



Ministero della Salute

HPAI outbreaks in Italy

Directorate General for Animal Health and veterinary medicinal products



HPAI H5N1 in Italy

✓ 25 HPAI in poultry (17/11/2022)

- 16 Veneto
- 5 Lombardia
- 3 Emilia Romagna
- 1 Friuli Venezia-Giulia

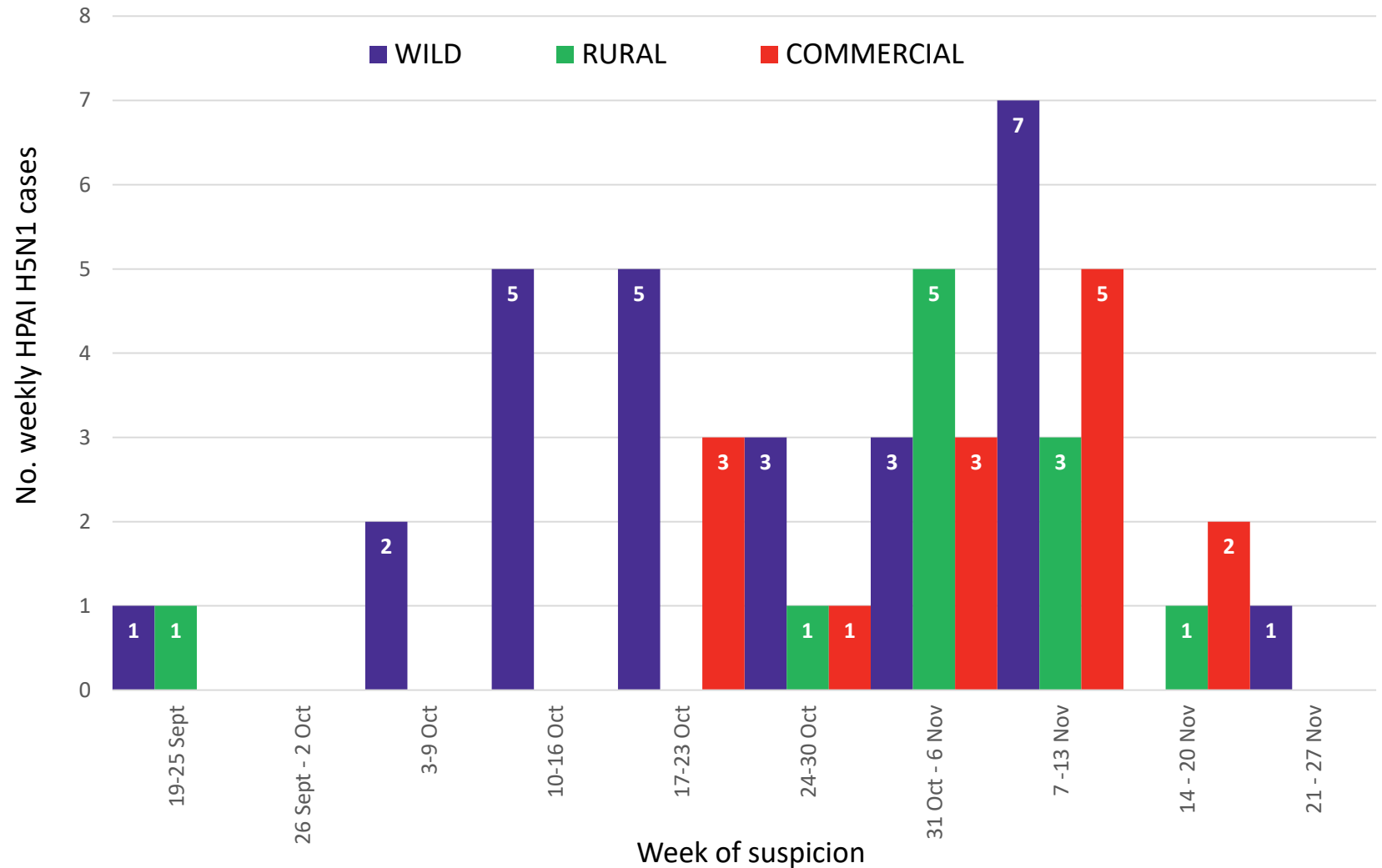
✓ 112 HPAI in wild birds (24/11/2022)

- 19 Veneto
- 33 Emilia Romagna
- 18 Lombardia
- 37 Sardegna
- 2 Piedmont
- 3 Campania



Number of weekly HPAI H5N1 cases

Compared to the last epidemic season in Italy, backyard farms are more affected than commercial ones



HPAI H5N1 in domestic poultry: distribution and type of affected farms

| | Province | Breeders | Broiler | Backyard/Multispecies | Laying hen | Meat turkey | Total |
|--------------------------|------------------|----------|----------|-----------------------|------------|-------------|-----------|
| EMILIA- ROMAGNA | <i>Ferrara</i> | | | 1 | 1 | | 3 |
| | <i>Modena</i> | | | 1 | | | |
| FRIULI VENEZIA-GIULIA | <i>Pordenone</i> | | | 1 | | | 1 |
| LOMBARDIA | <i>Brescia</i> | | | | | 1 | 5 |
| | <i>Cremona</i> | 2 | | | 1 | | |
| | <i>Pavia</i> | | | 1 | | | |
| VENETO | <i>Padova</i> | | | 1 | | | 16 |
| | <i>Rovigo</i> | | 1 | | 1 | | |
| | <i>Treviso</i> | | | 5 | 1 | | |
| | <i>Venezia</i> | | | 1 | | | |
| | <i>Verona</i> | | 1 | | | 5 | |
| Total | | 2 | 2 | 11 | 4 | 6 | 25 |

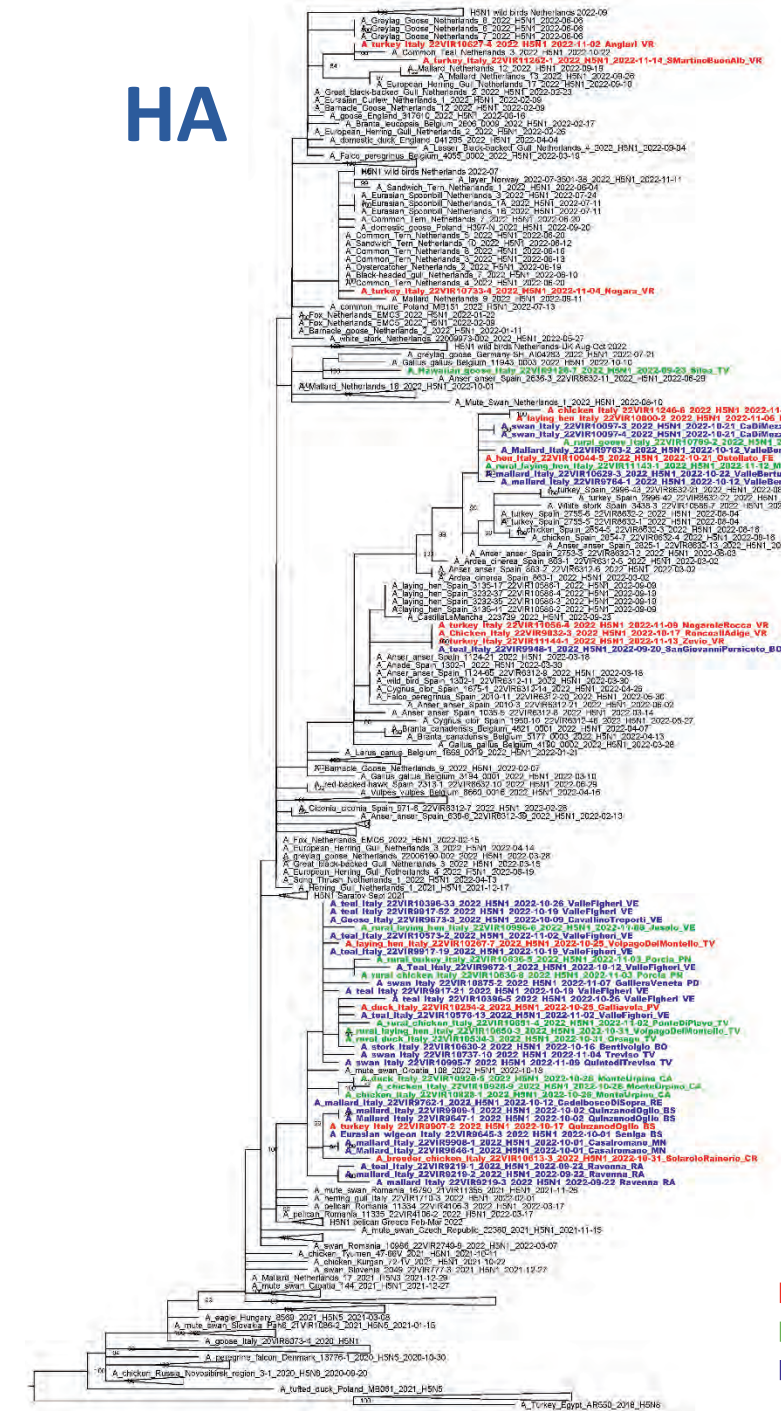
HA

HA phylogenetic tree

Genetic diversity of the HPAI H5N1 viruses circulating in Italy

The phylogenetic tree of the hemagglutinin (HA) gene segment shows in red the cases from poultry farms, in green the cases from backyards and captive birds, in blue the cases from wild birds.

- ❖ We observed a high correlation among cases identified in poultry/domestic birds and cases identified in wild birds, suggesting that in most cases wild birds are primarily responsible for viral transmission to poultry species
- ❖ Six different genetic groups → Multiple viral introductions
- ❖ High genetic relationship between viruses collected from different poultry farms were observed only in few cases. Epidemiological investigations on these cases are ongoing to evaluate any possible secondary spread.

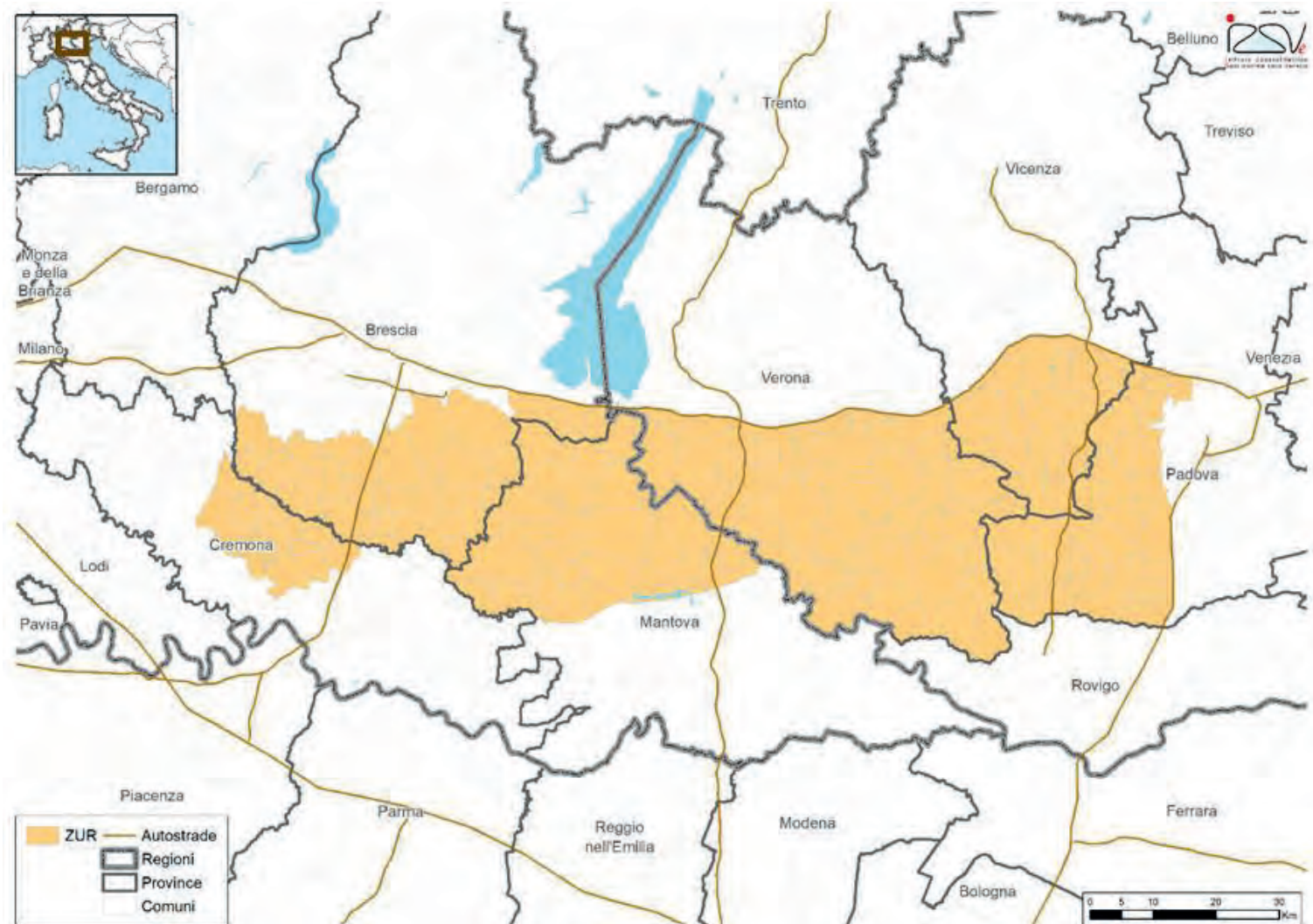


- poultry farms
- backyards/captive birds
- wild birds

Further Restriction Zone

A FRZ has been established by the Competent Authority of Veneto and Lombardia regions to prevent the further spread of the infection

Among other measures, restocking of fattening turkeys in the FRZ is forbidden until 30 January 2023



Preventive culling

- Preventive culling, referred to as the killing and disposal of birds in farms considered at risk, was applied in order to reduce the risk of uncontrolled spread of the disease, both in Veneto and Lombardy regions.
- Criteria used to decide which holdings should be depopulated were:
 - proximity to infected farms (within the 3-km radius);
 - potential direct or indirect contacts (sharing of personnel, sharing of vehicles, farms belonging to the same owner, farms belonging to familiars of the owner).
- The precise details on the timeframe of culling and productive types are reported in the related Provisions of the local competent authority.

Strengthening biosecurity measures (other than housing order)

- In accordance with Ministerial provision n° 20885 of 01 September 2022, enhanced biosecurity measures should be applied in high-risk areas for the introduction and spread of H5/H7 HPAIV, and in particular:
- implementation of proper cleaning and disinfection protocols, in particular for tools and equipment introduced in premises where poultry is kept;
- ban on access of unauthorized personnel to the poultry premises;
- record of movement of vehicles or people entering and leaving the poultry premises;
- correct storage and disposal of carcasses;
- correct storage and disposal of manure;
- correct storage of (clean) litter, which must be adequately covered and protected from any direct and indirect contact with wild birds;
- if the farm uses surface water for watering birds, this must be properly disinfected;
- appropriate disinfection methods should be arranged at the entrance and exit of buildings that house poultry or other captive birds, as well as at the entrance and exit of the poultry farm.

Additional preventive and mitigation measures – part 1

- Early detection is implemented throughout the poultry sector: significant productive or sanitary changes observed in holdings must be reported immediately to the Veterinary Services, such as decrease in feed and/or water consumption, decreased production of eggs, clinical symptoms, increased mortality rate;
- Controls 48 h before movements of consignments of meat turkeys, layer hens and anatids to slaughterhouses
- Controls 48 h before movements of consignments of pullets from high risk areas to FRZ

Additional preventive and mitigation measures – part 2

- A strict monitoring plan is foreseen on a sample basis in high risk areas of Veneto, Lombardy and Emilia-Romagna, on a weekly basis in broiler of age between 37 and 44 days, and fortnightly in fattening turkey older than 50 days and in pullets and laying hen older than 28 days, as to ensure the identification of at least one infected poultry holding where the prevalence of infected poultry holdings is at least 3%, with a 95% confidence interval;
- The use of live decoy birds belonging to the orders *Anseriformes* and *Charadriiformes* for hunting can be allowed by the local veterinary authority provided an active surveillance plan for AI in wild birds is in place (sampling for virological testing) and will be suspended once there is evidence of HPAI virus circulation on the Italian national territory;



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Thanks for your kind attention