FINLAND’S ANIMAL HEALTH SERVICE (FAHS)

BIOSECURITY MEASURES IN ANIMAL HUSBANDRY TO PREVENT EPIDEMIC ZOONOSES

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Management of biological risks to:
- achieve food safety
- protect (human), animal and plant life and health
- protect the environment; and
- contribute to its sustainable use
BIOSECURITY – short definitions

- Safety of living things
- Freedom of concern for sickness or disease
- Security from transmission of infectious diseases, parasites and pests

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BIOSECURITY – in animal husbandry

Prevention of pathogens **entering or leaving** any place where livestock are, or have been, present
BIOSECURITY – measures in animal husbandry

- Monitoring
- Surveillance
- Isolation
- Elimination
- Eradication
- Prevention
MONITORING

To detect changes in the prevalence of disease
LIST A

- potential for very serious and rapid spread
- serious socio-economic or public health consequence
- major importance in the international trade
- 15 diseases
LIST A - examples

• Foot and mouth disease
• Swine vesicular disease

• Classical swine fever

• Highly pathogenic avian influenza
LIST B

- socio-economic and/or public health importance within countries

- significant in the international trade
LIST B - examples

• 11 multiple species diseases
  (Anthrax, rabies, trichinellosis ...)

• 82 species specific
  (BSE, Scrapie, TGE, Avian tuberculosis...)

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ALERT – when something happens
ALERT MESSAGES - examples

- Highly pathogenic avian influenza (virus H7N3) in Canada
- FMD suspected in Zambia
- Highly pathogenic avian influenza (virus H5N2) in USA
- Highly pathogenic avian influenza (virus H5N1) in the People's Republic of China
- etc.
SURVEILLANCE

- continuous investigation
- to detect the occurrence of disease
  - for control purposes
  - may involve testing of a part of the population
ISOLATION

- Individual animal
- Whole herd
- Village
- County
- Country

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TRANSPORT LIMITATION

• To limit spreading of disease from herd or area
• As long as elimination occurs
TRANSPORT LIMITATION

EXAMPLE – avian influenza

Consequences to everybody

"China Cancels Soccer Game Against Myanmar

- restriction for Myanmar players to enter China since they are from a bird flu-hit area" (ProMED-mail)
ELIMINATION – animal, herd, area

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ERADICATION

- Elimination of a disease in a wider area
- e.g., Swine enzootic pneumonia from Finland
PREVENTION

- Cheapest
- Most effective
- Must be done before anything happens
→ Very difficult to get money for prevention
PREVENTION – animal trade

Buying or selling

- Confirm disease freedom in advance
- Quarantine
PREVENTION – feed control

- Proper feed
- Local
- Commercial feed from controlled factories
PREVENTION - visitors

- No unnecessary visitors
- Farm clothes
- 48 hour rule for foreign visitors
PREVENTION – animal buildings

- All in – all out
- Age segregation
- Hygienic measures
PREVENTION – good management

- Good hygiene
- Good welfare
- Low animal density
- Frequent veterinary visits on farms
BIOSECURITY – measures in society

Not into cities:
- live animals
- dead animals
- unpacked food
BIOSECURITY – no trade barriers

Biosecurity frameworks should not create unjustified barriers to international trade
EXAMPLE– avian influenza

PROBLEMS IN IMPLEMENTING BIOSECURITY

- Backyard farms (50 – 80 %)
- Economics of many people depend on poultry
- Lack of control experience
- Lack of resources
- International spread of problem
EXAMPLE– avian influenza

SHORT TERM BIOSECURITY

- Aggressive culling

- (Vaccines)
  - possibility and threat

Prevention should be planned!
EXAMPLE– avian influenza

SUGGESTIONS FOR PREVENTION

- Special poultry farming zones
- Bird-proof buildings
- Environmental factors (water, waste)
- No other animal species in the poultry farms
EXAMPLE– avian influenza

SUGGESTIONS FOR PREVENTION

- Shower in – shower out
- Frequent veterinary control
- Registration of all poultry farms (web)
- Animals directly from farm to slaughterhouse
EXAMPLE– avian influenza

SUGGESTIONS FOR PREVENTION

- Poultry slaughterhouses
  - to rural areas → off from cities
- HACCP applied on farms
- Quality chain from ”stable to table”
  - farms, transportation, slaughter, shops

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Thank you!