Using Tabletop Exercises for Proactive HPAI Outbreak Preparedness: Focusing on Permitting and Response

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Controlling an HPAI outbreak requires a multi-partner response effort with each partner filling a unique role –

Objective of Tabletop Exercises

Enact an outbreak to provide a framework for participants to practice permitted movement and outbreak response.
Methods & Development of Tabletop Exercises

Individualized HPAI outbreak scripts written by a subject matter expert in consultation with meeting organizers.

- Premises types and descriptions
- Outbreak communication strategies
- Other points of emphasis identified for each workshop

Aim to convene the multiple partners in response (poultry industry, state and federal regulatory officials, and diagnosticians).

Role assignments (e.g., fictional premises, moderator) of workshop participants.
‘Role-Playing’ of Outbreak Responsibility

**Premises A – Type of Poultry Premises**
**County**
**Premises ID**
*Product Movement and Destination Premises*

- House # - # of birds, age of birds
- House # - # of birds, age of birds
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State Agency: Ex – HPAI has been confirmed in the state at the National Veterinary Services Laboratory. The birds are in the process of being depopulated. There are not other positive cases.

Poultry Industry: Ex – All houses on the Infected Premises tested positive for HPAI. The first affected barn had increased mortality. A foamer was dispatched. Complete depopulation is expected by the end of the day.
### Examples of Webinar Topics

- Risks of early marketing
- Slow moving infection in pullets
- Antigen capture detection benefits
- Depopulation and disposal

- Self-quarantine
- Status designations
- AI virus subtype

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#### Protocol w/1 initially infected bird

<table>
<thead>
<tr>
<th>Days post Exposure</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily 1 pool 11 swabs rRT-PCR</td>
<td>0.13</td>
<td>0.39</td>
<td>0.77</td>
<td>0.95</td>
<td>0.99</td>
</tr>
<tr>
<td>Daily rRT-PCR 11 swabs + 2 pools 5 swabs AC prior to movement</td>
<td>0.22</td>
<td>0.59</td>
<td>0.89</td>
<td>0.98</td>
<td>1.00</td>
</tr>
</tbody>
</table>

#### Days post Exposure

-4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9

#### Daily mortality in infected pullet houses

- Mortality threshold

Flock 1

Flock 2

- Daily mortality per 10,000 birds

Days relative to detection day

-4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9

- Daily mortality in infected pullet houses

- Protocol w/1 initially infected bird
Difficulties encountered during a real outbreak, such as chaos, partial information, and limited resources, are conveyed...
Permitted Movement
SECURE POULTRY SUPPLY PLANS

Science- and risk- based continuity of business recommendations for emergency decision makers in an HPAI outbreak.

- Uninfected premises in a Control Area.

Risk Assessments ➔ Permit Guidances
To obtain a movement permit during workshop -

I.) Meet the permit guidance criteria for that product.

During exercise:

- **PM IP Biosecurity**
  - **Day 1**
  - **Day 2**

- **MP Qx**
  - 24 hours

- **PMIP** (meat birds)
  - Monitored Premises
  - Pre-Movement Testing
  - Complete Permit Guidance
  - Permit Guidance
    - 1.
    - 2.
    - 3.
    - 4.
    - 5.
    - 6.
    - 7.
    - 8.
    - 9.
    - 10.
    - 15.
    - 20.
    - 30.
    - 35.
To obtain a movement permit during workshop -

**II.) Permit request.**

- A. Contact Info
- B. Product/Item + Movement Info
- C. Origin Premises
- D. Destination Premises
- E. Certification

**III.) Interaction with state permitting staff.**

**IV.) Permitted movements + tracking.**

**paper-based documentation used to represent data elements of EMRS**
Current Outcomes

Exercises conducted: 4 state(s)-wide exercises and 2 company-specific exercises.

State(s)-wide exercises
- Multiple partners of HPAI outbreak response to practice their role within a unified effort.
- Multifaceted educational training of permitting.

Company-specific exercises
- Practice permitted movement process against the state.
- Company training of HPAI outbreak communication and response plans.
Acknowledgements

Tabletop Exercise Organizers

- Nancy Barr (MDARD), Dan Harpster (USDA APHIS VS), Katie Schlist (Forsman Farms, Inc.), and Mary Hourigan (UMN)

Tabletop Exercise Moderators & Participants

Subject Matter Experts

UMN Secure Food Systems Team
Questions are welcomed at this time.