

15. Environmental and socioeconomic references of French conventional pig systems

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This study aims to produce multicriteria environmental references (using Life Cycle Assessment, LCA) associated with socioeconomic indicators for different types of pig units representative of the dominant French standard production systems. Eight systems are assessed, discriminated according to the size, the degree of specialisation and the location of the pig unit, the slurry management and the pig feeding strategy. The results are expressed per kilogram live pig produced and the LCA boundaries include the production and the supply of inputs, the production of buildings, the pig breeding and the management of slurry. The references bring a socioeconomic and environmental photography of the performance of the existing pig production systems and their variability between and within systems. The environmental results allow identification of the most strategic and easily attainable options of improvement. The effect of different improvement strategies are indentified in connection with feed formulation, improvement of animal performance, and the implementation of the recommended good environmental practices. The socioeconomic indicators of the systems show the various levels of access to the control levers of action.

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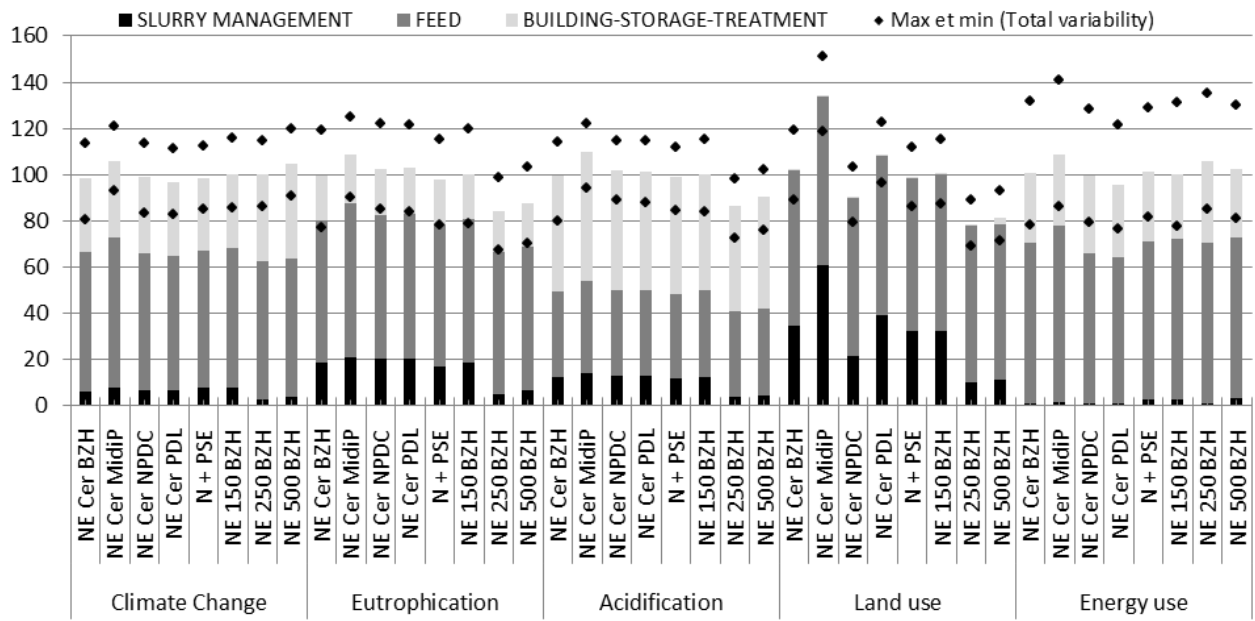


Figure 1. LCA Impacts of different types of pig units and variability (results in% of the pig unit NE 150 BZH).

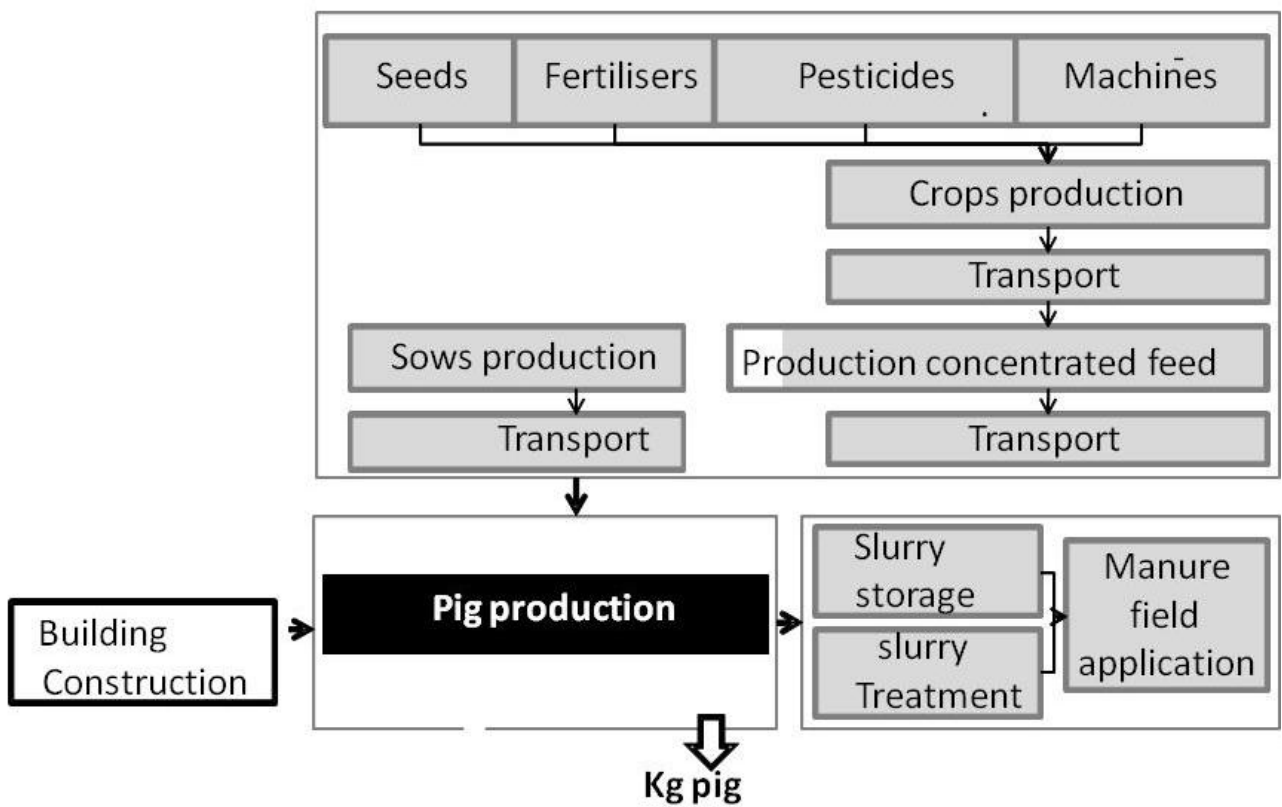


Figure 2. Flow diagram for LCA pig production.