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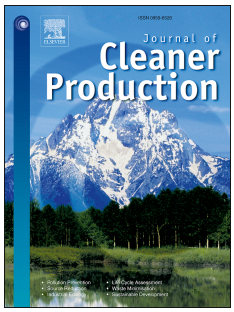

Life cycle assessment of pigmeat production: Portuguese case study and proposal of improvement options

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Life cycle assessment of pigmeat production: Portuguese case study and proposal of improvement options

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Abstract

The aim of this study was to provide a detailed environmental evaluation of pigmeat production (the second most widely eaten type of meat) in Portugal, using relevant and good quality data in order to obtain representative results for this production sector.

Life cycle assessment (LCA) methodology was used for the evaluations from a cradle-to-slaughterhouse gate perspective. The system under study was divided in three subsystems: crop and feed producion (S1), pigmeat production (S2) and slaughtering (S3). The production system under study considered the Best Available Techniques (BATs) for intensive rearing of pigs.

According to the results and in line with other studies, S1 was the most influential subsystem in the environmental profile (ranging from 70% to 100% depending on the impact) mainly due to agricultural activities involved in the production of feed components. Activities carried out on the pig farms (S2) were remarkable in categories such as climate change due to background processes involved in the production of electricity requirements, e.g. emissions derived from