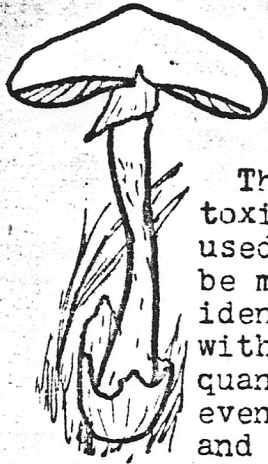




LAKELAND MYCOLOGY CLUB

NEWSLETTER



This month's Newsletter is concerned mainly with toxic mushrooms, their poisons, and the antidotes presently used as treatment. The purpose is not to frighten the would-be mycophagist, but to emphasize the importance of positive identification of the species which you intend to eat, and with any new species previously untried eat only a small quantity to be sure that you are not allergic to that species even though it is popularly considered edible. Foolhardiness and carelessness are really the only causes of mushroom poisoning.

THIOCTIC ACID NOT COMPLETE ANSWER : In our August Newsletter of last year, we mentioned the discovery of an antidote to the poisoning of the deadly amanitas; however, a paper published by M. Courtillot and T. Staron limits the effectiveness of thioctic acid to the amanita species *A. phalloides*, and casts doubt on its effectiveness as an antidote for poisoning by *A. virosa*, a far more common North American species. Courtillot and Staron could not establish any reliable physical characteristic to distinguish the two species apart and yet their analysis indicates that their respective poison principles are significantly different.

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THE MUSHROOM TOXINS : Recently Donald M. Simons, Ph.D. published an article in the Delaware Medical Journal concerning toxic mushrooms, their toxins, and present concepts of treatment. Dr. Simons is a research chemist with the duPont Company and is an amateur mycologist and sometime mycophagist. It was primarily the latter activity that prompted his interest in the mushroom toxins. Dr. Simons contends that fungi must be placed on the top of any list of allergenic foods. Many people cannot eat the commercial mushrooms without experiencing unpleasant allergenic symptoms which can range from sniffles or headache, to severe stomach upsets, vomiting, diarrhea and in extreme cases loss of consciousness. This reflects how wide the variations in personal biochemistry can be. Eating wild mushrooms obviously expands the possibility of an allergenic reaction. The differences in biochemistry no doubt explains why certain mushrooms considered eminently edible, still cause unpleasant reactions with some individuals.

It is generally unwise for very young children or organically ill persons to eat wild mushrooms since a toxic reaction could result from a metabolic defect or from the detoxifying capability of the liver not being fully developed.

Some cases of allergenic reaction to mushrooms, have been attributed to an inability of the body to absorb trehalose (a crystalline sugar present in fungi).

Dr. Simons presents one amazing characteristic of the amatoxins present in the *Amanita* genera, concerning its unbelievable deadliness. The poison actually interferes with the fundamental process of life itself, attacking life's basic building block, the DNA molecule .