

Economic study for production of paulownia trees in Egypt

Abstract:

This paper aims at studying the current situation of woody forests in the world and Egypt, as well as estimating some indicators of economic efficiency of Paulownia production in sandy and clay lands as it is the fastest growing tree that produces wood in the world. The average total area planted with wood trees in Egypt amounted to about 17.26 thousand feddans during the period (2008-2019), where the average value of imports from forest products amounted to about 1.87 billion dollars during the period (2000-2019), while the average value of Egypt's exports of forest products was about \$75.93 million during the same period, which indicates that Egypt in general, is a net importer of wood. By estimating the total margin of paulownia tree in each of the sandy and clay lands for one production cycle of 8 years, it was found that the margin in sandy lands amounted to about 904 LE, the average net return amounted to about 597.6 LE, where the average return on the invested pound was about 0.43 LE, and the total ratio of variable costs to total revenue amount to about 54.8%, while the relative profitability is about 54.5%. As for the clay lands, the total margin of paulownia tree amounted to about 1116.8 LE, with an average net return of about 908.8 LE, while the average return on invested pound was about 0.83 LE, and the ratio of total variable costs to total revenue was about 44.2%, and the relative profitability was about 102.9%. Paulownia tree is used economically and environmentally to a very large extent, as the main wood is used in manufacture of wood panels and veins ready for manufacture of various wooden products, where branches, leaves and flowers are exploited in many products and uses, moreover the tree has a distinct environmental and aesthetic return. The paper recommends the need to expand the safe use of treated sewage water through the expansion of planting tree forests because of their positive effects on the environment as well as the products it provides that contribute to increasing the national income, as well as the need to expand the cultivation of paulownia trees in sandy and clay lands, as it is strongly recommended for use in Egypt to expand the area of planted forests due to its rapid growth and its suitability to the Egyptian conditions of soil, climate and water quality used to irrigate those forests.

Keywords: Economic study, woody trees, paulownia.