

Enhancing U.S. poultry preparedness and response against endemic and foreign diseases with rapid access to biosecurity plans: An introduction to RABapp™ poultry

Jason A. Galvis , Rocio Crespo, Gustavo Machado

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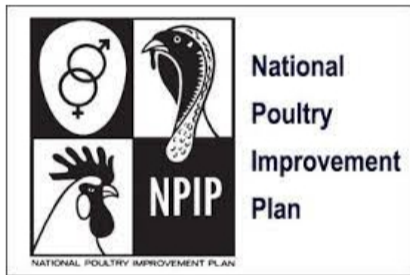
College of Veterinary Medicine

Lab website: <https://machado-lab.github.io>

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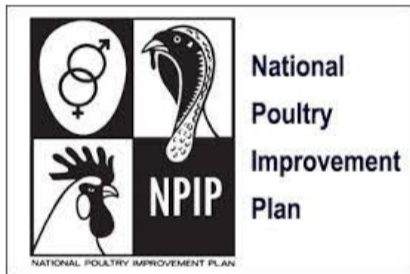
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4. Conclusion

Background



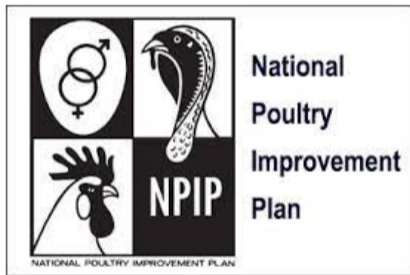
1. Participation is voluntary - highly recommended.

[1] VS Guidance 8603.2.



1. Participation is voluntary - highly recommended.
2. Guideline for enhancing biosecurity to improve preparedness.

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1. Participation is voluntary - highly recommended.
2. Guideline for enhancing biosecurity to improve preparedness.
3. Payment of indemnity of poultry and eggs, and cleaning and disinfection costs [1].

[1] VS Guidance 8603.2.

1. Develop a protocol for cataloging, reviewing, and approving biosecurity plans electronically.
 - As of today, no electronic system exists for easily processing biosecurity plans so that final approval is expedited for stakeholders.
2. Understand the **strengths** and **weaknesses** of **biosecurity measures** is necessary to prevent the introduction and spread of diseases.
 - **Absence large-scale database to compare benchmark biosecurity with the occurrence of diseases**

Objective

In the short term

1. Digitize the biosecurity written plans and farm maps.

In the short term

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2. Develop a tool for biosecurity plan review and approval.

In the long term

1. Track movements of birds, eggs, and vehicles between farms to support movement permit decisions.

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1. Track movements of birds, eggs, and vehicles between farms to support movement permit decisions.
2. Develop decision support tools for disease surveillance and response.

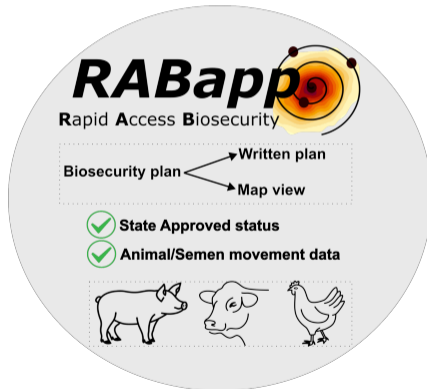
What is RABapp™

Rapid Access Biosecurity (RAB) app (RABapp™) consortium members

- Poultry industry
- Government officials
- Academic scholars

RABapp™

- Web-based tool
- Enhance on-farm biosecurity preparedness and contact tracing across the U.S. swine, cattle, and poultry industry
- Available 24/7



What makes a biosecurity plan within RABapp™?

Each biosecurity plan includes:

- A written description including the 14 principles available in the NPIP.
- A areal map of the premises.

Written plan

<input type="checkbox"/> YES <input type="checkbox"/> NI <input type="checkbox"/> NO	1. Biosecurity responsibility 1.1. Is there a Biosecurity Coordinator? If so, please provide their name.
<input type="checkbox"/> YES <input type="checkbox"/> NI <input type="checkbox"/> NO	1.2. Is there a site-specific biosecurity plan? (1.2.1. Site-specific biosecurity plans can be defined as either farm-specific or complex-wide specific. Supporting documentation that is requested should reflect farm-specific or complex-wide specific as appropriate. <i>Note: perimeter buffer zones are location specific either by each barn or the complex. Guidelines for lines of separation may need to be individualized for each location also.</i>)
<input type="checkbox"/> YES <input type="checkbox"/> NI <input type="checkbox"/> NO	1.3. Is the Biosecurity Coordinator knowledgeable in the principles of biosecurity? 1.3.1. The Biosecurity Coordinator must be able to describe and interpret their company's biosecurity program and how it meets the requirements of the NPIP biosecurity principles.
<input type="checkbox"/> YES <input type="checkbox"/> NI <input type="checkbox"/> NO	1.4. Does the Biosecurity Coordinator review the biosecurity plan at least once during each calendar year and make revisions as necessary? (1.4.1. The Biosecurity Coordinator must be able to provide recorded dates in which annual reviews were made and evidence of revisions to the biosecurity plan if any were necessary.)
<input type="checkbox"/> YES <input type="checkbox"/> NI <input type="checkbox"/> NO	1.5. Does the biosecurity plan indicate there will be a review by the Biosecurity Coordinator in periods of heightened risk of disease transmission? (1.5.1. Documentation of compliance, including evidence of a discussion during periods of heightened risk can take any form (e.g., emails, letters, memos, phone logs, text messages, etc.). It is the responsibility of the Biosecurity Coordinator to clearly define and communicate the "period of heightened risk" in the biosecurity plan.)

Map view of the site



Standardized map view

RABapp™ has tools for producers

- Protect data - two-factor authentication

▶ [Watch Video](#)

RABapp™ has tools for producers

- Protect data - two-factor authentication

▶ Watch Video

- View premises in a map along with biosecurity statuses

▶ Watch Video

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- Protect data - two-factor authentication

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- View premises in a map along with biosecurity statuses

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- Adding control zones

▶ Watch Video

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- Protect data - two-factor authentication

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- View premises in a map along with biosecurity statuses

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- Adding control zones

▶ Watch Video

- Adding new biosecurity plans

▶ Watch Video

RABapp™ has tools for producers

- Protect data - two-factor authentication
- View premises in a map along with biosecurity statuses

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- Adding control zones

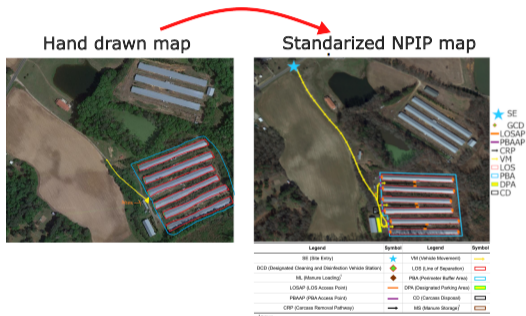
▶ Watch Video

- Adding new biosecurity plans

▶ Watch Video

- Building standardized farm maps

▶ Watch Video



Standardized Farm Maps

- Approving biosecurity plans

▶ Watch Video

RABapp™ has tools for Official State Agents or OSA's

- Approving biosecurity plans
 - ▶ Watch Video
- Reviewing and tracking changes to biosecurity plans

Reply - Question 1.1

Question: Is there a Biosecurity Coordinator? If so, please provide their name
Coordinator → Supervisor Name

HC You Mon, 9:12AM

Replied as
Jane

S State Tue, 4:51PM

Replied as
⊘ Rejected

Justification
The name is not correct.

HC You Wed, 9:26AM

Replied as
Jane Doe

Justification
Update.

Delete Edit

⊘ Awaiting response from the state.

Close

- Approving biosecurity plans

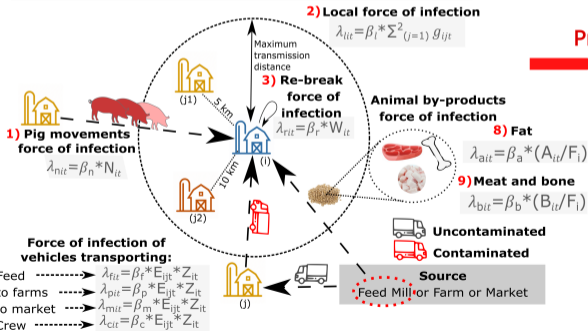
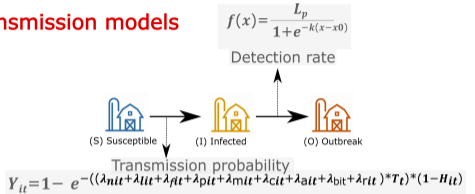
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- Reviewing and tracking changes to biosecurity plans

- Analyzing movement data (Reports)

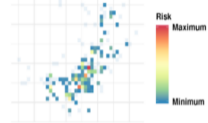
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Transmission models



Provide

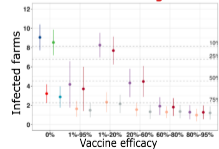
Risk of disease introduction



Identify the most relevant transmission routes



Assess the most effective control strategies



Conclusion

1. Add premises, add biosecurity plans, add premises map.

RABapp™ poultry allows users to

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2. Review and approve farms' biosecurity plan.

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3. Monitor farms in real-time through updated and standardized biosecurity data.

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1. Add premises, add biosecurity plans, add premises map.
2. Review and approve farms' biosecurity plan.
3. Monitor farms in real-time through updated and standardized biosecurity data.
4. Provide data and tools to strengthen surveillance.



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Acknowledgement RABapp™ team



Research Scholar
Jason A. Galvis, Ph.D.



Postdoctoral researcher
Aniruddha Deka, Ph.D.



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Kelsey Mills, M.S.



Ph.D. student
Felipe Sanchez



Research Scholar
Nicolas Cardenas, Ph.D.



Postdoctoral researcher
Chunlin Yi, Ph.D.



Gustavo Machado,
Ph.D.



Ph.D. student
Abagael Sykes



Ph.D. student
Faith Kennedy



Denilson Ebling



Ph.D. student
Maryam Safari



Ph.D. student
Christian Fleming



Webb Hilton
Programmer I



Jayraj Mulani
Programmer I



Yash Bhansali
Programmer I



M.S. student
Javed Hossain



If your farm has a biosecurity plan that needs to be renewed and approved, consider joining RABapp™.

Access RABapp™:

- <https://rabapp.org/>

Contact the RABapp™ team at

- Email: machado-lab@ncsu.edu
- Phone: (919) 513-0781



Thank you!

Contact:

Joardila@ncsu.edu

machado-lab@ncsu.edu