

TRANSGENIC TREES WITH HIGHER QUANTITIES OF BIOMASS AND CARBOHYDRATES

Description:

Wood is traditionally among the five most important commercial products due to the high demand for its derived products, such as paper, fibers or building materials. However, the development of biotechnology means the appearance of new applications for this material, including its use as a biofuel. The forestry sector is strongly influenced by the cycles of nature; Trees grow slowly, so the urgency in demand from other sectors does not allow the forest to regenerate at the same rate at which it is consumed, so it is necessary to find new ways to obtain forest products without having to go to the exploitation of native forests. It is because of all the above that, in the present invention, a new form of generation is presented, through genetic engineering, of transgenic trees, specifically poplars, characterized by presenting a greater amount of biomass, higher height and greater photosynthetic activity, which translates into in a higher sugar content than unprocessed trees.

Keywords:

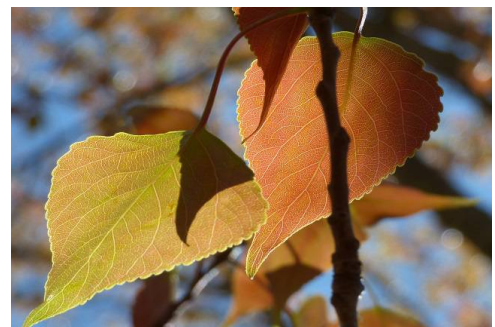
[Transgenic Trees](#), [Biomass](#), [Biofuel](#), [Trees](#)

Sectors:

[Biotechnology](#)

Areas:

[Biotechnology](#), [Environmental and Forestry](#)



Advantages:

Poplar is a fast-growing tree that presents a series of logistical advantages and economic benefits in relation to annual crops. Thus, the flexibility in terms of harvest time allows to reduce storage costs and losses due to material degradation associated with the storage of biomass from crops harvested in annual crops. On the other hand, another advantage of this invention is that it is not a crop of agri-food interest, so its use and applications would not affect that sector. In turn, it should be noted that this production of transgenic poplars would allow a greater biomass production compared to other existing species.

Uses and Applications:

This technology is useful for obtaining trees with a greater amount of biomass and sugars, having its application within the industry dedicated to the use of trees to obtain biomass with two main objectives: the production of wood and paper, as well as the production of biofuels.

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