MINISTÈRE
DE L'AGRICULTURE
ET DE LA SOUVERAINETÉ
ALIMENTAIRE

Liberté
Égalité
Fraternité

General Directorate for Food

HPAI VACCINATION CAMPAIN 2023-2024
REPORT
1st October 2023 – 30th September 2024

Key figures from the 2023-2024 vaccination campaign:

VACCINATION:

• Number of vaccinated ducks: 61 569 272 (ducks that received a first dose of the vaccine)

• Number of establishments that reported at least one vaccination: 2 317 establishments

POST-VACCINATION SURVEILLANCE:

• Number of analyses carried out as part of the enhanced passive post-vaccination surveillance (pooling up to 5 samples): 21 282

• Number of analyses carried out as part of the active post-vaccination surveillance (pooling of 5 samples): 206 223

• No positive HPAI virological results were detected through post-vaccination surveillance during this period.

EPIDEMIOLOGICAL SITUATION ASSESSMENT DURING THE VACCINATION CAMPAIGN:

• Only 15 outbreaks were confirmed, including 14 outbreaks in commercial farms and 1 outbreak in a backyard, compared to over 400 confirmed outbreaks the previous season.

• Among these 15 outbreaks, two were identified in vaccinated duck farms through event-based surveillance.

INTRODUCTION

Vaccination is regulated in the European Union by Article 46 of Regulation (EU) 2016/429 of March 9, 2016, concerning transmissible animal diseases ("Animal Health Legislation"), which defines in point 2 the criteria for the use of veterinary medicines for the prevention and control of animal diseases.

This article is further developed by a delegated act, Regulation (EU) 2023/361 of November 28, 2022, which sets out the rules applicable to the use of certain veterinary medicines for the prevention and control of listed diseases, including Annex XVIII, which covers HPAI (Highly Pathogenic Avian Influenza).

Concerned with ensuring all necessary conditions for developing a vaccination strategy at the national level, the Ministry of Agriculture and Food Sovereignty announced on December 22, 2022, the launch of an Action Plan aimed at making duck vaccination operational.

The discussion on HPAI vaccination was guided by the following principles:

Objective:

• Vaccination helps slow the spread of the virus and complements other control measures to achieve eradication.

Methods:

• Preventive vaccination is the only feasible option at this stage.

• Vaccination is accompanied by a strict surveillance system.

• The chosen vaccines allow for the implementation of a DIVA strategy.

Conditions:

• Biosecurity is the cornerstone of the HPAI control system.

• Once vaccination is required, it must be mandatory, except in specific cases.

• Vaccination does not exempt from the culling of infected farms, even if vaccinated.

These principles have led to the adoption of a single vaccination strategy for the entire country.

The chosen vaccination strategy involves the preventive vaccination of ducks (Muscovy, Mulard, and Pekin) across mainland France, excluding Corsica, for the entire year. This vaccination is mandatory for all commercial production farms holding more than 250 ducks in production.

In addition, a voluntary vaccination strategy is in place to allow the vaccination of breeding ducks whose eggs for hatching and day-old ducklings are exclusively intended for the national market. The vaccination of these breeding ducks is prohibited if their products are intended for intra-EU trade or export to third countries.

Moreover, the implementation of the HPAI vaccination campaign is accompanied by a strict surveillance system in line with the provisions of European regulation, consistent with the recommendations of the World Organization for Animal Health (WOAH) and the European Food Safety Authority (EFSA).

The objective of post-vaccination surveillance is to allow for low-noise detection of virus circulation, complementing event-based surveillance.

Regulation (EU) 2023/361 requires the implementation of post-vaccination surveillance in all establishments holding vaccinated animals at the level of each epidemiological unit. An epidemiological unit is defined as a farming site comprising one or more buildings.

Regulation (EU) 2023/361 requires the implementation of post-vaccination surveillance composed of:

- Weekly virological surveillance on dead ducks, referred to as enhanced passive post-vaccination surveillance under European regulation;
- Monthly clinical and virological surveillance on live animals, referred to as active post-vaccination surveillance.

1. ASSESSMENT OF THE 2023-2024 VACCINATION CAMPAIGN

1.1. Number of vaccinated animals

Between October 2023 and September 2024, 61 569 272 ducks received their first dose of the vaccine.

Figure 1- Number of ducks that received a first dose of the vaccine by department

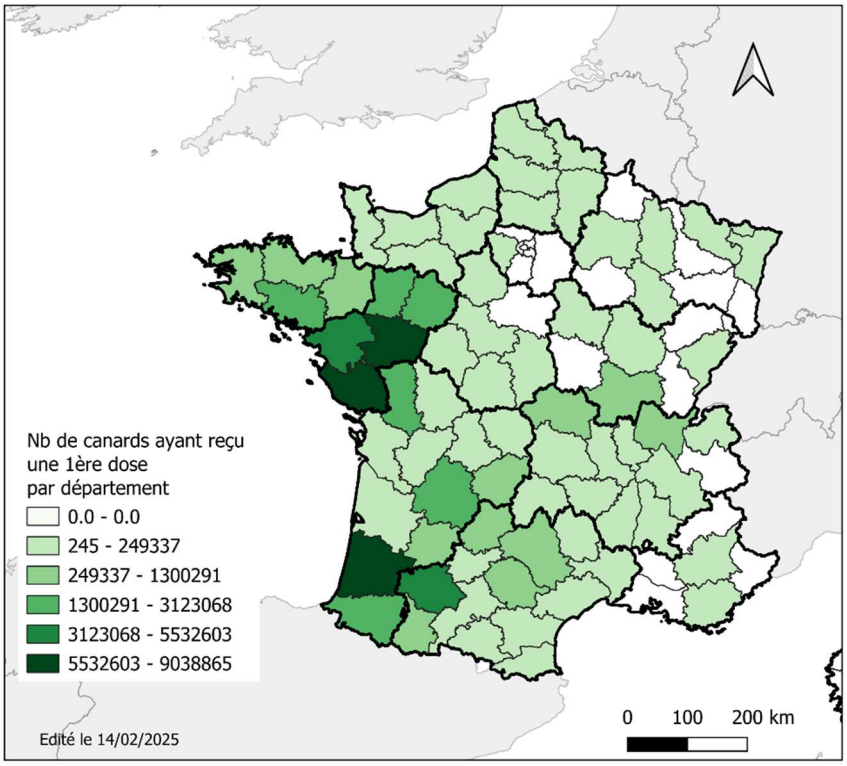
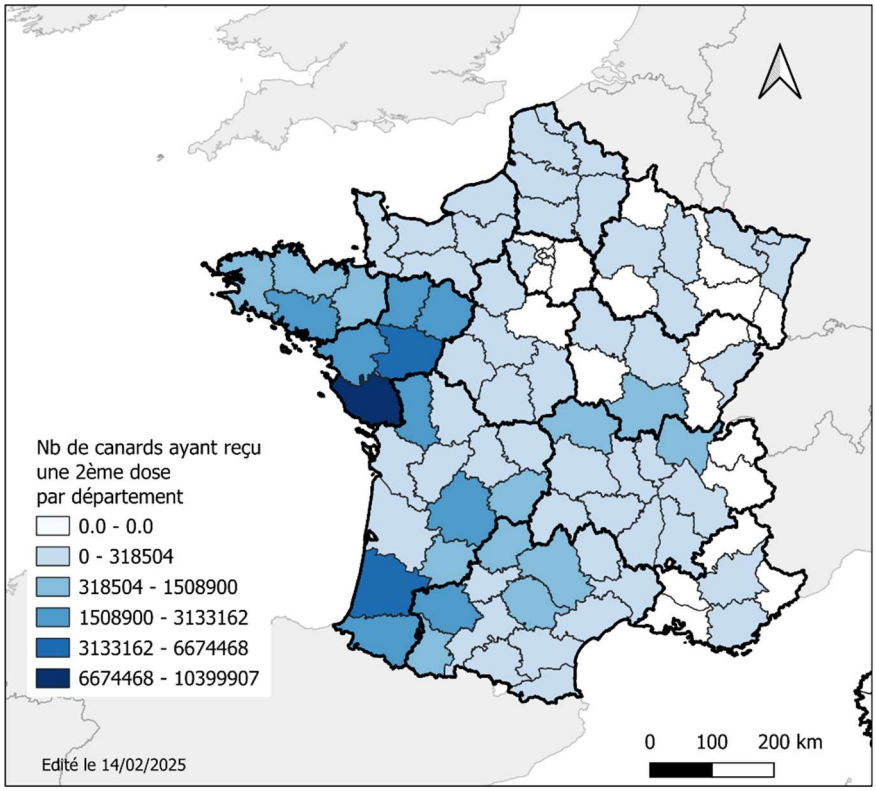


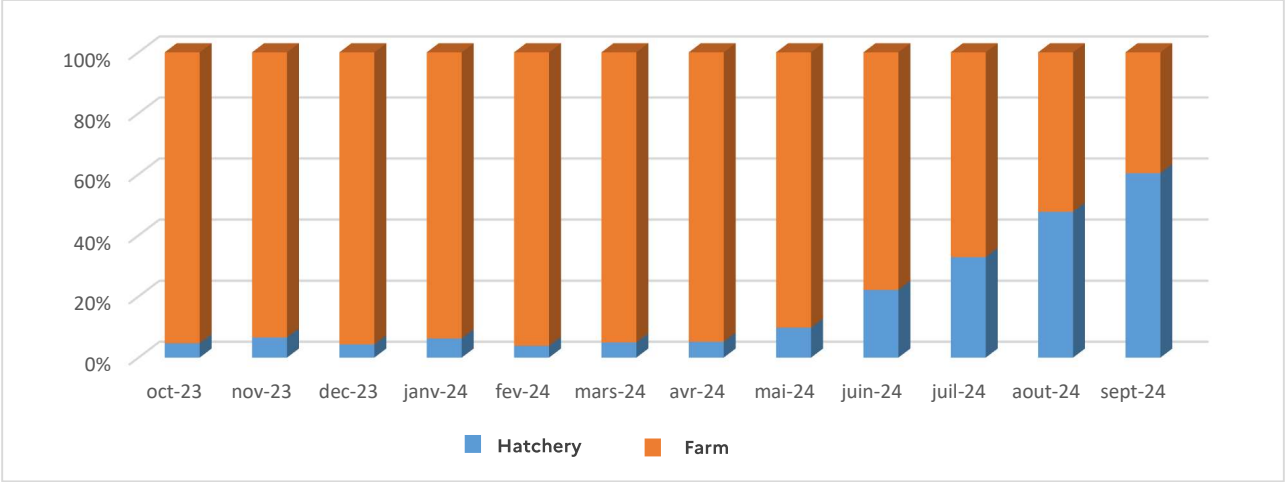
Figure 2- Number of ducks that received a second dose of the vaccine by department



The difference in the distribution by department of the number of ducks that received a first and second dose of the vaccine is explained by the administration of the first dose at the hatchery for some of the ducklings. These ducklings are then delivered to farms where they receive a second dose, and these farms may be located in departments different from those of the hatcheries.

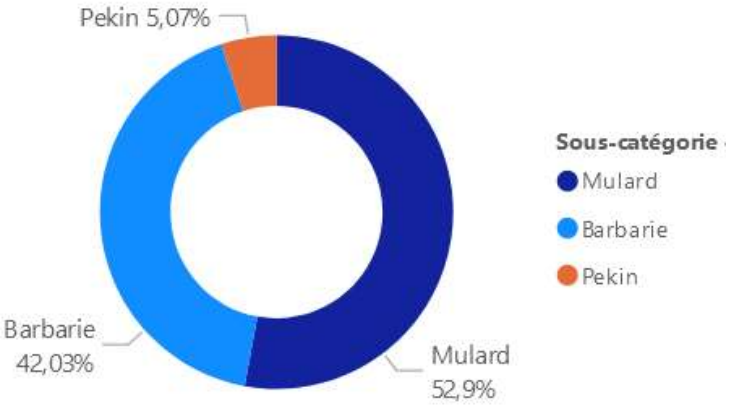
1.2. Deployment of vaccination at the hatchery

Figure 3- Evolution of the distribution of the administration of the first dose of the vaccine at the hatchery and on the farm by month



1.3. Distribution of vaccinated ducks by species

Figure 4- Percentage of vaccinated ducks by species



1.4. Number of vaccinated animals per week

The primary vaccination protocol against IAHP requires a two-dose vaccination for both vaccines that have a temporary authorization for use (ATU) in France.

Figure 5- Number of ducks that got 1 injection of the vaccine per week

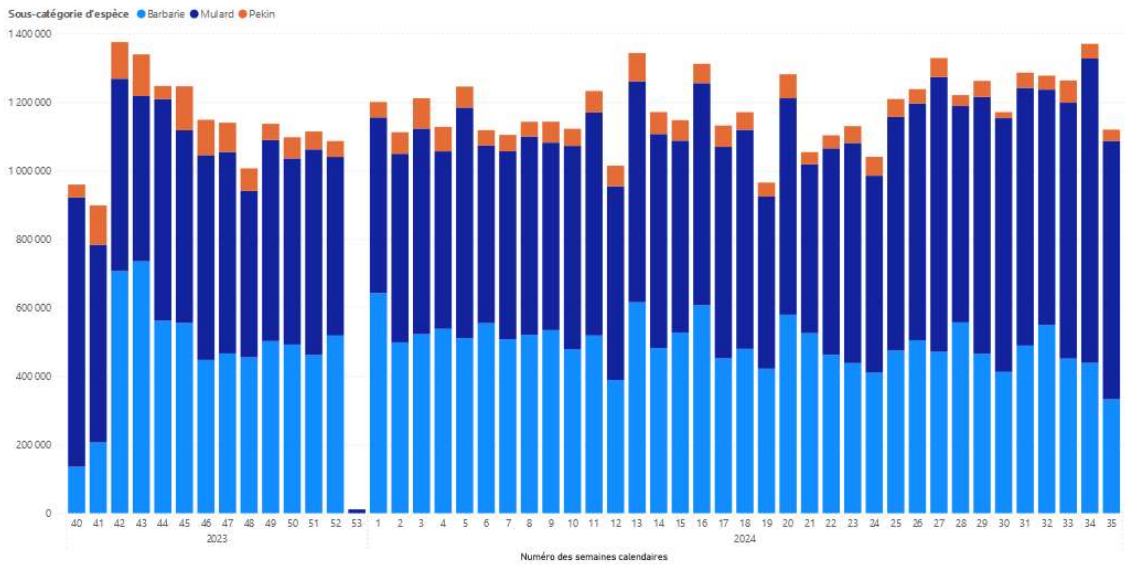
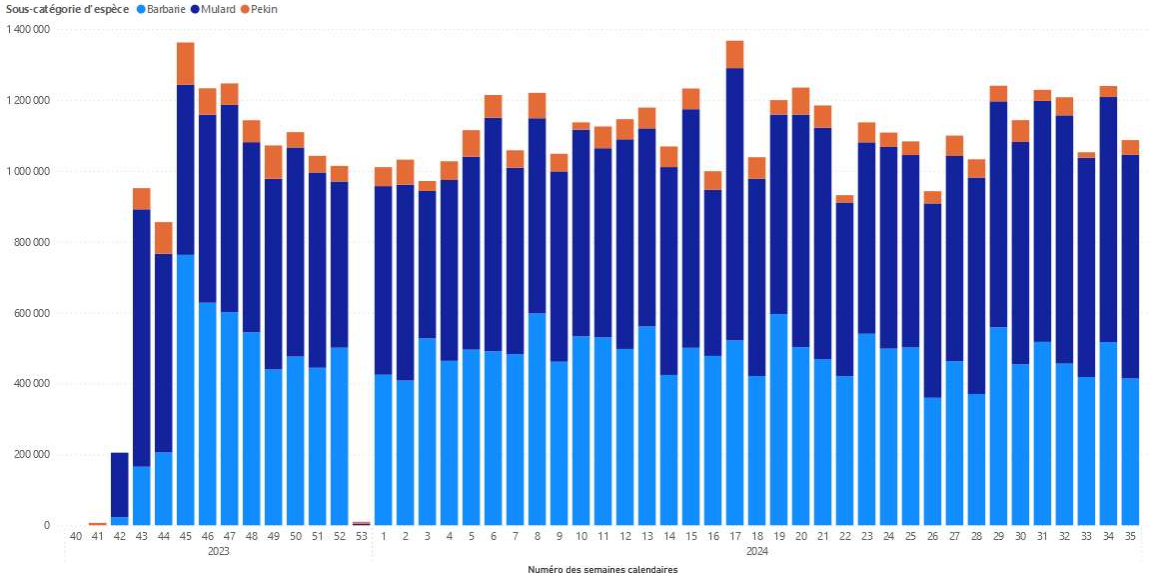


Figure 6- Number of ducks that got 2 injections of the vaccine per week



In order to optimize the immunity of ducks with a long life cycle, a booster shot has been implemented for Mulard ducks located in the communes most at risk of disease spread, during the period of highest risk for virus introduction (from December 1, 2023, to March 15, 2024).

The number of Mulard ducks that received a booster shot is 1 683 677.

1.5. Number of establishments

During the 2023-2024 campaign, a total of 2 317 establishments carried out at least one vaccination intervention for ducks in France (an "establishment" refers to a farm holding animals).

Among these 2 317 establishments, there are 18 hatcheries that carry out the vaccination of day-old ducklings.

2. ASSESSMENT OF POST-VACCINATION SURVEILLANCE FOR THE 2023-2024 CAMPAIGN

Post-vaccination surveillance is implemented based on the provisions of Delegated Regulation (EU) 2023/361 and carried out in all establishments holding vaccinated animals at the level of each epidemiological unit. This surveillance complies with WOAH standards. An epidemiological unit refers to a farming site consisting of one or more buildings.

2.1. Weekly passive surveillance

Passive post-vaccination surveillance is carried out through sampling from dead vaccinated ducks for virological analysis on a weekly basis.

The samples are collected using tracheal or oropharyngeal swabs from carcasses by the farmer or technician, up to a limit of 5 carcasses per week. Starting from April 2024, in the absence of carcasses, it was decided to include morbid animals in the sampling until a total of 5 samples from dead or morbid birds is obtained.

The samples are sent to recognized laboratories for analysis by RT-PCR (pooling up to 5 swabs)

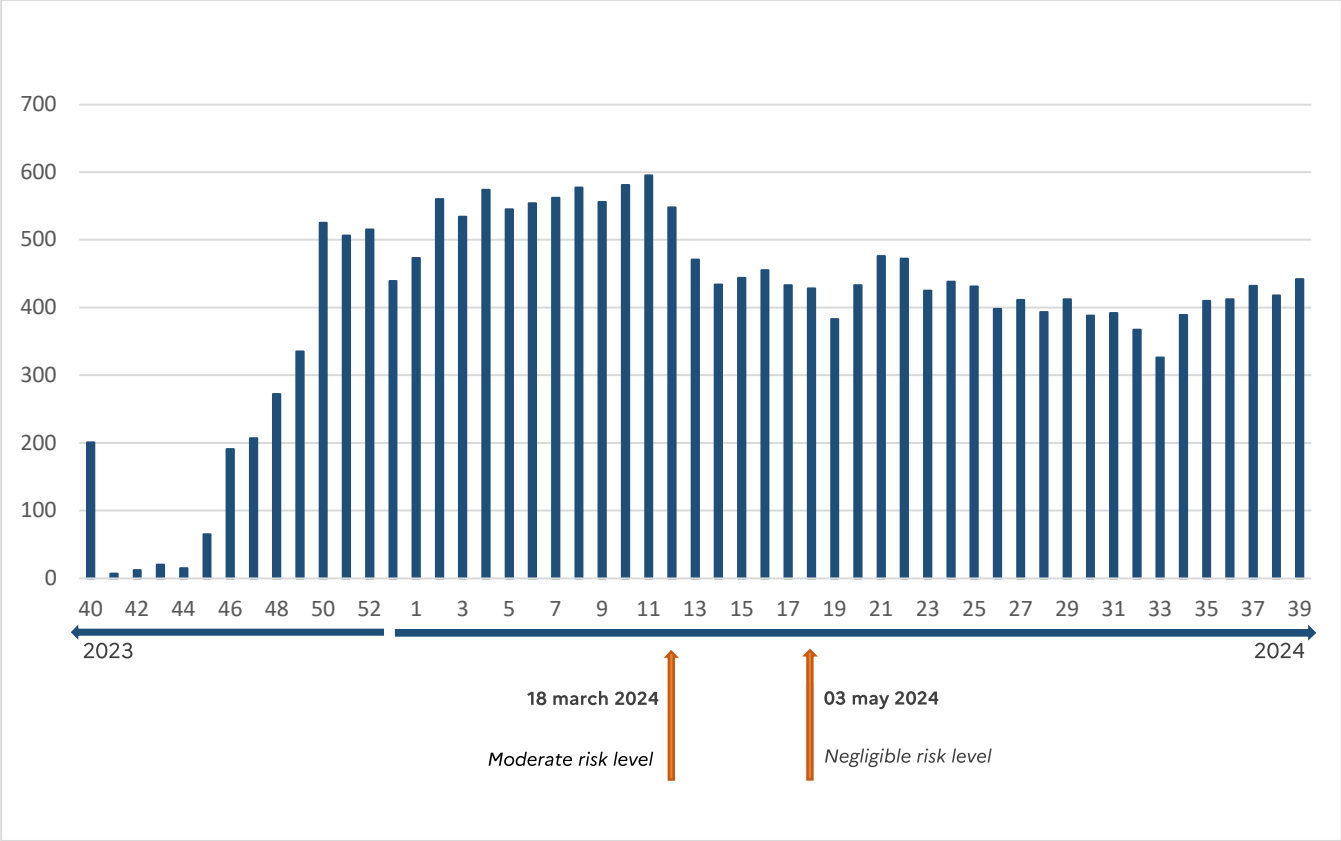
Realisation of the passive surveillance

During the period from October 2023 to September 2024, **21 282 RT-PCR** tests were conducted as part of this surveillance.

Evolution in time of the passive surveillance monitoring

The graph below illustrates the number of analyses carried out per week.

Figure 4-Number of realised passive surveillance analysis per week



At the beginning of the period, an increase in the figures for passive post-vaccination surveillance was observed. This progression is explained by:

- The gradual implementation of batches subject to vaccination.
- The gradual deployment of the information system.

The subsequent decrease in the number of analyses in passive post-vaccination surveillance is explained by:

- An increase in duck production during the winter months, particularly for ducks raised for foie gras production.
- A decrease in mortality on farms following the lifting of mandatory sheltering measures, due to the reduction in the risk level associated with migratory wild fauna.

No positive HPAI virological results were detected through this surveillance during the period.

2.2. Monthly active surveillance

Every establishment holding vaccinated ducks must undergo active surveillance on a monthly basis. This is conducted through a surveillance intervention by the designated veterinarian, which involves a clinical examination, including an assessment of zootechnical criteria, accompanied by the collection of samples using tracheal or oropharyngeal swabs from 60 vaccinated individuals.

The samples are sent to the accredited laboratories for analysis by RT-PCR (pooling of 5 swabs).

Realisation of the post-vaccination active surveillance

During the period from October 2023 to September 2024, **1 033 826 samples** and **206 223 RT-PCR** tests were carried out.

Evolution in time of the passive surveillance monitoring

Figures 8 and 9 below represent the number of clinical visits and samples carried out as part of active post-vaccination surveillance by month.

Figure 8- Number of active surveillance clinical visits per month.

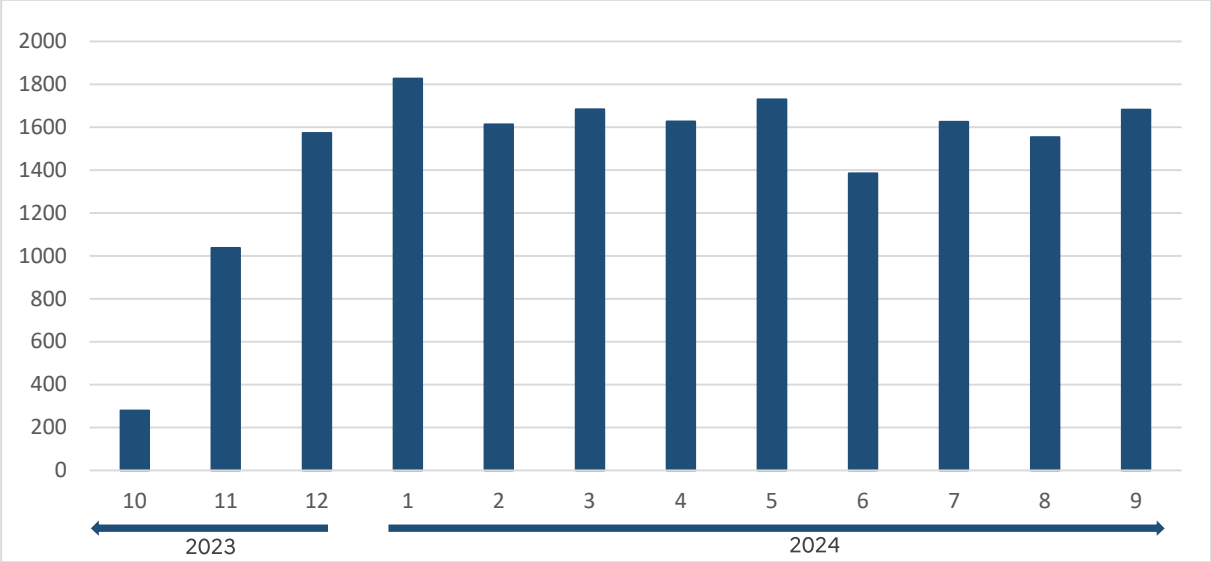


Figure 9- Number of active surveillance samples per month.

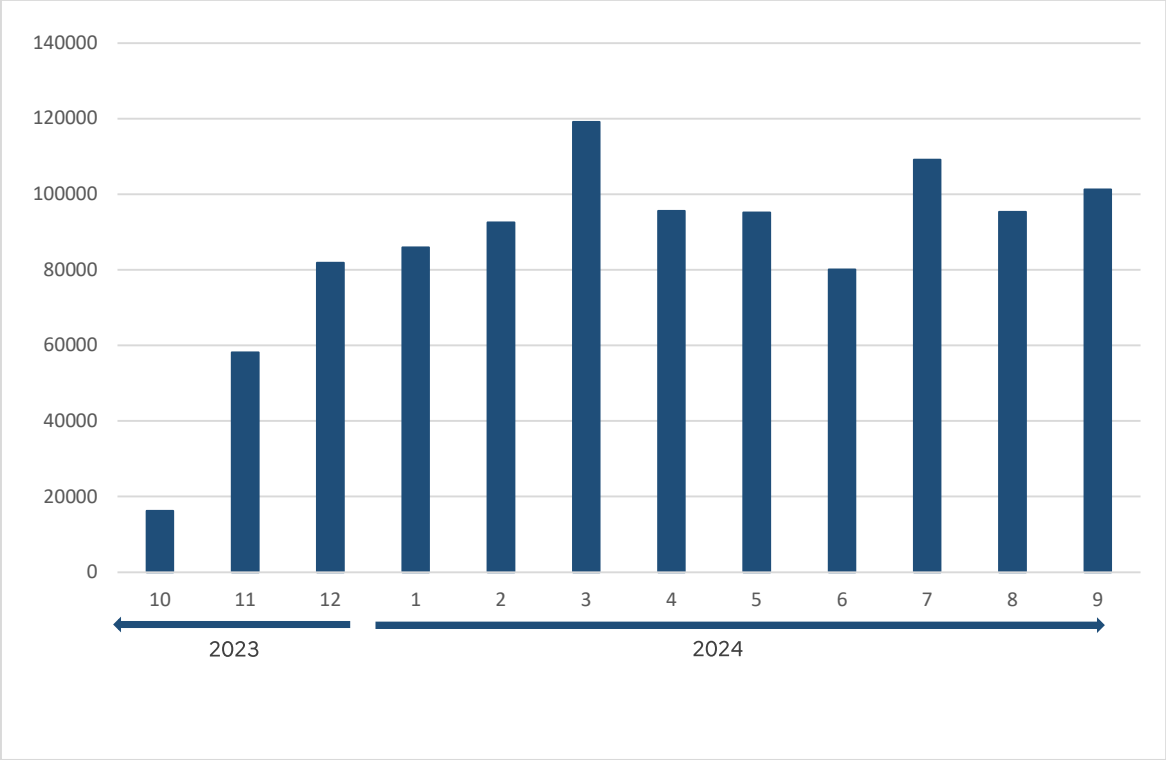
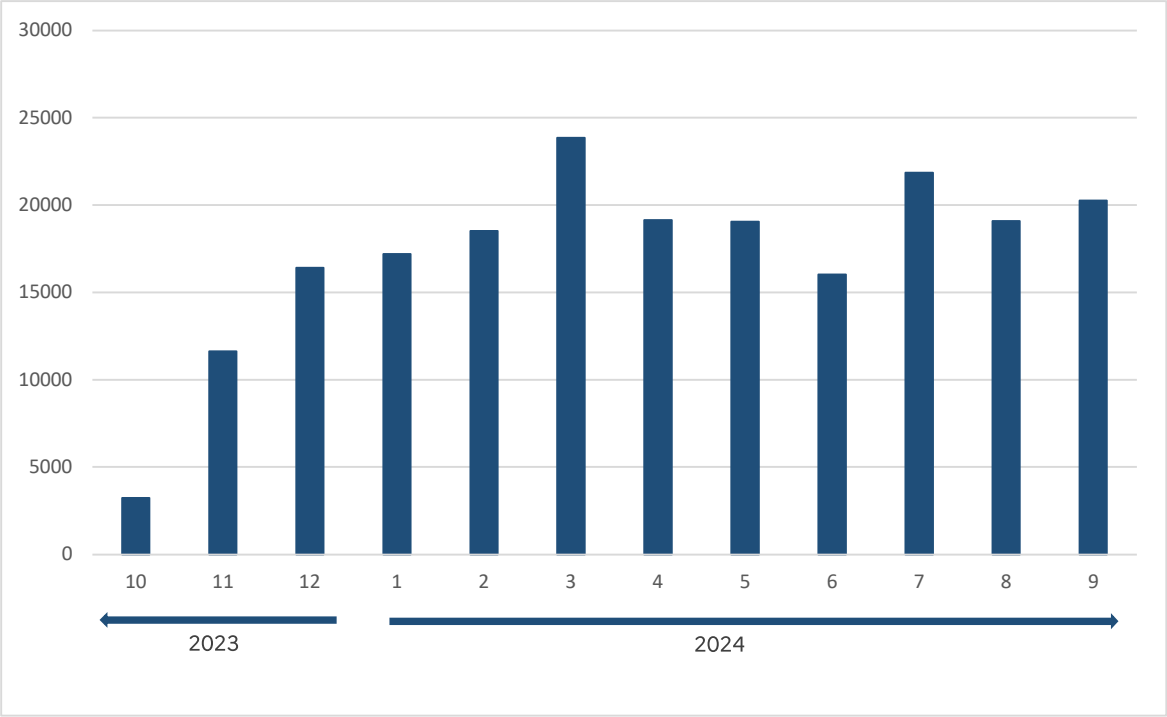


Figure 10- Number of active surveillance laboratory analysis per month.



The gradual increase at the beginning of the period in the implementation of active surveillance is consistent with a progressive deployment of batches of ducks subjected to vaccination across the territory and the start of surveillance within 30 days following their introduction.

The distribution of duck production throughout the year, with higher production during the winter months, explains the decrease in visits and samples during the second half of the vaccination campaign.

No positive HPAI virological results were detected through active post-vaccination surveillance during this period.

3. EPIDEMIOLOGICAL SITUATION REPORT FOR THE PERIOD OCTOBER 2023 – SEPTEMBER 2024

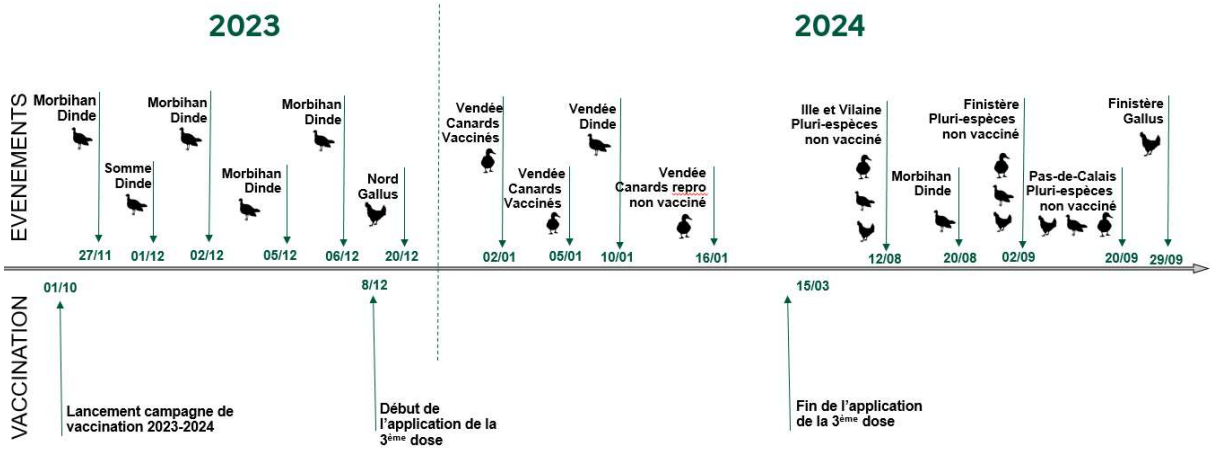
The first epidemiological results for the 2023-2024 season are encouraging. Indeed, the epidemiological situation in France has highlighted a lower circulation of the HPAI virus in wild fauna during the winter 2023-2024 downward migrations, and a very low number of HPAI outbreaks observed during the HPAI vaccination campaign. From October 1, 2023, to September 30, 2024, 15 outbreaks were confirmed, including 14 in commercial farms and 1 in a backyard. In comparison, more than 400 outbreaks in commercial farms were confirmed during the previous season over the same period

Among these 15 outbreaks, only two outbreaks were detected in vaccinated duck farms through event-based surveillance. These two farms were epidemiologically linked:

- On 02/01/2024 in Vendée: 74-day-old Barbary ducks that received 2 doses of vaccine.
- On 05/01/2024 in Vendée: 24-day-old Barbary ducks that received 1 dose of vaccine.

It should be noted that active post-vaccination surveillance frequency was adapted in vaccinated farms located in the regulated areas around the 15 outbreaks (bi-monthly frequency).

Figure 11- HPAI outbreaks confirmed throughout the 2023-2024 campaign



Starting from October 1, 2024, the vaccination campaign was continued according to the same strategy.

For more information on the 2024-2025 vaccination campaign

Consult the official HPAI vaccination plan:

https://agriculture.gouv.fr/tout-ce-quil-faut-savoir-sur-le-plan-daction-vaccination-iahp-en-france