



# Book of Abstracts & Program



5<sup>th</sup> International Conference of the IUFRO  
Working Party 2-09.02 Somatic  
embryogenesis and Other Vegetative  
Propagation Technologies



**Clonal Trees in the  
Bioeconomy Age:  
Opportunities and Challenges  
September 10-15, 2018,  
University of Coimbra, Portugal**



## Conservation and vegetative propagation of forest genetic resources from Talares and Monte Blanco ecosystems in Argentina.

Galarco S<sup>1</sup>; Romero Alves M<sup>1</sup>; Boeri P.<sup>3,1</sup> Roussy L.<sup>1</sup>, Adema A.<sup>1</sup>, Villarreal B.<sup>1</sup>, Briones MV<sup>1,5</sup>; Basiglio Cordal MA<sup>1,4</sup>; Cinquetti T.<sup>1</sup>, Ramilo D<sup>1</sup>. and Sharry S.<sup>1,2,3</sup>

<sup>1</sup>Laboratorio de Investigaciones de la Madera. LIMAD-FCAyF-UNLP. CC 31.La Plata (1900) Buenos Aires, Argentina, [sebastiangalarco@gmail.com](mailto:sebastiangalarco@gmail.com). <sup>2</sup>Comisión de Investigaciones Científicas-Buenos Aires (CICPBA), Argentina. <sup>3</sup>UIISA. Unidad Integrada para la Innovación del Sistema Agroalimentario de la Patagonia Norte.Universidad Nacional de Río Negro-Viedma, Río Negro, Argentina. <sup>4</sup>Laboratorio de Cultivo in vitro – CEAMSE. Villa Domínico, Buenos Aires, Argentina. <sup>5</sup>CONICET, Argentina

Deforestation and forest degradation have led to widespread biodiversity and environmental losses in Argentina. The Talares and Monte Blanco forests are a relict vegetation type throughout Northeast of Buenos Aires province. These forests have suffered extensive deforestation and fragmentation. It is demonstrated that there is a low capacity of regeneration of the indigenous species after clearing, given that the growth of other previous species causes water deficit and lack of light. That is why selection and successful propagation of native tree species are important for improving ecological restoration of these forests. At the Facultad de Ciencias Agrarias y Forestales (FCAyF), Universidad Nacional de La Plata (UNLP), we carried out an investigation about the propagation requirements of indigenous tree species from these ecosystems. The purpose of this work is to present new approaches for characterization, propagation, domestication and conservation of native tree species from Buenos Aires Talares and Monte Blanco forests. We adjust system of propagation by seeds, cuttings and/or in vitro morphogenesis in several native trees. Our work in plant vegetative propagation started in 1983 through cutting, grafting, microcutting and micropropagation (organogenesis and somatic embryogenesis). We worked with: *Celtis ehrenbergiana* Gill. ex Planch (Tala), *Scutia buxifolia* Reissek (Coronillo), *Jodina rhombifolia* (Hook. & Arn.) Reissek (Sombra de toro), *Schinus longifolius* (Lindl.) Speg. (Molle), *Erythrina crista galli* L.(Ceibo), *Sesbania punicea* (Cav.) Benth. (Acacia mansa), *Phytolacca tetramera* Hauman (Ombusillo), *Parkinsonia aculeata* L.(Cina-cina), *Salix humboldtiana* Willd. (Sauce criollo), *Citharexylum montevidensis* (Spr.) Mold. (Espina de bañado), *Terminalia australis* Cambess and *Acacia caven* (Molina) Molina. We propagated all of them with different techniques. This native species were recommended as appropriate for propagation and afforestation. We describe evidence of protocols through the major methods being used, developed and applied to propagate and conserve native species. Results showed that *ex situ* strategies and propagation skills conserve unique species. These actions can lead to a greater and positive impact in the conservation of our native woody species.

**Keywords:** woody plants, vegetative propagation, tissue culture, native species,