Diagnostics of Armillaria Root Disease

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- STEP 2 -

Laboratory Techniques for Culturing and Archiving *Armillaria* Samples

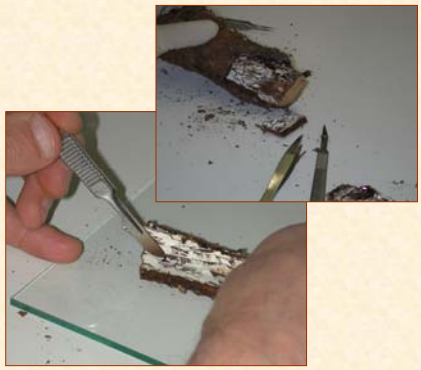
Field collected samples, rhizomorphs, mycelial bark fans, and honey mushrooms are **isolated and cultured**.

Rhizomorphs are removed from the collection tubes, surface sterilized with clorox® and hydrogen peroxide, and cut into pieces.

The outer layer of the bark is cut to expose mycelial fans. Freshly exposed mycelial fans can be used to obtain *Armillaria* isolates without contamination from other organisms.

The tools used to isolate from rhizomorphs, mycelial bark fans, and honey mushrooms are surface sterilized with a flame between each use.

Rhizomorph pieces are placed into culture tubes containing nutrient medium, (e.g., malt extract, dextrose, and agar).

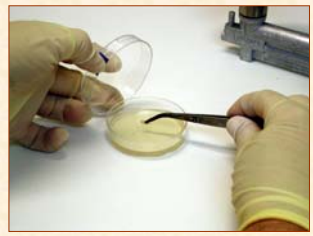


Small pieces are cut out of the fresh mycelial fans with sterilized tools.

Small pieces of the mushroom are cut out from cap or stalk tissue to obtain a vegetative (diploid) isolate. Fresh gills can be used to obtain basidiospores (haploid isolate).

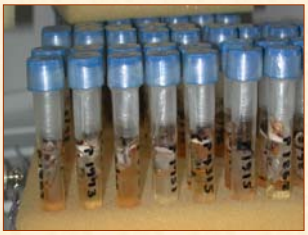
Rhizomorph pieces are also placed onto Petri plates containing nutrient medium.

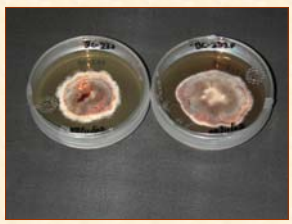
These small pieces are placed into culture tubes and plates containing nutrient agar medium.



These small tissue pieces are being placed into culture tubes and plates containing nutrient medium.

All of our *Armillaria* isolates are stored and archived in incubators.





We have over 3, 000 *Armillaria* isolates from all over the world.

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