RUMIMETA: Decrease in the methane footprint by inclusion of wine-making polyphenols in ruminant feed. Monitoring of its effect on the welfare of animals during calf fattening.

Researchers:

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Idioma Inglês

Descrição:

The general objective of the project is to determine the effects produced in ruminant animals, both in terms of their influence on the methane footprint, and in the repercussions on meat quality, animal welfare and production costs, due to the incorporation of polyphenols in their diets.

The RUMIMETA project focuses on the consideration that animal production is an important source of greenhouse gas (GHG) emissions throughout the world. Depending on the approach used for the quantification and the type of emissions studied, different institutions (IPCC, FAO, EPA and others) have calculated that the contribution of livestock to global emissions of anthropogenic GHGs represent between 7 and 18 percent of the total emissions.

From these works it has been possible to evaluate the potential of practices related to nutrition, the generation of manure and animal husbandry in the reduction of methane and nitrous oxide, that is, in GHG emissions other than carbon dioxide, in animal production.

These practices were classified into enteric CH4 mitigation practices, manure management and animal husbandry. Emphasis was placed on the mitigation practices of enteric CH4 of ruminants and on manure mitigation practices of both ruminant and mono-gastric species. A literature review has been carried out, focused on the search for studies that use methods of life cycle analysis and simulations. The evaluation of mitigation practices is fundamental for the use of adequate units in a way that accurately reflects the potential impact of the quality and composition of the diet. In this way, these parameters show more precisely the effect of a certain mitigation practice on food consumption and animal production efficiency.

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There is a growing concern regarding animal welfare in the production systems. The possible repercussions on the welfare of the animals of any change introduced in a production model (management, food, sanitary, etc.,) must be evaluated, always taking as reference the current management system. In this way, the activity proposed in this work focuses attention on precision Precision Livestock Farming (PLF) as a tool to research and evaluate, through the application of ICT, the welfare of animals with minimal or no interference in their vital space.

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