



Mushroom cultivation brings additional income to forest owners

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Growing a forest is a long-term investment and a forest owner has to wait many years before the forest generates some income from wood harvesting. Active mushroom cultivation on cut logs in forests can provide an additional income for forest owners. Also, mushroom cultivation on living trees can be applied as an ecological forest management tool. The income generated from harvesting small-diameter trees during thinning is quite low and amounts just a couple of euros per tree, while the value of chaga mushrooms on a single birch can be worth 100 euros.

In addition, mushroom cultivation increases eco-efficiency. Producing food in addition to wood production contributes to a more efficient land use.

There are different techniques for mushroom cultivation in forests. For example shiitake, oyster and lingzhi (reishi) mushrooms are grown on logs. They grow on birch but also alder, oak or aspen logs are suitable. Mushrooms can be grown on small-diameter logs (about 10 cm in diameter) cut to 1 m length and piled in stacks. Holes are drilled in the logs to insert the dowels with mushroom mycelia. After that the holes are sealed with gardening wax to prevent contamination by other fungi and mold as well as to prevent moisture loss. It is important that logs are kept moist otherwise the mycelia might degenerate or die. A log can produce mushrooms for about 3-4 years. Shiitake and oyster are for consumption, while lingzhi has medicinal purposes.

Chaga (pakuri), also a medicinal mushroom, is grown on living birch trees instead. After inoculation, the first chaga mushrooms are harvested after 5-6 years and can be harvested for another 2 rotations. After about 15 years the tree dies but can still be harvested as fire or fibre wood.

Reference:

AFINET Factsheet:

https://euraf.isa.utl.pt/files/pub/20190325_-_factsheet_02_-_web.pdf



Michael den Herder
Mercedes Rois
European Forest Institute