

Disaster Relief

Flood-Related Diseases in Poultry and Livestock



If your fields or farm buildings have been flooded, take special precautions against flood-related diseases in poultry and livestock. Give animals extra care, particularly if they have been stranded by flood water and have been off regular feeding schedules (see **Table 1** for minimal survival requirements of livestock). Be careful when giving wet feed to livestock. Feed just a few animals first, and watch them for several days before giving wet feed to all stock. In addition, watch for signs of flood-related diseases.

Blackleg, Anthrax, and Other Clostridial Diseases

Blackleg, caused by microorganisms spread over fields by standing water, can be a serious post-flood disease. Usually it affects cattle 6 to 24 months old, but it also affects sheep, goats, and swine. Symptoms include acute lameness, depression, fever, and swelling in the hip, shoulder, chest, back, neck, or throat muscles. If untreated, blackleg is usually fatal within 24 hours after onset. Treatment may be effective in the early disease stages. The best prevention against blackleg is inoculation of all unvaccinated young cattle before they are put out on pastures that have been flooded. Some vaccines also protect against malignant edema (gas edema) and other water-borne diseases.

Anthrax may break out after flooding. A veterinarian should study all animals that die suddenly after flooding.

Malignant Edema

Hot, painful swelling at the point of infection, high fever, loss of appetite, decreased milk production, difficulty breathing, convulsions, then death are signs of malignant edema. This disease kills animals 1 or 2 days after symptoms appear. In its early stages, malignant edema can be successfully treated by a veterinarian. Both specific and combination vaccines are available.

Tetanus (Lockjaw)

Tetanus is a problem whenever animals have puncture wounds. Symptoms include generalized stiffness caused

by muscle contractions. Legs and tail are extended; the third eyelid hovers over the eye when the animal's head is raised. Animals can be vaccinated as a preventive, and the disease is treatable in its early stages.

Foot Rot

Constant exposure to mud and water softens tissues around the feet of cows and sheep, greatly increasing their susceptibility to foot rot. Lameness, a painful swelling of the hoof, and foul-smelling dead tissue in the space between the claws are common symptoms of the disease. To prevent foot rot and other foot infections, walk cows through a solution of copper sulfate (2 pounds of ordinary commercial bluestone in 5 gallons of water) as they leave the milking parlor or stable after they have been thoroughly milked. Put the solution in a 4- to 6-inch-deep trough in an alleyway or doorway. As long as cows' feet are stained with the copper sulfate solution, they are reasonably protected against foot rot.

Mastitis

Organisms in mud and muddy water can cause severe mastitis. Coliform organisms are usually involved. They cause acute intoxication (septicemia) in the udder and death of udder tissue (gangrene). To protect cows against mastitis, clean their teats thoroughly before milking. Wash teats and udders with warm water and a mild dishwashing detergent before using the sanitizing solution. Dry teat end carefully with clean paper towels before applying the milking machine. Milk the cows carefully. Do not milk too much, and be careful to prevent injury of teat ends. If possible, allow cows to lie down in a relatively dry, clean place. Cows are probably better off outside in a wet, muddy pasture than they are in wet, foul indoor stalls.

Botulism

Botulism, the most common post-flood ailment in chickens, is caused by organisms in spoiled vegetables or decaying animal carcasses. The birds are infected when they eat this material. Paralysis, difficulty eating and swallowing, and general weakness are symptoms. The

best way to prevent this disease is to confine chickens well away from spoiled meat or decaying matter. Horses are also very susceptible to botulism from drinking stagnant water and eating spoiled food.

Brooder Pneumonia

This disease affects chickens and results from their eating wet, moldy feed or from wet litter. Symptoms include fast breathing, coughing, and gasping. To prevent brooder pneumonia, keep brooders sanitary, give the birds clean litter, clean all utensils, and do not use moldy feed.

Erysipelas

This disease commonly affects turkeys and swine after flooding. In swine, the disease may be either acute (causing high fever and rapid death) or chronic (with development of characteristic skin lesions). Swine that have not been vaccinated against erysipelas should be vaccinated before they are put into flooded buildings or pastures. Prompt antibiotic treatment is effective against erysipelas in swine and turkeys. In turkeys, the disease frequently affects the snoods of toms after even a slight injury.

Animals	Feed per day	Water per day	Space required per head*
Dairy cow in production	Large breeds: 20 lb hay	7½ gal in winter	20 cows or less: 30 sq ft 21 cows or more: 50 sq ft
	Small breeds: 15 lb hay	9 gal in summer	
Dairy cow, dry	Large breeds: 15 lb hay	7½ gal in summer	5 cows or less: 20 sq ft
Beef cow, dry	12 lb hay or 8 lb ground ear corn, oats, or barley	5 gal in winter	30 sq ft
		7½ gal in summer	
Beef cow with calf	14 lb hay or 10 lb ground ear corn, oats, or barley	7½ in winter	150 sq ft
		9 gal in summer	
Weaning calves	8–12 lb hay or 5 lb ground ear corn, oats, or barley	3 gal in winter	30 sq ft
		6 gal in summer	
Brood sow with litter	3–4 lb grain	3–4 gal	40 sq ft
Brood sow, dry	1–2 lb grain	1 gal	20 sq ft
Weaning pigs to market weight	1–4 lb grain	1 qt–1 gal	4–12 sq ft
Hens in production	¼ lb feed	5 gal for each 100 hens	1¼ sq ft
Broilers	0.1–0.2 lb per bird	5 gal for each 100 hens	1 sq ft
Ewe with lamb	4 lb hay or 3 lb grain	3 qts	32 sq ft
Ewe, dry	2 lb hay or 1½ lb grain	2 qts	16 sq ft
Weaning lamb	1½–2 lb grain	1 qt	16 sq ft
Close quarters increase water and ventilation requirements.			

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