

HOW TO RAISE HERITAGE TURKEYS ON PASTURE

Problem	Symptoms	Likely Causes	Prevention and Treatment
Spraddle-leg	This is Perosis in young poults. With this condition they lose control of one or both legs so that the limb or limbs are held out sideways.	Inbreeding, poor nutrition of parents, poor incubation practices, and poor quality or slick smooth flooring will cause Spraddle-leg.	Supply an adequate nutritious diet to parents and use proper incubation and brooding practices. Prognosis is generally poor. It may be best to cull poults with this condition to prevent their possible use as breeders.
Stampeding	Turkeys are suddenly frightened at night and fly violently against walls and the roof of the shelter causing damage to legs, wings, etc. They can often pile up in the corners of houses and smother each other.	Birds can be startled by prowling animals, strange noises, or sudden bright lights, all of which could cause a stampede.	Night lights near the nighttime roosting area can reduce incidences of this behavior. Take protective measures to keep predators away from birds.

Diseases and Parasites of Turkeys

Disease or Parasite	Description and Symptoms	Transmission	Prevention and Treatment
Aspergillosis (Brooder Pneumonia)	This is a fungal infection usually caused by <i>Aspergillus fumigatus</i> . It most commonly affects poults 5 days to 8 weeks of age, although it can affect older birds. Indicators of infection include heavy or rapid breathing and yellow or grey nodular lesions in the respiratory tract especially lungs and air sacs, occasionally in the mouth or trachea. Lesions are common in the eyes and can sometimes occur in the brain.	Inhalation of large numbers of <i>Aspergillus</i> spores from infected hatcheries, brooder houses, litter, or feed. Spores are present in almost all litter materials and grow at room temperature (~70° F) or warmer.	There is no practical cure for infected birds. Cull them. <i>Aspergillus</i> spores are very difficult to eliminate and can infect other avian species and humans. Raising the humidity and eliminating the source of the infection will limit the spread of the disease. Spraying the litter lightly with an oil-based germicide will help. Control dust and movement of spores. Replace litter if highly contaminated. Do not use litters high in bark content or ones that have previously been wet.
Avian Influenza (AI)	AI is caused by a virus. There are 256 different types of AI virus. It is found worldwide. Almost all birds are susceptible, especially turkeys. One type, H5N1, can be especially severe and under certain circumstances can infect humans. Mild forms produce listlessness, respiratory involvement, diarrhea and low mortality in birds. Some infected birds show no symptoms. Acute forms produce facial swelling, cyanosis, dehydration and respiratory distress, lesions and small hemorrhages throughout the body, and high mortality rates.	Poor sanitation or farm biosecurity, and close contact with wild birds (especially migratory waterfowl) will increase the chances of exposure to AI. Great amounts of virus are excreted from gastrointestinal (GI) and respiratory tracts and remain viable for variable lengths of time depending on environmental conditions. Recovered birds can excrete virus for several weeks. Transmission is by any means which carries respiratory or GI tract discharges. Infection occurs through both oral and respiratory routes.	Keep wild birds, especially migratory waterfowl, away from the flock. Implement basic biosecurity measures on the farm to reduce chances of transmission from other sources (such as other poultry farms or feed stores). A vaccine from USDA may be available for use (prior to flock exposure to AI) during times of pandemic. Notify state disease regulatory officials if AI is suspected. Flocks confirmed with AI should be depopulated.

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Avian Leucosis/Sarcom Group of Diseases	A variety of transmissible benign and malignant tumors of chickens caused by viruses of the <i>Retroviridae</i> family. A number of tumors are produced, some in lymphoid tissues throughout the body, others in blood vessels or bone. These cause progressive weakness, loss of weight, dehydration, at times enlarged abdomen or eye tumors. Greenish diarrhea is present in terminal stages. Death occurs within weeks. Note that no symptoms or lesions appear in some birds.	The lymphoid form can infect turkeys. It is transmitted in two ways: (1) hen to progeny through the egg (small percentage), (2) bird to bird by direct or indirect contact especially at hatch time. Viruses in the droppings of newly hatched birds are highly infectious. Virus is present in both saliva and dropping of older birds. Field cases usually occur after 14 weeks of age with highest incidence around sexual maturity.	No effective prevention or treatment is available. Eradicate infected breeder flocks. Use proper cleanup, sanitation, and biosecurity practices. The causative agents are relatively resistant to sunlight but susceptible to heat, drying, and certain disinfectants.
Blackhead or Histomoniasis	This disease, caused by a protozoan (<i>Histomonas meleagridis</i>), is characterized by increased thirst, decreased appetite, watery sulfur-colored droppings, drowsiness, weakness, dry-ruffled feathers, dark cyanotic head, and lesions in the liver and ceca. Mortality is high, especially in poults less than 12 weeks of age. <i>Histomonads</i> are very stable inside cecal worm eggs that are ingested by earthworms. Earthworms can carry over the protozoans to successive broods year after year.	Birds are infected with the protozoan by directly ingesting cecal worm eggs in the soil or indirectly ingesting the eggs through earthworms infected with the protozoans. When eaten, the birds release the protozoans by excreting them in feces. The protozoans together with <i>E.coli</i> and other intestinal bacteria produce the disease. Turkeys, chickens, peafowl, and several game bird species are susceptible to the disease.	Ideally, separate turkey flocks from chicken flocks and separate young birds from older birds. Use good sanitation practices in the brooding area. Rotate range areas frequently. Feed containing a medication specific to Blackhead can be used as a preventative or to treat infected birds.
Blue Comb or Turkey Coronavirus	This infection of the gastrointestinal tract is caused by a highly contagious Coronavirus specific to turkeys. It infects turkeys of all ages. Mortality decreases with age. A disease of sudden onset, it will cause depression, low body temperature, diarrhea, loss of appetite and body weight, dehydration, prostration, and death. In poults mortality can be 50-90%. This disease will often stunt the growth of survivors.	The disease is caused by the ingestion of infected fecal material. Less than a pinhead amount will infect a bird. Within 72 hours this bird can in turn excrete a large amount of virus. Virus survival in environment is variable – days to indefinitely if frozen. Virus passage between birds or premises increase pathogenicity.	There is no effective treatment for this disease. To prevent the disease from occurring, keep young birds warm and dry. Eradication occurs only by depopulating all poultry from the farm and strict clean-up followed by decontamination with disinfectant, then a 30-day vacancy. Some birds, notably adults, may not show disease signs but almost every infected bird remains a lifelong carrier and shedder of the virus. The disease can be prevented only by strict biosecurity. Cull infected birds.