

# Foot Pad Dermatitis

Foot pad dermatitis is a source of lameness in turkeys and can result in infectious processes due to the entrance of bacteria or other pathogens into the soft tissues of the foot pads.

Causes:

### I. Nutritional

- a) Nutrients that are involved in foot pad health include:
- Biotin
  - Pantothenic Acid
  - Niacin
  - Zinc
  - Methionine
- b) In addition to the level of nutrients, the nutrient absorption may be negatively affected by the type of ingredients used. For example, wheat and barley may affect the absorption of biotin.
- c) Commercial diets are formulated to meet nutrient needs so that nutritional levels of vitamins are typically not involved.

### II. Most foot pad dermatitis is due to contact with moisture and excreta (fecal material).

- a) Research has shown a high incidence of foot pad dermatitis in poults kept on wet litter produced by sprinkling water on litter. Adding supplemental biotin to the diet failed to reduce the increased incidence of dermatitis associated with wet litter.
- b) Body weight was also significantly reduced in those turkeys to 14 weeks of age compared to the controls.
- c) “Shaky Leg” problems were also noted on wet litter.
- d) Increased bird density increased the incidence of foot pad dermatitis, likely due to a corresponding decrease in litter quality.

### III. Feed Composition

- a) Diets high in soy bean meal may contribute to a higher incidence of foot pad dermatitis. The indigestible carbohydrate part of the soy bean meal is thought to be responsible for contact foot pad dermatitis in turkeys. It is also suspected that higher levels of potassium in such rations lead to declining litter quality.
- b) In research studies, poults fed diets containing meat meal, fish meal and peas, but a low level of soy bean meal exhibited a lower incidence of dermatitis.
- c) Factors that increase water consumption lead to wet litter and therefore increased foot pad dermatitis.
- d) It is important not to feed excesses of Sodium chloride or potassium.

### IV. Summary:

It has been concluded that foot pad dermatitis is related primarily to the condition of the litter and to direct contact with excreta.

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[info.hybrid@hendrix-genetics.com](mailto:info.hybrid@hendrix-genetics.com)  
[www.hybridturkeys.com](http://www.hybridturkeys.com)