	<input type="checkbox"/>		
Distributor / Broker	<input type="checkbox"/>		
Wholesaler	<input type="checkbox"/>		
Health and Natural Food Store	<input type="checkbox"/>		
Up-scale grocery store (Wild Oats, Whole Foods Market)	<input type="checkbox"/>		
National chain grocery store (Schnucks, HyVee, Kroger)	<input type="checkbox"/>		
Discount grocery store (Wal-Mart)	<input type="checkbox"/>		
Others (please specify) .....	<input type="checkbox"/>		

**Given the choice, where or how do you prefer to sell?** Please select the **top five** buyers by checking the appropriate boxes. Rank checked boxes in order of preference with a number from 1 to 5 (1 being the most preferred and 5 the least preferred)

Buyer category	Rank
<input type="checkbox"/> On farm sales	
<input type="checkbox"/> Online, direct to consumer	
<input type="checkbox"/> Catalog sales	
<input type="checkbox"/> Farmers market	
<input type="checkbox"/> Restaurant	
<input type="checkbox"/> Distributor / broker	
<input type="checkbox"/> Wholesaler	
<input type="checkbox"/> Health and Natural Food Store	
<input type="checkbox"/> Up-scale grocery store (Wild Oats, Whole Foods Market)	
<input type="checkbox"/> National chain grocery store (Schnucks, HyVee, Kroger)	
<input type="checkbox"/> Discount grocery store (Wal-Mart)	
<input type="checkbox"/> Others (please specify)	

**4.3 How many wholesale buyers do you work with on a regular basis? .....**

**4.4 How many retail buyers do you work with on a regular basis? .....**

**4.5 If you sell in bulk through a wholesaler or retailer, please list your primary buyer:**

.....

**4.6 With what percentage of your regular buyers do you have contractual arrangements?..... %**

**4.7 How do you work with your buyers to insure that mushroom quality remains high?**

.....

**4.8 How would you describe your primary marketing area for shiitake mushrooms? What percentage of your sales does each area represent? (Please check all that apply).**

- Local (within 75 mile radius) ..... (%)
- Regional (between 75 and 200 mile radius) ..... (%)
- National ..... (%)
- International ..... (%)

**4.9 What methods of shipment do you use to transport your shiitake mushrooms to the market? (Check all that apply).**

- Direct to market (own vehicle)
- Use shipping company (USPS, UPS, FedEx)
- Use refrigerated freight
- Use non-refrigerated freight
- Buyer/ broker responsible for pick up and shipment
- Other .....

**4.10 Please estimate the changes in demand for fresh log-grown shiitake mushrooms in the past five years:**

	Less than 10%	10% - 25%	25 – 50%	More than 50%
<input type="checkbox"/> Increased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Remained stable				
<input type="checkbox"/> Decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> I don't know				

**4.11 How would you describe demand for fresh log-grown shiitake mushrooms at the present time?**

- Strong demand
- Steady
- Weak demand
- I don't know

**4.12 Is current demand for fresh log-grown shiitake mushrooms:**

- In excess of supply
- Equal to supply
- Below supply
- I don't know

**4.13 Please estimate the trends in demand for fresh log-grown shiitake mushrooms in the next five years:**

	Less than 10%	10% - 25%	25 – 50%	More than 50%
<input type="checkbox"/> Increasing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Remaining stable				
<input type="checkbox"/> Decreasing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> I don't know				

**4.14 In order to meet demand, are you able to maintain a steady supply of fresh shiitake mushrooms?**

- Yes
  - Yes, from own production
  - Yes, from other growers
  - Others .....
- No

**4.15 Please estimate the change in demand for value added shiitake mushroom products in the past five years:**

	Less than 10%	10% - 25%	25 – 50%	More than 50%
<input type="checkbox"/> Increased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Remained stable				
<input type="checkbox"/> Decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> I don't know				

**4.16 How would you describe demand for value added shiitake mushroom products at the present time?**

- Strong demand
- Steady
- Weak demand
- I don't know

**4.17 Please estimate the trends in demand for value added shiitake mushroom products in the next five years**

	Less than 10%	10% - 25%	25 – 50%	More than 50%
<input type="checkbox"/> Increasing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Remaining stable				
<input type="checkbox"/> Decreasing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> I don't know				

**5. Substitutes/ Alternatives**

**5.1 What other products (if any) can be substituted for shiitake mushrooms in terms of price?**

Lower price ..... Same price ..... Higher price .....

**5.2 How do these substitutes compare with shiitake mushrooms in terms of quality, nutritional benefits and availability?**

<b>Lower price substitute</b>			
Quality	<input type="checkbox"/> Higher	<input type="checkbox"/> Same	<input type="checkbox"/> Lower
Nutritional benefits	<input type="checkbox"/> Higher	<input type="checkbox"/> Same	<input type="checkbox"/> Lower
Availability	<input type="checkbox"/> Better	<input type="checkbox"/> Same	<input type="checkbox"/> Less
<b>Equal price substitute</b>			
Quality	<input type="checkbox"/> Higher	<input type="checkbox"/> Same	<input type="checkbox"/> Lower
Nutritional benefits	<input type="checkbox"/> Higher	<input type="checkbox"/> Same	<input type="checkbox"/> Lower
Availability	<input type="checkbox"/> Better	<input type="checkbox"/> Same	<input type="checkbox"/> Less
<b>Higher price substitute</b>			
Quality	<input type="checkbox"/> Higher	<input type="checkbox"/> Same	<input type="checkbox"/> Lower
Nutritional benefits	<input type="checkbox"/> Higher	<input type="checkbox"/> Same	<input type="checkbox"/> Lower
Availability	<input type="checkbox"/> Better	<input type="checkbox"/> Same	<input type="checkbox"/> Less

**5.3 Are there opportunities in the market for new specialty mushroom types?**

- Yes
- No

If yes, which ones?

.....

**6. Competitors**

**6.1 How many other farms in your area (within 75 mile radius) produce shiitake mushrooms? .....**

**6.2 Compared to other local shiitake operations, is your production operation ...**

- Smaller than average
- Average
- Larger than average
- I don't know

**6.3 Over the past five years, has the number of shiitake mushroom farms in your area (within 75 mile radius):**

- Increased
- Remained stable
- Decreased
- I don't know

**6.4 Based on your best estimate, over the next five years, will the number of shiitake mushroom farms in your area:**

- Increase                       Remain stable                       Decrease                       I don't know

**6.5 In your opinion, how competitive is the log-grown shiitake mushroom industry?**

- Highly competitive  
 Moderately competitive  
 Non competitive  
 I don't know

**6.6 What are your top 3 competitive advantages?** Please select the **top three** competitive advantages by checking the appropriate boxes. Rank checked boxes in order of importance with a number from 1 to 3 (1 being the most important and 3 the least important)

Competitive advantage	Rank
<input type="checkbox"/> Skills .....	.....
<input type="checkbox"/> Resources .....	.....
<input type="checkbox"/> Quality .....	.....
<input type="checkbox"/> Quantity .....	.....
<input type="checkbox"/> Customer service .....	.....
<input type="checkbox"/> Market knowledge .....	.....
<input type="checkbox"/> Price .....	.....
<input type="checkbox"/> Consistent supply .....	.....
<input type="checkbox"/> Others (please specify) .....	.....

**6.7 Please describe the change in price for your fresh log-grown shiitake mushroom production over the past five years?**

	Less than 10%	10% - 25%	25 – 50%	More than 50%
<input type="checkbox"/> Increased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Remained stable				
<input type="checkbox"/> Decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> I don't know				

**6.8 Please estimate the trends in price for your fresh log-grown shiitake mushroom production over the next five years?**

	Less than 10%	10% - 25%	25 – 50%	More than 50%
<input type="checkbox"/> Increasing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Remaining stable				
<input type="checkbox"/> Decreasing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> I don't know				

**6.9 Please estimate the trends in price for your value added shiitake mushroom products over the next five years?**

	Less than 10%	10% - 25%	25 – 50%	More than 50%
<input type="checkbox"/> Increasing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Remaining stable				
<input type="checkbox"/> Decreasing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> I don't know				

**7. Governmental policies**

**7.1 Are there any policies (local, state or national) that make it difficult to enter the shiitake mushroom market?**

.....  
.....

**7.2 Are there any policies (local, state or national) that are helpful to entry into the shiitake mushroom market?**

.....  
.....

**8. Location**

**Which state, county (and city) is your business located?**

.....

**9. Last question**

**In order to develop a market analysis that is as comprehensive as possible, please identify up two shiitake mushroom producers and two shiitake mushroom sellers that we can contact to include in our survey.**

**Producers:**

Company, contact name, address, phone number, fax number, e-mail, website.

.....  
.....

**Sellers (wholesalers/distributors/retailers):**

Company, contact name, address, phone number, fax number, e-mail, website.

.....  
.....

***Thank you very much for your time and effort!***