



Experience with avian influenza vaccination in the Netherlands

Annemarie Bouma



HPAI outbreaks in the Netherlands 2021-2024

> 2021: 11

> 2022: 98

> 2023: 10

> 2024: 2

> 2025: 4

Total heads culled: 6,8 million birds

> Pre-emptive culling: 1,1 million birds

More prevention needed





Restriction zones in 2022



Plan to intensify prevention of HPAI

- Action plan to intensify prevention of HPAI infections; launched 2023
- Joint action of ministry of Public Health and ministry of Agriculture
- Aim: reduce probability and impact of infections
- Three 'one health' chapters:
 - Public health: reduce chance of emergence of more zoonotic variants
 - Wild animals: adequate handling of wild animals with HPAI
 - Poultry holdings: measures to reduce the number of outbreaks and their impact
 - Vaccination
 - Biosecurity
 - New establishments wetland areas; extension in poultry dense area





Vaccination HPAI: step-by-step approach

- > Aim: reduction number of outbreaks of HPAI in poultry
- Long term: large-scale vaccination programme poultry against HPAI
- Stepwise approach
 - Laboratory trial to assess efficacy 4 new vaccines
 - Field trial
 - vaccination of layers on two farms, housed regularly
 - test efficacy of vaccines applied under field conditions: scientific work →
 - 4 transmission trials HCU: different age of layers
 - eggs of vaccinated layers are destroyed (scientific experiment)
 - Pilot: 'real life'



Pilot (1)

- A vaccination pilot with a limited number of layer farms → 1 layer farm
- Goal of the pilot is to gain experience with:
 - vaccine application at hatchery
 - implementation of compulsory surveillance (DA (EU) 2023/361), registration, communication
 - marketing of eggs NL, labelling eggs, control on process
 - limiting impact of vaccination on trade
- Set up / preparations in close collaboration with poultry sector
- > Information of several trade partners, e.g. Japan, US, UK



Pilot (2)

- Vaccine: MSD Innovax ND H5 (vector vaccine); European market access, evaluation by European Medicines Agency (EMA)
- > Pilot under supervision of Competent Authority
- Vaccination at hatchery
- Day-old chicks raised in pullet farm
- At age of 18 weeks to end laying farm
- > Egg production: 90 weeks
- Consumption eggs (1^{ste} and 2nd choice) sold on Dutch market only
- Spent hens slaughtered and sold on Dutch market, or disposed (Dec '26)



Pilot (3)

- Before start of pilot, LVVN informed most important trade partners, the EC and the EU MS about the pilot:
 - guarantee that eggs from vaccinated hens would not be marketed in other countries
 - explanation of the surveillance programme (compulsory EU legislation: weekly virology, monthly serology
- No trade limitations



Pilot (4)

- > Eggs are now produced and marketed on Dutch market
- > No trade limitations
- > End of pilot December 2026





Next steps: 2025 onwards

- Scenarios for optimal vaccination programme Netherlands
 - Regions at risk: wetlands northern part; poultry dense area central part of Netherlands
 - Poultry type at risk: layer hens, ducks
- Adjustments of the surveillance programme if feasible and with same level of efficacy (i.e. rapid detection of HPAI infections)
- Contact with important trade partners about vaccination plan, and adjust certificates where necessary
- Lobby for acceptance of vaccination and acceptation of products from vaccinated bird by third countries, and by retail in the EU
- Many steps to be taken before large scale vaccination programme can be launched
- Exploring possibilities working together



