Preliminary work for the development of an educational web platform for 3-pillar sustainability assessment in European dairy cattle production systems

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Abstract

Sustainability assessment involving all pillars (environmental, economic and social) and sustainability improvement are extremely timely but also complex for all livestock production systems and dairy cattle systems in particular. The objective of this paper is to present the approach that is followed for developing a web platform for sustainability assessment and improvement in dairy cattle systems. As a first step, 8 agricultural platforms, 7 agricultural applications, 8 dairy content platforms, and 1 sustainability assessment tool were selected for evaluation since they contain educational material with various methods and functions. These were evaluated based on three criteria: a) dissemination and educational methods used; b) provision of information regarding environmental, economic and social sustainability, and functions (e.g. environmental and economic indicators' estimation); c) provision of information about their social and economic characteristics. The findings suggest that graphical representations, audiovisuals, case studies, updated and well-informed databases, scientific-based information, and environmental, economic, and social information are major characteristics of an educational, agricultural platform. The results of this evaluation and an innovative approach for sustainability assessment in several dairy cattle farm typologies in Europe (i.e. LCA and multicriteria assessment, sustainability indicators' weighting, greenhouse gas and ammonia mitigation strategies) are combined for the development of the platform. Although farmer-centric, the scope of the platform is educational for all stakeholders interested in dairy cattle systems, by providing relevant, well-organized information to the user.