

Portuguese Pine Resin: The Economic and Activity Decline to a New Forestry and Biotechnology Approach

Authors : Carolina Nunes, Sónia Ribeiro, Hélio Faustinho, Hélia Sales, Rita Pontes, João Nunes

Abstract : Pine resin activity in Portugal was one of the most important and major non-wood forestry, representing a strategic natural resource for Portuguese Bioeconomy and an important social activity for rural regions. Pine forests representing a stock of atmospheric carbon, contributing to greenhouse effect mitigation and social and environmental important services returns. They are important sources of numerous useful products, including not only wood and cellulose but also nonwood products used by the chemical, food, and pharmaceutical industries, as well as for biorefineries. Portuguese pine forest area decreases from 1 million hectares to 400 mil hectares in the last 20 years. Portugal, in 80's decade, was one of the world's TOP 3 producers, with a middle annual production of 140 mil tones.year-1. With the pressure of the social desertification, forest fires, phytosanitary problems (e.g. nematode of the pine wood) and the decrease of economic value and competitiveness of the Portuguese forest, the actual middle annual production is less than 10 mil tones.year-1 (lesser 92%). This significant decrease representing an annual economic loss of approximately 130-140 million Euros. year⁻¹ for forest primary sector in Portugal. The Biopinus project design new forestry approach and strategic biotechnologies knowledge to increase the economic value of Pine resin in Portugal, with an impact on the growth of the economic value of Pine resin from 1,1 to 1,5 Euros/kg.

Keywords : pine resin, bioeconomy, economic value, biotechnology

Conference Title : ICCEB 2023 : International Conference on Circular Economy and Bioeconomy

Conference Location : Paris, France

Conference Dates : June 22-23, 2023