

THE POWER OF pH

Low pH has been shown to create an unfavorable environment for the bacteria that can negatively impact animal health and performance. For livestock raised in confinement, low pH bedding, manure and footbaths help decrease environmental challenges that may impact respiratory health, hoof health and overall performance.

Relationship Between pH and Bacteria Growth				
pH	E. coli	Clostridium	Salmonella	Pasteurella
7.4	Heavy	Heavy	Heavy	Heavy
7.0	Heavy	Heavy	Heavy	Heavy
6.8	Heavy	Heavy	Heavy	Moderate
6.5	Heavy	Heavy	Heavy	Light
6.4	Heavy	Heavy	Heavy	Light +
6.3	Heavy	Heavy	Heavy	Very Light
6.2	Moderate	Heavy	Heavy	Very Light
6.0	Moderate	Heavy	Moderate	Very Light
5.8	Light	Heavy	Light	Very Light
5.7	Light	Heavy	Very Light	None
5.4	Very Light	Moderate	Very Light	None
5.2	Very Light	Moderate	Very Light	None
5.0	None	Light	Very Light	None
4.8	None	Light	None	None
4.5	None	Very Light	None	None
4.3	None	None	None	None

SurpHaceTM
Performance Starts with pH

SurpHace (SODIUM BISULFATE)
 IS A DRY, GRANULAR PRODUCT THAT
 SAFELY LOWERS PH TO CONTROL
 AMMONIA AND CREATE ENVIRONMENTS
 UNSUITABLE FOR PATHOGENIC
 BACTERIA.



WHY SurpHace



Improve
air quality &
respiratory
health



Support
hoof health



Can disrupt
fly larvae
development



Increase
fertilizer value



Decrease
emissions

PRODUCT APPLICATION RATES AND INSTRUCTIONS



SurpHace can be applied at any time to address high ammonia at a rate of 75-200 lbs./1,000 sq.ft. using a blower, broadcast or drop spreader, and is safe to apply around animals.



HIGH TRAFFIC AREAS AND RECEIVING PENS

Apply once weekly or as needed at rate of 75-200 lbs./1,000 sq.ft.

CATTLE BEDDING, HOSPITAL PENS, AND WATER AND FEED BUNK APRONS

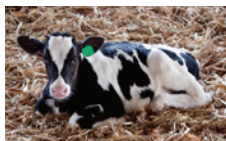
Apply once every two weeks or as needed at rate of 100-200 lbs./1,000 sq.ft.



DAIRY, SHEEP AND GOAT BEDDING

Apply at a rate of 100 lbs. per 1,000 sq. ft. directly on dairy barn shavings or sand as needed.

For all types of goat and sheep farms, apply at a rate of 100 to 150 lbs. per 1,000 sq. ft. In cleaned out barns, apply directly to the clay or sand floor at a rate of 150 lbs. per 1,000 sq. ft.; then spread shavings.



CALF HUTCHES, KIDDING PENS, LAMBING PENS

Apply 1 lb. per week to each hutch or pen. Check ammonia levels daily to determine when to reapply in order to keep ammonia levels below 5 PPM.



FOOT BATHS

Add at the rate of 25 lbs. for every 50 gallons of water in a dairy footbath. Application rate will vary based on the pH of the water on the farm and the target pH of the footbath. Measure the footbath water pH after mixing and add more product in increments of 1 lb. until your target pH is reached. Target pH of 3.5 to 4.0 recommended. Mix new footbath water after every 250 to 300 cows.

Concrete footbaths should be cleaned out nightly and a fresh solution made in the morning. Do not let solution sit overnight in concrete as it can cause it to pit. Solution can sit overnight in plastic lined footbaths.

Formerly known as **DEEPU** and **PARLORPAL**



888-858-4425
JonesHamiltonAg.com