Use of the npv, irr and bcr in the ex-post financial evaluation of a vaccination program against foot and mouth disease during the period 2000-2006 in Venezuela

Márquez, C.¹ and Castro, J.², ¹School of Veterinary Sciences, Central University of Venezuela, Socioeconomics, Venezuela, ²Former Chief of the Division of Animal Control of SASA (INSAI), Health Animal, Venezuela; marquezcl2003@hotmail.com

The economy is increasingly present in all facets of the fight against animal diseases and in all areas of society. The economic and financial analysis can improve the quality of decisions on the allocation of funds to animal health control programs. The objective of this research was to financially evaluate (ex-post), the eradication program of foot-and-mouth disease (FMD) in the municipality of Bolivar, the state of Yaracuy, Venezuela, during the period 2000 to 2006. The methodology used was the Cost-Benefit Analysis (CBA), which is often used to evaluate and compare these programs ex-ante. The results of this CBA include a set of criteria such as the Net Present Value (NPV), the Internal Rate of Return (IRR), and the Benefit-Cost Ratio (BCR), all of which are components of the evaluation of investments. To undertake this investigation, the program costs for the producers and the state, as well as the losses caused by the FMD were estimated. A total of 40 production units engaged in the operation of producing cattle, which were affected by the disease during the year 2003, were surveyed. The NPV, IRR and BCR indicators for the eradication program of FMD in the study area during the period in question, produced the following results: NPV: 147,856 (Bs.F), IRR: 74% and BCR: 1.27. The results of the present investigation indicate that the vaccination program used was profitable during the period studied.