

NEWCASTLE DISEASE REGULATION

August 2009
Belize

BELIZE:

**STATUTORY INSTRUMENT
NO. OF 2009**

REGULATIONS made by the Minister responsible for Agriculture, after consultation with the Authority, in exercise of the powers conferred upon him by section 86 of the Belize Agricultural Health Authority Act, Chapter 211 of the Substantive Laws of Belize, Revised Edition 2000-2003, and all other powers thereunto him enabling.

(Gazetted, 2009).

Short title.

1. These Regulations may be cited as the
**BELIZE AGRICULTURAL HEALTH AUTHORITY (NEWCASTLE DISEASE)
REGULATIONS, 2009.**

Interpretation.

2. In these Regulations

- 2.1 Accredited Laboratory:** means a veterinary diagnostic laboratory authorized by the Belize Agricultural Health Authority to conduct avian disease diagnostics in accordance with OIE guidelines.
- 2.2 Accredited:** means any person or legal entity to whom BAHA delegates activities related to the prevention, control and eradication of poultry diseases.
- 2.3 Backyard Poultry:** All domestic poultry that are used for the production of meat and eggs destined for consumption, the production of other commercial products, the production of game birds or the reproduction of all these categories of birds.
- 2.4 BAHA :** means the Belize Agricultural Health Authority.
- 2.5 Biosecurity:** means any sanitary measure designed to reduce the risk of introduction and/or transmission of poultry diseases into poultry establishments.
- 2.6 Cold chain:** Procedure which guarantees the correct refrigeration temperature of the products during their storage, transportation and administration, from the establishment where they are manufactured until they are utilized.
- 2.7 Commercial Poultry:** means poultry which are raised for trade purpose.
- 2.8 Compartment:** means an animal subpopulation contained in one or more establishment under a common biosecurity management system with an distinct health status with respect to a specific disease or specific diseases for which required surveillance, control and biosecurity measures have been applied for the purpose of international trade.
- 2.9 Compost:** means a mixture which generally contains poultry organic material which may be used as fertilizer.
- 2.10 Confirmed case:** Infected or diseased animals in which the presence of the ND virus has been proven by a diagnostic technique approved by BAHA.

- 2.11 Control phase:** Group of sanitary activities, necessary for the control and eradication of ND, realized in a strategic and sequential manner.
- 2.12 Control zone:** A particular geographical area in which are applied sanitary measures which tend to reduce the incidence and prevalence of the ND virus in a specific period.
- 2.13 Control:** means sanitary measures whose objective are to reduce the incidence and prevalence of a poultry disease in a specific geographic area.
- 2.14 Day old birds:** means birds aged not more than 72 hours after hatching.
- 2.15 Definitive quarantine:** Absolute restriction of the movement of birds, their products and by-products during a period not less than 63 days while the sanitary actions are taken for the elimination of the aetiological agent of the disease.
- 2.16 Destroyed animals:** Those animals which are killed in the control of the disease and whose carcasses are not authorized for human or animal consumption nor for industrial use, reason why they are removed through the indicated sanitary processes.
- 2.17 Diagnosis:** Study based on the joint analysis of history, clinical signs observed in the animal, as well as, serological tests, virus isolation and strain characterization which allows the confirmation or rejection of the suspicion of infection with the ND virus.
- 2.18 Diagnostic test:** Laboratory techniques used to confirm or rule-out the presence of ND virus in a premise or zone.
- 2.19 Epidemiological Surveillance:** Systematic, ongoing collection, collation, and analysis of information related to animal health and the timely dissemination of information to those who need to know so that action can be taken.
- 2.20 Eradication zone:** A particular geographical area in which are applied sanitary measures which tend to eliminate the ND virus or where epidemiological studies are conducted with the objective to prove the absence of this disease, when the slaughter methodology is applied at least for period of three months.
- 2.21 Eradication:** means the elimination of a pathogenic agent from a country or zone.
- 2.22 Free farm certificate:** Official document granted by BAHA to proprietors of poultry establishments registered in the Poultry Health Programme and who have complied with this Regulation.
- 2.23 Free zone or country:** It is considered that a zone or country is free of Newcastle Disease when it is known that the disease has not been detected in the area for at least three years. This period can be reduced to six months after having slaughtered the last affected animal for the countries that apply depopulation, whether associated with vaccination against ND or not.
- 2.24 Hazardous Waste:** means the containers and materials used in the activities for prevention, treatment and control of poultry diseases which constitute a risk to human health and the environment either alone or when combined with other waste materials.
- 2.25 International or external quarantine:** Application of restrictive measures to prevent the introduction of ND in national territory or even into a determined geographical region within countries.
- 2.26 ND Incubation Period:** It is considered to be 21 days, in conformity with the OIE's Terrestrial Animal Health Code.

- 2.27 Newcastle Disease (ND):** It is an infection of birds caused by agents of the genus *Avulavirus* of the Paramyxoviridae family.
- a. Enterotropic, asymptomatic virus with an Intracerebral Pathogenic Index (ICPI) of 0.0 and with a Mean Death Time (MDT) greater than 150 hours
 - b. Lentogenic virus, whose ICPI is from 0.2 to 0.4 and with a MDT of 103 to 120 hours.
 - c. Mesogenic virus whose ICPI is from 1.2 to 1.6 with a MDT of 40 to 62 hours.
 - d. Velogenic, neurotropic virus whose ICPI is from 1.75 to 2.0 and with a MDT less than 48-55 hours.
 - e. Velogenic, viscerotropic virus whose intracerebral pathogenicity index (ICPI) in day old chicks is from 1.85 to 2.0 and its mean death time (MDT) is less than 48-50 hours. (Mean death time in hours in chicken embryo with a minimal lethal dose).
- 2.28 Notification:** Formal written or electronic communication to BAHA on the suspicion or existence of ND, providing in a sufficient and necessary manner the relevant epidemiological data for its corresponding identification, localization and attention.
- 2.29 Official Diagnostic Laboratory:** Diagnostic establishment of the official veterinary services that conducts the assays and analyses that allow the determination of the absence or presence of ND.
- 2.30 Official Veterinarian:** means a veterinarian authorized by BAHA to perform certain designated official tasks associated with animal health and/or public health.
- 2.31 OIE:** means the World Organization for Animal Health.
- 2.32 Outbreak:** means the occurrence of one or more cases of disease or an infection in an epidemiological unit.
- 2.33 Poultry Disease :** means Avian Influenza, Avian Infectious Laringotracheitis, Newcastle Disease, Pullorum or Fowl Typhoid.
- 2.34 Poultry Establishment:** means farms, slaughtering plants, hatcheries, feed mills, processing plants and poultry litter outlets.
- 2.35 Poultry Farm:** means establishment, where birds are raised for commercial purposes and includes layers, breeders, broilers, pet birds, and fighting cocks.
- 2.36 Poultry Litter:** means the excrement of birds, pure or mixed with feed and other by-products accumulated during production.
- 2.37 Poultry :** means all domesticated birds including backyard poultry, used for the production of meat or eggs for consumption, for the production of other commercial products, for restocking supply of game, for breeding these categories of birds, as well as fighting cocks, caged birds, song birds used for any purpose.
- 2.38 Prevention:** means sanitary measures based on epidemiological studies with the objective of preventing the introduction, establishment and/or spread of poultry disease.
- 2.39 Programme:** means Programme for the prevention, control and eradication of poultry diseases established with the appropriate legal, financial and human resources.
- 2.40 Proprietor:** means the person or group of persons who owns and is responsible for the poultry establishment.

- 2.41 Region/Zone:** means a clearly defined part of a territory containing an animal subpopulation with a distinct health status with respect to a specific disease for which required surveillance, control and biosecurity measures have been applied for the purpose of international trade.
- 2.42 Report:** Presentation of an official document on the detection of ND in a specified place and time.
- 2.43 Rest period:** means the period of 2 to 3 weeks when the barns are emptied and cleaning and disinfection are done.
- 2.44 Risk analysis:** designates the process which encompasses hazard identification, risk evaluation, risk management and risk communication.
- 2.45 Sentinel birds:** Healthy, unvaccinated birds, with identification, that are kept within flocks vaccinated against ND for the purpose that through serological and virological sampling, it would be possible to confirm the absence of viral circulation in the flock or birds that are used prior to repopulation of farms affected by ND.
- 2.46 Slaughtered animals:** Those birds which for the purpose of control of the disease do not have any restrictions for their use and consumption.
- 2.47 Solid waste:** means disposed of objects and materials resulting from human activities during the process of consumption, transformation and production of poultry that represents no human health risk.
- 2.48 Suspect case:** Animal probably infected or diseased in which the presence of the ND virus has not been confirmed by laboratory diagnosis.
- 2.49 Vaccinated animals:** Those animals in which a duly approved biological product is administered, with the purpose of immunization for the prevention, control and eradication of ND.
- 2.50 Veterinary certificate:** Official document issued by BAHA or by approved or accredited or authorized persons or legal entities to confirm compliance with this Regulation.
- 2.51 Virus isolation:** Diagnostic test performed by an authorized veterinary diagnostic laboratory consisting of inoculation of samples obtained from birds into chicken embryos for the isolation and identification of the Newcastle Disease virus.

3. OBJECTIVE AND APPLICATION

3.1 Objective

The present Regulation has as its objective to establish the sanitary measures for the Prevention, control and eradication programme for Newcastle Disease.

3.2 Scope of Application

Compliance with this Regulation corresponds to every person, group of persons or legal entity who is dedicated to production, industrialization, commerce and services in the poultry industry.

3.3 Competent Authority

BAHA, through the Department of Animal Health, is the Competent Authority for the application of the present Regulation.

4 GENERAL PROVISIONS

- 4.1** The Programme for ND is designed to establish the technical measures for the prevention, control and eradication of the disease.
- 4.2** The planning and coordination of the programme for ND, shall be a shared responsibility among BAHA, Ministry of Agriculture and Fisheries and the Belize Poultry Association.
- 4.3** The programme for ND shall be active and permanent.
- 4.4** BAHA may accredit or authorize private veterinarians and laboratories to conduct official activities of the programme for ND.

5 PHASES OF THE PROGRAMME FOR THE PREVENTION, CONTROL AND ERADICATION OF NEWCASTLE DISEASE

5.1 Of the Programme

The Programme contemplates the phases of prevention, control and eradication as well as considers the following conditions which must meet the OIE guidelines.

- a) Have an ND prevention, control and eradication Programme that complies with OIE and other international technical guidelines and these must be verified and evaluated for their confirmation.
- b) The national ND prevention, control and eradication programme should have the legal support and manuals which allow its operation.
- c) The programme should have control and verification points for the movement of birds, their products and by-products.

5.2 Prevention phase

5.2.1 In this phase, the BAHA should guarantee that the poultry establishments meet the biosecurity measures established in the Belize Agricultural Health Authority (POULTRY ACTIVITY) Regulation.

5.2.2 Epidemiologic surveillance:

5.2.2.1 ND is a notifiable disease.

5.2.2.2 The farm owners or their legal representatives as well as veterinarians and accredited or official laboratories are mandated to immediately notify BAHA upon the presentation of any suspicion or positive laboratory result to ND. The

surveillance shall be conducted through inspection of birds, their products and by-products and of the official documentation required for movement.

5.2.2.3 Active epidemiological surveillance of ND should be conducted through serological monitoring in commercial poultry populations as well as in backyard poultry. The statistical determination of the sample size shall be conducted through the WIN EPISCOPE programme, which contemplates a sampling scheme at a 95% confidence level, an expected prevalence of sampling units of 1%, with a precision level of 1% (range 0 - 2%) and the prevalence within each community of 10%, which increases the size of the sample and its precision.

It is based on the statistical calculation which contemplates the following formula:

$$N = \frac{1 - (1 - a)^{1/d}}{d} [N - (D - 1)/2]$$

where

N = sample size

a = confidence level 95% = 0.95

D = number of sick animals prevalence X population

N = population size

Estimated prevalence = 10% = 0.1

5.2.3.1 BAHA will determine when it is necessary to conduct virological monitoring additional to those established in the Procedural Manual.

The programme should have the diagnostic facilities for the analyses of samples in official laboratories or laboratories approved/accredited which comply with international standards. The Regional Technical Avian Health Commission shall promote the standardization of diagnostic tests in all and every official diagnostic laboratory and/or accredited laboratory of the countries.

5.2.3.2

5.2.3.2.1 For the purpose of prevention, control and eradication, the diagnosis must be conducted in official diagnostic laboratories or authorized laboratories.

5.2.3.2.2 The official laboratory tests for the diagnosis of ND are those determined by BAHA and shall be in accordance with OIE guidelines.

For epidemiological surveillance (active surveillance) ELISA and HI test shall be used. For a confirmatory test: virus isolation and pathogenicity index..

5.2.3.2.3 The official diagnostic laboratory shall established the method of sample referral to the international diagnostic reference laboratory.

5.2.3.2.1 The BAHA shall respond to notifications, and immediately conduct an epidemiological investigation.

5.2.3.2.2 The disease response measures applied shall be according to the findings and to the ND Emergency Preparedness Plan.

5.2.3.3 Vaccination

Vaccination shall be conducted in accordance to OIE and other international guidelines and in conformity to the strategies of the national programme.

- 5.2.3.3.1** The BAHA shall authorize the administration of vaccine and may make it mandatory.
- 5.2.3.3.2** Only vaccines from laboratories authorized by the BAHA shall be used and whose purchase has been authorized through the issuance of import permits.
- 5.2.3.3.3** Each farm should have a precise record of the manufacturer, type, dates and route of administration of the Newcastle disease vaccines.
- 5.2.3.3.4** The BAHA may need to adopt a territorial strategy which would include restrictive measures and a series of adequate continuous controls which would allow determination of whether the virus is circulating or not in the vaccinated population and also the evaluation of the efficacy of the vaccination programme.
- 5.2.3.3.5** The Programme shall keep the registry of the poultry producers using ND vaccine as well as vaccine manufacturers and distributors, and the farms certified as free of the disease.
- 5.2.3.4** The Belize Poultry Health Programme shall have an information system that guarantees that the activities of census, epidemiological surveillance, diagnosis and control of the Newcastle Disease are duly recorded. These records shall be easy to consult.

5.2.3.5 Import control

- 5.2.3.5.1** Birds, their products and by-products that are desired to be introduced into the country should include in their documentation: an official international veterinary certificate that attests to their origin and place of shipment from a zone or country officially recognized by the veterinary services of the exporting country as free of ND, for which the zone or country of origin and/or place of shipment of the poultry commodity, should request in writing their recognition as free. The exporting countries should comply with the harmonized regional requirements for the importation of birds, their products and by-products.
- 5.2.3.5.2** The BAHA shall conduct risk analyses for all avian species, their products and by-products.
- 5.2.3.5.3** The BAHA shall prepare the sanitary requirements according to the recommendations of the risk analysis. The preparation of the requirements should be a product of the risk evaluation conducted by the country to avoid the introduction of ND into the country.
- 5.2.3.5.4** Entry into the country is permitted only to birds, products and by-products that have been previously authorized, and meet all sanitary requirements.
- 5.2.3.5.5** In the case of an interception of an importation of unauthorized birds, their products or by-products, these shall be returned to origin, put under retention pending investigation or confiscated and destroyed forthwith.
- 5.2.3.5.6** The Poultry Health Programme shall have a Training Plan.
 - 5.2.3.5.6.1** The training plan shall have programmed activities, using all the methodology tools such as seminars, talks and simulations.

5.2.3.5.6.2 The users of the Training Plan shall be: the technical personnel of BAHA, the Ministry of Agriculture and Fisheries, and the Belize Poultry Association.

5.2.3.5.7 The National Poultry Health Programme shall have a communication plan that includes activities of mass dissemination.

5.2.3.5.7.1 The public awareness campaign shall be designed with clear messages for the particular sector, assigning the necessary resources to guarantee its function.

5.2.3.5.7.2 The material for dissemination should be prepared according to the target audience; these should be addressed to travelers, official and private technical personnel, poultry producers, backyard poultry owners, poultry merchants and the public in general.

6. CONTROL PHASE

6.1 In this phase, the BAHA should guarantee that the poultry establishments meet the biosecurity measures established in the Belize Agricultural Health Authority (POULTRY ACTIVITY) Regulation.

6.2 In free zones or zones/compartments where ND is an exotic disease or has been totally eradicated since its last apparition, the disease response measure shall be the depopulation of all infected and susceptible birds in the areas determined by the BAHA.

6.2.1 Internal quarantine.- The purpose of this type of quarantine is to avoid the possible transmission of ND to other susceptible birds not directly exposed, within an installation, a zone or region, or among these.

6.2.1.1 It should be applied in the case of a case or outbreak confirmed by isolation of the ND virus. Such quarantine refers to the restriction of movement of suspect and sick birds and those apparently healthy but exposed to the disease, as well as their products and by-products that have been or not been in direct contact with infected birds.

6.2.1.2 All the birds that are under the scheme of the ND programme, as well as reservoirs and any material potentially capable of transmitting the virus, should be subject to conditional or total quarantine, such that for its movement it should comply with the specifications in the present Regulation

6.2.1.3 The BAHA shall determine the disease response measure when an outbreak occurs in a control zone.

6.2.1.4 For the application of quarantine measures, the geographic area where the presence of the ND virus has been confirmed, including the regions of its influence, shall be considered as an infected area.

6.2.1.5 In infected areas, BAHA shall determine and identify the focal and peri-focal area; these areas shall be delimited through the installation of control points, specific for the movement of birds, their products and by-products.

- 6.2.1.6 The BAHA shall officially inform the establishment of quarantine measures to all stakeholders in the affected areas.
- 6.2.1.7 Once the poultry farm is empty, cleaning, washing and disinfection shall be done under the requirements established by the Programme for each case and under the supervision of an official veterinarian or veterinarian authorized by the BAHA.
- 6.2.1.8 Quarantine shall be lifted once the BAHA verifies the absence of ND or the activities of vaccination and certification have been complied with. Stakeholders shall be duly informed that the quarantine has been lifted.

6.3 **Vaccination:** In endemic zones, only lyophilized and/or emulsified vaccines, produced from lentogenic strains, shall be allowed.

The elimination of birds shall be done according to the ND emergency plan.

6.4 Zoning: BAHA may apply zoning for the effects of international trade with the purpose of defining poultry subpopulations of different sanitary status.

- 6.4.1 To define the zones the BAHA shall use geographic criteria for the definition of a subpopulation.
- 6.4.2 The surveillance and control measures that are required to preserve the sanitary status of a zone shall be the same as country free status
- 6.4.3 BAHA shall determine the extensions and limits of a zone based on natural, artificial or legal borders and shall disseminate this information by official means.
- 6.4.4 The birds and farms that form part of a subpopulation should be easily recognizable. The measures adopted should be documented in detail to identify the subpopulation and to guarantee the recognition and maintenance of its sanitary status.

6.5 Training: There should be a continuous training plan which contemplates seminars, talks and ND simulations.

- 6.5.1 The training plan shall be directed to official and private technical personnel, poultry producers, backyard poultry owners, poultry merchants and all those involved directly or indirectly with the poultry sector.

6.6 Awareness campaign: The design, preparation and distribution of stickers, informational and educational material, highway billboards, radio spots shall consider the different sectors and their educational level with the purpose to maintain alert between the poultry owners in the rural and urban areas and to encourage them to notify abnormalities observed in poultry.

6.7 Epidemiological surveillance

Epidemiological surveillance following a statistical sampling design shall be based on a passive part where suspect cases are investigated and an active part that is

conducted every 4 months in export poultry establishments including poultry farms, and at least once a year in backyard poultry.

6 OFFENSES AND SANCTIONS

Non-compliance with the provisions contained in this regulation shall be sanctioned according to the BAHA Act and its auxiliary regulations.

9 These Regulations shall come into force on the day of 2009.

MADE by the Minister of Agriculture this day of August, 2009.

(RENE MONTERO)
Minister of Agriculture and Fisheries