

Lignite mine reclamation through cultivation of AMP



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Keywords

aromatics

essential oils

reclamation

coal combustion

NWFP

Aromatic & Medicinal Plants

Scale

National



Context

In this direction, the Public Power Corporation S.A. has started for more than 20 years ago the reclamation process of the disturbed areas and depositions of the Lignite Center of Western Macedonia. The total area of reclamation at this moment is about to 45000 acres, 26000 acres of which concern forest plantations, 10000 acres agricultural fields and there are 9000 more under development. In the later, we established an experimental AMP cultivation field.



Objective

Electric power production from coal combustion still accounts for a great proportion of total energy production in Europe. The Public Power Corporation S.A is the largest power producer and distributor in Greece and for more than 70 years manages a great coal mining area, the Lignite Center of Western Macedonia. The coal mining procedure leads to the formation of disturbed lands in coal mines, mainly in the places of soil depositions, the implication of a viable reclamation practice of whom is very critical.



Results

The AMP cultivation field has been established about 7 years ago and in a very limited area of only 5 acres. The main cultivated species are *Melissa officinalis* and *Lavender* sp. Although the soils in the fields of the depositions are very degraded and poor, the yields of the plants are quite high. According to our tests, that are performed seasonally, the qualitative characteristics of the harvested plant material are very high. From the harvested material, we produce essential oil, which is packaged in small bottles and used as a present to our public events.



Recommendations

According to our results and experience, the establishment of AMP cultivation in degraded lands of mine depositions can be an effective way for their reclamation.



Impacts and weaknesses

The main addressed problem is that the soils in the deposition fields are very distorted and degraded. That is the reason that extensive cultivation in greater scale is not feasible from the begging, but slower steps have to be made each time. This experimental project can be a guide for further applications in reclamation projects of distorted lands.



Future developments

We are looking forward to expand our AMP cultivation. At this moment there is an open call and in the near future we are going to establish 100 more acres of AMP. Among the species that are going to be cultivated will be rosemary, oregano, lavender and tilia.



Melissa officinalis cultivation in the restored fields

Further information

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About INCREDIBLE Project

INCREDIBLE project aims to show how Non-Wood Forest Products (NWFP) can play an important role in supporting sustainable forest management and rural development, by creating networks to share and exchange knowledge and expertise. 'Innovation Networks of Cork, Resins and Edibles in the Mediterranean basin' (INCREDIBLE) promotes cross-sectoral collaboration and innovation to highlight the value and potential of NWFPs in the region.



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