



Avian Influenza

2021

The Netherlands

> Paul Leijs DVM MBA

17 June 2021

Zeewolde

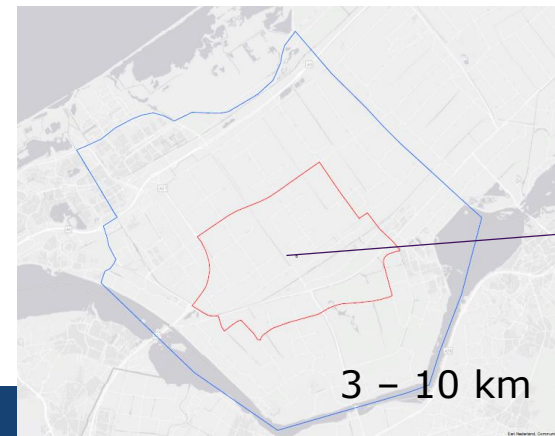


25 October - Notification of suspicion of Avian Influenza in a farm with organic laying hens. One stable with 24.000 57 weeks old hens without problems. In the 2nd stable that housed 12.000 hens an acute increase of dead chickens were detected this morning. Official veterinarian observed acute dead, swollen heads, conjunctivitis and shortness of breath.

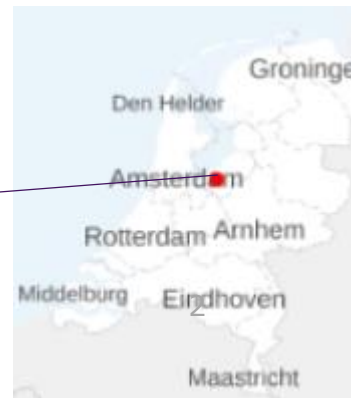
- Samples are sent to national reference laboratory

26 October – H5 is proved with PCR in combination with clinical signs this must be HPAI

- Designation restriction zone 3 -10 km
- Culling animals of infected farm
- Clinical control and sampling in 3 km zone and a random clinical control in the 10 km zone.



Poultry farms within	
1 km	0
3 km	5
10 km	10



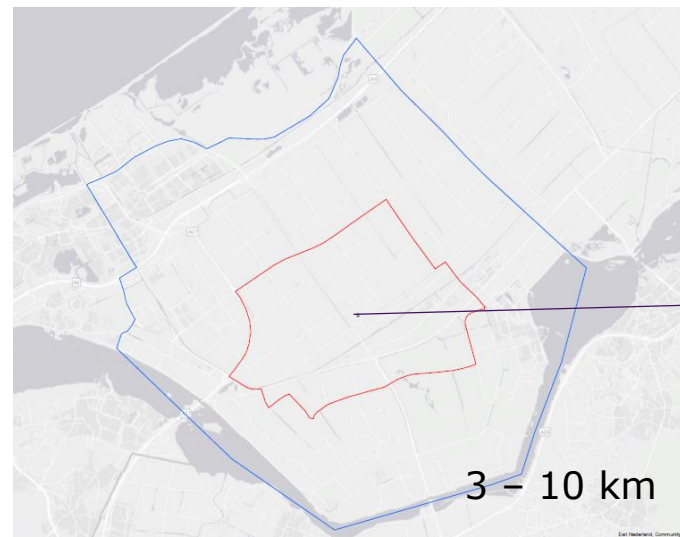
Zeewolde



26 October – Epidemiological research

- * Veterinarian visited another poultry farm on the same day. The next farm he visited is located in the most poultry dens area of the Netherlands - therefore, preemptive culling of this contact farm
- * Feed consultant visited the farm 5 days before the outbreak. This feed consultant also turned out to be a poultry farmer. His farm is blocked and monitored for 21 days

27 October - complete characterization of the virus H5N1



Poultry farms within	
1 km	0
3 km	5
10 km	10





Grootschermer

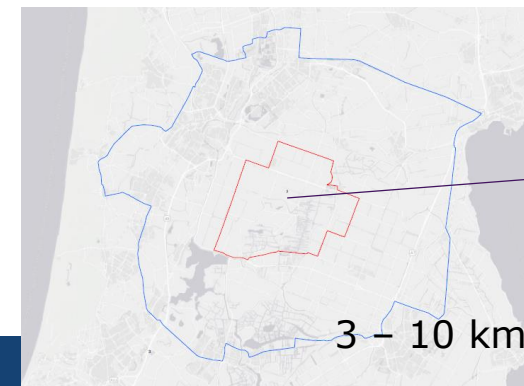


29 October - Notification of suspicion of Avian Influenza in a broiler farm with 3 stables with in total 67.000 animals. In one stable there were clinical signs like acute shortness of breath, increase of dead chickens. yesterday 1,5% and today 3%. Official veterinarian observed many dead broilers and animals with high temperatures therefore

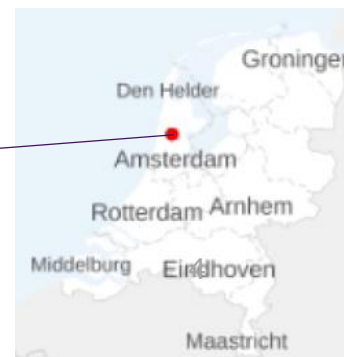
- Samples are sent to national reference laboratory

30 October – The national reference laboratory proves with the PCR test the presence of H5

- Designation restriction zone 3 -10 km
- Culling animals of infected farm
- Monitoring for 21 days of the neighboring farm



Poultry farms within	
1 km	1
3 km	0
10 km	0





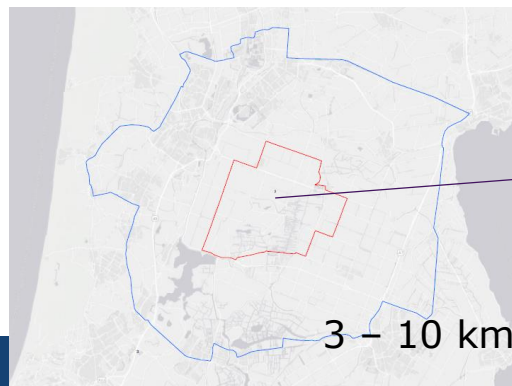
Grootschermer



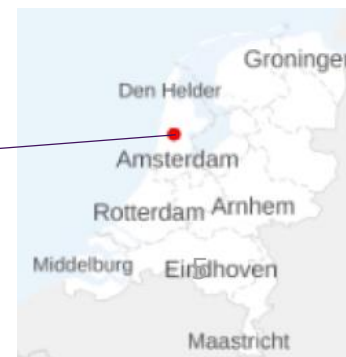
30 October - Epidemiological research

- * 27-10 Veterinarian visited 5 other poultry farms on the same day after visiting this infected farm. 5 farms are blocked and monitored for 21 days
- * 28-10 poultry catching team for partial removal of broilers. 6 contact farms with one in high dense poultry area. Therefore:
preemptive culling of the farm in high dens area
5 other farms are blocked and monitored for 21 days
- * Meat of the slaughtered hens is retrieved and Member States that have received this meat have been notified
- * Hobby farm nearby visited and sampled

30 October – The national reference laboratory indicates that it is a H5N1



Poultry farms within	
1 km	1
3 km	0
10 km	0

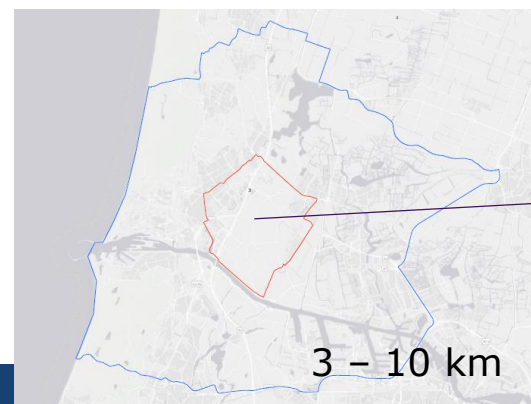




Assendelft



- 31 October - Notification of suspicion of Avian Influenza in a flock of 140 laying hens.
In addition to the chickens, runner ducks are also kept.
Official veterinarian has examined the animals
- Samples are sent to national reference laboratory
- 1 November - The national reference laboratory proves with the PCR test the presence of H5
- Designation restriction zone 3 -10 km
 - Culling animals of infected farm



Poultry farms within	
1 km	0
3 km	1
10 km	0



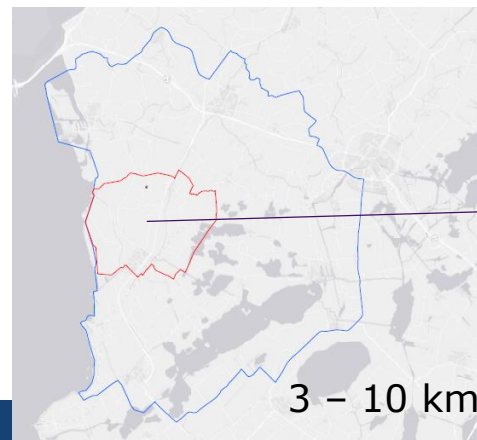


Parrega

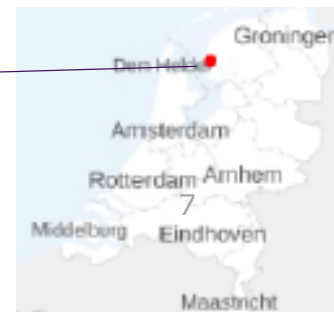
2 November - Notification of suspicion of Avian Influenza in a Hobby farm with 200 animals a mixture of quail, pigeons, chickens, ducks, swans and geese. Reason for notifying was the dead of 5 swans. Official veterinarian sampled the animals and sent these samples to national reference laboratory

3 November - The national reference laboratory proves with the PCR test the presence of H5

- Designation restriction zone 3 -10 km
- Culling animals of infected farm
- Clinical control and sampling in 3 km zone and a random clinical control in the 10 km zone.



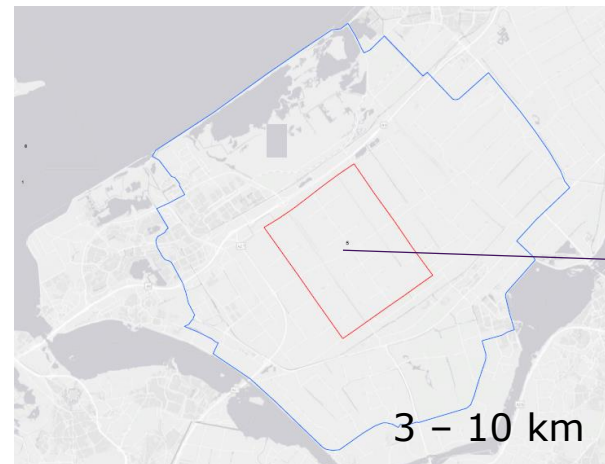
Poultry farms within	
1 km	0
3 km	1
10 km	12



Zeewolde 2



- 3 November - Notification of suspicion of Avian Influenza in a farm with 10.000 meat ducks with an increase of dead animals. Yesterday 15 today 40.
Possible *Riemerella anapestifer* but AI can not be excluded
Official veterinarian sampled the animals and sent these samples to national reference laboratory
- 4 November - The national reference laboratory proves with the PCR test the presence of H5
- Designation restriction zone 3 -10 km
 - Culling animals of infected farm
 - Clinical control and sampling in 3 km zone and a random clinical control in the 10 km zone.



Poultry farms within	
1 km	1
3 km	3
10 km	14

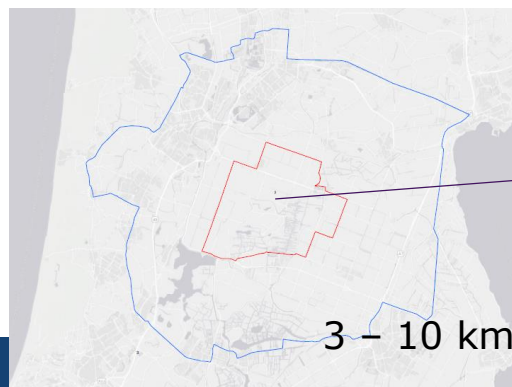




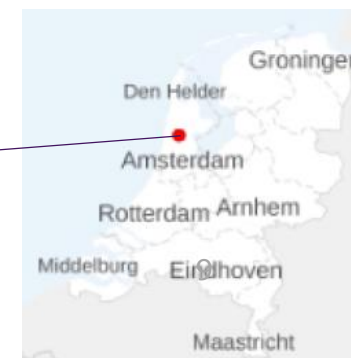
Grootschermer



- 3 November The hobby farm in the proximity of the infected farm also turned out to have positive samples for H5 without any clinical signs in the animals. 10 chickens, 15 ducks and 4 geese. Because of the absence of clinic samples are checked.
- 5 November The hobby farm is visited again. 4 chickens and 1 goose have died. all remaining animals are culled. There were less than 50 animals so no need for restriction zones.



Poultry farms within	
1 km	1
3 km	0
10 km	0



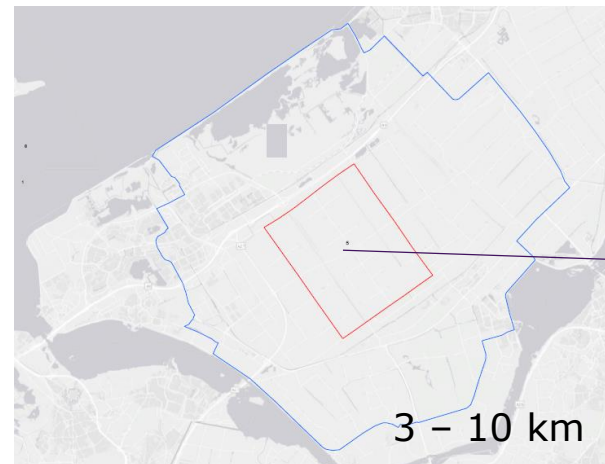
Zeewolde 3



5 November – Samples of the screening of a duck farm within the 3 km zone of the infected “Zeewolde 2” farm turned out to be positive for H5
This duck farm has 2 stables with a total of 21.000 animals.

5 November

- Culling animals of infected farm
- Restriction zone 3 -10 km overlaps “Zeewolde 2”



Poultry farms within	
1 km	1
3 km	3
10 km	14





Lutjegast

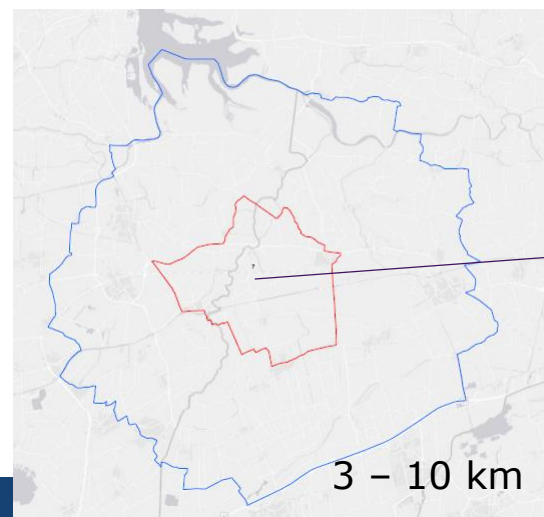


7 November - Notification of a slight increase of (12) dead chickens in a laying hen farm with 4 stables with in total 48.000 animals. Beside the dead animals a group of chickens was apathetic. Farmer had the same symptoms last year in the same stable.

Official veterinarian sampled animals that were sent to national reference laboratory

8 November - The national reference laboratory proves with the PCR test the presence of H5

- Designation restriction zone 3 -10 km
- Culling animals of infected farm
- Random clinical control in the 10 km zone



Poultry farms within	
1 km	0
3 km	0
10 km	19

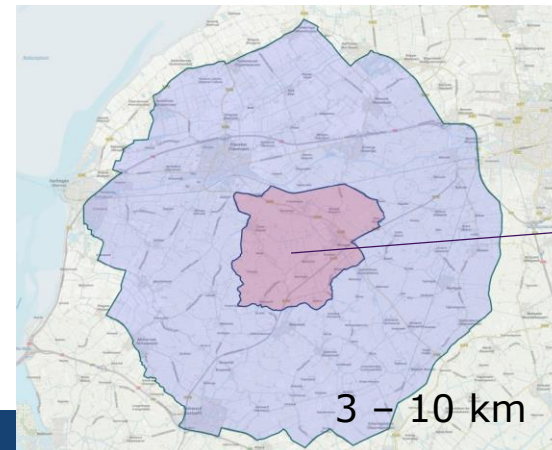


Tzum

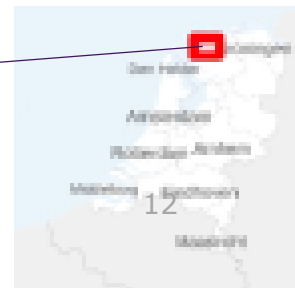


14 November - Notification of 30 dead chickens in one stable of a 4 stables broiler farm with in total 125.000 animals. Private veterinarian submitted Early warning samples for research after which H5 was demonstrated. After that the Official veterinarian sampled animals for official samples. These samples confirmed the result of the early warning test.

- 15 November
- Designation restriction zone 3 -10 km
 - Culling animals of infected farm
 - Clinical control and sampling in 3 km zone and a random clinical control in the 10 km zone.
 - Epidemiological research
 - * veterinarian contact 6 and 10 days prior to AI confirmation. Farms are informed, blocked and will be monitored.



Poultry farms within	
1 km	0
3 km	1
10 km	10

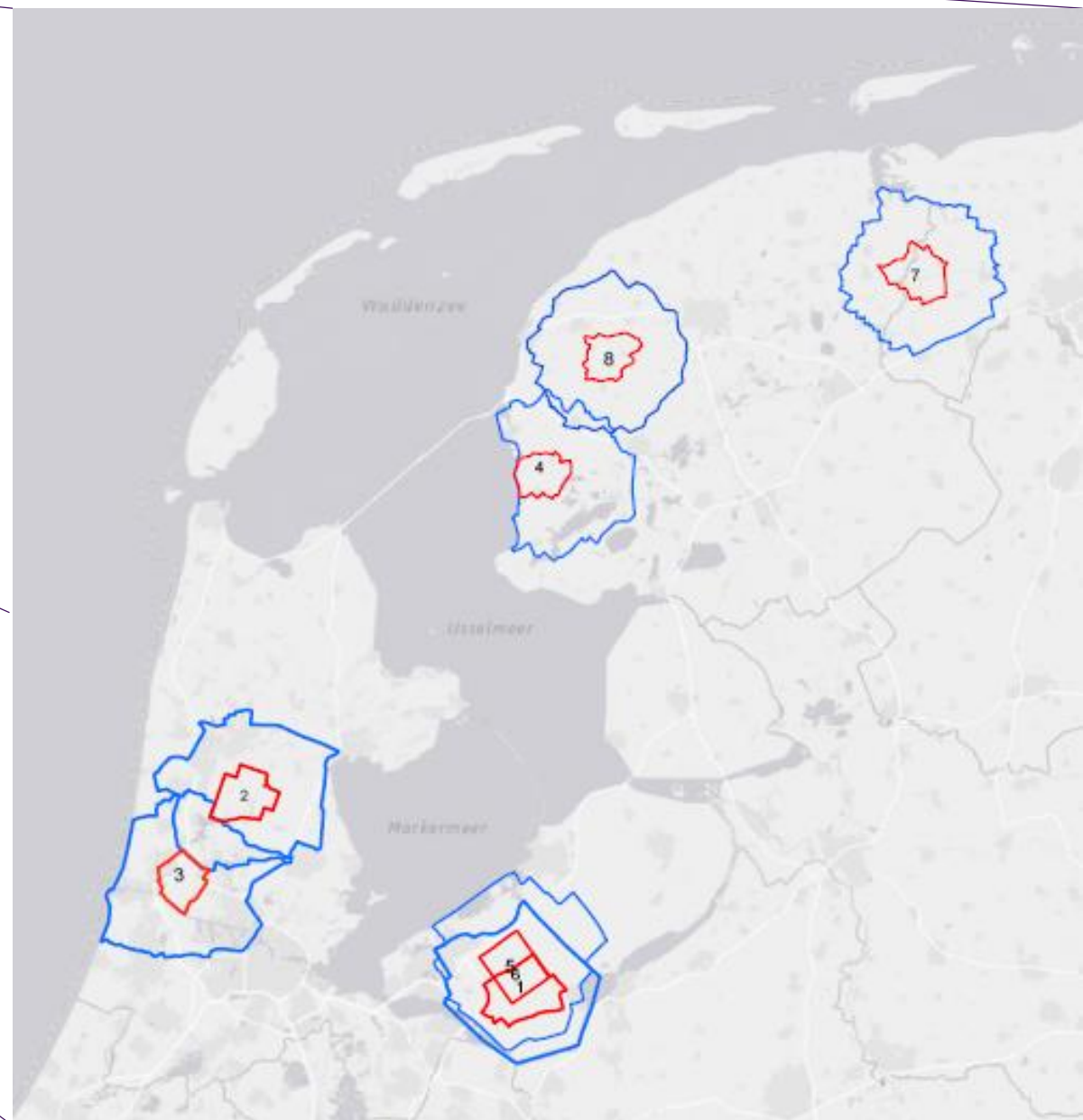
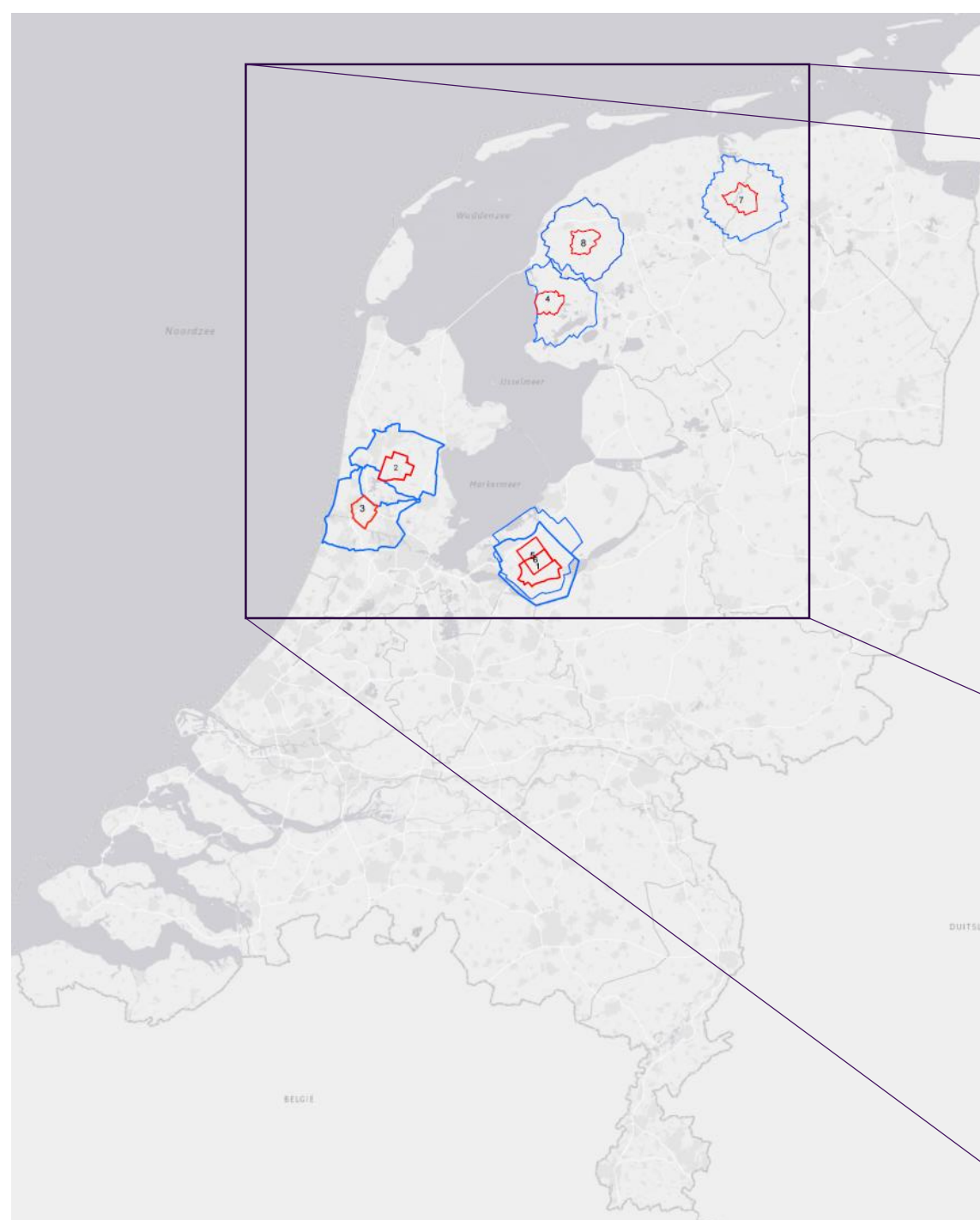




Overview

Case	Name	Date of infection	Stables	# Poultry Culled	Virus
1	Zeewolde	25-10-2021	3	44.534	H5N1
2	Grootschermer	29-10-2021	1	109.878	H5N1
3	Assendelft	30-10-2021	1	301	H5N1
4	Parrega	1-11-2021	0	202	H5N1
5	Zeewolde 2	3-11-2021	1	104.000	H5N1
6	Zeewolde 3	5-11-2021	2	20.888	H5N1
	Grootschermer	5-11-2021		29	H5N1
7	Lutjegast	7-11-2021	3	47.506	H5N1
8	Tzum	13-11-2021	4	120.213	H5N#
	Hei en Boicop	13-11-2021	0	25	H5N#

Commercial / Hobby





Infected with avian influenza

Hobby poultry



Dead wild birds





Risk assessment

- > H5N1 this virus is different in comparison with the virus of 2020 - 2021. New introduction
- > High risk of contamination with HPAI in the poultry industry due to active waterfowl migration and virus amplification
- > expected increase in infection in wild birds. There is widespread mortality among the wild birds and species that are usually not found dead until the end of the season (redshank)
- > Risk for the whole of the Netherlands is estimated as very high



Developments

- › Based on risk assessment national measures with tightened visitor regulations
- › Partial removal of broilers might create a risk in the spreading of the virus, preventive measures increased.
- › A program with trails to measure the effectivity of AI vaccines are discussed with two pharmaceutical companies, the faculty of veterinary medicine in Utrecht and the government.





Thank you for your attention