

Batfarm software enables livestock farmers to assess the environmental impact of their farms

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Batfarm software will enable livestock farmers to assess the environmental impact of their farms. Credit: Neiker

The livestock sector now has a piece of software enabling farmers to

make an accurate environmental assessment of their farms. Known as Batfarm, it has been developed jointly by the Basque Institute for Agricultural Research and Development NEIKER-Tecnalia, INTIA, IRSTEA, TEAGASC, the Higher Institute of Agronomy of Portugal, and Glasgow Caledonian University. Batfarm has been led by Dr Pilar Merino, a NEIKER-Tecnalia researcher.

The software simulates a range of strategies designed to mitigate pollution on livestock farms raising pigs, chickens for eggs and meat, and dairy cows. The tool compares different scenarios on each farm and thus helps to select the most suitable environmental strategy in each case. The software covers all the phases in the production system—animal housing, storage, treatment and field application of manures and slurries.

The most important strategies in [livestock management](#) are considered in the Batfarm software. They feature nutrition strategies (adjusting protein and phosphorus, feeding in phases), the design of housing (types of housing, flooring and deep ditch), and the management of manure and slurry storage (emptying system, type of cover, additives). Upgrading treatments (drying, separating of solids from liquids, aerobic treatment, methanization, composting), systems for field application (injection, incorporation) and other good practices specified by users.

The main calculations made by the computing tool are feed, water and energy consumption; animal production (live weight, eggs, meat, milk); ammonia, nitrous oxide and methane emissions; the production and composition of manures and slurries; and the nutrients applied to the soil (pastures or agricultural soils). These measurements offer the possibility of comparing different situations.

To make these calculations, Batfarm uses default and regionalised values relating to zootechnical and climate data and emission factors. The computing programme is geared towards standard and advanced users.

The latter can modify the values used by the software.

The Batfarm application can be downloaded free of charge from <http://www.intiasa.es/es/batfarm-software>. All the manuals and tutorials are available with the download.

Provided by Elhuyar Fundazioa

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