

# Assessing Cattle Lameness

## Locomotion Scoring

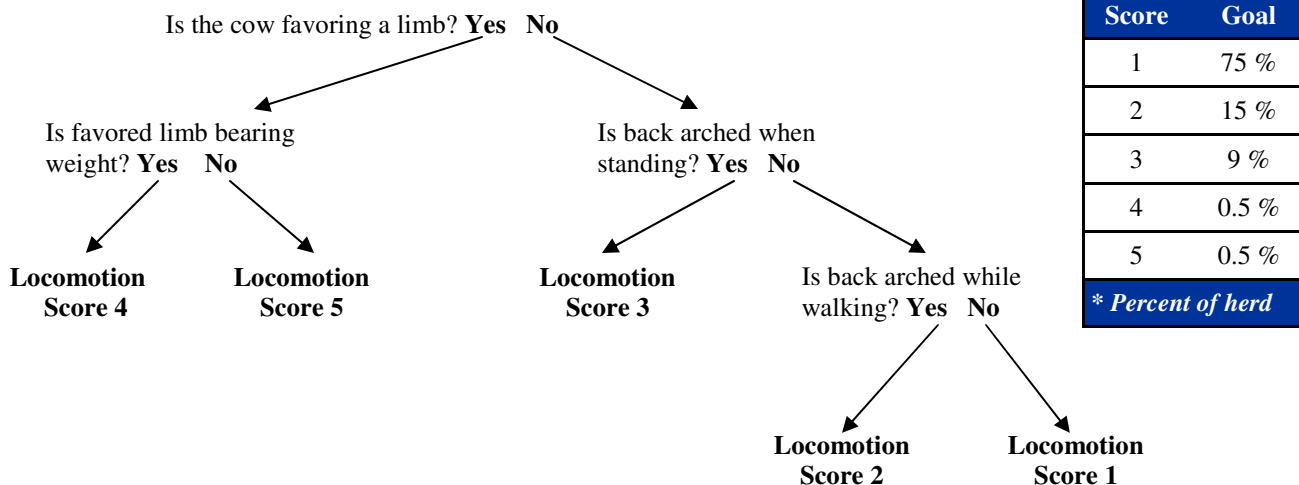
Locomotion scoring is based upon observation of the cow standing and walking with special emphasis on back posture. Locomotion scoring helps identify lame cows as well as cows with developing claw lesions.



Photo courtesy Steven L. Berry, UC Davis

## Scoring Cows

- Conduct on a flat walking surface, free of obstacles and debris
- Ensure cows are walking at a normal pace
- Cows should be scored on a surface that provides adequate traction



Score	Description	Back	Assessment
1	Normal	Flat	Cow stands and walks with a level back. Gait is normal.
2	Moderately lame	Flat or arch	Cow stands level backed, but develops an arched back to walk. Normal gait.
3	Moderately lame	Arch	Arched back is evident while standing and walking. Gait is short strided and sinking of dew-claws may be evident in opposite affected limb.
4	Lame	Arch	Arched back is always evident and gait is one deliberate step at a time. Cow favors one or more legs/feet and sinking of dew-claws may be evident in opposite affected limb.
5	Severely lame	3-legged	Cow demonstrates an inability or extreme reluctance to bear weight on one or more limbs/feet.

Evaluating Locomotion Scoring Results	
% Cows Scoring 4 or 5	Evaluation
< 5%	Above average
5 to 10%	Average, but room for improvement
> 10%	Below average, measures need to be implemented immediately to decrease lameness

Using Locomotion Scoring Results
Locomotion Scoring Results Can be Used to:
Determine if lameness is becoming more or less prevalent
Determine if measures implemented to decrease lameness are effective
Determine at an early stage, which cows need to be examined by a hoof trimmer <sup>a</sup> Guard

### Costs Associated With Lameness

Researchers in the United States and Europe report the average cost of lameness at over \$346 per case<sup>a</sup>.

Costs associated with lameness include:

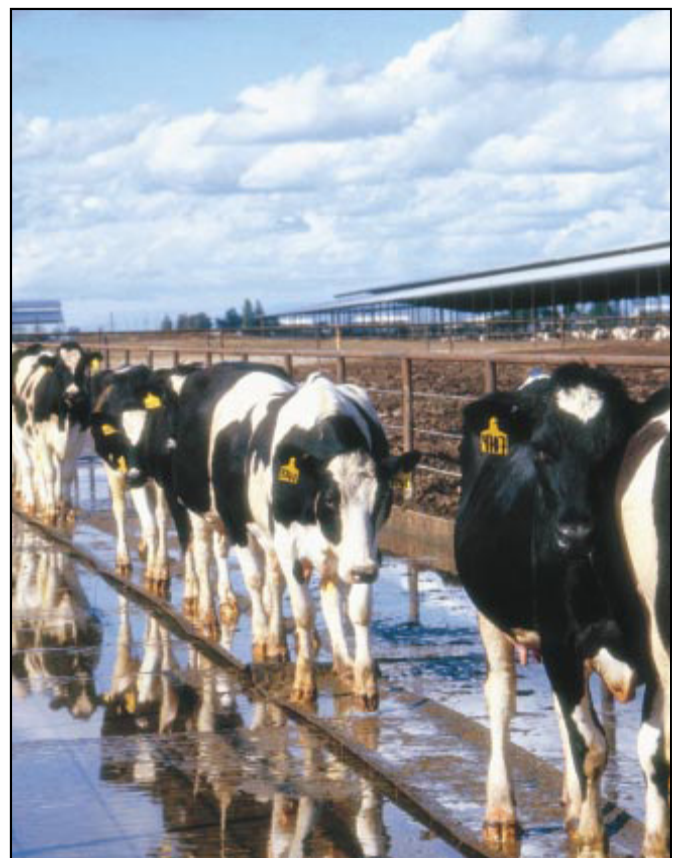
- Reduced milk yield<sup>b</sup>; compared to a Locomotion Score 1, cows scoring a:
  - 2 have 1% milk loss
  - 3 have 3% milk loss
  - 4 have 7% milk loss
  - 5 have 16% milk loss
- Reduced fertility<sup>c</sup>; cows scoring a 3, 4 or 5 are:
  - 2.8 times more likely to have increased days to first service
  - 15.6 times more likely to have increased days open
  - 9.0 times more likely to have increased services / conception
- Increased replacement costs<sup>c</sup>; cows scoring a 3, 4 or 5 are:
  - 8.4 times more likely to be culled
- Increased labor and medication costs to treat lame cows<sup>a</sup>



<sup>a</sup> Guard, Cornell University

<sup>b</sup> Juarez et al., 2003. Appl. Anim. Behaviour Sci. 83:1

<sup>c</sup> Sprecher et al., 1997. Theriogenology 47:1179



Estimated reductions in DM intake and milk yield related to LS		
	DM Intake	Milk Yield
LS	% reduction vs. LS of 1	
2	- 2 %	- 1 %
3	- 5 %	- 3 %
4	- 17 %	- 7 %
5	- 36 %	- 16 %