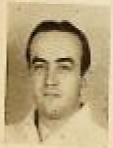
NEWCASTLE DISEASE



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Newcastle disease is an infectious, highly contagious, or readily transmissible disease that affects chickens, turkeys, guinea fowl, pheasants, pigeons and possibly other species of domesticated and wild fowl. The disease is relatively new to the North American continent, having been recognized first in 1944 in California where it is believed to have been present since 1935. To date, or within the past 18 months, further recognition of the disease has been made in 31 states widely scattered throughout the nation. In these states are found the country's most intensive poultry-raising areas, and included among them are 9 of the 12 states of this North Central region.

The cause of this disease is a filterable virus, or an extremely small living agent that can be seen only with the highest powered, or electron microscope. Other means than visualizing of the agent itself are used in the laboratory for identification of it and constitute the only sure way of recognition of the disease.

The symptoms of the disease and other of its characteristics are suggestive of its presence. Droopiness and decrease or loss of appetite, common to many diseases, are noted. Audible breaking in the form of crackling, wheezing and sneezing sounds may be noted; in some cases this may be so mild as to escape other than the close observation. The mouth may be held open to facilitate breathing. These respiratory symptoms generally occur in fowl of all ages. Young fowl, or usually those less than two months of age, commonly show in addition to the symptoms of difficult [illegible] evidences of brain or nerve involvement. These include twisting of the neck and turning of the head to peculiar positions, moving in circles, falling backwards, drooping of the wings, inability to use the legs, and rhythmic coarse twitching of the neck, wings or legs. Some one or all of these nervous symptoms usually occur in at least 30 per cent of the members of the affected group. In adult stock egg production commonly shows a sharp decline, and within the course of a few days may stop entirely. Six to eight weeks may be required for return to the previous or expected production. All members of a flock are believed to contract the illness. The losses by death are generally greater in young than in adult stock; in the former 50 per cent or even more of the fowl may die, while in adult stock the death rate may seldom exceed 5 per cent.

The disease is readily transmitted by contact of normal fowl with the intestinal droppings, or mouth or upper respiratory fluids or secretions of diseased fowl. This "contact" may occur by transfer of these infected materials for considerable or long distances, on crates, feed sacks, attendants' or visitors' shoes or other clothing and possibly in similar mechanical manner by insects. The causative virus may gain exit from diseased fowl in or on eggs produced for a period of several days even before any symptoms are observed, and also from individuals whose disease may be so mild as only to interrupt very temporarily or not at all the production of eggs.

The apparent wide distribution that this disease has already enjoyed and its known infectivity for wild as well as domesticated fowl indicates the difficult problem that the control of it may prove to be. The present state of knowledge of the disease seems to show that it "weakest link" or the least complex place for attack on it lies in the protection of young stock in which the greatest losses by death have occurred. To this end, any eggs produced during the active or symptomatic stage of the disease or for a safe period of possibly 30 days following the full resumption of production should not be used for hatching