Pneumonia in cattle or bovine respiratory disease (BRD), is the leading natural cause of death in U.S. beef and dairy cattle. Control and prevention of BRD is difficult due to the disease's multiple causes and a complex web of interacting risk factors.



The CA BRD scoring system was developed and validated on CA dairies and calf ranches. The system is based on 6 clinical signs and a combined score of 5 or greater indicates that the calf may be a BRD case.

Clinical Sign	Score
Spontaneous cough	2
Nasal discharge	4
Ocular discharge	2
Rectal Temp ≥ 102.5° F	2
Rapid/difficult breathing	2
Ear droop or head tilt	5

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If you have questions or would like training on the CA BRD scoring system please contact us at:

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## Bovine Respiratory Disease



UC Davis researchers are working closely with dairy producers on a 4-year study to identify the key risk factors associated with Bovine Respiratory Disease (BRD) in pre-weaned dairy calves. The overall goal of the research is to help producers develop management strategies that decrease the incidence of BRD. The first task was to develop an on-farm scoring system for BRD that is accurate, rapid, reliable, and simple.















## Bovine respiratory disease scoring system for pre-weaned dairy calves<sup>1,2,3</sup>

Clinical sign	Score if normal		Score if abnormal (any severity)4		
Eye discharge	0		2		
Nasal discharge	0		4		
Ear droop or Head tilt	0		5		
Cough	0	No cough	2	Spontaneous cough	
Breathing	0	Normal	2	Rapid or difficult breathing	
Temperature	0	< 102.5° F	2	≥ 102.5° F	

Add scores for all clinical signs, if total score is ≥ 5, calf may be positive for bovine respiratory disease<sup>3</sup>

complex in preweaned dairy calves. J Vet Diagn Invest. 2016 Mar;28(2):119-28. http://www.ncbi.nlm.nih.gov/pubmed/26796957 4. Any abnormality including, but not limited to, the examples shown in the above pictures.





<sup>1.</sup> Love WJ, Lehenbauer TW, Kass PH, Van Eenennaam AL, Aly SS. (2014) Development of a novel clinical scoring system for on-farm diagnosis of bovine respiratory disease in pre-weaned dairy calves. PeerJ 2:e238 https://peerj.com/articles/238.

<sup>2.</sup> Aly SS, Love WJ, Williams DR, Lehenbauer TW, Van Eenennaam AL, Drake C, Kass PH, Farver TB. (2014) Agreement between bovine respiratory disease scoring systems for pre-weaned dairy calves. Animal Health Research Reviews 15: 2 Pages 148-150 <a href="http://journals.cambridge.org/repo">http://journals.cambridge.org/repo</a> A94AI150
3. Love WJ, Lehenbauer TW, Van Eenennaam AL, Drake CM, Kass PH, Farver TB, Aly SS. Sensitivity and specificity of on-farm scoring systems and nasal culture to detect bovine respiratory disease