

CIRAD

**French Agricultural Research Centre for
International Development**

BIOWOOEB

Biomass, Wood, Energy, Bioproducts research unit

**DEVELOPMENT OF INNOVATIVE
ALTERNATIVE CROPS
FOR THE PRODUCTION OF NATURAL
RUBBER**



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Development of guayule (*Parthenium argentatum*) at Cirad, France after the EU-PEARLS project.

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Research activities on guayule started again in France in 2008 with the European project, EU-PEARLS. Guayule research activities have continued in France with implementation of several experimental fields after 2012, in the Languedoc-Roussillon region (LR) near Montpellier and near the town of Perpignan. The aim of the French research on guayule was; (i) to produce sufficient quantities of biomass to develop a latex extraction process; (ii) to study the plant growth and yields based on rubber and resins contents control by ASE and NIRS methods; (iii) to produce enough seeds to extend guayule fields as an innovative crops on abandoned wine lands; (iv) to interest farmers with guayule plantations. An experiment plot, of 0.25 ha with 2000 plants of five former USDA varieties used for the EU-PEARLS project, was planted from May 2014 and 2015 in Lansargues near Montpellier. The mortality, growth of plants and rubber and resin content were monitored for several years. Differences between five selected lines were compared depending on the type of soils, local climate, planting process, irrigation. Cirad and its partners have enough biomass accessible to study the development of a latex extraction process based on a CIRAD/CTTM/SATT international patent in 2018. The paper summarizes our research and development activities on guayule in France.

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