

Re: Mayonnaise (safety issues for whole egg home pasteurization)

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On Sat, 30 Oct 2004 22:29:21 +0100, "Jill."
<news@REMOVETHISKintaline.co.uk> wrote:

>*The Webby wrote:*

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>> *Does Exotic Newcastle's Disease occur in your country?*

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>*last incidence was very brief and very localised in one part of England in
>the mid 1990's*

>*Scotland hasn't had it for much longer*

>*Its not endemic like it is in many other countries*

>*The whole of the UK is designated as being free from ND*

LIVE AND LEARN Department

Exotic Newcastle's Disease

There has been an outbreak of Exotic Newcastle's Disease virus in Southern California recently. A press release was sent out on October 3, 2002 to notify the public about this very serious outbreak. Because poultry in this country are very susceptible to Exotic Newcastle's Disease, it is important that the public be made aware of how to potentially identify this disease, to prevent its spread. This virus has the potential to cause devastating losses in commercial poultry facilities.

Newcastle's Disease is caused by a paramyxovirus, called PMV-1, one of nine serotypes of this virus identified. There are four large groups based on how dangerous they are and the type of disease that they cause in chickens. PMV-1 can infect a broad range of animals, including many species of mammals (including humans) and most species of birds.

Two strains of Newcastle's Disease virus (NDV) are common in domestic fowl in the United States, called lentogenic and mesogenic. There are two foreign strains, called velogenic strains that do not naturally

occur in this country, VVND (velogenic viscerotropic Newcastle's Disease) and VNND (velogenic neurotropic Newcastle's Disease). To prevent the introduction of VVND and VNND, as well as avian influenza, the USDA restricted the importation of birds in the early 1970's, setting up quarantine stations to monitor imported birds for these viruses. Birds being imported to the United States must be quarantined in a USDA-controlled facility where they will be monitored and tested for PMV-1. Most recently, VVND and VNND have been classified as Exotic Newcastle's Disease.

In parrots, the signs may vary greatly. Some birds may remain completely normal while infected, others may develop the disease and recover, or they may die acutely with no premonitory signs, or they may die after a long illness. Infected birds can have a combination of mild to severe signs involving the respiratory system, gastrointestinal system or nervous system. Birds with nervous system signs that are severe usually results in death.

Signs in infected psittacine birds may include depression, anorexia, eye and nasal discharge, conjunctivitis, sneezing, coughing, difficulty breathing, diarrhea, unsteadiness, abnormal positioning of the head, convulsions, circling, tremors and paralysis of the legs and wings. Neurologic signs may intensify when infected birds are excited or disturbed. It is thought that lovebirds, Amazon parrots, Psittaculidae, Plum-headed parakeets and Eclectus are very susceptible. Some cockatoos are more susceptible than others. Cockatiels are moderately susceptible. Budgies appear to be relatively resistant to natural infection.

VVND is the most virulent form of PMV 1 affecting poultry. Smuggling of birds is considered the only route by which VVND virus could enter the United States. However, once here, it can spread to any susceptible bird. Poultry that are infected usually die rather quickly. Among exposed poultry, a very high majority will succumb to the virus and die. This could have very serious repercussions for commercial poultry facilities, as they may sustain extremely high losses among their birds.

The incubation period can vary from three to 28 days, depending on the strain, the quantity of virus and susceptibility of the host bird. In psittacines, the incubation period ranges from five to 16 days. In chickens, the incubation period averages about five days.

The disease is transmitted when the virus is shed from an infected bird (in all secretions, but primarily in respiratory secretions) and a susceptible bird either ingests or inhales virus particles. Aerosolized fecal dust and contaminated bedding are considered potential sources for infection. NDV is very stable outside of an infected bird, so insects, rodents and humans can disseminate the virus to other susceptible birds. The virus has also been demonstrated to be transmitted from chicken to chicken by feather mites.

Free-ranging wild birds should be of minimal importance in spreading the virus and migratory birds appear to have no impact on the spread of the virus. Infected birds may appear normal and shed the virus in their feces. Amazon parrots may shed the virus for more than a year without showing clinical signs themselves.

VVND should not be a concern for professional psittacine breeders and pet owners who avoid birds that have entered this country illegally. Fighting cocks and other birds illegally smuggled into this country are usually responsible for outbreaks in this country.

In this outbreak in Southern California, the birds initially identified to be infected with Exotic Newcastle's Disease were all poultry species, according to Dr. Prasad, an avian veterinarian with the Exotic Newcastle's Disease Task Force in California. More recently, Exotic Newcastle's Disease has been diagnosed in two wild pigeons in Riverside, CA that were scavenging feed on a poultry operation, and were found alongside chickens inside coops. Wild pigeons cannot be easily contained and isolated to prevent the spread of the disease.

If you will be around birds suspected of being infected with NDV, you should shower, change clothes, remove shoes and disinfect any items that were also exposed, prior to handling your own birds. However, prevention is best. Try to avoid any sick birds to prevent the possible spread of the virus. Sound hygiene is necessary to prevent the spread of the virus. Insects and rodents must also be controlled to prevent spread of the virus.

Drastic preventative measures are the best defense against Exotic Newcastle's. These include quarantining property where birds have been infected, euthanizing all birds that may have been exposed, and sanitizing the infection site.

Since NDV is stable in the environment, the virus is resistant to many common disinfectants. The virus has been found to remain active in moist soil for 22 days, on feathers at 20 degrees C for 123 days and in lake water for 19 days. The virus can be inactivated by extremes in pH (less than 2, greater than 11), high temperatures (56 degrees C), sunlight, detergents, chloramines (1%), bleach, phenols and 2% formalin.

PMV 1 can cause disease in humans. Healthy people who are exposed may develop mild signs of infection (malaise) or conjunctivitis. Infected people will shed the virus in secretions for a period of time after exposure, and they will be technically able to pass the virus to other humans or birds, but this is unlikely, as practicing good hygiene should prevent this. The risk of human disease is confined primarily to poultry workers however, any human exposed could develop signs of infection.

If you are concerned about NDV or suspect that you might have, or have seen an infected bird, in California, contact California Department of Food and Agriculture, 916-952-1595. E-mail: cdfapublicaffairs@cdfa.ca.gov. If you are concerned that you might have contracted this virus from being around infected birds, contact your own physician, hospital epidemiologist physician or your local health department.

For in-depth information on PMV-1, consult Avian Viruses, Function and Control, by Branson W. Ritchie, DVM, PhD, 1995, Wingers Publishing Co, Lake Worth, FL. Much of the information presented here is from this valuable resource.

Commercial poultry facilities in the US vaccinate their birds against lentogenic and mesogenic NDV. However, they are not vaccinated against Exotic Newcastle's Disease, VVND and VNND. Prevention of these diseases is accomplished by strict control of birds imported into this country. Psittacine birds are not vaccinated against lentogenic and mesogenic NDV, as some vaccines contain modified live virus and could possibly cause the disease. This is because the vaccine was not developed for psittacine birds. In general, modified live vaccines and killed virus vaccines should not cause disease in the species that they were developed to protect. Since Exotic NDV is a reportable and notifiable disease, government regulations may restrict vaccination of avian species other than commercial fowl. Vaccination against VVND and VNND is performed in some other countries.

Is it possible to purchase a frozen chicken from the grocery store that is infected with Exotic Newcastle's Disease virus? No, you would never purchase a frozen chicken from the supermarket with Exotic Newcastle's Disease. One reason that everyone gets so concerned about Exotic Newcastle's Disease is that it is so deadly to commercial poultry, and is likely to kill a high percentage of these birds if exposed. So, any facility suspected of having poultry infected with this virus will be placed under observation by government agencies and the birds will be screened by lab testing. Also, poultry is inspected by the USDA prior to being released for consumer purchase, and this inspection process should prevent the sale of poultry with serious disease problems.

PMV-1 can be diagnosed in both live birds and dead specimens. Most commonly, in live birds, swabs of the pharyngeal area and/or cloaca (or feces) maybe tested at appropriate diagnostic laboratories, using virus isolation. These swabs are then tested for the presence of virus by attempting to grow PMV-1. The feces may also be examined under an electron microscope to look for PMV-1 virus particles. Blood may be drawn to test for an increase in antibody titer (which requires paired serum samples drawn two weeks apart). These tests, called serology, are less effective than virus isolation in diagnosing infections. In live birds, swabs of the pharynx, cloaca or feces, to attempt virus isolation, are the tests used to screen birds in quarantine and those

sci.agriculture.poultry: Re: Mayonnaise (safety issues for whole egg home pasteuzation)

suspected of being infected. Post-mortem samples for virus isolation should include trachea, lung, spleen, liver and brain.

Recently, the task force in California mailed out information and sampling kits to veterinarians in Southern California who are members of the Association of Avian Veterinarians. They have diagnostic test kits so that they can take cloacal swabs and submit samples for testing in the self-mailers that have been provided. Suspicious birds will be tested at the state diagnostic lab in San Bernardino, California. Veterinarians can call 562-795-1940 to speak with a veterinarian on the task force, and vets are urged to give their clients the hotline number for the disease so that they can report possible symptoms and suspicious cases. The hotline number is: 800-491-1899.