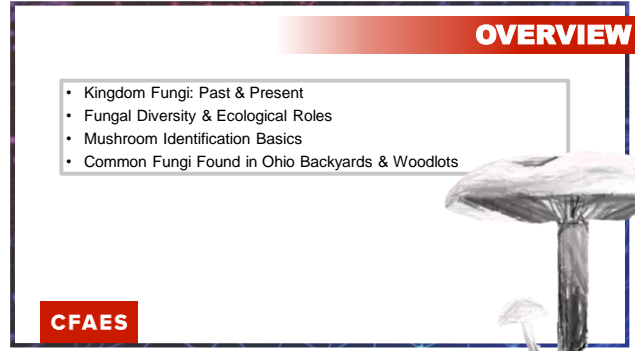
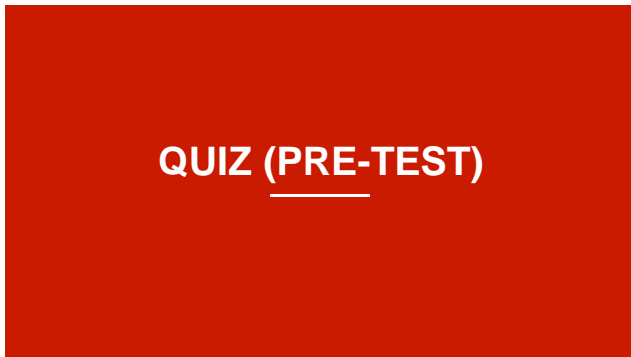


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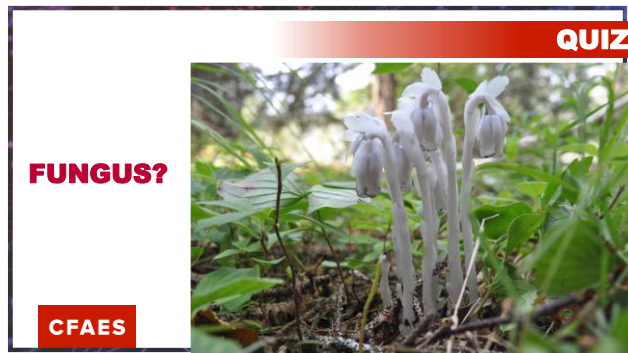
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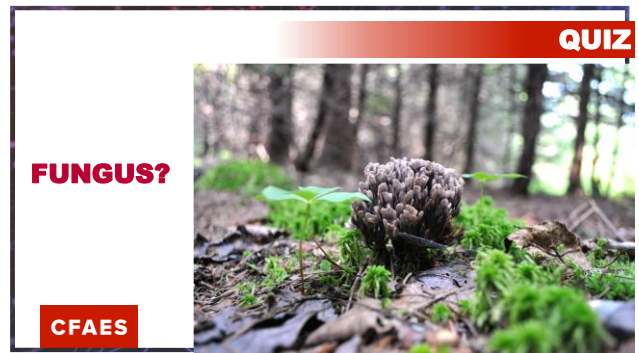
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6

**FUNGUS?**




**QUIZ**

**CFAES**

7

**QUIZ**

- All mushrooms are fungi.
- All fungi are mushrooms.
- You can tell if a mushroom is poisonous by its color.
- Your friend eats a mushroom and appears fine. You can eat a mushroom of the same species and be fine.
- A mushroom is a plant.
- The material a fungus grows on determines its toxicity.
- Mushrooms that squirrels or other animals eat are safe for humans.
- All mushrooms in the backyard are safe to eat.
- Poisonous mushrooms can be detoxified by parboiling, drying or pickling.




**CFAES**

8

**KINGDOM FUNGI**

Organisms that range in size from the very small to very large and come in a variety of forms

**IT IS ESTIMATED THAT THERE ARE ~1.5 MILLION SPECIES OF FUNGI**



**CFAES**

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**KINGDOM FUNGI**

**What makes a fungus a fungus?**

- Reproduces via spores, **not seeds**
- Heterotrophic
- Made up of hyphae (hyphal mat = mycelium)
- May be unicellular (yeasts) or multicellular (mushrooms)
- Immobile (usually)



**CFAES**

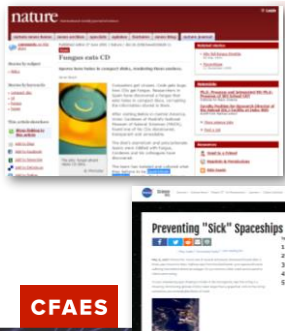
10

**KINGDOM FUNGI**

**Where Can You Find Fungi?**

**EVERYWHERE...**

- Leaves, stems, roots
- Wood (including mulch)
- Dung
- Skin
- CDs
- Space
- And so on...



**CFAES**

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**FUNGAL DIVERSITY**

SLIME MOLDS



SAC FUNGI

**CFAES**

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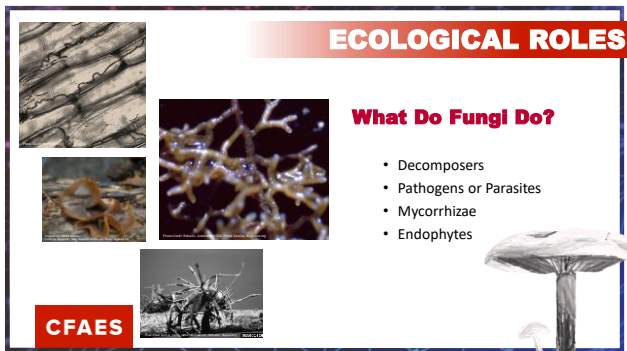
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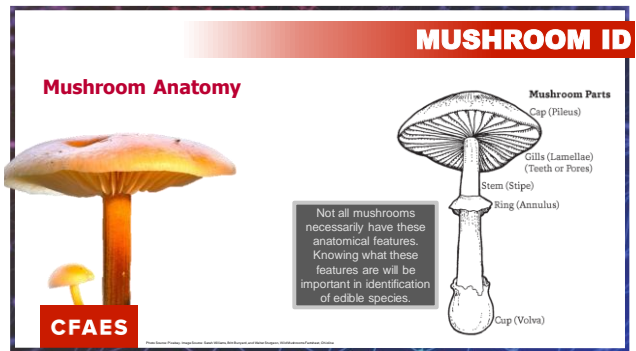
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18




## MUSHROOM ID

**Observations:**

Date:  
Location:  
Weather (Day):  
Weather (Week):  
Abundance:  
Growth pattern (fairy rings, clusters, scattered, solitary):  
Substrate:  
Nearby vegetation:

**Tools of the trade include:**

- Basket or mesh bag
- Paper bags
- Hand lens
- GPS
- Camera
- Pocket knife
- Paper for spore prints

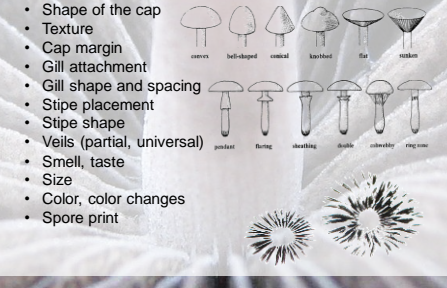


**CFAES**

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## Identification

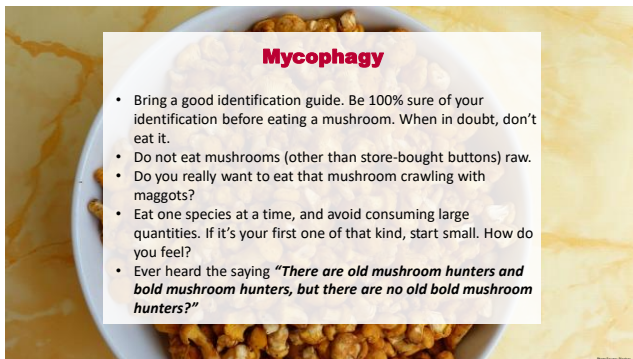
- Shape of the cap
- Texture
- Cap margin
- Gill attachment
- Gill shape and spacing
- Stipe placement
- Stipe shape
- Veils (partial, universal)
- Smell, taste
- Size
- Color, color changes
- Spore print



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## Mycophagy

- Bring a good identification guide. Be 100% sure of your identification before eating a mushroom. When in doubt, don't eat it.
- Do not eat mushrooms (other than store-bought buttons) raw.
- Do you really want to eat that mushroom crawling with maggots?
- Eat one species at a time, and avoid consuming large quantities. If it's your first one of that kind, start small. How do you feel?
- Ever heard the saying *"There are old mushroom hunters and bold mushroom hunters, but there are no old bold mushroom hunters?"*




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## BACKYARD MUSHROOMS

**This is by no means a comprehensive list.**

**Always consult a good field guide for identification. OSU Extension is not responsible for misidentified mushrooms.**



**CFAES**

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## Dog Vomit Slime Mold

*Fuligo septica*

- Name says it all
- Not a true fungus – what you see is the plasmodium and the fruiting body
- It moves!
- It appears after rainfall usually
- Not pathogenic – feed on bacteria and fungi in mulch and turf
- Options for control:
  - Pick up and throw in trash
  - Wait
  - Avoid hardwood bark for mulch
  - Keep area dry



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## Dead Man's Fingers

*Xylaria polymorpha*

- Can be mistaken for something left for you by the neighborhood cat
- Common in woodland areas
- Saprobe
- Often a bluish color at first, turning black by fall
- Look for at the base of stumps



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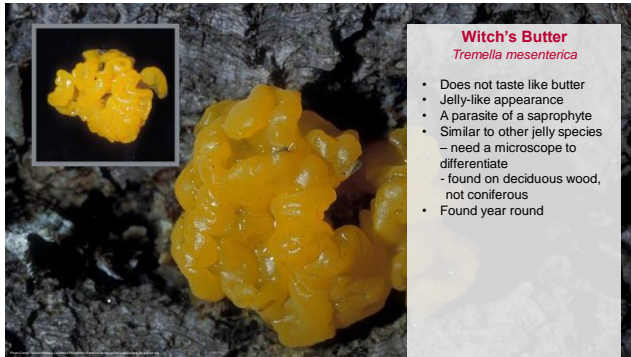


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**Witch's Butter**  
*Tremella mesenterica*

- Does not taste like butter
- Jelly-like appearance
- A parasite of a saprophyte
- Similar to other jelly species – need a microscope to differentiate
  - found on deciduous wood, not coniferous
- Found year round

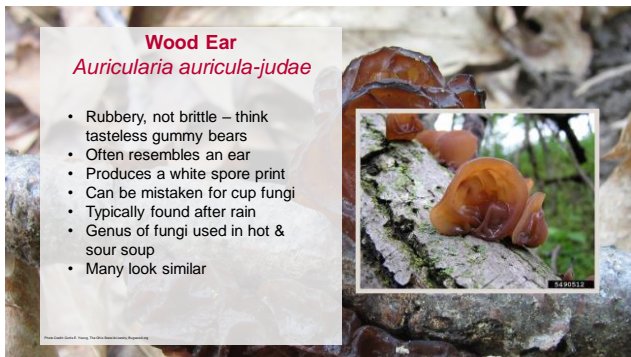
31



**Black Witch's Butter**  
*Exidia spp.*

- Gelatinous glob that dries into a dark crust
- Fruits under cooler conditions in the spring and the fall
- Grows on decaying hardwood sticks and branches – preference for oaks
- Spore print is white

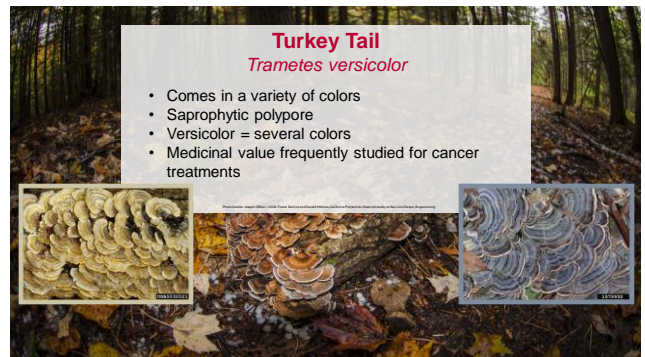
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**Wood Ear**  
*Auricularia auricula-judae*

- Rubbery, not brittle – think tasteless gummy bears
- Often resembles an ear
- Produces a white spore print
- Can be mistaken for cup fungi
- Typically found after rain
- Genus of fungi used in hot & sour soup
- Many look similar

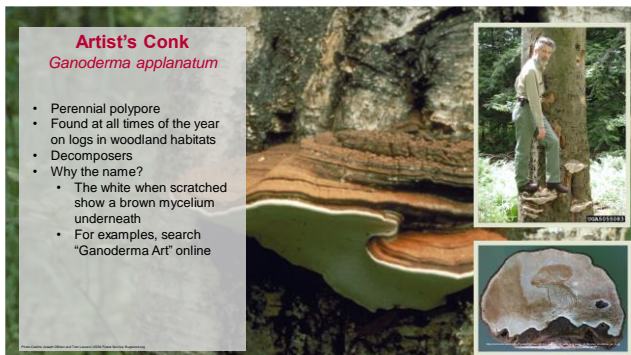
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**Turkey Tail**  
*Trametes versicolor*

- Comes in a variety of colors
- Saprophytic polypore
- Versicolor = several colors
- Medicinal value frequently studied for cancer treatments

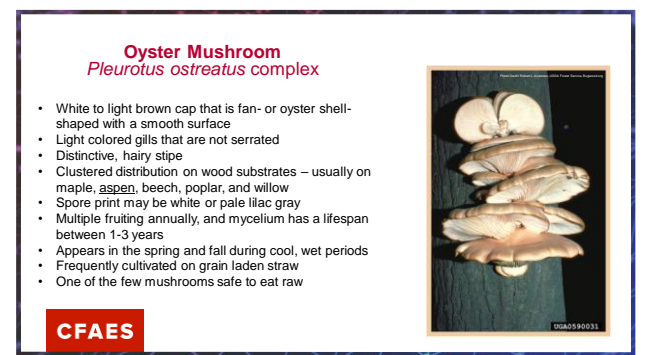
34



**Artist's Conk**  
*Ganoderma applanatum*

- Perennial polypore
- Found at all times of the year on logs in woodland habitats
- Decomposers
- Why the name?
  - The white when scratched show a brown mycelium underneath
  - For examples, search "Ganoderma Art" online

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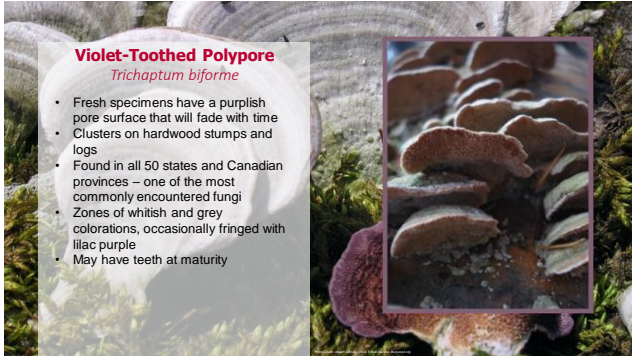


**Oyster Mushroom**  
*Pleurotus ostreatus complex*

- White to light brown cap that is fan- or oyster shell-shaped with a smooth surface
- Light colored gills that are not serrated
- Distinctive, hairy stipe
- Clustered distribution on wood substrates – usually on maple, aspen, beech, poplar, and willow
- Spore print may be white or pale lilac gray
- Multiple fruiting annually, and mycelium has a lifespan between 1-3 years
- Appears in the spring and fall during cool, wet periods
- Frequently cultivated on grain laden straw
- One of the few mushrooms safe to eat raw

CFAES

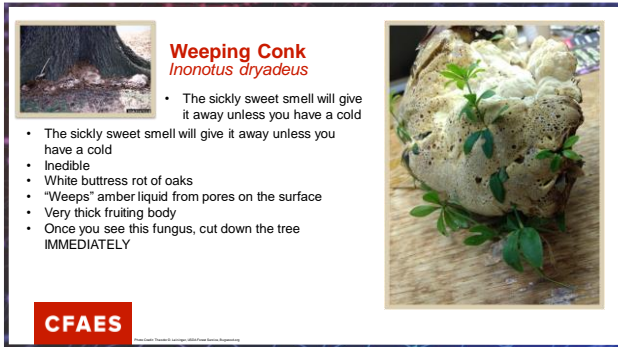
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**Wine-Cap Stropharia**  
*Stropharia rugosoannulata*

- Usually found on wood chips or sawdust, lawn mulch, gardens, or near compost heaps
- Stipe is thick, cap is a purplish color, smooth and may be slimy after rainfall
- Spore Print: dark purplish brown
- Can be a good substitute for store bought mushrooms and can be cultivated on mulch
- Late spring to early fall



**CFAES**

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**Mycenoids**  
*Mycena spp.*

- Come in all colors
- Extremely small
- Frequently grow in clusters
- Spore prints are white
- Need many mushrooms of all different ages to identify a single species



**CFAES**

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**Russula Mushrooms**  
*Russula spp.*

- Hard to distinguish species – identification nightmare
- Large
- Vibrant colors
- Genus contains the Vomiting Mushroom – *Russula emetica*
- Identify genus by checking for shatter using the “drop-kick” method




**CFAES**

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**Honey Mushroom**  
*Armillaria spp.*

- Also known as shoestring rot – rhizomorphs
- Attacks over 700 species of woody plants as well as brambles, flowering bulbs, potatoes, and strawberries but has a preference for oaks and maples
- Weakened plants most susceptible
- Occurs in forested soils





**CFAES**

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**The Deadly Galerina**  
*Galerina autumnalis*

- Deadly, hence the name
- Do not even taste
- Look in wet forests, usually moss covered, highly decayed wood
- Brown cap, relatively small annulus
- Stipe may be darker closer to base, may have tufts of hyphae called floccules
- Spore print is rusty brown
- A good one to know on site




**CFAES**

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**SUMMER & FALL MUSHROOMS**

**Be Aware of Doppelgängers...**

- Destroying Angel (*Amanita virosa*) - NOT EDIBLE
- Jack-o-Lantern (*Omphalotus illudens*) - NOT EDIBLE
- Chanterelle - EDIBLE
- Green-Spored Parasol Spore Print - NOT EDIBLE
- Green-Spored Parasol (*Chlorophyllum molybdites*) - NOT EDIBLE



**CFAES**


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## MUSHROOM STORAGE

**Post-Harvest**

- Wipe mushrooms gently with a damp cloth or soft brush to remove dirt, debris and insects.
- Refrigerate debugged mushrooms between 34– 35°F. Wrap them in a paper bag or waxed paper. Nonporous plastic bags are not the best choice as plastic accelerates mushroom deterioration.
- Do not wash morels before storage. Mushrooms absorb water and the additional water will hasten deterioration. Mushrooms may absorb odors if stored near foods like onions.
- Refrigerated, fresh mushrooms will keep for 2 to 3 days. For longer storage, mushrooms should be frozen or dried
- Keep an extra specimen available



CFAES

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## RESOURCES

### A Living Field Guide...

MUSHROOM OBSERVER

Observations

Search

Advanced Search

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**Introduction**

**How to Use**

**Log In**

**Create Account**

**Observations**

**Create Observation**

**Sort by Date**

**Filters**

**Changes by Users**

**Images**

**Comments**

**Help**

**Species Lists**

**Create List**

**Sort by Date**


**Sort by Title**

**Help**

**Purpose:** The purpose of this site is to record observations about mushrooms, help people identify mushrooms they aren't familiar with, and expand the community around the scientific exploration of mushrooms (mycology). Some have asked what counts as a mushroom. This site takes a very broad view. While the emphasis is on the large fleshy fungi, other fungi such as lichens, rust and molds as well as fungus-like organisms such as slime molds are all welcome. Ultimately, I hope this site will become a valuable resource for both amateur and professional mycologists. I like to think of it as a living field guide for mushrooms or a collaborative mushroom field journal.

For those new to mycology, there is a huge amount of basic research that still needs to be done. By some estimates less than 5% of the world's species of fungi are known to science. While things are slightly better for the large fleshy fungi known as mushrooms, it is still a common experience to come across a mushroom that cannot be easily identified in the available books or which doesn't really fit the definition of any recognized species. This site is intended to address that gap by creating a place for us to talk about and record what we've found, as well as connect to the existing literature about mushrooms. Hence do not feel intimidated by the scientific lingo of the site. Everyone is welcome to dive in and add their own mushroom observations, upload mushroom photos and make comments on other people's observations.

**Image Sharing:** This site follows the principles of cooperative sharing governed by the Free Software Foundation, further expressed by the Open Source software movement, and expanded to other creative efforts by the Creative Commons. Consequently all images are made available under one of the Creative Commons licenses or are in the public domain. In short this means that when anyone uploads one of their images to the site, they are



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## RESOURCES

### Join a Mycological Society...

**The Ohio Mushroom Society**

**March Mushrooms of the Month**

**Mycological Society of America**

**North American Mycological Association**





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## RESOURCES

### Resources for You from OSU...

**Ohioline**

**Wild Mushrooms**

**Wild Mushrooms**

**Wild Mushrooms**

**Mushrooms and Microfungi of Ohio and the Midwestern States**

**PLPATH-GEN-11**



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# POST-TEST

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## QUIZ

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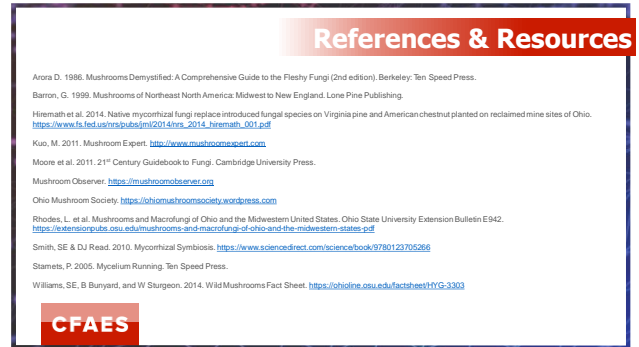
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