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[\[PDF \(377K\)\]](#) [\[References\]](#)**Heat Inactivation of Newcastle Disease Virus (NDV) in Egg Yolk and Its Survivability in Mayonnaise**[Nobuhiro SASHIHARA](#)¹⁾, [Mineo HASEGAWA](#)¹⁾, [Toshiro IZUCHI](#)²⁾, [Hiroshi ITO](#)³⁾⁴⁾
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Abstract

From the perspective of food safety and risk, we attempted to determine survivability of Newcastle Disease Virus (NDV) in egg products. We investigated the heat inactivation of NDV in egg yolk, and also the inactivation of NDV in mayonnaise. The egg yolks used in this study were SPF-(Specific Pathogen Free)-egg yolk and a typical commercially available type. SPF-egg was derived from un-vaccinated hens. Two types of model mayonnaise were made of salad oil, vinegar, egg yolk and salt, similar to commercial products, using either commercial-egg yolk or SPF-yolk. The NDV strain used in this experiment was the B1/47 (vaccine strain). NDV in commercial egg yolk was inactivated immediately. After model mayonnaise and NDV were mixed, NDV in mayonnaise with commercial egg yolk was inactivated after one day. However, with the SPF-egg yolk, it took 5 days for the virus titre to drop below the detection limit. These findings suggest that NDV in commercial egg yolk may be rapidly inactivated, in part because of antibodies derived from the vaccination of hens against NDV. In addition, these findings suggest that mayonnaise is not a vehicle for the import and export of NDV.

Key words:[Newcastle disease virus](#), [Inactivation](#), [Mayonnaise](#)

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