



Tropentag, September 16-18, 2026, hybrid conference

“Towards multi-functional agro-ecosystems
promoting climate resilient futures”

Reconciling trade and sustainability: The EU-Mercosur trade agreement as a driver for multi-functional agro-ecosystems in South America

ALCIDO ELENOR WANDER¹, PEDRO ARNALDO DE SOUSA E SILVA REIS², FATIMA LORENA DE OLIVEIRA³

¹*Brazilian Agricultural Research Corporation (EMBRAPA), Brazil*

²*National Institute of Agricultural and Veterinary Research (INIAV IP), Portugal*

³*Polytechnic Institute of Coimbra, Higher School of Agriculture of Coimbra (ESAC), Portugal*

Abstract

Agriculture remains central to global land-use change, requiring a delicate balance between productivity and planetary health. In the context of the EU-Mercosur trade agreement, signed in January 2026, this research assesses the opportunities and challenges for transitioning towards climate-resilient agricultural systems in Brazil, Argentina, Paraguay, and Uruguay. As agricultural products constitute 42.7% of Mercosur's exports to the EU, the agreement represents an opportunity to align trade with sustainability standards demanded by European markets and to comply with European regulations. The analysis focuses on sustainable intensification and the capacity to meet stringent European regulations, particularly as the EU Deforestation Regulation (EUDR). Central to this transition are integrated systems, specifically the Integrated Crop-Livestock-Forestry system, and no-till farming, which currently covers 33 million hectares in Brazil. These multi-functional systems enhance soil fertility and water management while diversifying rural incomes and reducing climate risks. Furthermore, the research evaluates the ABC+ plan for low-carbon agriculture as a framework for providing auditable metrics on carbon sequestration and animal welfare. Findings indicate that while integrated systems provide a robust pathway for intensification without frontier expansion and high costs of compliance, and traceability remains. These regulatory burdens risk excluding small-scale producers from sustainable value chains. However, the agreement fosters institutional confidence through harmonised sanitary protocols and digital georeferencing tools. In conclusion, the EU-Mercosur partnership can promote multifunctional landscapes if supported by technological, market and social innovations and inclusive governance. By treating trees, crops, and livestock as interconnected components within the One Health framework, Mercosur countries can safeguard ecosystem functions while ensuring food security and new market opportunities. The success of this initiative depends on the equitable distribution of resources and the effective integration of sustainability data across regions.

Keywords: Integrated crop-livestock-forestry systems, low-carbon agriculture, no-till farming, regulatory compliance, traceability