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Geodecision system for traceability and sustainable production of beef cattle in Brazil

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Beef cattle production sustainability depends on incorporating innovative tools and technologies which are easy to comprehend, economically viable, and spatially explicit into the registration of precise, reliable data about production practices. This research developed from the needs and demands of food safety and food quality in extensive beef cattle production within the scope of the policies of Southern Cone and European Union's countries. Initially, the OTAG project (Operational Management and Geodecisional Prototype to Track and Trace Agricultural Production) focused on the development of a prototype traceability of cattle. The aim for the project's next phase is to enhance the electronic devices used in the identification and positioning of the animals, and the incorporation of more management and sanitary information. Besides, we intend to structure a database that enables the inclusion of greater amount of geospatial information linked to environmental aspects, such as water deficit, vegetation vigour, degradation indices of pasture areas, among others. For the extraction of knowledge, and the presentation of the results, we propose the development of a friendly interface to facilitate the exploration of the textual, tabular and geospatial information useful for the user.