



**State Inspection for Veterinary and Phytosanitary Safety
under the Government of the Kyrgyz Republic**

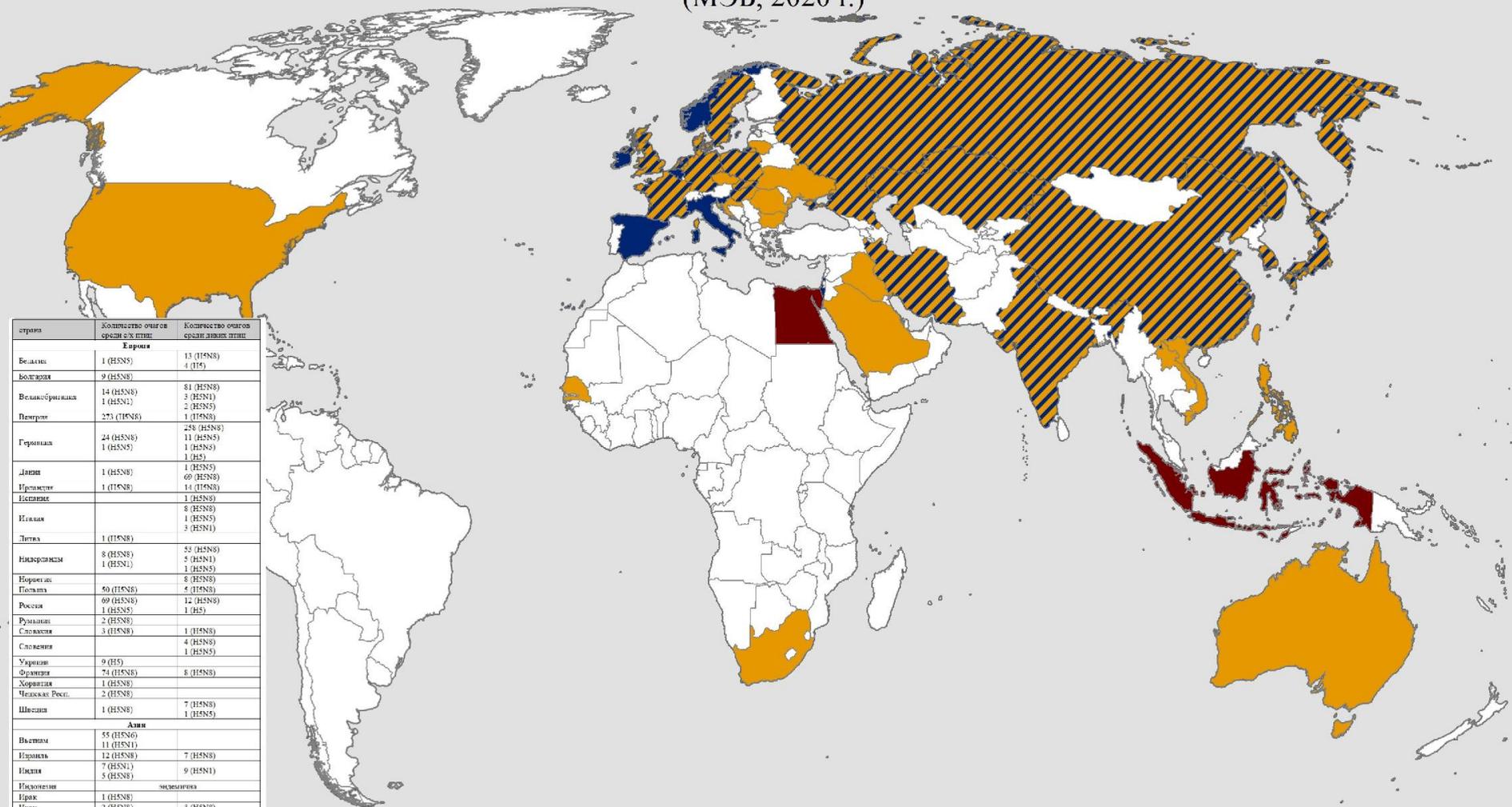
**«Diagnosis and surveillance of avian
influenza and Newcastle disease in
Kyrgyzstan»**

**Bishkek
29 January 2021**

Зарегистрированные вспышки в странах мира по высокопатогенному гриппу птиц (ВГП) (МЭБ, 2020 г.)



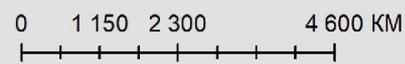
31.12.2020



страна	Количество очагов среди с/х птиц	Количество очагов среди диких птиц
Европа		
Бельгия	1 (H5N5)	13 (H5N8)
Болгария	2 (H5N8)	4 (H5)
Великобритания	14 (H5N8) 1 (H5N1)	81 (H5N8) 3 (H5N1)
Пенгуин	273 (H5N6)	2 (H5N3) 1 (H5N8)
Германия	24 (H5N8) 1 (H5N5)	11 (H5N5) 1 (H5N8) 1 (H5)
Дания	1 (H5N8)	1 (H5N5)
Ирландия	1 (H5N8)	69 (H5N8)
Испания		14 (H5N8) 1 (H5N8)
Италия		8 (H5N8) 1 (H5N5) 3 (H5N1)
Латвия	1 (H5N8)	
Нидерланды	8 (H5N8) 1 (H5N1)	53 (H5N8) 5 (H5N1) 1 (H5N5)
Норвегия		8 (H5N8)
Польша	50 (H5N6)	5 (H5N8)
Россия	69 (H5N8) 1 (H5N5)	12 (H5N8) 1 (H5)
Финляндия	2 (H5N8)	
Словакия	3 (H5N8)	1 (H5N8)
Словения		4 (H5N8) 1 (H5N5)
Украина	9 (H5)	
Франция	74 (H5N8)	8 (H5N8)
Хорватия	1 (H5N8)	
Чешская Респ.	2 (H5N8)	
Швеция	1 (H5N8)	7 (H5N8) 1 (H5N5)
Азия		
Вьетнам	55 (H5N6) 11 (H5N1)	
Израиль	12 (H5N8)	7 (H5N8)
Индия	7 (H5N1) 5 (H5N8)	9 (H5N1)
Индонезия		
Индонезия	1 (H5N8)	медициана
Иран	2 (H5N8)	3 (H5N8)
Казахстан	11 (H5)	1 (H5)
Китай	1 (H5N1) 1 (H5N6)	2 (H5N6) 1 (H5N8)
Лаос	2 (H5N1)	
Саудовская Аравия	1 (H5N8)	
Тайвань	27 (H5N2) 46 (H5N5)	
Филиппины	3 (H5N6)	
Южная Корея	12 (H5N8)	46 (H5N8)
Япония	49 (H5N8)	7 (H5N5)
Африка		
Египет		
Египет	1 (H5N1)	медициана
ЮАР	3 (H5N8)	
Северная Америка		
США	1 (H5N2)	
Австралия		
Австралия	3 (H5N2)	

Условные обозначения:

- страны неблагополучные по ВГП (домашняя популяция)
- страны неблагополучные по ВГП (дикая популяция)
- страны эндемичные по ВГП (дикая популяция)



Poultry stock

- *The total number of poultry in Kyrgyzstan is 5511.0 thousand heads;*
- *37 poultry farms were identified, which contain 966 800 poultry in 2020;*
- *4 545 051 poultry were registered in private backyards*

Regulatory updates:

- *The OIE Manual of Diagnostic Tests and Vaccines for Terrestrial Animals 2019;*
- *National Plan of the Kyrgyz Republic to combat the Highly Pathogenic Avian Influenza Pandemic (dated 16 January 2006, No. 25);*
- *Interstate standard - Methods of laboratory diagnostics of birds (GOST 25581-91);*
- *Safety and Biosafety Manual.*

Activities:

- *Clinical examination;*
- *Active and passive surveillance;*
- *Serological and virological studies.*

Diagnostic capacity:

➤ *Quality assurance:*

Virology and Molecular Diagnostic Departments of the Laboratory of the Veterinary Diagnostic Centers have been accredited according to the ISO-IEC-17025-2009 standard since 2015.

Ehe departments were re-accredited in accordance with the ISO-IEC-17025-2019 standard in 2020.

In order to confirm the level of competence, laboratory specialists annually participate in proficiency tests.

➤ *Ensuring biological safety and biosecurity.*

➤ *The laboratories equipped with appropriate equipment and supplies .*

Sampling and delivery of samples

- *If there is a suspicion of avian influenza (the presence of clinical, pathological signs of the disease, sudden mortality), samples of the pathological material are taken: the brain, lungs, trachea, spleen, intestinal tract, kidneys, heart.*
- *The delivery of bird carcass and selected samples of pathological material (organs, tissues) to the laboratory is carried out as soon as possible in a moistureproof container, hermetically packed.*
- *Upon delivery of samples within 24 hours, the selected organs and tissues are placed in plastic containers, barrier plastic bags, packed in wide-necked thermoses (unbreakable) with dry ice or ice packs.*
- *If samples are shipped longer than 24 hours, they are refrigerated and delivered on ice (ice packs can be used).*
- *It is recommended that fecal extract should be stored and delivered at 4 ° C.*

Sampling for AI



LABORATORY DIAGNOSTICS OF AI

Instant diagnosis:

- *immunofluorescence method*
- *indirect hemadsorption reaction)*
- *indirect hemagglutination test*

Virological diagnosis :

- *Isolation of AIV in developing embryos or tissue cultures*
- *Virus identification*

Serological diagnosis:

- *hemagglutination-inhibition reaction*
- *complement fixation test*
- *ELISA test*

LABORATORY DIAGNOSIS



Information on the tested samples of AI and ND in the Republic

<i>Year</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>
Antigen-detection					
<i>AI</i>	201	133	144	144	70
<i>ND</i>	296	150	144	148	89
Antigen-determination					
<i>AI</i>	479	367	151	384	314
<i>ND</i>	663	365	145	353	459

Gaps

- Instant diagnosis:

- *improving diagnostic testing capacity (identification and validation).*

- Action suggested:

- *exchange of information on strains and serotypes of vaccines for the prevention of AI and ND;*

- *seminars and training of new methods in laboratory diagnosis*

Thank for attention!

