



Tropentag, September 18-20, 2019, Kassel

“Filling gaps and removing traps
for sustainable resource management”

Agronomic Evaluation of a Collection of *Chloris gayana* for Year Round Forage Supply in a Dry Sub-Humid Environment in Córdoba, Colombia

SERGIO MEJÍA¹, JOSÉ TAPIA¹, MAURICIO SOTELO², JACOBO ARANGO², MICHAEL PETERS³

¹Colombian Agricultural Research Corporation (AGROSAVIA), Livestock, Colombia

²International Center for Tropical Agriculture (CIAT), Colombia

³International Center for Tropical Agriculture (CIAT), Tropical Forages, Kenya

Abstract

Globally about 3400 Mha are being used for grazing livestock, with the large part natural or naturalized pastures with seasonal forage availability limited by water supply. As a result, livestock production is often inefficient and relying on transhumance to seek feed resources. In Colombia and similar regions of the tropics, large areas are prone to extended drought resulting in seasonal feed scarcity. As part of the solution, the inclusion of improved forages tolerant to abiotic stresses, which enhance feed availability in critical periods and overcome seasonality of livestock production, is required. In this contribution we describe the agronomic evaluation of a collection of 20 *Chloris gayana* accessions from the ILRI genebank in Addis Ababa, Ethiopia. The *Chloris* accessions were compared with three reference controls for the region: *Dichantium aristatum*, *Megathyrsus maximus* cv. Mombasa and *Megathyrsus maximus* cv. Sabanera. The experiment was conducted in the research station of the Colombian Agricultural Research Corporation (AGROSAVIA) in Turipaná in the Córdoba Department of Colombia. Data was collected during 18 months between 2016 and 2017, covering both the wet and the dry season. Parameters evaluated included nutritional quality (e.g. protein content, digestibility, fibre content) and dry matter production. Results are currently being analysed but first insights were obtained already, showing variability in the performance of the *Chloris* accessions evaluated outperforming the controls in at least one parameter. After data analyses will be finished, at least one promising *Chloris* genotype will be identified for further testing and eventual release as cultivar to be utilised in farmers fields.

Keywords: Forage production, forage quality, Latin America, livestock production, sustainable intensification, tropical forages