

## *Grain*

Grain such as rye berries, wheat berries, corn, sorghum and millet are commercially used for spawn production. Growing fungi on grain are considered a stage two technique. Since most cultivated mushroom species are not readily fruiting on pure grain substrates, it is used as an intermediary growing stage. In this section, I will explain the methods and benefits of growing fungi on grain substrates.

Grain spawn is created by inoculating cooked and sterilised grain with a healthy, vigorous inoculum that is contamination free. Grain substrate may be inoculated with wedges of colonised agar or liquid culture that has been drawn up in a syringe. It is called grain spawn for its use of later «spawning» into a fruiting substrate, such as a mushroom patch, supplemented sawdust or wood chips, manure or coconut coir at stage three. In order to spawn fully colonised grain spawn, it is simply mixed into the fruiting substrate under hygienic, ideally sterile conditions and then put into fruiting condition at stage four.

Due to its small, round shape and its optimal composition of over 30 different types of vitamins and minerals, I have found millet to be the most reliable grain. The tiny kernels offer a high amount of possible inoculation points when the mycelium has colonised them, and they are mixed into fruiting substrate. Using this grain spawn technique speeds up colonisation and ensures an advantage to any possible competitors such as moulds, bacteria, or other fungi.

The procedure for making grain medium is soaking the grain for 12 – 24 hours to germinate dormant bacterial endospores. The medium is then cooked, dried to field capacity, filled into bags or jars and sterilised in a pressure cooker. After cooling, the grain is ready for inoculation.

