

TERRESTRIAL ANIMAL HEALTH STANDARDS
COMMISSION -- SEPTEMBER 2010 REPORT

CHAPTER 10.13. NEWCASTLE DISEASE

USA Comments

Article 10.13.1.

General provisions

As proposed by the OIE:

General Provisions

1. ...

7. A Member should not impose immediate bans on the trade in *poultry commodities* in response to a notification, according to Article 1.2.3. of the *Terrestrial Code*, of infection with NDV in birds other than *poultry*, including wild birds.

Suggested modification:

7. A Member should not impose immediate bans on the trade in *poultry commodities* in response to a notification, according to Article 1.2.3. of the *Terrestrial Code*, of infection with NDV in birds, including wild birds, other than *poultry*, and according to the recommendations of this chapter. including wild birds.

Rationale: Suggested change provides clarification on when a ban may be appropriate, and if appropriate the conditions of such a ban.

Article 10.13.21.

Procedures for the inactivation of the ND virus in meat

The following times for industry standard temperatures are suitable for the inactivation of 7log₁₀ ND virus present in *meat*.

	Core temperature (°C)	Time
Poultry meat	65.0	840 <u>39.8 sec</u>
	70.0	574 <u>3.6 sec</u>
	74.0	280 <u>0.5 sec</u>
	80.0	203 <u>0.03 sec</u>

Rationale: The table above lists suggested inactivation standards which are based on a paper by Alexander DJ, Manvell RJ. 'Heat inactivation of Newcastle disease virus (strain Herts 33/56) in artificially infected chicken meat homogenate'. *Avian Path.* 33(2). April 2004, 222-225. The authors of this paper identified numerous problems they experienced during the experiment (see pg 223) and recommend caution when applying this to a commercial process. It is therefore inappropriate to recommend the time parameters for NDV inactivation resulting from this study.

A more recent study by Thomas, King and Swayne, *Journal of Food Protection*, Vol. 71, No. 6, 2008, Pages 1214–1222 'Thermal Inactivation of Avian Influenza and Newcastle Disease Viruses in Chicken Meat', adjusts for the limitations of the 2004 study and is, consequently, a much more reliable and accurate source from which the OIE can base its recommendations for thermal and time parameters to inactivate Newcastle disease virus. The United States has calculated the NDV inactivation numbers (time parameters) for poultry meat based on inactivation of CA/02 which is a velogenic (virulent) NDV and not the Ulster virus (which is not virulent NDV based on ICPI of <0.7). Using the formula in table 3 of the article, the inactivation times for a 7 log 10 of the virus at 65 C, 70 C, 74 C and 80 C treatment adding 2 RMSE for an upper limit of 95% confidence interval were recalculated. The updated time parameters are shown in the table above.

The United States strongly encourages the OIE to re-evaluate its recommendations on poultry meat cooking standards and consider the most recent scientific studies before presenting this chapter for adoption.