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

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Context
» Access to scientific knowledge has greatly increased with the development of information & communication technologies (ICT) and internet connectivity.
» Bottlenecks exist, e.g. quality issues, affordability (e.g. restricted access to publications or download payments), or an increasing number of “predatory” publishers.
» To provide high-quality tropical forage knowledge to a wide group of stakeholders, CSIRO, QDPIF, CIAT & ILRI developed two important information tools:
1) Tropical Grasslands-Forrajes Tropicales (TGFT), a journal that contains >30 years of scientific publications (Figure 1);
2) Tropical Forages, an interactive tool for selecting optimal forage species for local conditions (Figure 2).

Characteristics
Tropical Grasslands-Forrajes Tropicales
» International online journal, open access (no subscription or publication fees), bilingual (English and Spanish), peer reviewed and guided by a 23-member Editorial Board.
» Publishes papers reviewed by the world’s leading tropical forage scientists and is indexed in the most recognized databases and journal directories.

Tropical Forages Selection Tool
» Detailed information on 172 forage species with potential for use in animal production - characterized by leading tropical forages researchers.
» Information includes e.g. morphology, distribution, application, edaphoclimatic conditions, agronomic management, nutritional value, productive potential, promising accessions.
» A set of 19 variables allows users to filter through the species to refine a shortlist for their specific local conditions.
» Priceless information source for researchers, extension services or farmers seeking to improve animal productivity and sustainability.

Usage and impact
Tropical Grasslands-Forrajes Tropicales
» Sustained growth since inception (2014), reaching more than 228,000 visits in 2019 alone. Main metrics (2019):
JCR Impact Factor: 0.7
Scopus CiteScore: 1.4
SCImago Journal Rank: 0.37
i10-index: 43
RoMEO Green Journal (Gold Open Access status).
» TGFT has published 297 papers (including 119 contributions to the International Grassland Congress 2013 and 60 contributions to the International Leucaena Conference 2018.

Tropical Forages Selection Tool
» Launched in 2005 and updated in 2020: Among the most widely used (350,000 annual visits) and cited (450 citations in scientific publications) tropical forages databases.
» Users can request seed samples for trials from the linked CGIAR genebanks. Forage seeds in small experimental quantities mostly free of charge.

Access
TGFT: www.tropicalgrasslands.info
Tropicalforages: www.tropicalforages.info

Outlook
» 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.
» By constantly improving its metrics and reputation, the journal aims to lead to a global information exchange platform and to facilitate tropical forages networking with subsequent benefits for R&D.
» Tropical Forages had a comprehensive update and was relaunched in 2020: Redesign, revision and addition of factsheets, update of the photo library and recalibration of the selection tool.
» A key feature of the new edition is an update of the underlying technology platform to enable its distribution on mobile devices and the web without additional software.