

## **Breast buttons and blisters in turkeys: what are they and what can be done to prevent them**

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Different types of lesions are seen in the breast of turkeys during processing. These include breast buttons, breast blisters, feather follicle focal folliculitis, scabs, non-ulcerated raised plaques, scratches, injuries, and bruises. These lesions are trimmed during processing, resulting in loss of valuable breast meat and downgrading of the carcass, thus causing an economic loss to the producer. Among these lesions, breast buttons and breast blisters are the two most common lesions.

### **Breast buttons**

Breast buttons are ulcers of different sizes that occur on the unfeathered portion of the skin near or on the middle over the keel bone. A more accurate and scientific name for this condition is "focal ulcerative dermatitis". Breast buttons are more common in toms than in hens, and the incidence can vary widely between flocks. It has been reported by the turkey industry and previous studies that the incidence is low before 10 weeks of age. It seems that there is a seasonal trend in the incidence of breast buttons; generally, the incidence starts to increase in April and May, peaks in June and July, and gradually declines after that. The ulcers are typically round or oval in shape and ranging in size from a few to several mm in diameter. The appearance of the ulcer apparently depends on its stage of development. They may be covered with scabs or filled with caseous exudate, which adheres to the underlying dermis. The center of some ulcers is surrounded by a raised ring of fibrous scar tissue. Single ulcers are most common, but can be multiple. The cause of breast buttons is not clearly understood. Various aspects related to the cause and prevention of this condition is discussed in this presentation.

### **Breast blisters.**

Breast blister is a fluid-containing cyst under the skin over the breast. It occurs primarily in toms. It varies in size, and can be very large and occupies most parts of the breast. The cyst results from the accumulation of fluid in the sternal bursa, which is a true synovial sac located in the subcutaneous tissues (tissues under the skin) on the ventral and anterior aspects of the keel bone. The fluid is amber, brown, or reddish in color, and in most cases, is sterile. The accumulation of the fluid (formation of the cyst) is associated with the thickening of the wall of the bursa as the result of proliferation of the connective tissues and increase in the vascularity. Most likely, the fluid results from the leakage of fluid from the blood

vessels in the wall of bursa. The blister may or may not be associated with breast buttons. The enlarged bursa may be ruptured resulting in seeping of the fluid into the subcutaneous tissues over the breast and resulting in so-called "cellulitis". Observations from the field indicates increasing incidence from May to July. The formation of breast blister is not due to a single cause, but it probably results from continual irritation and trauma to the sternal bursa through pressure and friction. Although, many birds can have both breast blisters and breast buttons, the two conditions are distinct, have different cause and pathogenesis, and are independent of each another. Various aspects related to the cause and prevention of breast blisters is discussed in this presentation.