

EUCALYPTUS GLOBULUS



CIRN



CENTRO DE INVESTIGACIÓN
DE **RECURSOS NATURALES**

EUCALYPTUS GLOBULUS SSP GLOBULUS

The National Institute of Agricultural Technology (INTA), through a Technology Partnership Agreement with the company SOPORCEL (Portuguese Cellulose Society), began a Genetic Breeding Program for Eucalyptus globulus ssp globulus (E. globulus) in the mid-90s. This was mainly due to the species' excellent properties for the manufacture of high-quality paper and the unbeatable edaphoclimatic conditions of the southeast Province of Buenos Aires for the plantation of this species.

This program considered the introduction of a broad genetic base that was established between 1995 and 1997, in six provenance and progeny trials, two clonal trials and one subspecies trial. In total, 276 families were evaluated, of which 222 correspond to materials from the entire distribution area of the species in Australia, and 54 families come from Portugal (open-pollinated and full-seed families from SOPORCEL's Genetic Breeding Program), Spain, Chile and Argentina (local selections and commercial material).

In the following years, survival, growth (height and diameter), wood density, health and stem straightness were evaluated. Subsequently, part of the selected population was genotyped and new variables were included, such as basic density, lignin content, extractives, Syringyl/Guaiacyl ratio and pulp yield. As a result of these studies, INTA owns a Seedling Seed Orchard (HSP 330 B), which has been used for the production of certified seeds that are marketed by INTEA S.A. (Agricultural Technology Innovations S.A.) since 2016.

HSP 330 B : this seedling seed orchard (SSO) was registered at the National Institute of Seeds (INASE) in 2004 and it is formed of the genetic selection for growth and basic wood density in a 1:2 ratio. It is made of 1130 genotypes from an original population of 3300 individuals that come from 250 families of 12 Australian origins and 7 provenances (Portugal, Spain, Chile, and Argentina). The estimated genetic gain is 4.5% for diameter and 4.8% for density, in comparison to the commercial materials currently used.

Location: Balcarce, Province of Buenos Aires.

Altitude: 130 meters above sea level

Precipitation: 870 mm/year

SALES

INTEA S.A. produces and commercializes the improved seed of INTA's Genetic Breeding Program in its different products:

- Bulk of pure pelleted seeds
- Bulk of pure seeds
- Bulk of concentrated seeds
- Bulk of seeds with paraphysis



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