Conservation strategies of the culinary-medicinal mushroom Pleurotus nebrodensis (Basidiomycota, Fungi)

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Pleurotus nebrodensis (Inzenga) Quél.

is one of edible mushrooms species most appreciated by consumers for his organoleptic characteristics [1].

In vitro experiments have demonstrated the inhibition ability of colon cancer cell proliferation [2] and the antibacterial activity expressed on several pathogen bacteria of medical relevance [3].

This species was reported with a distribution restricted to Sicily and continental Greece





Madonie Regional Park (Sicily, Italy)

Ex situ

In situ



Greece

Cultivation

Fungal

culture

collection

Field surveys carried out in the area of distribution over the years have confirmed a decrease in the number of P. nebrodensis

Inclusion on IUCN Red List of Threatened Species as "Endangered (EN)"

basidiomes during the fruiting period[4].

- Decrease the pressure carried out by mushroom pickers; The application of specific cultivation techniques allow to cultivated P. nebrodensis to maintain similar organoleptic characteristics to mushrooms collected to the wild.
 - The preservation of mycelium is carried out in the Mycotheca of Department of Agricultural, Food and Forest Science of the University of Palermo, Italy;
- Other strains are available in the Laboratory of General and Agricultural Microbiology of the Agricultural University of Athens, Greece.
- In the A zone of the Madonie Regional Park, the collection of P. nebrodensis basidiomes is forbidden, because is under total protection, while the collection of unripe mushrooms is forbidden throughout the park (Regional law n. 3/2006);
- The level of control by forest rangers has been insufficient.

The preservation of *P. nebrodensis* is even more necessary today if we refer to the benefits that the extracts of this culinary-medicinal mushrooms have on human health.

Conservation strategies

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