



**59<sup>th</sup>** Annual  
Symposium of  
the International  
Association for  
Vegetation  
Science

Conservation of  
Plant Communities:  
From Environmental  
Drivers to Ecosystem  
Services  
12–17 June 2016,  
Pirenópolis, Brazil



# Abstracts

**Oliveira M.C.**

Poster presentation

**Establishment of Cerrado native species after direct seeding on abandoned pasture in the Federal District**

Session: Restoration of subtropical and tropical grasslands and savannas

Maria C. Oliveira<sup>1</sup>, Jussara B. Leite<sup>1</sup>, Roberto S. Ogata<sup>3</sup>, José F. Ribeiro<sup>4</sup> & Juaci V. Malaquias<sup>4</sup><sup>1</sup>UnB/FUP; <sup>2</sup>UnB/FUP; <sup>3</sup>Projeto Biomas; <sup>4</sup>Embrapa Cerrados and <sup>5</sup>Embrapa Cerrados  
mcrisoliveira@unb.br

Direct seeding is one of the techniques that have been showing outstanding results for land reclamation with some Cerrado species due to its relatively low cost and good seed germination rate. This study aimed to evaluate seedling establishment for 36 native tree species in two areas of Neossolo Regolítico on abandoned pasture surrounding the gallery forest of the river Lamarão, at the Entre Rios Farm, PAA-DF, Paranoá, Federal District. Establishment was evaluated after two years of the direct seeding on two areas, one in a gently sloping (area 1) and another in a more tilted and eroded (area 2) area. In each area of 5000 m<sup>2</sup> (100x50m), sowing was carried out in small pits (holes of 0.30 cm diameter and 5 cm in depth), with the addition of commercial substrate for nursery seedling production in order to facilitate initial conditions for germination, emergence and survival of the species seedlings. These small pits, spaced at 1 x 1 m, were distributed in 36 lines of about 100m each, parallel to the gallery forest, totaling 2520 pits. Sowing took place in December 2013. In each pit we sowed up to 10 seeds per specie, depending upon the particular species germination rate. In order to understand species characteristics no strategy to break seed dormancy was performed. Seedling emergence was carried out at 120 days and again emergency and establishment at 1 year, 1.5 years and 2 years after sowing. The better seedlings/establishment rates after two years planting in Area 1 were for: *Hymenaea courbaril* L. (76 seedlings/54.28%), *Inga cylindrica* (Vell.) Mart. (43/20.47%), *Copaifera langsdorffii* Desf. (52/24.76%), *Tabebuia aurea* (Silva Manso) Benth. & Hook.f ex S.Moore (71/33.80%), *Eugenia dysenterica* (Mart.) DC. (96/45.71%) and *Stryphnodendron adstringens* (Mart.) Coville (169/24.14%); and for Area 2 for: *H. courbaril* (69/49.28%) and *E. dysenterica* (67/31.90%). Despite the fact that species establishment rate were apparently low, they are highly significant if we consider the low woody species density and natural carrying capacity of the poor and shallow soil conditions of the Neossolo Regolítico.