



Ministry of Agriculture, Fisheries,  
Food Security and Nature

# Rapid test protocol as alternative for pre-emptive culling

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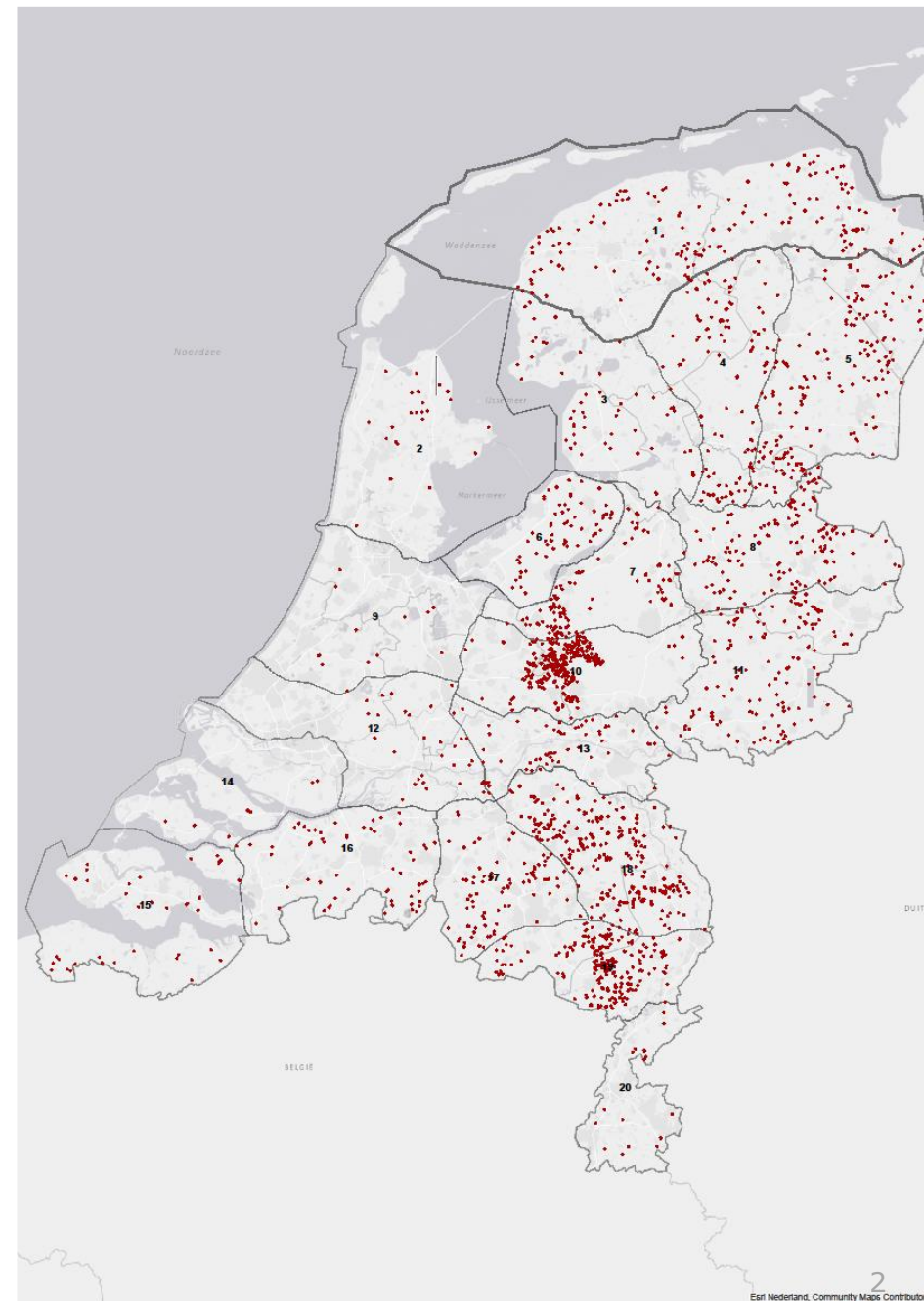
Acting CVO Netherlands

EFSA workshop 3 September 2025



# Risk assessment

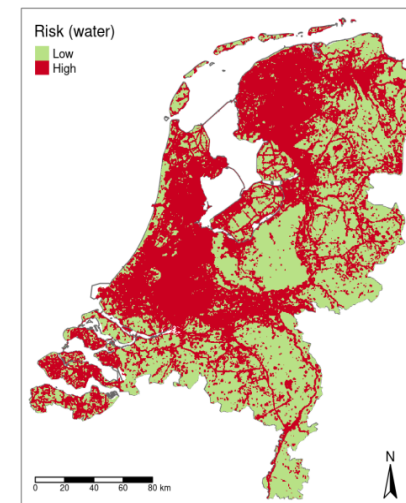
- > Netherlands has high poultry density
  - 89 million heads on yearly basis
  - 1700 herds
- > Distribution in the Netherlands:
  - majority in central part and southeastern part of the country
- > Dutch prevention and control policy based on a.o.
  - Risk of virus introduction
  - Risk of between-herd transmission





# Risk assessment

- › Risk of virus introduction in farms located in wetlands → expert opinion
- › Risk of between-herd transmission in poultry dense area → modeling



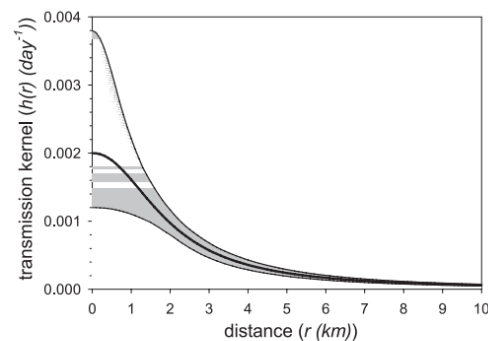
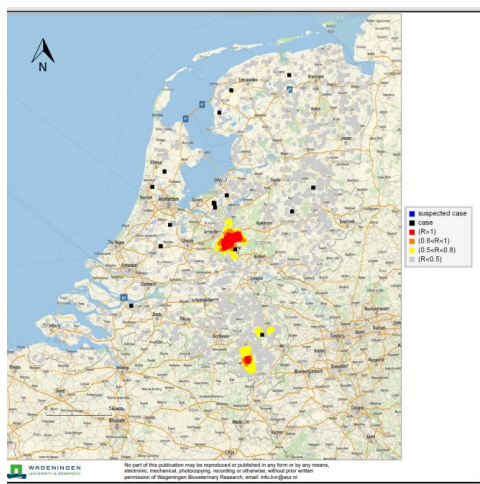
De mate van HPAI-besmettingsrisico op pluimveebedrijven in relatie tot de hoeveelheid wateroppervlakte plus van 500 m van een pluimveebedrijf (risico **hoog (high)**: wateroppervlakte  $\geq 3.2$  ha; risico **laag (low)**: wateroppervlakte  $< 3.2$  ha).





# Prevention and control policy

- › Expert opinion: medium to high risk for incursion
- › Regional / country-wide indoor housing of commercial poultry
- › EU control measures (EU) 2020/687
  - In general, sufficient to prevent virus transmission to other farms
  - In poultry-dense area not sufficient →  $R_h$  calculations

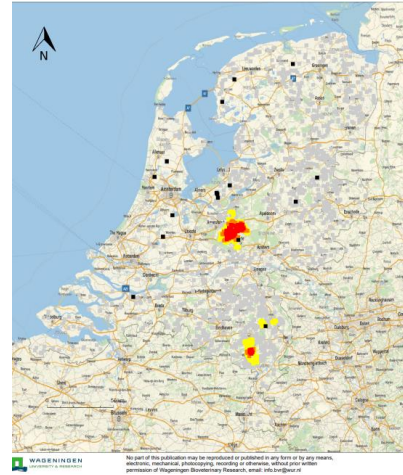


**Figure 3.** The Transmission Kernel as a Function of Interfarm Distance for the Parameter Estimates of Table 1  
The 95% confidence areas of the transmission kernel are represented by the shaded area.  
doi:10.1371/journal.pcbi.0030071.g003



# Poultry-dense area

- > Reproduction ratio  $> 1$ , when only EU measures applied
- > Additional measures
  - 2003: culling all farms in poultry dense areas (30 million heads, 1300 farms)
  - 2014-2023: pre-emptive culling of all flocks in 1 km zone around outbreak
  - Approximately 5-10 farms in each 1 km zone around outbreak
  - Majority of poultry uninfected
  - Capacity problems for CA (NVWA) when pre-emptive culling is demanded
  - Protests from society because of killing thousands of birds (mainly uninfected)





# Alternative measures in poultry-dense area

- › Research to compare efficacy of various control measures in poultry-dense area
- › Rh calculations, mathematical modelling
  - Pre-emptive culling 1 km zone versus
  - Intensified surveillance in 3 km zone → so-called 'bucket' sampling
- › Bucket sampling = sampling of dead birds collected by farmer
- › Idea: rapid detection infection → quicker than passive surveillance and notification by farmer
- › Then: culling of farm before it has infected another farm
- › Pre-emptive culling and bucket sampling: comparable efficacy



## 'Bucket' sampling

- › Animal Health Service (AHS): responsible for surveillance
- › All flocks in 3 km zone around outbreak in poultry-dense area: daily or every other day, depending on the number of farms in 3 km zone
- › Regular sampling of 5 dead birds per farm for PCR for 10 days
- › Test (PCR) by AHS
- › When positive: official suspicion → regular procedure



# Experience NL

- > Sparsely populated areas: no secondary outbreaks (after implementation measures (EU)2020/687)
- > Poultry dense area:
  - number of events bucket sampling: 3
  - No secondary spread of virus to contiguous farms (despite or thanks to bucket)
  - Costs sampling: 100.000 euro per event
  - Pre-emptive culling: 100.000 euro per farm
  - Number of farms saved per outbreak since this policy: 7 per outbreak in dense area
- > So far, a success
- > Good collaboration with sector



# More measures to further prevent outbreaks

- > Program to intensify measures to reduce probability of outbreaks
- > One health pillars e.g.
  - Vaccination
  - Biosecurity
  - Policy under development to prohibit
    - New locations in high-risk area
    - Expansion of existing farms in poultry dense areas
- > To be continued

Thank you for your attention