



NATIONAL BIOSECURITY PLAN FOR THE SWINE VALUE CHAIN IN THE DOMINICAN REPUBLIC: Modernization and resilience

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1 Introduction

In June 2021, the Dominican Republic reported the re-entry of African Swine Fever (ASF) after 40 years of its eradication into its territory, causing economic losses estimated at about US\$46 million, represented by animal deaths, sanitary slaughter, animal compensation, capacity building for the diagnosis of the disease and risk communication. Currently, and despite the great efforts made by the Ministry of Agriculture, the General Directorate of Livestock and the technical support of institutions such as FAO, APHIS/USDA, OIRSA and IICA, the disease is considered endemic in all of the Island of Hispaniola with the risk of propagating to the rest of the American continent.

The National Biosecurity Program (BNP) was born from the need to reinforce and improve biosecurity conditions in swine farms in the Dominican Republic and modernize the productive structure of the value chain, reducing the prevalence of ASF in the country and mitigating the risk of dissemination. It currently covers about 82% of the country's pork production with more than 600 registered commercial farms.

2 Methods/Approach

The methodology applied in the swine biosecurity program includes epidemiological analysis to select and prioritize the intervention areas, viral circulation sampling to validate the non-presence of the ASF virus in the intervened farms, training, application of the biosecurity checklist in commercial and non-technical farms, through which 17 criteria and 75 variables are evaluated (See Figure 2). The properties must meet a minimum score of 175 points (70%) and 100% compliance with the "Non-Negotiable" criteria as requirements to achieve certification as a Biosecure Property. (see illustration 1).

The collection of information is carried out from field visits by veterinarians, who apply the biosafety Checklist through which a quantitative measurement is established, a descriptive report is prepared and finally an improvement plan is established. Farms that meet the minimum requirements receive a Biosecure Farm certificate granted in conjunction with the country's Ministry of Agriculture.

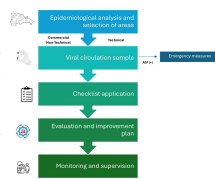


Illustration 1. Biosecurity Program Execution Model



Illustration 2. Evaluation criteria Swine Biosecurity Program

3 Results (Graphs, Tables, Figures)

Currently, the National Biosecurity Program (PNB) of the Dominican Republic has 609 farms registered; 582 biosecurity evaluations have been carried out, the results of which have improved criteria with greater vulnerability, such as the construction of perimeter fences, the establishment of parking areas outside the perimeter fence, the prohibition of the entry of vehicles outside the farm, the use of equipment and boots for the exclusive use of farm employees and visitors.

The control of the entry of genetic material, the implementation of cleaning, washing and disinfection protocols, and the implementation and monitoring of sanitary and biosafety procedure manuals, among other

aspects. The farms enrolled in the PNB Program have improved and raised their biosecurity conditions by 35% compared to January 2024, which has allowed 4 farms to be certified as Biosecure Farms and another 20 farms are close to their certification.



Illustration 3. Veterinarian with producer in evaluation process.

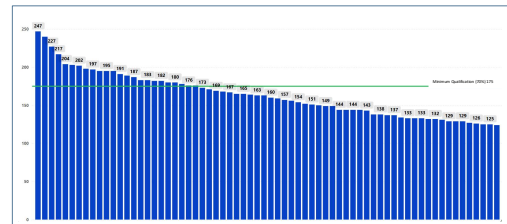


Illustration 4. Results of biosecurity evaluations: Farms with scores close to biosecurity certification

As a result of this process, biosecurity conditions and the management of risk factors have been improved, which has made it possible to demonstrate the absence of ASF outbreaks in the registered farms despite the fact that the disease is actively circulating (See Figure 5).

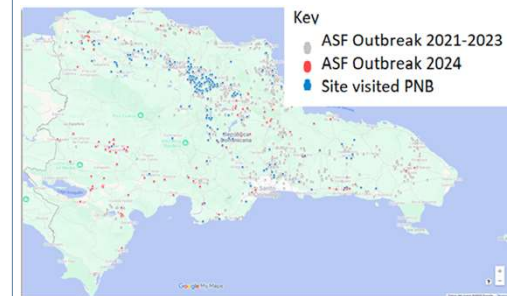


Illustration 5. Outbreaks of ASF vs. visited farms BNP. The farms that are part of the BNP have remained free of ASF.

4 Conclusion

- 82% of the technified swine farming in the Dominican Republic is part of the BNP.
- In October 2024, the Ministry of Agriculture certified the first 4 technified properties as Biosecure Properties.
- There have been no positive cases of ASF in the properties that are part of the BNP.
- The establishment of hygiene and disinfection protocols in each area of the production system has been implemented and improved in 36% of the farms that are part of the BNP.
- The use and installation of bird netting to prevent the entry of birds has been improved and implemented in 48% of the farms.
- There is a greater awareness of producers, public and private veterinarians regarding biosecurity as a key element for the prevention and control of ASF.
- Biosecurity is the best tool to protect swine farming in the Dominican Republic.

5 References & Acknowledgements

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