



## Cultivating Shiitake Mushrooms on Hardwood Logs

Saturday, Feb. 19, 2011  
OEFFA Conference

### Checklist

✓	Equipment and Supplies:	Notes:	Typical costs:
	Mushroom spawn	Choose between sawdust or plug spawn; 100 plugs => 2 logs, 1 lb. sawdust => 5 logs	Sawdust spawn/lb. \$4-\$10 Plug spawn/100 pcs. \$10-\$15
	Hardwood logs, preferably oak	~40" long, 3-6" diameter, undamaged and freshly cut.	
	Electric/cordless drill OR Angle grinder w/bit adaptor	Cordless drill gives you the option to work away from grid. Angle grinder is very fast and powerful, but more expensive.	Angle grinder \$89 Angle grinder adaptor \$35 (F&F)
	Drill bits w/stop collars	For sawdust spawn: 12mm or 7/16" brad-tip, collar set at 1" For plug spawn: 5/16" brad-tip, collar set at 1.25"	Sawdust bit \$11-\$13 Plug bit \$9.50-\$13
	Inoculator tool OR Hammer, small	For sawdust spawn: thumb or palm inoculator tool For plug spawn: small hammer	Palm \$30-\$35 Thumb \$33-\$35
	Tyvek or plastic sheets	To catch wax drips and debris; re-usable.	
	Cheesewax, natural	Can also use beeswax, if you have it; figure 1/2 lb. wax per 2-3 logs, more if sealing ends.	\$3-\$5.50/lb.
	Heat source and container for hot wax	Use hotplate, camp stove, crock pot, etc. with double boiler or thermostat control to avoid overheating; flashpoint for cheesewax is 450° F. Fire extinguisher should be at hand.	Granny-ware 1.5 qt. double-boiler \$15-\$20
	Wax applicator	Small paintbrush, wax dauber, turkey baster	Wax daubers \$1.50/4
	Aluminum label tags & nails	Don't get too cheap, these have to last 5+ years	Tags \$4.50/50, \$8.75/100, \$27.95/500
	<b>Optional, but nice to have:</b>		
	Inoculation jig	Simple homemade jig to hold log in place while working.	
	Moisture meter, lumber-type	Used to monitor moisture content; 30% MC or above required for mushroom production; accuracy not critical, but range 40% and above is.	Extech dual lumber-building moisture meter \$85
	Small broom & dustpan	For clean-up of bark, sawdust, wax drips, spawn, etc.	
	Scraper and rags	To clean up wax on jig and/or Tyvek sheets... or floor, walls, ceiling....	
	Firewood dolly	Nice if you're doing lots of logs.	Landmann "log caddy" \$75-\$90

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### Sources for spawn, tools, books, and supplies:

Field and Forest (Peshtigo WI)  
<http://www.fieldforest.net/>

Fungi Perfecti (Olympia WA)  
<http://www.fungi.com/>

Mushroom People (Summertown, TN)  
<http://www.mushroompeople.com/>

### Recommended books:

*Mycelium Running: how mushrooms can help save the world*  
Stamets, Paul  
Berkeley, CA: Ten Speed Press, 2005

*Growing Shiitake Mushrooms in a Continental Climate*  
Kozak, M. E. and J. Krawczyk  
Peshtigo, WI: Field & Forest Products, Inc., 1993

*Growing Gourmet and Medicinal Mushrooms*  
Stamets, Paul  
Berkeley, CA: Ten Speed Press, 2000

*The Mushroom Cultivator: a practical guide to growing mushrooms at home*  
Stamets, Paul  
Olympia, WA: Agarikon Press, 1983

### Websites and on-line resources:

Mother Earth News - <http://www.motheearthnews.com/> (search for mushrooms and/or fungi)  
*All About Mushrooms* by Harvey Ussery - <http://www.motheearthnews.com/organic-gardening/about-mushrooms-z10m0sto.aspx>  
Mykoweb - <http://www.mykoweb.com/>  
*Mushrooms in the Garden* by Terri Marie Beauséjour - <http://www.mykoweb.com/articles/gardenmushrooms.html>