“Biosecurity is inconvenient.”
- Dr. John Glisson
Biosecurity

 Practices designed to prevent the introduction of disease to a flock

 Includes specific measures:
  - Disease transmission characteristics
  - Pathogen stability
Biosecurity

1. Conceptual
2. Structural
3. Operational
4. Cultural
Conceptual Biosecurity
Structural Biosecurity

- Design of buildings and structures on the farm
  - Easy to clean
  - Easy to comply with biosecurity procedures
- Necessary to provide both visual and physical measures
- Work and traffic flow of complex
AVISO
ÁREA DE BIOSEGURANÇA
É EXPRESSAMENTE PROIBIDA A ENTRADA DE PESSOAS NÃO AUTORIZADAS NESTE LOCAL

ATENÇÃO
É EXPRESSAMENTE PROIBIDA A ENTRADA DE PESSOAS QUE TIVERAM CONTATO DIRETO COM AVES
CASO VOCÊ TENHA TIDO CONTATO DIRETO ENTRAR EM CONTATO COM O RESPONSÁVEL

APOIO:
Hy-Line do Brasil
Operational Biosecurity

- Day to day running of the farm
- Standard operating procedures
- Use of structural biosecurity
- Management of personnel
- Work flow and downtime
- Cleaning and disinfection
Cultural Biosecurity

- Educate, educate, educate
- **Employee buy in**
- Compliance depends understanding program
- Management investment
Employee Buy-In

- Describing why procedures are important
- Provide choices:
  - Footwear and clothing – comfort and safety
  - Minimize inconvenience (not for the pathogens!)
- Feedback on reality vs written protocol
  - Anonymous? Regular meetings
- All visitors, contractors, maintenance, management must follow same procedures
- Incentives
  - Example: build in shower time for hourly
- Short-cuts cause problems
Biosecurity Program

- Isolation
- Traffic control
- Hygiene
- Quarantine
- Medicate
- Vaccinate
- Monitoring
- Documentation
- Communication of Results
- Auditing
- Eradication of Vertically Transmitted Diseases
- Continuing Education
- Contingency plans

Sesti, 2001
Biosecurity Program

Site specific planning

Addresses critical control points:

- **New reality:** everything outside barn door is contaminated
- **Clean dirty line** must be enforced and followed every day

Understanding **ALL facility inputs/out-puts**

- Extremely complicated operations
- “Tentacles” to and from other operations
- Truly understanding all truck and people movements
  - Deliveries: UPS, FedEx, CO2
  - Job applicants
Major Sources of Contamination

Inputs
- Vaccination
  - Vaccine equipment
  - Crews
    - Clothing
    - Shoes
- Pullet Movement
  - Pullet trucks
  - Pullet carts
  - Crews
    - Clothing
    - Shoes
- Manure hauling equipment
  - Truck
  - Skid loaders
  - Pay loaders
  - Crews
    - Clothing
    - Shoes
- Depopulation
  - CO₂ carts
  - Gas tans
  - Crews
    - Clothing
    - Shoes

All are potentially **shared** and **difficult and expensive to clean** ($$$ and time)
Biosecurity Program

- Facilities to implement washing
  - Trucks, boots and hands
- Standard operating procedures
- Requires a culture of “following the SOP’s”
  - Suggesting improvements, self policing
- Audits, incentives, and enforcement
Levels of Biosecurity

- How much protection is needed?
  - RISK
  - Commercial vs. Pedigrees

- What diseases do you need to prevent?

- What is your financial disease risk relative to the cost of prevention or control by other methods (vaccination)?

- How much can you justify to spend on insurance (biosecurity)?
Biosecurity Limitations

- **Communication**
  - Mandating rather than discussing

- **Understanding all farm inputs and outputs**
  - Shower in-shower out sounds so nice!
  - Is all equipment “showering in”?
  - Truck sanitation
Biosecurity Limitations

- Management and farm staff buy-in
  - What “pencils out”
  - Practices followed everyday, every time

- Deviations from protocol
  - How and who handles?
Records

- If it’s not documented, it didn’t happen
- Practical, subjective, and attributable
  - Date, initials
  - Follow-up to non-conformances documented
Conclusions

- Culture takes time and repetition
- Top down, bottom up involvement
- Practical and effective > complicated
- Education at every opportunity
- Continual improvement