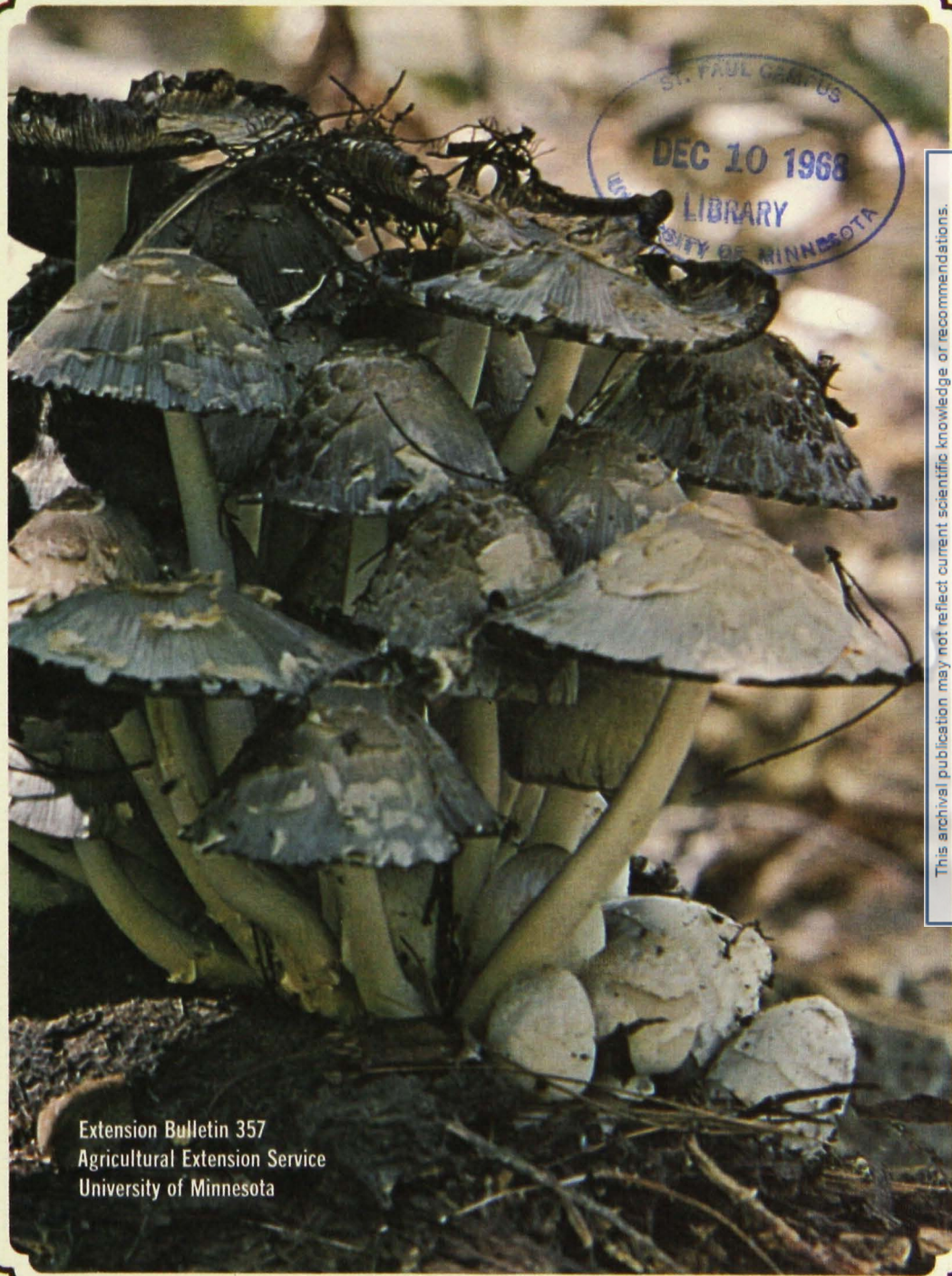


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Edible Wild Mushrooms

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Cover photo: The larger inky cap, *Coprinus atramentarius*.

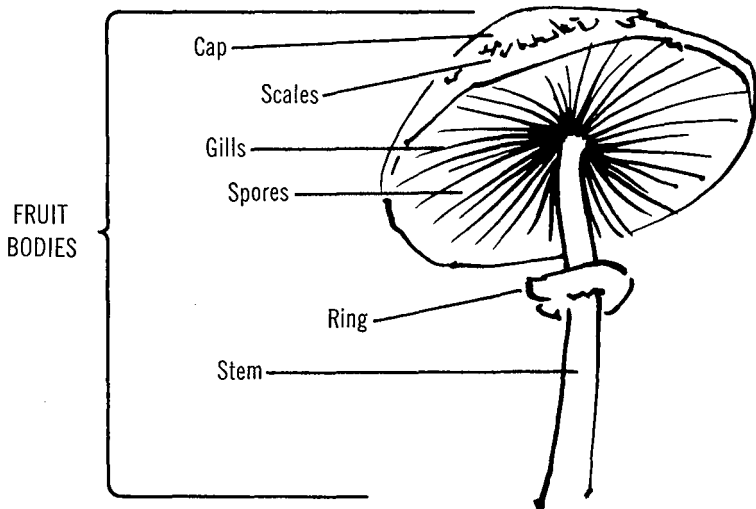
CONTENTS

Morels	5
Inky caps	6
Shaggy mane	9
Oyster mushroom	9
Fairy ring mushroom	10
Meadow mushrooms	10
Sulphur shelf	12
Club fungi	12
Puffballs	14
Publications on mushrooms	16

Caution: Do not eat any wild mushroom, gathered either by yourself or by someone else, unless you can identify it with one hundred percent certainty and know that it is safe for eating. Should you become ill from eating wild mushrooms, contact a physician or the nearest hospital. If necessary, they will phone the Poison Treatment Center nearest you for treatment suggestions. These centers are throughout the United States, usually in hospitals in large cities.

There are several thousand kinds or species of wild mushrooms: some are extremely poisonous, the majority are unattractive for eating because of poor flavor or texture or small size, and a few are not only edible, but delicious. Fortunately, some of the wild mushrooms that are easiest to identify are also among the choicest for eating.

The mushrooms described in this folder are found throughout most of the north temperate zone around the world.





Morel

Edible and Poisonous Mushrooms

There are several folk rules that claim to distinguish edible from poisonous mushrooms. These rules have evolved from experience with wild mushrooms, chiefly in European countries, where for centuries people have gathered and eaten many kinds of wild mushrooms. Each of these rules may have some validity in a given area, where only one or a few kinds of poisonous mushrooms occur, but generally they are without value and should not be depended on. Poisonous mushrooms are known to be poisonous because someone ate them and became ill or died. Edible mushrooms are known to be edible because people have eaten them regularly and in quantity with no ill effects. There is no test, other than eating, to determine whether an unknown mushroom is edible. This means that anyone who gathers wild mushrooms for eating must be absolutely certain of the identity of every single specimen picked. Some kinds of wild mushrooms are difficult for even an expert to identify; others can be identified easily by the beginner.

MORELS – *Morchella*

The accompanying picture describes the morel better than words. There are several kinds of morels, but all are similar in appearance and in edibility. They are 4 to 8 inches high, the caps are light tan to brown, the stems white, and both cap and stem are hollow and brittle. The morels appear in spring after abundant rainfall. Wooded areas are their favorite haunts, but they also come up in grassy pastures and even in lawns, commonly around or near recently dead trees or stumps. They are delicious when fresh, and can be either dried or frozen and kept for future use without losing any of their quality.



Inky cap

INKY CAPS – *Coprinus*

The distinguishing character of the genus *Coprinus* is the conversion of the maturing cap into a black liquid.

The small inky cap, *Coprinus micaceus*, appears in dense clumps around dying hardwood trees, especially elms on boulevards, and above buried stumps and roots. A new crop, often of hundreds of specimens, will appear after every hard rain in the spring and summer. Usually the mushrooms appear in late afternoon and mature the following morning. For best eating they must be picked while young and firm, before they begin to liquefy.

The larger inky cap, *Coprinus atramentarius*, comes up on decaying stumps and logs of hardwood trees; the stems of several to a dozen arise from a common point. The individual caps have considerably more substance than those of the smaller inky cap, but these must also be picked and prepared before they liquefy.

According to mushroom fanciers in many countries, both of these inky caps are delicious, yet here again a word of caution is necessary since some people have become ill from eating them after taking only a small alcoholic drink.



Inky cap



Inky cap



Shaggy mane



Oyster mushroom

SHAGGY MANE — *Coprinus comatus*

This is a near relative of the inky caps, as the scientific name indicates. The caps are cylindrical, 1 to 2 inches across and 3 to 6 inches high, borne on a stout stem. The surface of the cap is covered by shaggy white or tan scales. There is no other mushroom like the shaggy mane and no possibility of confusing it with anything else. Shaggy manes come up, sometimes in profusion, on compost heaps, grassy boulevards, and along roadsides. They are delicate in texture and excellent in flavor, but like the inky caps they have to be picked and cooked before the caps begin to liquefy.

OYSTER MUSHROOM — *Pleurotus ostreatus*

The fruit bodies come out in clumps, as illustrated, on decaying logs, stumps, and trees, and are found from spring until late fall. The cap and gills are white, the flesh is thin but moderately firm, and the flavor is good but not outstanding. In warm and humid weather these mushrooms decay very rapidly and decayed specimens should not be eaten.

FAIRY RING MUSHROOM — *Marasmius oreades*

The fairy ring mushroom appears in lawns and other grassy places in fairly dense groups, arranged in circles or rings that may be up to 10 feet in diameter. Successive crops appear after each rain and in the same place year after year. The stems are slender and tough, 2 to 4 inches long; the caps are white or pale tan, 1 to 2 inches wide, either flat or with a pronounced hump in the middle. The gills are white and rather far apart. In dry weather the caps shrivel up, but revive again with rain. Edibility is excellent.

MEADOW MUSHROOMS — *Agaricus*

Several species of the genus *Agaricus*, all closely related to the cultivated mushroom, grow commonly in lawns and pastures. These meadow mushrooms have three chief characteristics: 1. A veil that extends from the edge of the cap to the stem in young specimens — as the cap expands, this veil breaks and remains on the stem as a ring; 2. The gills approach but do not touch the stem; 3. The gills of young specimens are white, but become pink as they mature, then dark brown or purple-brown. Once the gills have begun to turn pink or brown, *Agaricus* is relatively easy to identify. However, young specimens with white gills can be easily confused with *Lepiota morgani* which is poisonous, and the two kinds sometimes grow close together or in the same fairy ring. For positive identification of what is assumed to be *Agaricus*, a spore print should be made as directed in the publications listed at the end of this bulletin.



Fairy ring mushroom



Meadow mushroom

SULPHUR SHELF – *Polyporus sulphureus*

Fruit bodies appear in the summer and fall, on standing trees, both living and dead, and on stumps and logs of hardwood trees, especially oaks. On fallen logs they form colorful rosettes of many overlapping shelves, as illustrated; on standing trees they grow as a series of shelves one above the other extending out 4 to 10 inches from the wood. The upper surface of fresh specimens has alternating bands of yellow and bright orange; the lower surface is sulphur yellow and is made up of pores so small they scarcely can be seen with the naked eye. The flesh is white and fibrous, and should be sliced or diced before cooking. The edibility is very good.

CLUB FUNGI – *Clavaria*

About 150 species of *Clavaria* are known. The illustration is of *Clavaria stricta*, the size and shape of which are typical of a number of species that grow on decaying logs. Each fruit body consists of a mass of upright branches arising from a single stem. It is not at all unusual to find several to many fruit bodies on the same log. So far as is known, all of these *Clavarias* are edible and some are delicious. When dried they can be kept indefinitely.



Sulphur shelf



Club fungi

PUFFBALLS — *Lycoperdon* and *Calvatia*

There are many kinds of puffballs, ranging in diameter from less than an inch to more than a foot. Regardless of the size or shape of the individual kinds, puffballs are among the best of the edible mushrooms. When young, they are moderately firm but the flesh can be compressed easily. The interior is white, and uniform in texture, and the outer skin is thin and fragile. When sliced and fried or broiled they are delicious. As they mature, the interior becomes yellow, then brown, and is converted into a mass of dusty spores. Once the interior begins to turn yellow, puffballs no longer are attractive in flavor or texture. The pear-shaped puffball grows on decaying hardwood logs and stumps, and usually comes up in dense clumps. The giant puffball, which may attain a diameter of more than a foot and a weight of more than 25 pounds, grows on the ground. Most puffballs come up in late summer and fall.

A word of caution is necessary concerning small puffballs growing on the ground. A false puffball, *Scleroderma* by name, comes up commonly under oak trees in lawns and yards as well as in the woods. Typically the young fruit bodies of *Scleroderma* develop beneath the surface of the ground and force their way out only at or near maturity, when the spore mass has begun to turn dark purple or brown, but occasionally young ones appear above the ground. These young false puffballs have a very firm interior and if cut or broken from top to bottom appear to contain a multitude of small chambers, different from the uniform texture of the true puffballs. The outer covering or rind of the false puffball is thick and leathery. These false puffballs are said to be somewhat poisonous and there are authentic cases of moderately severe, although temporary, illness and discomfort from eating them. Neither the good eating pear-shaped puffball, which grows in clumps on decaying wood, nor the delicious giant puffball is likely to be confused with any other mushroom.



Puffball



Left, Pear-shaped puffball. Right, Scleroderma.

Publications on Mushrooms

Common Edible Mushrooms, Clyde M. Christensen. Branford Press, Boston, Massachusetts 02159. \$3.50. Describes and illustrates in black and white and in color, 50 common species of mushrooms. Has a section on mushroom cookery.

Common Fleishy Fungi, Clyde M. Christensen. Burgess Publishing Co., 426 S. 6th St., Minneapolis, Minnesota 55415. \$4.25. Keys and descriptions of about 400 species of fleshy fungi commonly found in the central and midwestern United States, with many black and and white photographs and drawings.

Edible and Poisonous Mushrooms of Canada, J. W. Groves. Available from Canada Department of Agriculture, Ottawa, Ontario, Canada. \$6. Keys, descriptions, and illustrations in black and white and in color of many species of fleshy fungi.

Freezing Foods for Home Use, Extension Bulletin 244, Shirley T. Munson, James D. Winter, Melvin L. Hamre, and C. Eugene Allen. Contains information on freezing mushrooms. Single copies free on request, each additional copy, 15 cents, from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul, Minnesota 55101.

Photo credit: The color transparency of the morel was taken by Ronald E. Welty. All other pictures are the author's.

Mention, by title, of publications on mushrooms is solely for the readers' convenience and does not imply endorsement, nor does failure to mention a title imply criticism by the Minnesota Agricultural Extension Service.

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