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"Reconcile land system changes with planetary health"

Potential markets for hybrid forages in Latin America and the Caribbean

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Abstract

By 2050, global demand for animal products is estimated to grow by up to 38%. Faced with this, regions such as Latin America and the Caribbean (LAC) see significant market opportunities for cattle farming, but also additional pressures on their natural resources. Thus, there is a need for more efficient and environmentally sustainable cattle systems. A key element for this purpose is improved forages. In this regard, CIAT, together with its strategic partner Grupo Papalotla, has been developing improved hybrid forage seeds since 2000. This is the case with Urochloa species hybrids, which are present in more than 50 countries due to their resistance to spittlebugs and adaptation to acidic soils and high temperatures. Currently, CIAT's breeding programme continues to develop these materials, and potential markets for LAC have been identified for the development lines of interspecific Urochloa, Megathyrsus maximus, and Urochloa humidicola. The objective of this study is to quantify these three markets. The first methodological step was to determine the number of hectares (ha) of forage species according to national agricultural censuses or surveys and geographic profiling studies. Subsequently, we identified which of these species could be replaced by the hybrid seed lines under development, thus arriving at an estimate of ha. Finally, we valued them at market prices, which were calculated as a geometric average of the prices of similar materials present in the markets. The results indicate that the interspecific Urochloa hybrid would have a potential area of 5,959,910 ha and a market value of US\$2,307,026,366. Brazil, Colombia, and Venezuela would have a market share of 88.73 %. For the U. humidicola hybrid, the potential area would be 4,606,710 ha and the market value of US\$986,994,048. Colombia, Venezuela, Mexico, and Brazil would have a $93.23\,\%$ market share. M. maximus would have a potential area of $2,509,847\,\mathrm{ha}$ and a market value of US\$1,307,235,149. Brazil, Colombia, and Mexico would have a market share of 84.86 %. Thus, potential hybrids have the capacity to drive sustainable development in the cattle sector. However, a seed market is required that provides producers with competitive access to these new technologies.

Keywords: Hybrid forage seeds, market share, market value, seed market, sustainability