

## **PROGRAMME FOR THE VACCINATION IN THE UK AGAINST AVIAN INFLUENZA OF BIRDS HELD IN ZOOLOGICAL COLLECTIONS**

The purpose of this note is to inform the Commission that the United Kingdom have drawn up an outline vaccination programme against avian influenza in zoological collections of birds, for which approval is sought. The Commission are asked to note that seeking only approval in principle at this stage.

### **Avian Influenza (AI)**

Avian influenza is a serious, highly contagious disease of poultry and other captive birds caused by different types of influenza viruses. These viruses may also spread to mammals, in particular pigs and humans.

Infection with certain strains of influenza viruses of avian origin may trigger outbreaks in domestic birds of epizootic proportions, causing mortality and the disturbance of poultry, which can threaten the profitability of the poultry industry.

AI can be spread by direct contact with infected birds, but is generally spread through contact with their excretions – primarily faeces. The application of strict biosecurity aims to minimise the possibility of this contact.

### **Context**

Highly Pathogenic Avian Influenza H5N1 (HPAI H5N1) has recently shown unprecedented transmission over long distances via migratory birds from Asia to Eastern Europe and thereafter several Member States. In relation to decreasing the risk from HPAI H5N1, the Commission has adopted several Decisions.

HPAI H5N1 has also been detected in Africa and migratory birds from there present an unknown further risk of transmission into the Community.

Commission Decision 2005/744/EC lays down at Community level the requirements concerning the use vaccination of birds kept in Zoos, if a Member State believes such vaccination would be appropriate.

The UK stresses the importance of biosecurity as the principal control measure, and has conducted an extensive awareness campaign regarding this. However the use of vaccination against HPAI H5N1, as an adjunct to good biosecurity, may be an appropriate additional preventive measure in certain circumstances.

Whilst vaccination reduces the clinical signs of disease, birds may still become infected and thus contribute to the further spread of the infection. Vaccination must, therefore, be accompanied by suitable surveillance, restrictions and continued biosecurity. The use of vaccination could be applicable to those birds in zoological collections.

The UK authorities have consulted widely with representatives of zoological collections and they have concluded:

- The UK has numerous zoological collections that contain birds from rare and endangered species. Several of these centres are part of breeding programmes of global importance to the conservation of such birds.
- Many zoological collections contain types of birds that may not be easily housed without serious detriment to their welfare.
- Several zoos are in close proximity to wetland sites with migratory birds
- Many zoos have outdoor enclosures which have access to open water areas and are not easy to practically protect from access by wild birds.
- That numerous zoological collections have other areas designed such that contact with wild birds is difficult to prevent.
- that the level of supervision of such zoos is such that if vaccination for HPAI H5N1 were undertaken, any surveillance thought necessary would be effectively carried out.

The United Kingdom would therefore like to submit a plan to the Commission for its approval, which proposes a programme for the vaccination of susceptible zoo birds.

### ***Purpose***

***The vaccination of any birds in UK zoos would be preventive, and would be in order to protect birds held in such collections. Vaccination would be an appropriate and proportional additional preventive measure to protect wild fauna and to conserve biodiversity.***

### **Zoological Collections**

An initial list of zoos who have stated that they have an interest in a vaccination programme is attached as a Excel spreadsheet. The zoos listed in this document are those eligible in the UK. In practice it is likely that vaccination will only be undertaken in zoos on a regional basis following a risk assessment. Zoos have been contacted in order to draw up a provisional list of birds that they wish to vaccinate. Birds that are kept under adequate biosecurity do not need to be vaccinated. Other zoos that may wish to join the programme would be forwarded to the Commission at the appropriate time.

### **Vaccine to be used**

Intervet Nobilis H5N2 has been selected for use in this vaccination programme.

This product has a Provisional Marketing Authorisation (PMA) in the UK granted in accordance with article 26(3) of Directive 2001/82/EC. The product is an inactivated oil emulsion vaccine. This vaccine will be used in accordance with the instructions of the manufacturer which include subcutaneous or

intramuscular vaccination. The primary course of vaccination requires two doses given 6-10 weeks apart, and if required is followed by boosters every 6 months thereafter. It is recognised that the data available regarding the use of AI vaccines in non domestic poultry birds is limited. However considerable experience has been gathered around the world using this product in other species to protect against avian influenza.

## **Execution of the Vaccine Programme**

### **1. Biosecurity awareness campaign for Zoos**

All zoos have already been contacted regarding specific biosecurity guidance to allow them to decide what their risks are, improve their biosecurity, and assist with any decision to request vaccination.

### **2. Application to vaccinate approval**

Any zoo wishing to vaccinate will have to submit a vaccination plan for an approval process directed by the Department of the Environment Food and Rural Affairs (Defra). This plan will contain the following information.

- Address of the premises.
- Name and address of the site Veterinarian.
- Identification of the epidemiological groups on the premises and a overall map showing their location and approx number of birds in each.
- The main biosecurity arrangements in place for;
  - a) the whole site;
  - b) the epidemiological groups.
- Recommendation of which epidemiological groups should be vaccinated, which should not, and why;
- A list of the birds to be vaccinated in each group;
- Details of the logistics required to complete vaccination (quantity of vaccine etc) This plan will form part of the record of vaccination at the zoo, and will be of use if it is the subject of other disease control measures.

Based on a review of the submitted plan by Defra written permission will be issued to allow the proposed vaccination.

Defra will ensure that the zoo and other necessary authorities will be made aware of such permission.

### 3. Vaccination

Defra will be responsible for supervising the vaccination programme and ensuring that all requirements are met.

Storage of vaccine, vaccination and revaccination will take place as recommended by the manufacturer.

Vaccinated birds will be individually identifiable (with rings or microchips) and a record kept of the identity and their AI vaccination history, for 10 years.

Unused vaccine will be returned to Defra with a written record of the number of birds vaccinated and the number of doses used.

The vaccinated birds will not be traded or moved within the UK unless permitted by Defra. Trade or movement within the Community will only be allowed after specific authorization from the destination Member State.

On completion of the vaccination plan, zoos will report to Defra. This report will contain the information relating to the vaccination procedures of the birds in the zoo and will be signed by the responsible person for the zoo and their Veterinary Surgeon.

### 4. Surveillance and Monitoring after Vaccination

Biosecurity will continue to be the first priority for all birds on the zoo site, and this will continue both during and after any vaccination programme has taken place.

In order to monitor the epidemiological situation, and detect any presence of disease in vaccinated birds, the following surveillance measures will apply;

- The continued legal requirement to report any suspicion of AI.
- Where the risk dictates, surveillance for infection (clinical and subclinical) of vaccinated zoo birds, non-vaccinated birds on the same premises, and if required an appropriate number of holdings in any nearby area, will be undertaken. This would be carried out after a risk assessment, and would use the RT-PCR test on cloacal swab/faeces, as the basis of the screening tests carried out. The sampling rate would be decided on a case by case basis and depend on the management and other factors on each site. However, where possible it would aim to provide a statistical basis of providing a 95% confidence level of detecting infection level at not less than 5%.

- The testing would be carried out at the UK and Community Reference Laboratory for Avian Influenza at Weybridge.

### **Reporting**

A detailed report on the execution of the programme including results of any testing carried out would be provided to the Commission and the Member States in the framework of the Standing Committee Of The Food Chain And Animal Health.

Zoo Name	County	Animal Health Division	Estimated number of birds which may require vaccination
Galloway Wildlife Conservation Park	Dumfries and Galloway	Ayr	1
Silent World	Pembrokeshire	Carmarthen	1
Smithills Open Farm	Lancashire	Preston	1
Monkey Sanctuary Trust	Cornwall	Truro	1
Fairbourne Zoo	Gwynedd	Caernarfon	2
Wildwalk @ Bristol	Bristol	Gloucester	2
St Leonards Farm Park	West Yorkshire	Leeds	2
Falconry Centre (Hagley)	West Midlands	Leicester	2
Birmingham Botanical Gardens &	West Midlands	Leicester	2
Foxburrows Farm	Essex	Chelmsford	3
Bowland Wild Boar Park	Lancashire	Preston	3
Twin Lakes Park	Leicestershire	Leicester	5
Three Owls Bird Sanctuary and Reserve	Lancashire	Preston	5
Natureland Seal Sanctuary	Lincolnshire	Lincoln	6
Cheshire Farm Falconry	Cheshire	Stafford	7
Walesby Garden Centre	Nottinghamshire	Lincoln	8
Wetlands Waterfowl Reserve	Nottinghamshire	Lincoln	8
Knowsley Safari Park	Merseyside	Preston	8
New Forest Otter, Owl and Wildlife	Hampshire	Reading	8
Spring Garden Centre	East Yorkshire	Lincoln	10
Rand Farm Park	Lincolnshire	Lincoln	10
Turbary Woods Owl & Bird of Prey Sanctuary	Lancashire	Preston	10
Weymouth Sea Life Park	Dorset	Taunton	10
Cornish Owl Centre	Cornwall	Truro	10
Sea Life Centre	North Yorkshire	Leeds	11
Brent Lodge Park Animal Centre	London	Chelmsford	12
Shaldon Wildlife Trust	Devon	Exeter	12
World of Country Life	Devon	Exeter	12
Tropical Butterfly House Wildlife & Falconry	Sheffield	Leeds	12
Ayscoughfee Gardens	Lincolnshire	Lincoln	12
Baytree Nurseries and Garden Centre	Lincolnshire	Lincoln	12
Scottish Deer Centre	Fife	Perth	12
Farming World	Kent	Reigate	12
Liberty's Raptor & Reptile Centre	Hampshire	Reading	13
Old MacDonalds Farm Park	Essex	Chelmsford	15
Beaver Water World	Kent	Reigate	15
North Devon Bird of Prey Centre	Devon	Exeter	16
Reaseheath Animal Care	Cheshire	Stafford	16
Woodside Farm and Wildfowl Park	Bedfordshire	Chelmsford	17
White Post Farm Centre Ltd	Lincolnshire	Lincoln	20
Safari Parties (Grangewood Zoo)	Derbyshire	Stafford	20
British Wildlife Centre	Surrey	Reigate	21
Valley International Park	South	Galashiels	27
Yarak Birds of Prey	Devon	Exeter	29
Barn Owl Centre	Gloucestershire	Gloucester	29
Heron's Brook Narberth	Pembrokeshire	Carmarthen	30

Escot Aquaculture Ltd	Devon	Exeter	30
Amazonia	North	Galashiels	30
Edinburgh Butterfly and Insect World	Midlothian	Galashiels	30
Shepreth Wildlife Park	Hertfordshire	Chelmsford	31
English School of Falconry	Bedfordshire	Chelmsford	32
Leighton Hall Bird of Prey Centre	Lancashire	Preston	32
Hedges Hawks At Pennywell	Devon	Exeter	33
Betton Farm Cottage	North Yorkshire	Leeds	34
Cumberland Bird of Prey Centre	Cumbria	Carlisle	35
Battersea Park Childrens Zoo	London	Chelmsford	35
Aviary, Leeds Castle	Kent	Reigate	36
Leeds Castle	Kent	Reigate	36
Exmoor Zoological Park	Devon	Exeter	40
Dalhousie Castle Falconry	Midlothian	Galashiels	40
Trereife Farm Park	Cornwall	Truro	40
Mablethorpe Seal Sanctuary	Lincolnshire	Lincoln	42
Hawk Conservancy Trust	Hampshire	Reading	46
Monkey World	Dorset	Taunton	46
South Lakes Wild Animal Park	Cumbria	Carlisle	50
Manor House Wildlife Park	Pembrokeshire	Carmarthen	50
Knockhatch Adventure Park	East Sussex	Reigate	50
Raptor Centre	Kent	Reigate	50
Tamar Otter Sanctuary	Cornwall	Truro	50
Tropical Birdland (Leicestershire) Ltd	Leicestershire	Leicester	52
West Midlands Safari Park	Worcestershire	Worcester	53
Greenacres Farm	Flintshire	Caernarfon	60
Bodafon Farm Park	Conwy	Caernarfon	60
Golders Hill Park Zoo	London	Chelmsford	60
Lightwater Valley Bird of Prey Centre	North Yorkshire	Leeds	60
Woodside Falconry and Conservation Centre	Lincolnshire	Lincoln	60
Park Rose Owl & Bird of Prey Centre	East Yorkshire	Lincoln	60
Sewerby Hall & Gardens Childrens Zoo	East Yorkshire	Lincoln	60
Colliford Lake Park Ltd	Cornwall	Truro	64
World of Wings	North	Galashiels	65
Butterfly and Wildlife Park	Lincolnshire	Lincoln	65
Cotebrook Shire Horse Centre and	Cheshire	Stafford	65
Mole Hall Wildlife Park	Essex	Chelmsford	69
Chessington World of Adventures	Surrey	Reigate	70
Palacerigg Country Park	North	Galashiels	72
The Glass House	Glasgow	Galashiels	73
Folly Farm	Pembrokeshire	Carmarthen	80
Scottish Owl Centre	Argyll	Perth	80
Birdworld and Underwater World	Surrey	Reigate	81
Falcons of Thorpe Perrow	North Yorkshire	Leeds	85
Cheney Mill Farm Park	Cornwall	Truro	90
Pili Palas Anglesey	Anglesey	Caernarfon	100
Lakeland Bird of Prey Centre	Cumbria	Carlisle	100
Baytree Owl Centre	Lincolnshire	Lincoln	100
Ferne Animal Sanctuary	Somerset	Taunton	100
Blackpool Zoo	Lancashire	Preston	101
Woburn Safari Park	Bedfordshire	Chelmsford	102
Noah's Ark Rescue Centre	West Sussex	Reigate	108
Newquay Zoo	Cornwall	Truro	108

Waddesdon Manor Aviary	Buckinghamshir	Reading	110
Cheshire Waterlife and Falconry Ltd	Cheshire	Stafford	110
Highland Wildlife Park	Inverness shire	Inverness	112
Camperdown Wildlife Centre	Tayside	Perth	113
Cotswold Falconry Centre	Gloucestershire	Gloucester	114
Blair Drummond Safari Park	Stirling	Perth	116
Screech Owl Sanctuary	Cornwall	Truro	117
Drusillas Zoo Park	East Sussex	Reigate	121
Porfell Animal Land Wildlife Park	Cornwall	Truro	124
Noah's Ark Farm Centre	Gloucs	Gloucester	128
Maryon Wilson & Greenwich Park	Greenwich	Chelmsford	130
Cotswold Wildlife Park	Oxfordshire	Reading	130
Putlake Adventure Farm	Dorset	Taunton	141
Welsh Mountain Zoo	Conwy	Caernarfon	143
Tropical Wings	Essex	Chelmsford	143
Tollcross Children's Farm	Glasgow	Galashiels	143
Amazon World Zoo Park	Isle of Wight	Reading	150
Five Sisters Zoo Park	West Lothian	Galashiels	153
Cricket St Thomas Wildlife Park	Somerset	Taunton	162
National Bird of Prey Trust	Gloucestershire	Gloucester	166
Longleat Safari Park	Wiltshire	Gloucester	171
Cornish Birds of Prey Centre	Cornwall	Truro	198
Barnes Wildfowl and Wetlands Trust	London	Chelmsford	199
Hamerton Zoo Park	Cambridgeshire	Bury St	200
Bristol Zoo Gardens	Bristol	Gloucester	200
Flamingo Park Wildlife Encounter	Isle of Wight	Reading	206
Owl Centre	Cumbria	Carlisle	211
Colchester Zoo	Essex	Chelmsford	275
Edinburgh Zoo	Edinburgh	Galashiels	300
Beale Park	Berkshire	Reading	300
Whipsnade Wild Animal Park	Bedfordshire	Chelmsford	344
Lotherton Hall Bird Garden	West Yorkshire	Leeds	385
Marwell Preservation Trust Ltd	Hampshire	Reading	395
Wellplace Zoo	Oxfordshire	Reading	400
Harewood Bird Garden	Lancashire	Leeds	456
London Zoo	London	Chelmsford	463
Wingham Bird Park	Kent	Reigate	485
Birdland Park Ltd	Gloucestershire	Gloucester	500
Chester Zoo	Cheshire	Stafford	500
Martin Mere Wildfowl and Wetlands Trust	West Lancashire	Preston	520
Paradise Park Wildlife Sanctuary	Cornwall	Truro	600
National Parrot Sanctuary	Lincolnshire	Lincoln	763
Hillside Ornamental Fowl	Cheshire	Stafford	800
Bentley Wildfowl Collection	East Sussex	Reigate	1091
Blackbrook Zoological Park	Staffordshire	Stafford	1400
Slimbridge Wildfowl and Wetlands Trust	Gloucestershire	Gloucester	1600

TOTAL

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