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ICTs in Agriculture: State of the Art Tools for Broader Access to Tropical Forage Knowledge

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Abstract

The development of information technologies and internet connectivity strongly increased access to scientific knowledge. However, this also comes along with e.g. quality issues, affordability (restricted access to publications, download payments) and increasing numbers of “predatory” publishers. To provide stakeholders with high-quality tropical forage knowledge, various research institutes (CSIRO, QDPIF, CIAT, ILRI), with funds from ACIAR, BMZ/GIZ, DFID and CATAS, developed two tools: 1) Tropical Grasslands-Forrajes Tropicales (TGFT), a bilingual peer-reviewed open-access journal, indexed in the most recognised databases/journal directories (www.tropicalgrasslands.info). Since its inception in 2013, TGFT has shown sustained growth, reaching in 2019 >228,000 visits, and >492,000 abstract and >696,000 PDF eBook downloads, respectively. Its main metrics are JCR Impact Factor (0.441), CiteScore (0.80), Journal Rank (0.28) and i10-index (38). It is a RoMEO Green Journal with Gold Open Access status. TGFT provides access to all papers published in the former journals Tropical Grasslands (1967–2010) and Pasturas Tropicales (1979–2007). 2) Tropical Forages, a tool for selecting forage species for local conditions, launched in 2005 (www.tropicalforages.info). It is among the most widely used (250–480k annual visits) and cited (450 citations) tropical forages databases and provides information on >170 forage species with potential for use in animal production, identified and characterised by leading tropical forages researchers, including e.g. information on morphology, agronomic management, nutritional value, productive potential or promising accessions. A set of 17 variables allows users filtering through the species and refining a shortlist for their specific local conditions. Seed samples can be requested from the linked CGIAR genebanks. It is a valuable information source for e.g. researchers, extension services or farmers seeking to improve animal productivity and sustainability, which is evidenced by constantly increasing pages visits (2018–2019: from 798k to 1,414k). Both tools have promising outlooks: TGFT’s goal is to become a global benchmark in forage research, supporting the publication of results from the global tropics by following rigorous scientific standards. Tropical Forages is in the process of finalizing its first major update and will be relaunched in 2020, with content updates and notable technical improvements, such as a revamped interface responsive to multiple devices, a mobile application and automatic translation.

Keywords: Digital tools, forage database, ITCs, open access, scientific publications, tropical forages

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