

PAFF Com
Brussels, 18-19 September 2017

**VACCINATION PLAN FOR AVIAN INFLUENZA IN
A GAME BIRD HOLDING OF
BREEDING MALLARD DUCKS (*Anas platyrhynchos*)**

PORTUGAL

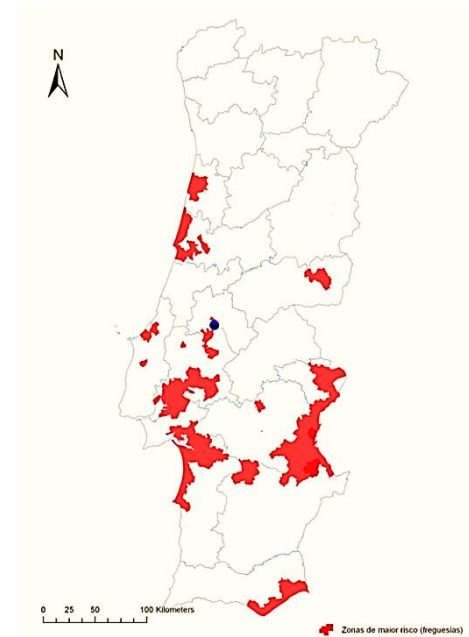
www.dgav.pt

History

- **Outbreak of LPAI subtype H5** in September 2007
 - **Emergency Vaccination Plan (EVP)** applied until July 2008
 - **Annual Preventive Vaccination Plans** from 2008 to 2014
 - **Preventive Vaccination Plan (PVP5)**, approved by **Decision 2015/892/EU**
- **to be applied until 31 July 2018.**

Justification:

- Holding is located in a high risk area for AI
- Increased risk of becoming infected with AI viruses for this type of holding
- Good results from the previous vaccination plans



Vaccinated farm and conditions for vaccination

- Breeding mallards for hunting purposes
- Natural and artificial lakes
- Shelters, where feeding takes place once a day
- Sound signals to help separating age groups in shelters
- Biosecurity measures: wired fencing, conditioned entry for persons and vehicles, cleaning and disinfection of vehicles, veterinary monitoring
- Vaccinated mallard ducks are confined and eliminated humanely on the holding after finishing the reproductive period; their carcasses safely disposed off
- Offspring will leave the farm when birds are >4 months of age only for restocking of game supplies

Vaccination plan and surveillance

- Vaccination carried out by vets in healthy birds
- Monovalent vaccine (subtype H5N2) / inactivated
- Subcutaneous administration (0,5 mL)
- First vaccination 8-14 days, revaccination 3-4 weeks later
- Individual identification of vaccinated ducks (wing tags)
- 50 non-vaccinated ducks are identified as **sentinels**

- Surveillance and monitoring of the **vaccinated flock**
- Surveillance of **poultry flocks in the surrounding area**, within the framework of the AI surveillance plan

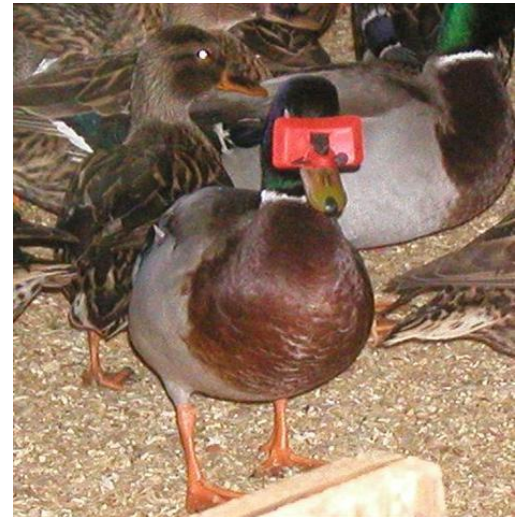
Vaccination and identification



Vaccination



Wing tags
Vaccinated



ID of
Sentinels

Surveillance and monitoring of vaccinated flock

Behavioral monitoring (water and food consumption):

- Monthly reports sent by the veterinarian to the Official Services

Clinical monitoring

- Daily observation by farmer / monthly by vet
- In case of reduction of consumption of water and food or mortality – collection of samples – rRT-PCR for viral detection

Serological surveillance (vaccinated birds)

- 20 blood samples from vaccinated ducks every month
- Antibodies titer by HI
- Positivity: titer \geq 1:16
- All samples sent to the National Reference Laboratory

Virulogical surveillance (sentinels, diseased or dead birds)

- 15 cloacal swabs + 15 oropharyngeal swabs per month rRT-PCR for viral detection.
- Virus isolation if PCR is positive

Results of 2015/2016 vaccination plan

	Flock 7
Nº of animals	5050
Date of birth	April 2015
Nº of vaccinated animals	5000
Slaughter date	July 2017

Plan	Dates of vaccination	Flock 7
PVP5	15 November 2015	First vaccination
PVP5	21 January 2016	Revaccination
PVP5	19 July 2016	Revaccination
PVP5	24 November 2016	Revaccination

Results of 2015/2016 surveillance plan

Clinical and behavioral monitoring

Flock	Mortality	Food Intake	Water Intake	Growth
7	Normal (0,2%)	Normal	Normal	Normal

Serological monitoring of vaccine response

Monthly blood sampling of 20 birds: 360 samples to date
 (20 prior to the first vaccination to confirm absence of
 virus contact or infection)
 → **340** with positive titer

Virulogical monitoring

Samples	Flock 7
Sentinels/dead ducks	540
Vaccinated ducks	360
Total	900

→ all negative

Conclusions

- The avian influenza preventive vaccination plan approved by Decision 2015/892 to be applied in one mallard duck holding in Portugal is being implemented as foreseen with good results.
- A total of 900 samples were collected from this holding with the expected results: positive serology confirming vaccination status and negative rRT-PCR in sentinels and dead duck, confirming the absence of viral circulation.
- Portugal will be implementing this programme until 31 July 2018.

THANK YOU FOR YOUR ATTENTION

