Sudden Death Syndrome in Poultry

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Sudden death syndrome (SDS) is also known as flip-over disease. Birds show no outward signs of disease but suddenly extend their necks, gasp, or squawk. They flap their wings, typically resulting in the birds flipping over on their backs (hence the name flip-over disease). The majority of the birds affected are males, especially those of the larger breeds. The incidence in a rapidly growing, healthy broiler flock is typically 1% to 4%. With reduced growth rates, the incidence of SDS is considerably lower.

The cause of SDS is not clear, but it is believed to be a metabolic disease related to high carbohydrate intake. SDS can occur as early as three days of age and may continue until birds reach market weight. Peak mortality generally occurs when birds are between 12 and 28 days of age.

Confirmation of SDS is difficult because there are no specific gross or histological lesions present. Dead birds are typically well fleshed and have feed in the digestive tract. The gall bladder is small or empty, indicating that the broiler was on full feed. When broilers that otherwise look healthy are found lying on their backs, it is assumed that they died of SDS because that position is rare for other causes of disease.

The incidence of SDS can be reduced by slowing the growth rate of broilers, particularly during the first three weeks of life. This can be achieved by reducing the number of hours of light exposure per day and/or providing a low-energy diet.