

## Case study: Devenish Nutrition & the Queen's University Belfast

Devenish Nutrition is a multinational livestock nutrition company providing a range of specialty products and innovative solutions. Devenish Nutrition has a manufacturing capacity across three production sites, which sell and deliver to over 40 countries worldwide.

Queen's University Belfast is a world-class education and student experience institution. Situated in Belfast, it is the United Kingdom's ninth oldest university, while their alumni list comprises of Nobel Prize winners, such as Seamus Heaney and David Trimble.

Queen's University Belfast and Devenish Nutrition teamed up to upscale their research in porcine circovirus 2 (PCV-2), which is a very damaging virus for the pig-producing industry distributed worldwide and has been identified as the essential infectious cause for the associated post-weaning multisystemic wasting syndrome (PMWS) and porcine circovirus associated diseases (PCVADs).

The task of assessing the impact that PMWS/PCVADs and PCV-2 vaccine use has on the environmental effects of pig production was commissioned to SAC Consultancy.

SAC Consultancy employed the power and efficiency of Agrecalc to calculate critical environmental indicators, such as the greenhouse gases (GHGs). Plus, an additional tailor-made module was made available to assess the ammonia emissions

Agrecalc proved to be easy-to-use and accurately calculated that the trial with disease-free animals (No Disease) had the lowest carbon emissions per unit of output with the PWMS affected trials found to have emissions between 2% (Sub-Clinical) and 10% (Clinical) higher on a liveweight basis.

Next, Agrecalc was set to include ammonia into the impact assessment, with results revealing even lower absolute and relative emissions on a unit of output basis for the trial containing the disease-free animals (No Disease) trial with the PWMS/PCVAD-affected trials having emissions between 13% (Sub Clinical) and 25% (Clinical) higher on a liveweight basis.

Agrecalc produced meaningful research results that were driven by animals' greater feed conversion efficiency (FCR) due to higher daily liveweight gain (DLWG) and lower mortality.

You can access the full report [here](#)