

Protocol for in-vitro introduction and multiplication of Urochloa

Project Title: P1685 - Product Line 3.2.1: Improved feed & forage germplasm and new tools and technologies for breeding

Description of the innovation: The protocol finds the best photoperiod and light wavelength range treatments to induce flowering in *Brachiaria humidicola*. This is a significant and pioneering advance in the standardization of in-vitro propagation methods for *Urochloa*.

New Innovation: No

Stage of innovation: Stage 1: discovery/proof of concept (PC - end of research phase)

Innovation type: Biophysical Research

Geographic Scope: Global

Number of individual improved lines/varieties: <Not Applicable>

Description of Stage reached: The procedure of disinfection and in-vitro sowing of materials corresponding to the Bh16 group of *Urochloa humidicola* was able to establish plants without high percentages of contamination by fungi/bacteria. Use of sulfuric acid for scarification before sowing was found to generate germination results similar to those obtained in silica sand.

Name of lead organization/entity to take innovation to this stage: CIAT (Alliance) - Alliance of Bioversity and CIAT - Regional Hub (Centro Internacional de Agricultura Tropical)

Names of top five contributing organizations/entities to this stage:

- Papalotla - Semillas Papalotla SA de CV

Milestones:

- 3.3.10 Already available forage hybrids scaled with private sector partner in at least 15 countries on 100,000 additional hectares (calculated based on seed sales). Total area of hybrids scaled will have reached 1,100,000 hectares

Sub-IDs:

- 11 - Adoption of CGIAR materials with enhanced genetic gains

Contributing Centers/PPA partners:

- CIAT (Alliance) - Alliance of Bioversity and CIAT - Regional Hub (Centro Internacional de Agricultura Tropical)

Evidence link:

- <https://hdl.handle.net/10568/111367>

Deliverables associated:

- D10503 - Report on a field trial for identification of a protocol to elicit flowering in *Brachiaria humidicola* with photoperiod management (<https://hdl.handle.net/10568/106853>)

Contributing CRPs/Platforms:

- Livestock - Livestock