



These points/slides were used as a framework for the concluding 90-minute session to collect and discuss recommendations from the participants.
Presenter/moderator – Dr. Rick Hill



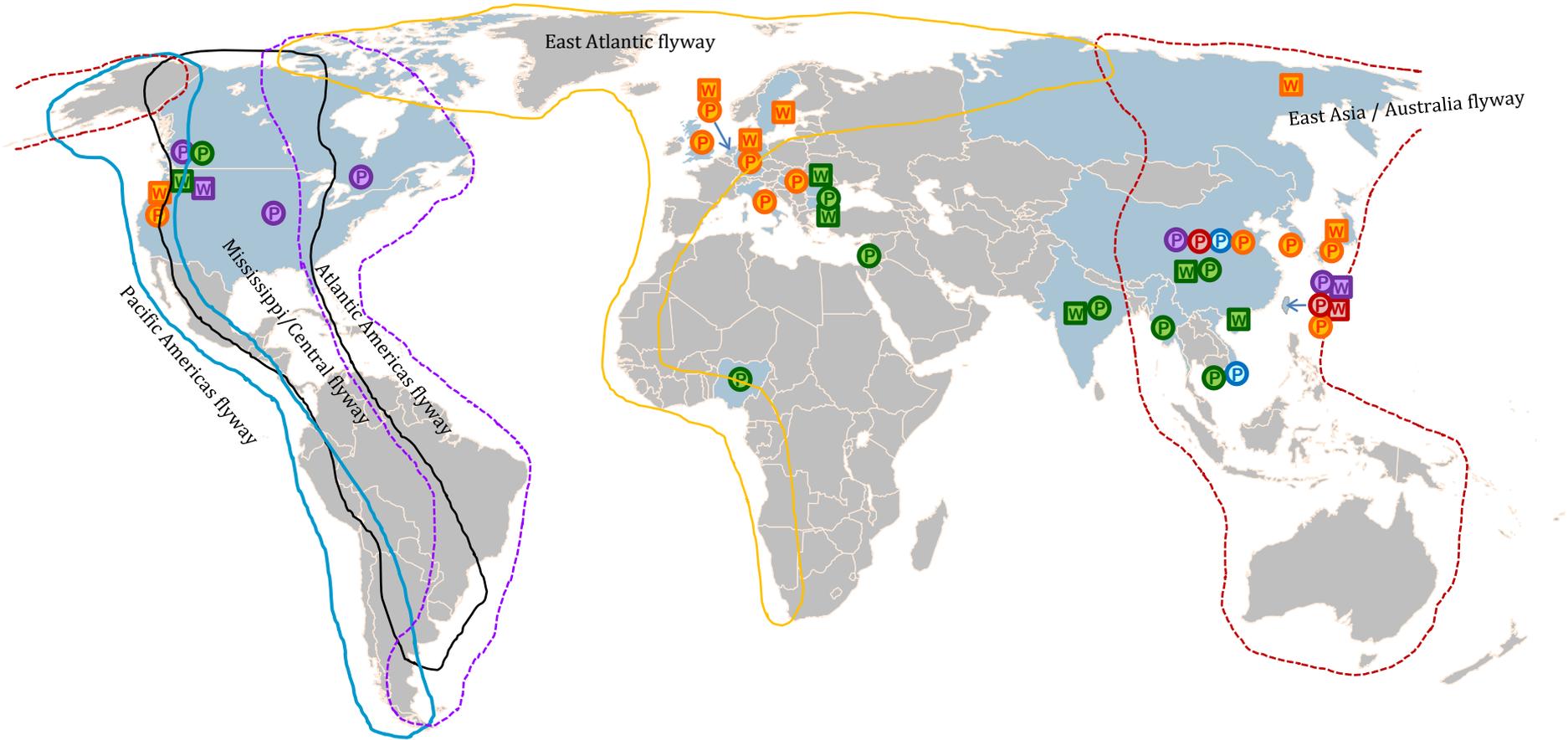
Baltimore, Maryland, USA – June 22-24, 2015

U.S. Department of Agriculture
Animal and Plant Health Inspection Service
Veterinary Services
National Import Export Services



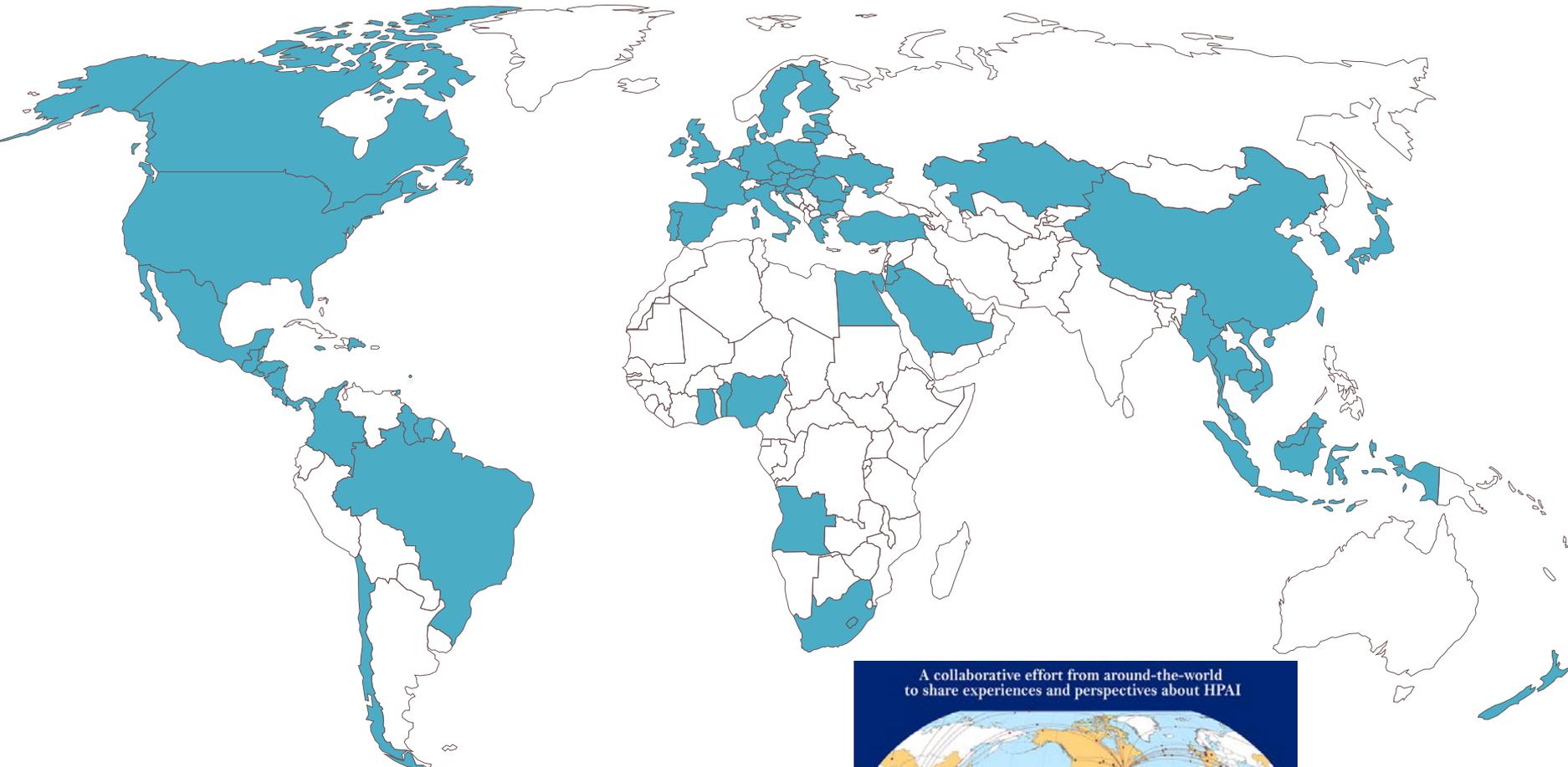
H5 HPAI Reports (OIE)

September 2014 through April 8, 2015



- | | | | | |
|--------------------|--------------------|--------------------|--------------------|--------------------|
| H5N1 in wild birds | H5N2 in wild birds | H5N3 in wild birds | H5N6 in wild birds | H5N8 in wild birds |
| H5N1 in poultry | H5N2 in poultry | H5N3 in poultry | H5N6 in poultry | H5N8 in poultry |

Conference Participants



Key Issues, Summary Conclusions and Recommendations

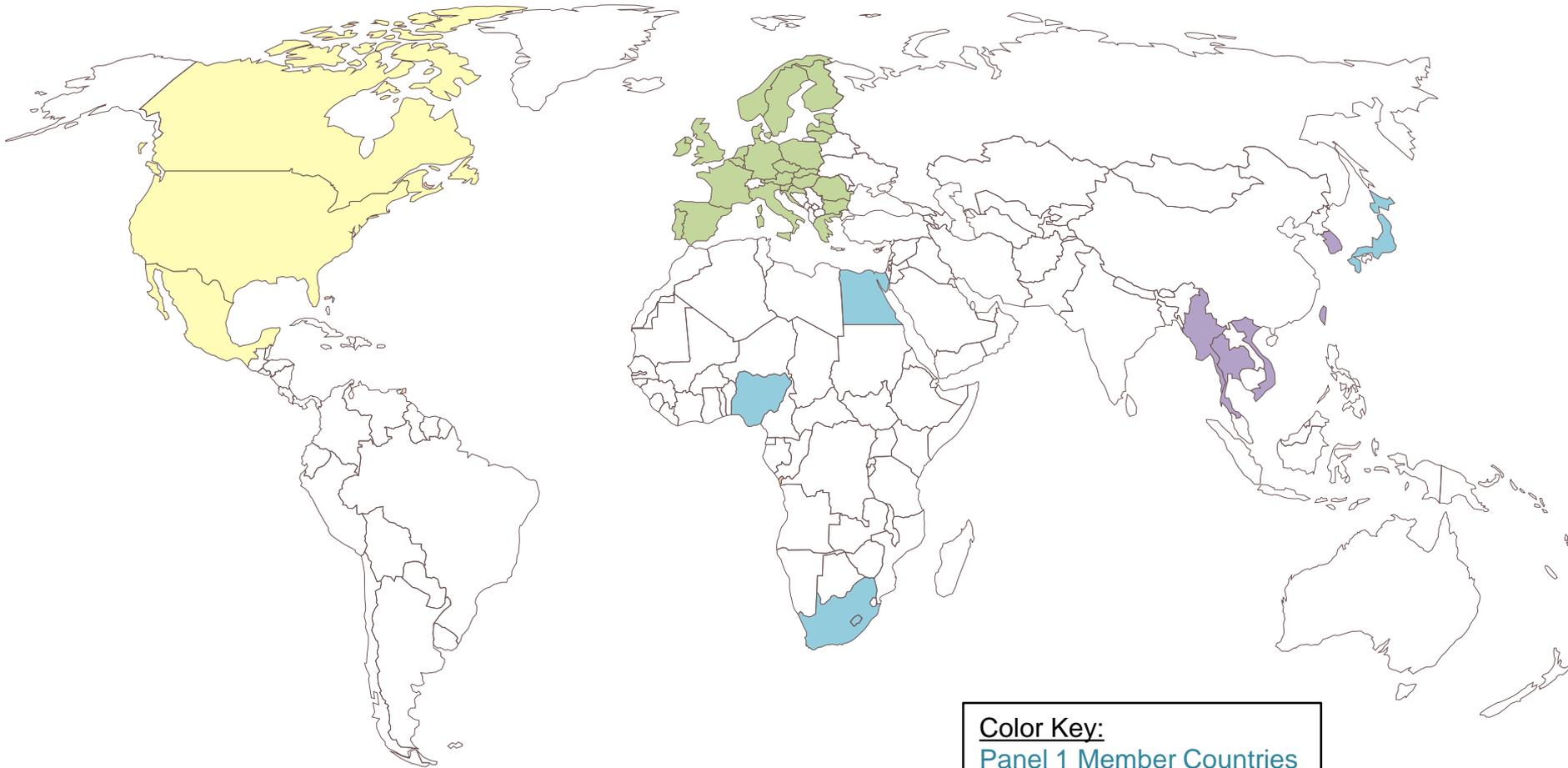
- Objectives/Agenda
 - Panel Discussions
 - Key Issues and Conclusions
 - Recommendations
 - Moderator: Rick Hill
- Concluding Remarks
 - John Clifford, USDA, APHIS, Veterinary Services
 - Jim Sumner, USA Poultry & Egg Export Council

Key Issues/Themes

- International Standards
- Acceptance of a zone or compartment
- Biosecurity
- Vaccination
- Risk-based commodity trade; movement; transit; mitigations
- Surveillance and Control Strategies
- Wild birds



Chief Veterinary Officer Panels



Color Key:
Panel 1 Member Countries
Panel 2 Member Countries
Panel 3 Member Countries
Panel 4 Member Countries

Recent HPAI Experience and Perspectives

- Panel #1
- Moderator: Dr. Jack Shere
- Panel Members
 - Gehad Salah Mohamed Ali (Egypt)
 - Abdulganiyu Abubaker (Nigeria)
 - Mpho Maja (South Africa)
 - Tasumi Okura (Japan)

Recent HPAI Experience and Perspectives

- Panel #2
- Moderator: Dr. TJ Myers
- Panel Members
 - Yong Sang Kim (South Korea)
 - Chantanee Buranathai (Thailand)
 - Wen-Jane Tu (Taiwan)
 - Do Huu Dung (Vietnam)

Recent HPAI Experience and Perspectives

- Panel #3
- Moderator: Dr. John Glisson
- Panel Members
 - Francisco Revieriego-Gordejo (European Union)
 - Jörn Martin Gethmann (Germany)
 - Christianne Brusckke (Netherlands)
 - Simon Hall (United Kingdom)

Recent HPAI Experience and Perspectives

- Panel #4
- Moderator: Dr. Gregorio Rosales
- Panel Members
 - Harpreet Kochhar (Canada)
 - Igor Romero Sosa (Mexico)
 - John Clifford (United States)

Key Issues and Summary Conclusions

Setting the stage...

- Many countries world-wide are experiencing an unprecedented HPAI event which is threatening animal health and welfare, agriculture productivity, food security, farming community livelihood, economics, and global trade.
- Current event described as an ongoing series of world-wide transboundary disease events (rapid spread) with global implications (1996, 2003, and 2014).
- Spread continues and new viruses continue to emerge; complex interaction of host, agent, environment.
- **Wild bird reservoirs** complicate prevention and control (and trade decisions).

Key Issues and Summary Conclusions

Setting the stage...

- Worldwide, this HPAI event is unique, requiring reassessment of prevention, control, and eradication strategies. **There is no one answer to prevention and control.** Dogma: stamping out is best response and has been largely successful.
- Animal health and veterinary medical sectors have a unique and critical role in monitoring and response.
- All countries and stakeholders have a role and obligation with disease detection, reporting, and transparency.
- Response to an animal health situation in addition to facilitating safe trade is critical to global food security.

Key Issues and Summary Conclusions

International Standards

- WTO and 1995 SPS Agreement provided legal weight to the long-established science-based OIE Standards.
- Standard setting process developed by experts from across the globe (Reference and Collaborating Centres, member countries and international organizations).
- These Standards evolve and are revised in response to contemporary issues. It is essential to use science to make decisions to continue safe trade. **Integrated risk-management.**

Key Issues and Summary Conclusions

International Standards.

- The Standards recognize **zoning, compartmentalization, and commodity-specific risk** which are universally adopted by member countries; OIE member countries have an obligation to adhere to, and follow Standards and Guidelines.
- Continued circulation of these avian influenza viruses and the recent upsurge in outbreaks worldwide reaffirms the need for better implementation of the intergovernmental standards adopted by the OIE's 180 member countries.
- **Recognition that implementation, interpretation, and consensus among member countries are not universal.**

Key Issues and Summary Conclusions

Roles (Private Sector)

- Collaborative communications with animal health and public sectors; including producer education and industry partnerships.
- Public awareness and engagement; during "peacetime" and incidents/events.
- Preparedness and contingency plans (example – “Secure Food [Egg/Turkey/etc.] Supply”) and activities allow for safe movement in the face of an outbreak.
- Early detection, mandatory reporting to National Veterinary Authority.

Key Issues and Summary Conclusions

Roles (Private Sector)

- Independent evaluation/validation of **biosecurity** protocols.
- Preventative plan that incorporates occupational health, safety and the environment (including zoonotic considerations with potential human pathogens) and simulation exercises.
- Contribute to International Standard setting.
- Regional Associations important with transboundary diseases.
- Support research (genomics, immunity, vaccines, and diagnostics).
- Activities require investment and commitment.

Key Issues and Summary Conclusions

Roles (Public Sector)

- Similar to Private Sector.
- Effective legislation necessary to undertake surveillance and control; zone or compartment control, etc.
- Compensation for depopulation supports surveillance and control programs.
- International commerce, trade agreements and oversight.
- Emphasis on establishing zoning or compartmentalization arrangements during “peacetime”.

Key Issues and Summary Conclusions

Collaboration

- Public Private Partnership is essential (“peacetime” and during incidents).
- Sharing expertise, collaboration and “lessons learned” from outbreaks are critical.
- Each major event is an “educational moment” and new information (e.g. Epidemiological Findings) can inform preparedness and response/control strategies.
- Working together, reciprocation, and building trust are crucial to trade negotiations and safe import/export of poultry and poultry products (examples of successful bilateral or regional agreements).

Key Issues and Summary Conclusions

Collaboration

- Success depends on science, communication, and relationships.
- Universal recognition of the significant socio-economic impacts of this disease.
- We share common goals – animal health and global food security – there is a need for a coordinated global health strategy for avian influenza.

Key Issues and Summary Conclusions

Biosecurity

- Along with zoning; second most frequently mentioned issue yesterday.
- Biosecurity is “the” priority. “First line of defense”.
- Need to think beyond the premises. The neighbor is not the greatest risk. Understanding the role of shared equipment, fomites, vehicles, etc., and other human activities.
- Audit, audit, audit and testing biosecurity plans. Must continue to re-evaluate processes.

Key Issues and Summary Conclusions

Biosecurity

- Linkage to animal health management practices (mixed species; live bird markets; free-range birds; high density [commercial] poultry; backyard poultry) which challenge traditional control methods and strategies.
- Biosecurity needs to be reassessed at the global level.
- Questions/discussion related to governmental oversight; or mandatory biosecurity standards/compliance.

Key Issues and Summary Conclusions

Surveillance

- Surveillance objectives include early detection of mutations or reassortants, gathering of information to better understand epidemiology, risk factors, transmissibility and pathogenicity (H5, H7, LPAI, HPAI); monitor and improve diagnostics.
- Comprehensive surveillance (syndromic, passive, serologic, risk-based) needed for rapid containment and control, acquisition of genetic information for diagnostics and biological response (vaccines better matched to field strains; DIVA capability).

Key Issues and Summary Conclusions

Surveillance

- Compensation for depopulation supports surveillance (most countries).
- Surveillance is critical for zoning, regionalization, and compartmentalization decisions and to demonstrate freedom. (Interpretation of zone size and application differs)

Key Issues and Summary Conclusions

Response/Control

- Not the primary focus of the conference.
- Importance of rapid depopulation; contingency plans for response, disposal of animals/litter etc., cleaning and disinfection strategies.
- Although successful in many cases, stamping out programs need assessment given the current global situation and tools available.

Key Issues and Summary Conclusions

Risk, Risk Mitigation & Trade

- Varies by **commodity**.
- Importance of genetics/breeding stock in global animal health and production.
- Safe trade in poultry and poultry products (including **permitting**) is possible.
- **Transit** restrictions complicate safe movement.
- Poultry meat: isolation of infectious virus in muscle is rare – **low risk**. Experimentally, pasteurization and cooking decrease viral load way beyond what may be in the product; yet, restrictions remain. (reference: presentations day 1 & 2)

Key Issues and Summary Conclusions

Research

- Identification of multifactorial determinants of animal health risk is needed to support production, risk assessment, surveillance, and intervention strategies.
- Integrated approaches to influenza research and surveillance/control across species are needed. Share results rapidly and widely.
- Improved technologies are needed. Newer technologies and practices can provide new tools in surveillance and response (improved genetics, diagnostics, laboratory networks, genomic sequencing, recombinant vaccines, and DIVA strategies).

Key Issues and Summary Conclusions

Vaccination (most commonly mentioned item yesterday (and today?))

- Diverse opinions.
- Vaccination should not be considered as a permanent solution; in contrast vaccination can serve as a key risk reduction strategy and a valuable tool.
- Vaccine use and potential (negative) impact on import policies; in contrast the tools exist for vaccination (targeted or emergency), successful surveillance/control, and safe trade.

Key Issues and Summary Conclusions

Vaccination

- The need or risk/benefit for vaccination should be reviewed regularly and an exit strategy developed as a condition of use.
- Some cases support vaccination as a tool to reduce economic impact (trade not a consideration) or reduce risk of human infection.
- Vaccine may not be available or poorly matched with field virus. Vaccine deployment challenges exist.

Recommendations; Key Issues/Themes

- International Standards
- Acceptance of a zone or compartment
- Biosecurity
- Vaccination
- Risk-based commodity trade; movement; transit; mitigations
- Surveillance and Control Strategies
- Wild birds
- Others?

Acknowledgements & Concluding Remarks

- John Clifford
USDA, APHIS, Veterinary Services
- Jim Sumner
USA Poultry & Egg Export Council



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- National Chicken Council
- National Turkey Federation
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- United Egg Producers
- United States Department of Agriculture
- USA Poultry & Egg Export Council / World Poultry Foundation



Concluding Remarks

- John Clifford
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