

Laboratory 18

Fungi

Student Tip Sheet

Welcome to probably the most misunderstood and diverse group of plant-like nonphotosynthetic organisms. We all think that we know something about the fungi, and each of us does know a bit, but rare is the person that has a command of the entire Kingdom! The classification scheme is as varied as the organisms. Sometimes it even seems that many of the rules of organismal functions and patterns of classification criteria are set aside as we try to organize, identify, and study the members of this large group. Typically, in school a scattering of representative examples are used for study, but this leaves many of the ever present species relatively unknown. Collections brought in from a short walk taken around your yard or campus or indeed in the dark corners of your refrigerator can provide many samples for study. Realize that these organisms are living and fulfilling their role as part of the “cleanup crew” in the whole realm of living beings.

One word of caution is that you need to candidly tell your instructor if you have any allergy to fungi such as molds or lichens.

This chapter also has a lot of new classification and probably unfamiliar terminology. Continue to add to your note card collection for test preparation. It is critical that you make, collect, and study these cards as you come to each chapter. They are not as useful if produced all in one sitting for the exam the next day!

Zygosporangium Fungi

Black bread mold is one of the most common organisms used for study of fungi. Your teacher may provide living cultures for you to observe. It is easily obtained by letting household bread mold on its own. Just keep it in its wrapper at room temperature and you will have plenty of *Rhizopus* for observations. This just indicates the omnipresence of the spores. Also, the graphics in the lab manual are excellent representations of the life cycle.

Sac Fungi

Yeast is a terrific specimen to observe under the microscope. You will be able to see the budding process in action. Budding yeast looks like ears on Mickey Mouse! Make a wet mount as your teacher instructs. The major problem that will arise is that the wet mount can easily have too many cells packed too closely together for observation. Simply touch the dropper to the slide surface, because a full drop has far too many cells. Add one drop of plain water for dilution and a coverslip. Focus carefully.

Club Fungi

The instructions here call for using an edible mushroom. If these are from the grocery store, it is safe to assume that they are truly edible and can be handled without danger. Otherwise, I never trust a specimen from the wild. Even the experts say that it is not a matter of if they will be poisoned, but when they will be poisoned and how sick they will become after ingesting a wild specimen. It is not wise to take chances by handling any that are grown outside.