MUSHROOM CULTURE.

There has been a growing interest in mushroom culture during recent years, partly due to the high prices obtained for them and partly because of the large profits said to be made in growing them. The following information should prove useful to any one desiring to grow mushrooms:—

It is of the greatest importance to have good spawn. If the spawn or mycelium is dead there will be no mushrooms, no matter how carefully the bed is looked after. Therefore, mushroom spawn should be obtained from reliable sources.

Spawn is the mycelium of the mushroom and may be compared to the vegetative part in flowering plants, while the mushrooms themselves correspond to the flowers. The bricks in which spawn is bought are merely the carriers of the mycelium which, when the proper conditions are given, continues its growth and eventually produces mushrooms. The mycelium is produced from spores which fall from the mature mushrooms and germinate. The spawn-bearing bricks which are purchased are composed of horse and cow manure and sometimes a little loam. The compost is moulded into the form of bricks and while still moist they are inoculated with mycelium. This grows and permeates the bricks, which, when filled with the mycelium, are dried and stored ready for sale. If the bricks are not kept dry until they are needed for spawning the mycelium is liable to be injured, and, as the older the bricks are the more likelihood there is of their being subjected to unfavourable conditions, fresh spawn should be used. The pure culture spawn differs from the other in that the mycelium is first grown from the tissue of young mushrooms or from the spores in sterilized compost, by which method the best varieties and strains may be grown pure.

The manure for the bed should be partly rotted horse manure; cow manure is not so good. This is usually obtained from livery stables and should be mixed with straw bedding for best results, although mushrooms will grow in manure when mixed with sawdust or shavings which have been used as bedding. It is piled in a place sheltered from rain and kept from burning by turning several times at intervals of four to seven days until the first violent heat is over, by which time it is thoroughly mixed and of comparatively uniform consistency and has lost its rank smell. This will take three weeks or a little less. To heat well, the pile should be at least four feet deep, or more if the weather is cold. If the manure is very dry, enough water may be added to make it moist, but not wet. The bed may be made in a cellar, under a house beneath greenhouse benches, or in any fairly dark place where the temperature in the room does not go much above 60° F. or under 50° F. From 55° F. to 58° F. is a good range. A lower temperature for a few days will delay the appearance of mushrooms, but may not otherwise prove harmful. Mushrooms do best where there is good ventilation, providing moisture and temperature can be controlled. When the manure is put in, it is tramped down solid, and this can best be accomplished by putting on about three inches at a time and pounding down well until there is a depth of fifteen inches, although less will do where the temperature is near 60° F. all the time. When the manure is put in, it should be of such a consistency and moistness that it will not crumble in the hand if squeezed yet is not so moist that water will come out. The temperature of the bed should soon rise to about 100° F. and after it has reached its maximum and has fallen to between 70° F. and 80° F. the bed is ready for spawning. Good results are obtained if the bed is spawned at 65° F. The spawn should be broken into pieces as large as a butternut or small egg, or larger, and the pieces inserted every eight to ten inches or even farther apart and from one to two inches deep in the manure, lifting it up when putting in the spawn, after which the manure should be pressed firmly against the spawn and the whole bed made firm. From five to eight days after spawning, according to how fast the temperature is going down, from two to three inches, or even less, of good loamy soil is spread on top of the manure.