

MUSHROOM LOG LOCATIONS



Legend

- Managed Forest Park District Property Boundary
- Unmanaged Forest Park District Property Boundary

Mushroom Logs:

- Oak/ Chicken of the Woods – 1/1
- Hackberry/ Blue Oyster – 1/1
- Hackberry/ Lions Mane – 1/2
- Black Cherry/ Turkey Tail – 3/6 (relocate)

Notes:

Park District to provide & install mycelium plug dowels.



Aerial Photograph

Black Walnut Park

Sugar Grove Park District
Exhibit E

MUSHROOM LOG LOCATIONS

WOODLAND MUSHROOMS

MUSHROOM INOCULATION RESEARCH

Mushroom inoculation is the process of introducing mushroom spawn into a suitable substrate to grow mushrooms. The spawn is a live culture of active mushrooms, called mycelium, that has been placed on a substrate and grown into it.

Logs must be relatively fresh, cut from live trees, and used within several weeks to no more than a few months of cutting. The best time to cut logs is while trees are dormant, either late fall or early spring. The timing from the log cut day to inoculation time should be within 4-6 weeks for the best-case scenario.

The best time of year to inoculate mushroom logs is early spring, ideally within a week or two of cutting the logs when the trees are dormant and the wood is still fresh, allowing for optimal mycelium growth; however, in cooler climates, winter felling with inoculation in early spring is also common practice. Expect mushrooms within one-year, total productive life of log can be 4-6 years.

While mushrooms can grow on most deciduous tree species, some are more suited to mushroom cultivation than others. Each mushroom species has a preferred type of wood and matching the mushroom to the correct log species will produce a higher or more consistent yield. Oaks and hard maples are the preferred wood-types for most mushroom species because they are very dense and offer plenty of nutrition for a longer, sustained fruiting period.

Oak is one of the best hardwoods for growing mushrooms. Its dense, tannin-rich wood is slow-decaying, and provides a long-term source of nutrients for various mushroom species. Oak logs can support mushroom growth for years, making them a great investment for long-term cultivation. Oaks come in many varieties and occur in most areas of the United States, making it an abundant resource as well. In fact, many hardwood-based substrates used in mushroom cultivation are made of oak for these reasons. [A, B]

SUPPLIES

- Mushroom Log Inoculation Drill Bit, Select Size, 8.5mm (Plug Spawn)
- 4-Pack Wool Wax Daubers for Log Inoculation
- Log Inoculation Sealing Wax
- Organic Blue Oyster Mushroom Plug Spawn
- Organic Lion's Mane Mushroom Plug Spawn
- Organic Chicken of the Woods Mushroom Plug Spawn
- Organic Turkey Tail Mushroom Plug Spawn

NORTH SPORE

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WOODLAND MUSHROOMS

MUSHROOM SPECIES

BLUE OYSTER [1]

Pleurotus ostreatus



LION'S MANE [2]

Hericium erinaceus



CHICKEN OF THE WOODS [3]

Laetiporus sulphureus

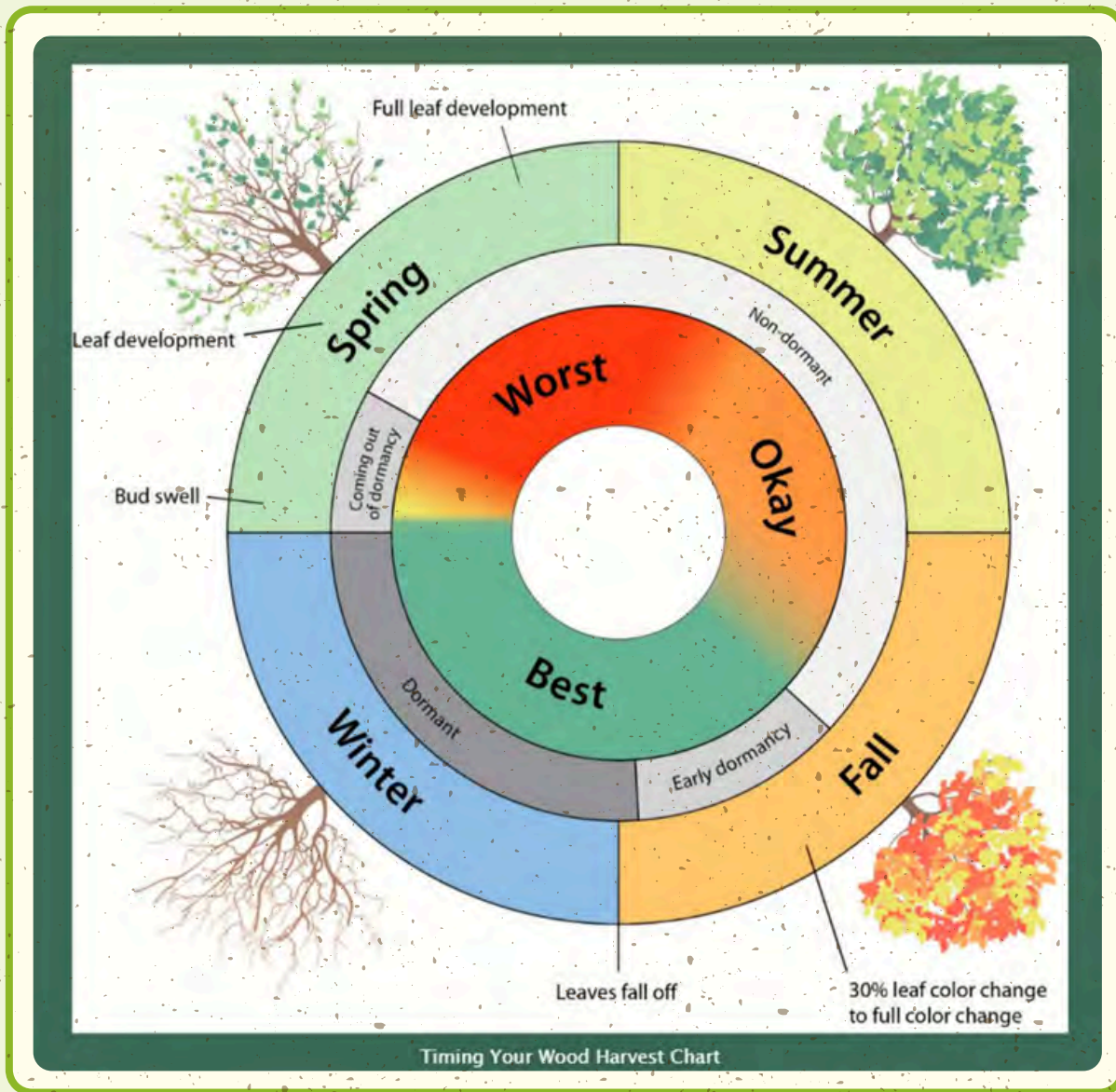


TURKEY TAIL [4]

Trametes versicolor



WOODLAND MUSHROOMS



[5]

Fall cut is best: Wood cells are not hardened and are easily invaded by mushroom spawn, allowing for a fast spawn run. You will need at least 6 weeks (including the two-week resting period) of day-time temperatures in the 50°Fs for the mycelium to establish itself within the logs before the winter sets in. Because of this, inoculation is not practical in the North at this time unless logs can be placed in a climate-controlled incubation environment. February and March are the ideal time for inoculation in northern Illinois. [B]

Winter-early Spring cut logs: The stored nutrient levels in logs are still good, but will decline the closer you get to the trees reaching bud swell/break/leaf out stages. [B]

WOODLAND MUSHROOMS

		TREE SPECIES																																★ = Superior ■ = Recommended ■ = Compatible ▲ = Questionable			
		Alder	Apple	Ash*	Aspen, Box Elder, Cottonwood & Willow	Basswood	Beech, American	Bitternut Hickory, Butternut, & Sugar Bud	Black Birch & Paper Birch	Black Gum & Tupelo	Black Walnut & Pecan	Blue Beech & Hornbeam	Buckeye	Buckhorn	Cherry	Chinese Tallow Tree & Tree of Heaven	Elm	Eucalyptus	Hackberry / Mulberry	Hemlock / Larch/Hornbeam	Maple, Hard (Sugar)	Maple, Soft (Red, Silver)	Oak	Palm	Pear & Sycamore	Sassafras & Sourwood	Sweet Gum	Tulip & Yellow Poplar, and Magnolia	Jack Pine	Paralimmon	Chinese Privet	Choke Cherry					
MUSHROOM VARIETIES	Shiitake	■					■	■			■	■	■	▲	■					■	■	★	■	★				■		■	▲						
	Oyster	■		▲	★	■	■			■									■	■	■	■	■				■	★									
	Lion's Mane & Comb Tooth				■		★		■		■	■							★	■	■	★	▲				■										
	Nameko	■	▲		★	■			■				■		★			■	■	■	■						■		★								
	Olive Oysterling			▲		■	■		■							■				■	■	★	▲	★													
	Maitake																					★		★													
	Reishi																					★	■				■										
	Chicken of the Woods			▲												■								★													
	Brick Cap																							★													
	Chestnut						■			■	■	■				■				▲		★		★				■	■	■		■	■				
	Turkey Tail	■			■	■	■			★						▲		■		■	■	★	■	★		■		★									

Superior is the best overall producer, Recommended is highly suitable, Compatible is moderately suitable, and Questionable may grow but yield low. Fields left blank are either unsuitable or untested.

Note: Avoid Ash*, Black Walnut, Elm, and Black Locust in Shiitake cultivation.
* Golden Oyster recommended for Ash. ** Turkey Tail grows on most hardwood species but has only been tested on Oak and Sugar Maple.
The chart above refers to whole log cultivation, and does not address wood in particulate form to be used for bed, container, or bag cultivation. Only pairings we have direct experience with or have verified are noted above.

Updated 12.11.23

Tree Species Chart

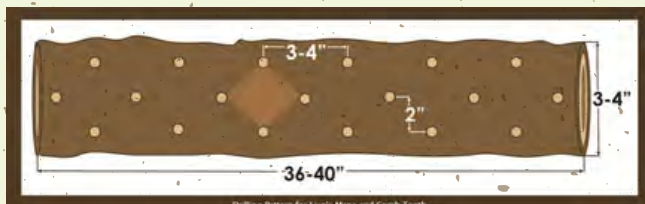
[5]

Plug spawn is used in outdoor logs and is made of wooden dowels with mushroom mycelium grown on them. It's perfect for beginners; all you need is a drill, hammer, and wax.

Host Tree Species & Mushroom Cultivar:

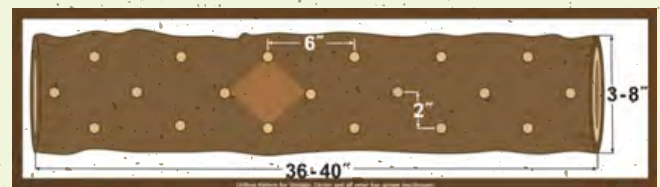
- Oak – Chicken-of-the-Woods, Turkey Tail
- Hackberry – Lions Mane, Combtooth, Oyster (Blue), Turkey Tail

DRILL-AND-FILL INOCULATION METHOD/ DRILLING PATTERN
(FOR LION'S MANE AND COMB TOOTH)



[5]

DRILL-AND-FILL INOCULATION METHOD/ DRILLING PATTERN
(OYSTER AND ALL OTHER LOG-GROWN MUSHROOMS)



[5]

WOODLAND MUSHROOMS

SOURCES

Photo Credit

- [1] <https://northernlifemagazine.co.uk/connecting-with-natures-inner-workings/>
- [2] <https://www.inaturalist.org/taxa/49158-Hericium-erinaceus>
- [3] <https://foragerchef.com/chicken-of-the-woods-mushrooms/>
- [4] <https://foragedfoodie.blogspot.com/2018/02/foraging-how-to-identify-turkey-tail.html>
- [5] <https://www.fieldforest.net/category/growing-mushrooms-on-logs>

Text Sources

- [A] <https://northspore.com/>
- [B] <https://www.fieldforest.net/>