

A qualitative assessment of alternative eradication strategies for African swine fever in the Dominican Republic

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Abstract

Since the first outbreak was identified in July 2021, the African swine fever (ASF) epidemic in pigs in the Dominican Republic (DR) has generated much discourse on various measures for its control. Strategies range from complete depopulation of the swine population, as was done in 1978, to a system of passive surveillance with endemicity, with many in-between. Currently, ASF-decision makers need an evaluation of these potential strategies that incorporates both private and public perspectives. To achieve this goal, we used strengths, weaknesses, opportunities, and threats (SWOT) analysis to evaluate three different theoretical ASF control scenarios with the aim of contributing to the discussion of different alternatives to mitigate the epidemic's impact. These included total depopulation of all pigs in the DR, partial depopulation, and continuation of current control measures. Relevant experts from the DR private swine industry sector were identified through "snowball sampling" techniques. First, relevant stakeholders within the DR private swine industry were asked to identify individuals that they would consider experts for ASF in the DR. Experts identified through this process were contacted to participate. Of these, 5 experts completed the SWOT questionnaire for each of the scenarios, with additional questions considering aspects of financial cost, social impact, feasibility, animal welfare, and regional policy. The responses were summarized for an overall evaluation of each scenario and presented to the full group of experts initially nominated for final review and later to representatives of the DR government for feedback. The SWOT analysis highlighted that although there are certain benefits associated with each of the proposed strategies, there are also important drawbacks and disadvantages for all. This may explain in part why 6 months after the epidemic was first reported, there are still uncertainty about the most effective control strategy to be implemented. This analysis is a tool for discussions at the private-public interface and facilitate cooperation between the DR government and swine industry. Ultimately, this work supports the development of strategies that will reduce ASF burden in the DR in a way suitable for all relevant stakeholders.

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